

**From:** McGinty, Tim  
**To:** Burnell, Scott; Couret, Ivonne  
**Cc:** Harrington, Holly; Brenner, Eliot; Hayden, Elizabeth  
**Subject:** RE: Query: NY Times Article on Possible Radiation Exposure  
**Date:** Tuesday, April 05, 2011 7:53:15 AM

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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  
Scott Burnell

(b)(6)

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**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

CCCC/1

**From:** BOUCHOT Emmanuel  
**To:** Jean.GAUVAIN@oecd.org; besenvei@haea.gov.hu; vc@aerb.gov.in; david.tredinnick@arpana.gov.au; roberto.ranieri@isprambiente.it; marli.vogels@minvrom.nl; fgrande@cnsns.gob.mx; risto.isaksson@stuk.fi; anton.treier@ensi.ch; sunni.locatelli@cncs-ccsn.gc.ca; dagmar.zemanova@ujd.gov.sk; anneli.hallgren@ssm.se; deniz.yueksel@bmu.bund.de; watanabe-makoto@meti.go.jp; mkelly@rpii.ie; schwang@kins.re.kr; mde@csn.es; i.sokolova@gosnadzor.ru; otake-fumie@jnes.go.jp; stanislaw.janikowski@paa.gov.pl; jean.gauvain@oecd.org; brafferty@rpii.ie; anne.marit.ostreng@nrpa.no; wolfgang.hilden@ec.europa.eu; niina.yliknuussi@ec.europa.eu; yhhah@kins.re.kr; karina.debeule@fanc.fgov.be; r.spiegelberg-planer@iaea.org; soaresjc@cii.fc.ul.pt; camelia.liutiev@cncan.ro; Hayden, Elizabeth; aurele.gervais@cncs-ccsn.gc.ca; marek.bozenhard@sujb.cz; gerard.westerhof@minvrom.nl; lise.roberts@hse.gsi.gov.uk; ddawson@rpii.ie  
**Cc:** PETIT Evangelia  
**Subject:** RE: REMINDER: NEA/CNRA - 12th WGPC Special questionnaire : still 9 answers missing  
**Date:** Tuesday, April 05, 2011 8:55:03 AM  
**Attachments:** ASN Communication actions.ppt

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Dear WGPC colleagues,

I apologize for the delay. You will find herewith a brief review of the communication actions undertaken by ASN during the Japanese crisis.

I'm looking forward to meeting you.

Regards.

Emmanuel Bouchot  
Responsable pôle communication grand public  
Autorité de sûreté nucléaire (ASN)  
6 place du colonel Bourgoin  
75572 Paris cedex 12  
Tél : 01 40 19 87 78  
Courriel : emmanuel.bouchot@asn.fr

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**De :** Jean.GAUVAIN@oecd.org [mailto:Jean.GAUVAIN@oecd.org]  
**Envoyé :** lundi 4 avril 2011 18:13  
**À :** karina.debeule@fanc.fgov.be; aurele.gervais@cncs-ccsn.gc.ca; deniz.yueksel@bmu.bund.de; besenvei@haea.gov.hu; marli.vogels@minvrom.nl; anne.marit.ostreng@nrpa.no; Risto.Isaksson@stuk.fi; anneli.hallgren@ssm.se; lise.roberts@hse.gsi.gov.uk  
**Cc :** yhhah@kins.re.kr; BOUCHOT Emmanuel; stanislaw.janikowski@paa.gov.pl; camelia.liutiev@cncan.ro; brafferty@rpii.ie; dagmar.zemanova@ujd.gov.sk; mde@csn.es; Elizabeth.Hayden@nrc.gov  
**Objet :** REMINDER: NEA/CNRA - 12th WGPC Special questionnaire : still 9 answers missing

Dear WGPC colleagues,

On behalf of the WGPC Chair I would like to remind that, during the last meeting and upon a suggestion from France, we started to fill a table with the answers to the few questions below regarding quick communication after the Fukushima event. During the meeting week we could collect answers from 8 countries but 9 other are missing.

We hope that now the pressure on your shoulders has decreased and that you can find a few minutes to answer those questions ASAP.

In the mean time we are completing the Summary Records that could be ready soon.

Thank you for your cooperation

CCCC/2

Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile

(b)(6)

**From:** GAUVAIN Jean, NEA/SURN

**Sent:** Friday, March 18, 2011 18:28

**To:** 'add-cnra-wgpc@oecd-nea.org'

**Subject:** NEA/CNRA - 12th WGPC meeting - Highlights + Special questionnaire for answer ASAP

Dear WGPC Members,

[.....]

I would like to draw your attention on the expectation from the Chair that each NRO provide ASAP the answer to the 4 FOLLOWING QUESTIONS:

- What were the topics of interest (about situation in Japan and situation in your country) for the media and the public contacting your NRO?
- What were the main communication actions taken by your NRO (activation of Emergency Center, press release, use of website, use of social media, press conference, hearing with Authorities ...)?
- What were the main elements of NRO messages to the public and the media?
- What were the main difficulties or challenges for the NRO communication?

[.....]

Finally, the Chair will suggest to the June CNRA that an **extraordinary meeting be organised end September 2011** to draw the lessons from the crisis with respect to national and international NRO communication.

Best Regards

Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile

(b)(6)



# **Fukushima nuclear crisis**

## **Brief review of communication activities undertaken by ASN**

**From 11 March to 1 April 2011**



## To cope with media pressure

- Two resolutions adopted by the Commission of ASN;
- About 1.000 media requests (ask for interview);
- About 60 long interviews given to the radio and TV;
- Mobilization of a team of ASN' spokespersons (president, commissioners, managing directors, directors) every day;
- 23 press releases issued;
- Creation of a press center in ASN's premises;
- 16 press conferences handled at ASN's press center;
- The media appreciated ASN's attitude based on reactivity, transparency and pedagogy;
- Narrow collaboration with IRSN (ASN's technical support) in technical and communication fields.
- the main challenges for ASN's communication: deal with a huge pressure and wide range of questions.



# ASN's communication crisis organisation

- ASN's emergency organisation includes the communication function;
- 33 staff communication team (12 communication officers supported by 21 officers of other departments ) being :
  - On day and night shifts from 13 to 21 March;
  - On long day shifts from 6 am to 22 pm including the weekend from 21 to 26 March;
  - Reduced day shifts from 8 am to 14 pm (weekends) and 8 am to 20 pm (week) from 27 to 31 March;
  - Since April, 1<sup>st</sup>, on day shifts from 8 am to 18 pm during the week.
- The ASN's Emergency center was on day and night shifts from 13 to 1st April 2011 (technical and logistics staff). Since April, 1st, just on day shifts.



# Dedicated communication tools (1/3)

- Creation of a E-newsletter dedicated to the Japanese nuclear events (13 editions)



Réglementer, contrôler, informer.

## Derniers développements

Séisme au Japon (Communiqué de presse n°23 du 1er avril 2011 à 18h30)

Accident à la centrale nucléaire de Fukushima Daiichi : l'ASN fait le point sur la situation au Japon et les conséquences en France

### I. Situation de la centrale de Fukushima

L'injection en eau douce se poursuit dans les cuves des réacteurs n°1 à 3 et les piscines des réacteurs 1, 2, 3 et 4 à un niveau qui est a priori suffisant. <http://japon.asn.fr/index.php/Site-de-L-ASN-Special-Japon/Piec> refroidissement en circuit ouvert, c'est-à-dire que l'eau apportée s'évapore ou se répand dans l'enceinte de confinement ou dans d'autres bâtiments, essentiellement les salles des turbines.

L'exploitant Teppo réalise des opérations en vue de collecter cette eau et de l'isoler.

L'objectif à terme est de passer à un refroidissement en circuit fermé : eau circulant en boucle dans un circuit de la centrale de façon à ce que l'eau contaminée ne s'échappe pas. La remise en fonction des matériels nécessaires à cette fin s'avère difficile car ils ont pu être détériorés. En outre, la présence d'eau contaminée dans certains bâtiments complique les interventions humaines.

### Comprendre la crise

Pour répondre aux questions l'ASN a ouvert une rubrique Questions fréquentes sur son site.

Des dossiers thématiques sont désormais disponibles sur le site japon.asn.fr en bas de page

• Gestion des situations d'urgence

Le classement des incidents et accidents nucléaires sur l'échelle INES

Consulter l'échelle INES (PDF)

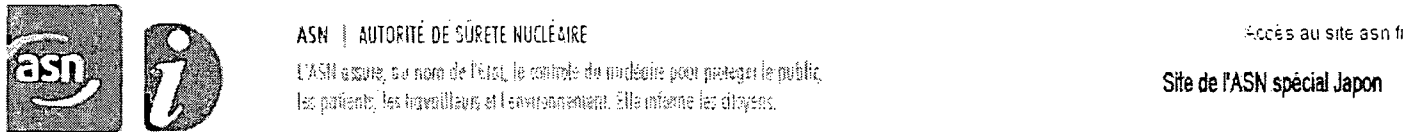
Le ministère de la santé fait un point sur les recommandations sanitaires

<http://www.santé.gouv.fr/japon-point-sur-les-recommandations-sanitaires-himi>

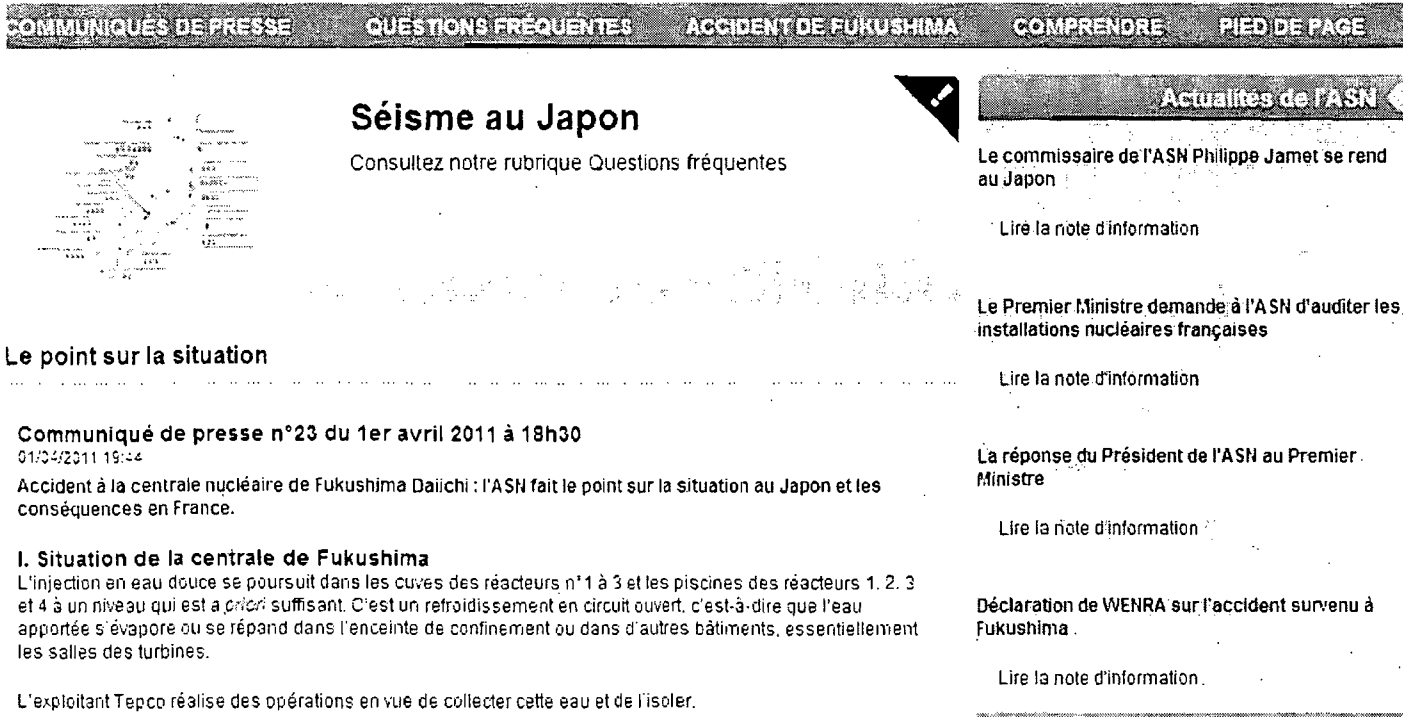


# Dedicated communication tools (2/3)

- Creation of a dedicated web site
- Attendance between 11 March / 4 April (Google Analytics) :



- 598.877 visits;
- peak (March 15): 73.669 visites;
- 332.438 visitors;
- 1.187 610 pages consulted.



From 11 March to 1 April 2011





# Dedicated communication tools (3/3)

- 47 videos uploaded on [www.asn.fr](http://www.asn.fr) on the earthquake in Japan (interviews, press conferences).
- Presence of ASN on social networks:
  - Facebook: 561 persons appreciate ASN's publication.
  - Twitter: more than 424 subscribers.
  - Dailymotion : ASN's video: 53 097 consultations.



ASN

@ASN\_FRANCE

L'ASN assure, au nom de l'État, le contrôle du nucléaire pour protéger le public, les patients, les travailleurs et l'environnement. Elle informe les citoyens <http://www.asn.fr>



Fil Favors Abonnements Abonnés Listes



ASN\_FRANCE

CP n°23 : L'ASN fait le point sur la situation au Japon et les conséquences en France <http://j.mp/ebAt0n>



Facebook vous permet de rester en contact et d'échanger avec les personnes qui vous



Mur  
Infos

À propos de  
L'ASN assure, au nom de l'État, le contrôle de la sûreté nucléaire et

Autorité de sûreté nucléaire (ASN)



Enregistré

Mur

Autorité de sûreté nuclé... · Meilleures publications



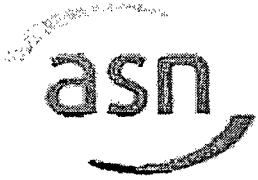
Autorité de sûreté nucléaire (ASN)

Accident à la centrale nucléaire de Fukushima Daiichi : l'ASN fait le point sur la situation au Japon et les conséquences en France.



Communiqué de presse n°23 du 1er avril 2011 à 18h30 [www.asn.fr](http://www.asn.fr)

Commenter



# To cope with public demands

- 160 messages to sent ASN (through [contact@asn.fr](mailto:contact@asn.fr) or Facebook).
- Main items:
  - ideas for technical solutions;
  - situation in Japan (technical and health issues);
  - consequences in France (seriousness; nature of the radio elements; protective actions...);
  - Japanese goods imports;
  - blame (lack of information, etc.).
- Before the radioactivity reached France, ASN decided:
  - to open a call center for general public (1.048 calls received by 01/04/2011);
  - to create a Q&A section on health and environmental issues on ASN's dedicated website.



## Fukushima nuclear crisis

Brief review of communication activities  
undertaken by ASN

From 11 March to 1 April 2011

***Thank you for your attention***

**From:** [ANS.HOC@nrc.gov](mailto:ANS.HOC@nrc.gov)  
**Subject:** ACTION: Commissioners Assistants Briefing Notification  
**Date:** Tuesday, April 05, 2011 8:56:00 AM  
**Attachments:** [NRC Status Update 4-05-11--0430EDT.pdf](#)

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There will be a Commissioners Assistants Briefing given by Executive Team at 1000 EDT on 4/5/11 concerning the events in Japan. Call (b)(6) approximately 5 minutes before the scheduled start time. When prompted, enter the security code (b)(6). For clarification, please contact the Headquarters Operations Officer at 301-816-5100.

CCCC/3

**From:** [Hayden, Elizabeth](#)  
**To:** [Clark, Theresa](#)  
**Subject:** RE: RESPONSE: CNS photo captions  
**Date:** Tuesday, April 05, 2011 9:17:00 AM

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Thanks Theresa,

We'll need to cut these down a bit but it's easier to do that than adding.

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

---

**From:** Clark, Theresa  
**Sent:** Tuesday, April 05, 2011 8:14 AM  
**To:** Hayden, Elizabeth  
**Cc:** Schwartzman, Jennifer; Doane, Margaret; Rodriguez, Veronica; Jones, Andrea  
**Subject:** RESPONSE: CNS photo captions

Beth, here are the two captions, developed with OIP and CNS team support (thanks, guys!).

For the [Flickr photo](#) (I would put this first because it introduces CNS, and make sure to include the credit):

NRC Executive Director for Operations Bill Borchardt is serving as Vice-President of the Fifth Review Meeting of the Convention on Nuclear Safety, held this month in Vienna, Austria. Representatives of the 72 countries that are "Contracting Parties" to the convention meet every three years to discuss their national nuclear safety programs, with the goal of maintaining a high level of nuclear safety worldwide. To Mr. Borchardt's left is Patrick Majerus of the Ministry of Health in Luxembourg, the co-Vice-President of the meeting. To Mr. Borchardt's right are Review Meeting President Li Ganjie of the Chinese National Nuclear Safety Administration; IAEA Director General Yukiya Amano; Denis Flory, Deputy Director General of the IAEA Department of Nuclear Safety and Security; and Peri Lynne Johnson, Director of the IAEA Office of Legal Affairs. (Photo: Dean Calma/IAEA)

For the photo that you got from Eliot (attached):

NRC Chairman Gregory B. Jaczko addresses media questions during a press briefing following an April 4, 2011, discussion on the events at the Fukushima Daiichi nuclear power plant. The discussion was held on the margins of the Fifth Review Meeting of the Convention on Nuclear Safety. While the Convention proceedings are limited to those 72 countries who are "Contracting Parties," the April 4 side event was open to all IAEA Member States.

Let me know if you have any questions. Thanks!

CCCC/4

NRC Chairman Gregory B. Jaczko addresses media questions during a press briefing following an April 4, 2011, discussion on the events at the Fukushima Daiichi nuclear power plant. The discussion was held on the margins of the Fifth Review Meeting of the Convention on Nuclear Safety. While the Convention proceedings are limited to those 72 countries who are "Contracting Parties," the April 4 side event was open to all IAEA Member States.

Let me know if you have any questions. Thanks!

--

**Theresa Valentine Clark**

Technical Assistant

Division of Safety Systems and Risk Assessment

U.S. NRC Office of New Reactors

T-10F10 | 301-415-4048

Theresa.Clark@nrc.gov

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

From: Hayden, Elizabeth

Sent: Monday, April 04, 2011 3:38 PM

To: Clark, Theresa

Subject: FW: IMG-20110404-00026.jpg

Please work with OIP to develop a caption for this photo of the Chairman at the CNS. I would like to post it by noon tomorrow.

Beth Hayden

Senior Advisor

Office of Public Affairs

U.S. Nuclear Regulatory Commission

--- Protecting People and the Environment

301-415-8202

elizabeth.hayden@nrc.gov

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

From: Brenner, Eliot

Sent: Monday, April 04, 2011 3:04 PM

To: Hayden, Elizabeth

Subject: IMG-20110404-00026.jpg

Eliot Brenner

Director, Office of Public Affairs

US Nuclear Regulatory Commission  
Protecting People and the Environment  
301 415 8200

C: (b)(6)

Sent from my Blackberry

**From:** [Hayden, Elizabeth](#)  
**To:** [Burnell, Scott](#); [Harrington, Holly](#)  
**Subject:** RE: Media - TIME.com  
**Date:** Tuesday, April 05, 2011 12:42:00 PM

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Fine. When? It would be helpful if we could come to an agreement w/EPA about language in an FAQ on our website.

Beth Hayden  
Senior Advisor  
Office of Public Affairs  
U.S. Nuclear Regulatory Commission  
--- Protecting People and the Environment  
301-415-8202  
[elizabeth.hayden@nrc.gov](mailto:elizabeth.hayden@nrc.gov)

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

From: Burnell, Scott  
Sent: Tuesday, April 05, 2011 12:30 PM  
To: Harrington, Holly; Hayden, Elizabeth  
Subject: FW: Media - TIME.com  
Importance: High

Shall we make it a speakerphone call?

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

From: [Jackson.Larry@epamail.epa.gov](mailto:Jackson.Larry@epamail.epa.gov) [<mailto:Jackson.Larry@epamail.epa.gov>]  
Sent: Tuesday, April 05, 2011 12:28 PM  
To: Burnell, Scott  
Subject: RE: Media - TIME.com

Hi, Scott. Can we talk when you get a moment? My blackberry is (b)(6)

(b)(6)

Many thanks,  
Larry

Larry Jackson  
Associate Director, Media Relations  
U. S. Environmental Protection Agency  
202-564-0236  
[jackson.larry@epa.gov](mailto:jackson.larry@epa.gov)

From: "Burnell, Scott"  
<[Scott.Burnell@nrc.gov](mailto:Scott.Burnell@nrc.gov)>

To: "(b)(6)" <(b)(6)>, [Press@EPA](mailto:Press@EPA)

Date: 04/05/2011 09:07 AM

Subject: RE: Media - TIME.com

CCCC/5



Hello Bonnie;

Even if we're discussing radioactive material from Fukushima being discharged into the ocean, the bottom line remains the same. When you consider the diluting effects of the thousands of miles of seawater between U.S. territory and Japan, all the available information leads to the conclusion that U.S. territories with Pacific coastlines will avoid any harmful levels of radioactivity. As is the case with the miniscule amounts of airborne contamination being detected, today's advanced monitoring equipment will likely eventually find seaborne amounts of radioactive material in quantities too small to affect human health.

Our counterparts over at the Environmental Protection Agency and Centers for Disease Control are in a better position to go into more detail about U.S. monitoring and resolving health concerns. I've included the EPA's general media e-mail so they'll be aware of your questions. The contact info I have for the CDC is their toll-free number: 800-CDC-INFO. You can also check with the Agriculture Department and Food and Drug Administration for more information on U.S. monitoring of domestic and overseas food sources. I don't have contact info available there, unfortunately.

Please let me know if you have any other NRC-specific questions.  
Thanks.

Scott Burnell  
Public Affairs Officer  
Nuclear Regulatory Commission

From: Bonnie Rochman [mailto:(b)(6)]  
Sent: Monday, April 04, 2011 5:39 PM  
To: OPA Resource  
Subject: from TIME.comq

Hello,  
I'm working on a story for Time.com about public understanding of radiation levels coming from Japan, specifically as they relate to the West Coast and Hawaii compared to the East Coast. I cover pregnancy and parenting for Time, and I'm particularly interested in whether parents need to be concerned about seawater contamination (particularly now that Japan is actively dumping radioactive water into the ocean) on Hawaiian beaches.

It's Spring Break season and Hawaii is reporting tourism is down from a year ago. Are people right to be concerned or are they being overly cautious? Please let me know if this is something that someone at the NRC could speak about.

Thanks very much,  
Bonnie Rochman

Bonnie Rochman  
<http://healthland.time.com/author/brochman/>

## Rihm, Roger

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**From:** Rihm, Roger  
**Sent:** Tuesday, March 15, 2011 8:04 AM  
**To:** Giitter, Joseph  
**Subject:** FW: Clarifying Questions on the Table  
  
**Importance:** High

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**From:** Marshall, Michael  
**Sent:** Tuesday, March 15, 2011 7:40 AM  
**To:** Rihm, Roger  
**Subject:** RE: Clarifying Questions on the Table

Roger,

Let Joe know that the information should be provided in the most correct manner. Our question may have been imprecise or wrongly worded. Whatever is the right parameter included in the licensing basis for seismic or tsunami requirements and severe accident management should be provided in the table. Please, ask them to exercise judgment in interpreting the question and providing the "correct" information.

---

**From:** Rihm, Roger  
**Sent:** Tuesday, March 15, 2011 7:35 AM  
**To:** Marshall, Michael  
**Subject:** Fw: Clarifying Questions on the Table

Can you clarify?

Sent from an NRC BlackBerry  
Roger S. Rihm

(b)(6)

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**From:** Giitter, Joseph  
**To:** Rihm, Roger  
**Cc:** Howe, Allen; Nelson, Robert; Hiland, Patrick; Kammerer, Annie; Stutzke, Martin  
**Sent:** Mon Mar 14 21:47:24 2011  
**Subject:** Clarifying Questions on the Table

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

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

**From:** McIntyre, David  
**To:** Hayden, Elizabeth; Burnell, Scott; Harrington, Holly  
**Subject:** Re: Reuters : NRC and the UCS  
**Date:** Tuesday, April 05, 2011 5:13:58 PM

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He was with another outlet and from working with him the last few weeks I wouldn't call him hostile but he is clearly being fed an anti NRC venom.

David McIntyre  
NRC Office of Public Affairs  
(b)(6) (mobile)  
301-415-8200 (office)  
Sent from my BlackBerry, which is wholly respnsble for all typos.

---

**From:** Hayden, Elizabeth  
**To:** McIntyre, David; Burnell, Scott; Harrington, Holly  
**Sent:** Tue Apr 05 17:10:10 2011  
**Subject:** RE: Reuters : NRC and the UCS

Didn't Ross used to work for the Boson Globe and relied on us for what he should write about?

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

**From:** McIntyre, David  
**Sent:** Tuesday, April 05, 2011 5:07 PM  
**To:** Burnell, Scott; Harrington, Holly; Hayden, Elizabeth  
**Subject:** Re: Reuters : NRC and the UCS

You shouldn't have. We need your tongue.

David McIntyre  
NRC Office of Public Affairs  
(b)(6) (mobile)  
301-415-8200 (office)  
Sent from my BlackBerry, which is wholly respnsble for all typos.

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**From:** Burnell, Scott  
**To:** McIntyre, David; Harrington, Holly; Hayden, Elizabeth  
**Sent:** Tue Apr 05 16:08:23 2011  
**Subject:** RE: Reuters : NRC and the UCS

I bit my tongue on saying UCS, having no responsibilities, is freed from the need to rely on

CCCC/7

facts in its commentary.

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**From:** McIntyre, David  
**Sent:** Tuesday, April 05, 2011 4:05 PM  
**To:** Burnell, Scott; Harrington, Holly; Hayden, Elizabeth  
**Subject:** Fw: Reuters : NRC and the UCS

Maybe this is a chance to paint UCS as profiting from this tragedy with their daily assaults on us, hyping their 15 minutes in the limelight.

David McIntyre  
NRC Office of Public Affairs  
(b)(6) (mobile)  
301-415-8200 (office)  
Sent from my BlackBerry, which is wholly responsible for all typos.

---

**From:** Ross.Kerber@thomsonreuters.com <Ross.Kerber@thomsonreuters.com>  
**To:** Burnell, Scott; Brenner, Eliot  
**Cc:** McIntyre, David  
**Sent:** Tue Apr 05 15:23:59 2011  
**Subject:** RE: Reuters : NRC and the UCS

Got this, thanks & rgds

**Ross Kerber**  
Correspondent  
Reuters News  
tel (617) 856 4341  
mbl: (b)(6)  
ross.kerber@thomsonreuters.com  
[www.thomsonreuters.com](http://www.thomsonreuters.com)

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**From:** Burnell, Scott [mailto:Scott.Burnell@nrc.gov]  
**Sent:** Tuesday, April 05, 2011 3:21 PM  
**To:** Kerber, Ross (M Edit Ops); Brenner, Eliot  
**Cc:** McIntyre, David  
**Subject:** RE: Reuters : NRC and the UCS

Hi Ross;

All of Chairman Jaczko's public appearances, as well as Commission meetings, etc, related to Japan are up on our Japan page:

<http://www.nrc.gov/japan/japan-info.html>

Chairman Jaczko also appeared on C-SPAN, I believe on March 20.

The NRC always takes very seriously its responsibility to protect public health and safety. In cases where quick verification of information is difficult we must be mindful that

speculation, well-intentioned or not, can sometimes work against public health and safety. Our reviews take into account the relevant information and any other factors necessary to reach technically and legally defensible decisions that fulfill our responsibility.

Please let me know if you need anything else.

Scott

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**From:** Ross.Kerber@thomsonreuters.com [mailto:Ross.Kerber@thomsonreuters.com]  
**Sent:** Tuesday, April 05, 2011 3:01 PM  
**To:** Brenner, Eliot; Burnell, Scott  
**Cc:** McIntyre, David  
**Subject:** Reuters : NRC and the UCS

Eliot, Scott – with David out today, can you guys handle this?  
Best – Ross

---

Hello David – Ross Kerber here from Reuters, thanks for past help. I never wound up writing about the risk-based regulation topics we talked about last week; will let you know if that will change.

Next: I may write about the flood of attention the Union of Concerned Scientists has gotten amid the Fukushima Crisis – their daily briefing calls with reporters drew as many as 125 participants, for instance, and obviously they've made, many TV appearances.

They think they have gotten all attention partly because they've been more interpretive than then NRC, and more available for comments, interviews, etc.

Figure I better run this by you. Other than the testimony that Greg Jaczko gave on March 17 the House Energy & Commerce Committee, has he done other testimony to Congress? Can you sent me dates and/or links? Has he done interviews you could point out? Speeches?

Maybe other commissioners have been more vocal? (I suppose I could call them individually, but figure I'll start with you, keep it simple)

Also: UCS says the NRC has not weighed risks enough in overseeing nuclear

power. I don't know how detailed I'll get in this story, but we should talk or email about this if you'd like to respond (and/or if you could point to any general responses NRC has given to date).

Make sense? Hopefully we can knock this down by end of today? (Won't likely run story till tomorrow I expect)

Best – Ross

**Ross Kerber**

Correspondent

Reuters News

tel (617) 856 4341

mbl (b)(6)

ross.kerber@thomsonreuters.com

[www.thomsonreuters.com](http://www.thomsonreuters.com)

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**From:** [Schmidt, Rebecca](#)  
**To:** [Batkin, Joshua](#); [Hayden, Elizabeth](#)  
**Cc:** [Powell, Amy](#)  
**Subject:** Fw: UCS memo and foia'd emails  
**Date:** Tuesday, April 05, 2011 9:05:55 PM  
**Attachments:** [NRC foia staff memo.pdf](#)  
[foia-1.pdf](#)  
[foia-2.pdf](#)  
[foia-3.pdf](#)

---

Fyi-probably press coverage tomorrow. We put Marty on the phone with the committee staff to explain our position.

---

**From:** Spencer, Peter <Peter.Spencer@mail.house.gov>  
**To:** Schmidt, Rebecca; Shane, Raeann; Powell, Amy  
**Cc:** Harrison, Todd <Todd.Harrison@mail.house.gov>  
**Sent:** Tue Apr 05 17:52:55 2011  
**Subject:** UCS memo and foia'd emails

Attached please find a memo supplied to Committee staff by the Union for Concerned Scientists, and attached emails.

We would like NRC's explanation for these emails tonight, if possible.

Please have Martin Virgilio call me at: (b)(6)

Peter

Peter L. Spencer  
Majority Professional Staff  
Oversight and Investigations  
Committee on Energy and Commerce  
U.S. House of Representatives  
(202) 225-2927  
[peter.spencer@mail.house.gov](mailto:peter.spencer@mail.house.gov)

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April 5, 2011

To: Subcommittee on Oversight and Investigations, House Energy and Commerce Committee

Re: Forthcoming UCS Analysis on NRC E-Mails Concerning Fukushima-Type Events

Tomorrow, after the Subcommittee's hearing, the Union of Concerned Scientists will publish the following analysis and additional documentation (also attached), which we have just obtained and are still in the process of fully evaluating. We apologize for delivering this to the Subcommittee so close to the hearing, but we were unable to prepare it in time for inclusion in the written testimony.

**INTERNAL NUCLEAR REGULATORY COMMISSION E-MAILS REVEAL DOUBTS  
ABOUT MEASURES TO HELP U.S. PLANTS SURVIVE FUKUSHIMA-TYPE EVENTS**

**Edwin Lyman**

**Senior Scientist, Global Security Program**

**Union of Concerned Scientists**

**April 6, 2011**

In the weeks following the Fukushima accident, officials from the U.S. Nuclear Regulatory Commission (NRC) and the nuclear industry have been asserting that U.S. nuclear plants are better prepared than Japanese plants to withstand a catastrophic event such as the March 11 earthquake and tsunami, because U.S. plants have additional measures in place to cope with such disasters. According to internal NRC documents obtained by the Union of Concerned Scientists, however, there is no consensus within the NRC that these additional measures will be effective. Therefore, it remains highly uncertain whether U.S. plants would be better prepared than the Japanese to manage the aftermath of such severe events. Although the Japanese have engaged in heroic efforts, they have not been able to prevent significant damage to reactor cores, spent fuel and containment structures, resulting in huge radioactive releases into the atmosphere and the ocean.

The NRC has testified that U.S. plants are safer than those in Japan. In a hearing of the Senate Energy and Water Appropriations Subcommittee on March 30, NRC Chairman Gregory Jaczko testified that

“As a result of the events of September 11, 2001, we identified important pieces of equipment that regardless of the cause of a significant fire or explosion at a plant, the NRC requires licensees to have available and staged in advance, as well as new procedures and policies to help deal with a severe situation.”



Similarly, at the same hearing, nuclear utility official William Levis, testifying on behalf of the Nuclear Energy Institute, said that

“Since the terrorist events of September 11, 2001, U.S. nuclear plant operators identified other beyond-design-basis vulnerabilities. As a result, U.S. nuclear plant designs and operating practices since 9/11 are designed to mitigate severe accident scenarios such as aircraft impact, which include the complete loss of offsite power and all on-site emergency power sources and loss of large areas of the plant. The industry developed additional methods and procedures to provide cooling to the reactor and the spent fuel pool, and staged additional equipment at all U.S. nuclear power plant sites to ensure that the plants are equipped to deal with extreme events and nuclear plant operations staff are trained to manage them.”

These post-9/11 measures are referred to as “B.5.b,” in reference to the section of the Compensatory Measures order issued by the NRC in 2002 to all reactor licensees. These measures were codified in NRC’s regulations in 2009 in 10 CFR 50.54(hh)(2). The specific details of the B.5.b measures are considered by NRC to be security-related information and are not publicly available.

Both the NRC and the industry sound confident about the ability of these B.5.b measures to effectively cope with a situation such as the ongoing crisis at Fukushima Daiichi, in which both off-site and on-site power was lost for an extended period, eventually leading to the loss of all cooling at the site.

However, internal NRC e-mails obtained by UCS under the Freedom of Information Act tell a different story. In February 2011, UCS filed a FOIA request for all information associated with a secretive NRC program known as the “State of the Art Reactor Consequence Analyses,” or SOARCA. SOARCA, according to the NRC, is “a research effort to realistically estimate the outcomes of postulated severe accident scenarios that might cause a nuclear power plant to release radioactive material into the environment. The SOARCA project applies many years of national and international nuclear safety research, and incorporates the improvements in plant design, operation and accident management to achieve a more realistic evaluation of the consequences associated with such accidents.” The NRC also states that SOARCA takes into account the enhancements required by NRC after 9/11—that is, the B.5.b measures.

The SOARCA program was initiated in 2006, and the pilot study initially has focused on two plants: Surry in Virginia and Peach Bottom in Pennsylvania. Coincidentally, Peach Bottom is a Mark I boiling-water reactor, like Fukushima Daiichi units 1-4. One of the accidents that the NRC selected for analysis by SOARCA was a station blackout with failure to recover power prior to battery depletion, that is, the very situation that occurred at Fukushima. Thus the results of SOARCA could be very useful for anyone trying to understand more about what is happening at Fukushima. However, almost all documents related to SOARCA have been withheld from the public as “official use only” information. NRC has repeatedly delayed public release of the results of SOARCA.

In most Mark I BWRs experiencing a station blackout, a cooling system that runs on battery power, known as the Reactor Core Isolation Cooling system, or RCIC, is available. But when the battery runs down—after eight hours or less—the RCIC will cease to operate. If AC power has not been restored by then, no cooling systems will be available and the fuel in the reactor will start to overheat and eventually begin to melt, as most believe has occurred in Fukushima Daiichi units 1-3.

According to the e-mails obtained by UCS, NRC's B.5.b measures contain unspecified strategies to continue operating the RCIC even after battery power is lost. However, the e-mails make clear that there are disagreements between NRC senior reactor analysts (SRAs), who work in NRC's regional offices under the Office of Nuclear Reactor Regulation (NRR), and the staff conducting the SOARCA project, who are in the Office of Research (RES). In particular, one NRC staff e-mail, dated July 28, 2010, characterizes the objections of the SRAs to SOARCA as follows:

“One concern has been that SOARCA credits certain B5b mitigating strategies (such as RCIC operation w/o DC power) that have really not been reviewed to ensure that they will work to mitigate severe accidents. Generally, we have not even seen licensees credit these strategies in their own PRAs [probabilistic risk assessments] but for some reason the NRC decided we should during SOARCA.

“My recollection is that RI [Region I] SRAs in particular have been vocal with their concerns on SOARCA for several years, probably because Peach Bottom is one of the SOARCA plants.”

Thus the SRAs that work directly with the Peach Bottom Mark I BWRs apparently do not have faith in the effectiveness of the very B.5.b measures that NRC and NEI officials are now touting as a reason why the U.S. is better prepared to deal with a Fukushima-like event than Japan was.

Another (undated) e-mail reinforces this concern:

“The application of 10 CFR 50.54(hh) mitigation measures still concerns a number of staff in NRR. The concern involves the manner in which credit is given to these measures such that success is assumed ... 10 CFR 50.54(hh) mitigation measures are just equipment onsite that can be useful in an emergency when used by knowledgeable operators if post event conditions allow. If little is known about these post event conditions, then assuming success is speculative.”


If the public is to have confidence that U.S. plants are safe, the NRC and the industry should be fully transparent and honest in disclosing what they know and what they don't know. They are doing a disservice to the public if they express a level of confidence in the effectiveness of untested measures that is not justified. The concerns of NRC senior reactor analysts with regard to the credibility of post-accident mitigative measures need to be taken seriously by the NRC task force established to review regulations and policies in light of Fukushima.

## Rihm, Roger

---

**From:** Rihm, Roger  
**Sent:** Tuesday, March 15, 2011 7:38 AM  
**To:** Giitter, Joseph  
**Subject:** Re: Clarifying Questions on the Table

Trying to get clarification from chairman's staff.

Sent from an NRC BlackBerry  
Roger S. Rihm  


---

**From:** Giitter, Joseph  
**To:** Rihm, Roger  
**Cc:** Howe, Allen; Nelson, Robert; Hiland, Patrick; Kammerer, Annie; Stutzke, Martin  
**Sent:** Mon Mar 14 21:47:24 2011  
**Subject:** Clarifying Questions on the Table

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

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

**From:** Brenner, Eliot  
**To:** Hayden, Elizabeth  
**Subject:** Fw: Background Book for Canceled April 14 Japan  
**Date:** Tuesday, April 05, 2011 11:25:58 PM

---

Eliot Brenner  
Director, Office of Public Affairs  
US Nuclear Regulatory Commission  
Protecting People and the Environment  
301 415 8200  
C: (b)(6)  
Sent from my Blackberry

---

**From:** Batkin, Joshua  
**To:** Bradford, Anna; Coggins, Angela; Brenner, Eliot; Loyd, Susan  
**Sent:** Tue Apr 05 16:28:50 2011  
**Subject:** Re: Background Book for Canceled April 14 Japan

Eliot and susan, can you see if there's some way we can use this info to help with public messaging?

Joshua C. Batkin  
Chief of Staff  
Chairman Gregory B. Jaczko  
(301) 415-1820

---

**From:** Bradford, Anna  
**To:** Batkin, Joshua; Coggins, Angela  
**Sent:** Tue Apr 05 15:57:19 2011  
**Subject:** FW: Background Book for Canceled April 14 Japan

Aww, so much staff work just wasted.

Anna Bradford  
Policy Advisor for Nuclear Materials  
Office of Chairman Jaczko  
U.S. Nuclear Regulatory Commission  
301-415-1827

---

**From:** Bowman, Gregory  
**Sent:** Tuesday, April 05, 2011 3:56 PM  
**To:** Bradford, Anna; Thoma, John; Baggett, Steven; Tadesse, Rebecca; Kock, Andrea  
**Subject:** Background Book for Canceled April 14 Japan

The staff in RES put together a background book for the Commission meeting that was originally scheduled for April 14 to discuss status of the events in Japan and U.S. radiation protection strategy in emergencies. Even though the meeting was canceled, we wanted to offer you a copy of the background book, if you're interested.

The background book has some fact sheets and general information about health effects, NCRP documents on response to radiological emergencies, some related RGs and NUREGs, and information related to the role of other Federal agencies in responding to

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events.

The background book hasn't been reproduced yet and I only have one copy, so once I've heard back if you want one, it might take me a few days to get it copies printed for you.

**From:** Burnell, Scott  
**To:** RST01 Hoc; HOO Hoc  
**Cc:** FOIA Response.hoc Resource; Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly  
**Subject:** Re: Media Inquiry on RST Assessment Document  
**Date:** Wednesday, April 06, 2011 6:26:53 AM  
**Importance:** High

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My apologies, I should have been clearer -- OPA needs the LTs opinion on releasing the final assessment, which I understand was completed on the 30th. Thanks!

Sent from an NRC Blackberry

Scott Burnell

(b)(6)

---

**From:** Burnell, Scott  
**To:** RST01 Hoc; HOO Hoc  
**Cc:** FOIA Response.hoc Resource; Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly  
**Sent:** Wed Apr 06 06:10:55 2011  
**Subject:** Re: Media Inquiry on RST Assessment Document

HOOs -- please ensure the RST and LT see this request immediately. Thanks.

RST, I need the document ASAP in order to craft a response.

LT, please provide your opinion on releasing the document in light of the NY Times extensive quoting from it. Final decision on releasing will come from agency mgmt.

Thank you all.

Scott Burnell  
OPA

Sent from an NRC Blackberry

Scott Burnell

(b)(6)

---

**From:** RST01 Hoc  
**To:** Burnell, Scott  
**Cc:** FOIA Response.hoc Resource  
**Sent:** Tue Apr 05 13:24:41 2011  
**Subject:** RE: Media Inquiry on RST Assessment Document

Scott,

The assessment is thirteen pages in length and presents, on a unit-by-unit basis, the composite understanding and recommendations of NRC staff and the industry consortium relating to placing Fukushima Daiichi cores in a "stable" condition and providing a margin to further containment degradation. The recommendations are prioritized in order of importance. The 3/26/2011

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version that is referred to is a working document that was in concurrence prior to official issue.

The assessment document is out of date with respect to the status of individual units and parameters; but the recommendations are still valid. The Reactor Safety Team (RST) can provide both the 3/26/2011 version and the issued 3/31/2011 version if you need it.

Frank Collins  
RST Coordinator

---

**From:** Burnell, Scott  
**Sent:** Tuesday, April 05, 2011 12:18 PM  
**To:** RST12 Hoc; RST01 Hoc  
**Cc:** Brenner, Eliot; Harrington, Holly  
**Subject:** FW: Media Inquiry on RST Assessment Document  
**Importance:** High

Folks;

Obviously the assessment's now a week out-of-date; what particular issues does that assessment raise? We need to know in case the reporter calls us. Thanks.

Scott

---

**From:** Brenner, Eliot  
**Sent:** Tuesday, April 05, 2011 11:13 AM  
**To:** RST01 Hoc; ET07 Hoc; Harrington, Holly  
**Cc:** FOIA Response.hoc Resource; Burnell, Scott; Hayden, Elizabeth  
**Subject:** RE: Media Inquiry on RST Assessment Document

thanks. got wind of this last week but wasn't entirely certain what the document was.

Scott: any chance this is something, now outdated, developed by our Reactor Safety Team?

---

**From:** Modeen, David [mailto:dmodeen@epri.com]  
**Sent:** Tuesday, April 05, 2011 11:00 AM  
**To:** RST01 Hoc; INPOERCTech; GE.Hitachinuclearresponseteam@GE.com  
**Subject:** Media Inquiry on RST Assessment Document

Please be aware that EPRI's CNO had a brief interview with NY Times this morning, ~ 1000 hrs EDT.

Two reporters, including Matt Wald, have a copy of the March 26<sup>th</sup> version of the RST Assessment document. The individuals were trying to understand implications of the assumptions, guidance, etc in the document.

We were advised that 'someone close to it' is talking with the NY Times.

Dave

**Director, External Affairs**

**EPRI Nuclear Power Sector**

**704-595-2670 (work)**

**(b)(6) (cell)**

**dmodeen@epri.com**



**Taylor, Renee**

---

**From:** Borchardt, Bill  
**Sent:** Wednesday, March 16, 2011 9:30 AM  
**To:** Rihm, Roger  
**Subject:** Re: INPO IER L1 Report

I don't have the INPO document  
Bill Borchardt  
Via blackberry

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

**From:** Rihm, Roger  
**To:** Borchardt, Bill  
**Sent:** Wed Mar 16 07:51:32 2011  
**Subject:** Fw: INPO IER L1 Report

Sent from an NRC BlackBerry  
Roger S. Rihm

(b)(6)

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

**From:** Thomas, Eric  
**To:** Boger, Bruce  
**Cc:** Rihm, Roger; Pannier, Stephen; Brown, Frederick  
**Sent:** Tue Mar 15 18:33:06 2011  
**Subject:** INPO IER L1 Report

Bruce,

Looks like Bill Borchardt has the INPO Doc. If we can get it electronically I will post it to our website.

Roger, please let me know if you can provide an electronic copy. I will get the INPO warning on it and load it to the Operating Experience Gateway.

Thanks, Eric

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

**From:** Nielsen, Rick M (INPO) [<mailto:NielsenFM@INPO.org>]  
**Sent:** Tuesday, March 15, 2011 6:11 PM  
**To:** Thomas, Eric  
**Subject:** Re: Industry Efforts

Btw, the IER L1 was sent to EDO by Bill Webster about an hour ago.

Rick

Sent from my iPhone

On Mar 15, 2011, at 5:18 PM, "Thomas, Eric" <[Eric.Thomas@nrc.gov](mailto:Eric.Thomas@nrc.gov)<<mailto:Eric.Thomas@nrc.gov>>> wrote:

Hi Rick,

Please see below. Is there a new POC for me to contact so I can get a hold of the IER when it becomes available?

Thanks, Eric

---

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

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

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Thank you.

**From:** Burnell, Scott  
**To:** Nelson, Robert; LIA06 Hoc; Oesterle, Eric; Hayden, Elizabeth  
**Subject:** Re: FYI: NY Times article will result in more Questions to NRC  
**Date:** Wednesday, April 06, 2011 8:40:06 AM

---

This refers to an out of date RST assessment -- OPA's working this, please refer any calls to us.  
Thanks.

Scott

Sent from an NRC Blackberry  
Scott Burnell

(b)(6)

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**From:** Nelson, Robert  
**To:** LIA06 Hoc; Burnell, Scott  
**Sent:** Wed Apr 06 08:33:23 2011  
**Subject:** FYI: NY Times article will result in more Questions to NRC

NELSON

**From:** Oesterle, Eric  
**Sent:** Wednesday, April 06, 2011 7:08 AM  
**To:** Markley, Michael  
**Cc:** Nelson, Robert  
**Subject:** FYI: NY Times article will result in more Questions to NRC  
**Importance:** High

Gentlemen,

The linked article will no doubt result in a flurry of Questions and perhaps even FOIAs for the "NRC document". The "NRC document" sounds at times like the HOC Status Update but may be more than that and something that originated from the NRC team in Japan.

[http://www.nytimes.com/2011/04/06/world/asia/06nuclear.html?\\_r=1&hp](http://www.nytimes.com/2011/04/06/world/asia/06nuclear.html?_r=1&hp)

*Eric*

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

CCCC/13

**From:** Hayden, Elizabeth  
**To:** (b)(6)  
**Subject:** E-mail response  
**Date:** Wednesday, April 06, 2011 9:33:00 AM

---

Hi Harold -- thanks for calling this morning. I look forward to seeing your e-mail on Chernobyl that I will make sure goes to the Commission.

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

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**From:** Mail Delivery System  
**To:** (b)(6)  
**Subject:** Undeliverable: E-mail response  
**Date:** Wednesday, April 06, 2011 9:33:52 AM  
**Attachments:** E-mail response.msg

---

Delivery has failed to these recipients or distribution lists:

HYPERLINK "mailto:(b)(6)";

An error occurred while trying to deliver this message to the recipient's e-mail address. Microsoft Exchange will not try to redeliver this message for you. Please try resending this message, or provide the following diagnostic text to your system administrator.

The following organization rejected your message: [216.33.127.20].

Diagnostic information for administrators:

Generating server: mail2.nrc.gov

(b)(6)

[216.33.127.20] #<[216.33.127.20] #5.0.0 smtp; 5.1.0 - Unknown address error 550-'5.1.1 UDZU1g04q0wZXdw04DZVvH Invalid recipient: <(b)(6)> E3210' (delivery attempts: 0)> #SMTP#

Original message headers:

Received: from owms01.nrc.gov ([148.184.100.43]) by mail2-private.nrc.gov with ESMTP; 06 Apr 2011 09:33:28 -0400

X-IronPort-AV: E=Sophos;i="4.63.310,1299474000"; d="scan'208,217";a="37568064"

Received: from HQCLSTR01.nrc.gov ([148.184.44.79]) by OWMS01.nrc.gov ([148.184.100.43]) with mapi; Wed, 6 Apr 2011 09:33:28 -0400

From: "Hayden, Elizabeth" <Elizabeth.Hayden@nrc.gov>

To: "(b)(6)";

Date: Wed, 6 Apr 2011 09:33:27 -0400

Subject: E-mail response

Thread-Topic: E-mail response

Thread-Index: Acv0XzYHBA24pvDnRPG2c2oJinoiuw==

Message-ID: <65FB43187ED87C46B3F00CB97D081E603957F0DAE4@HQCLSTR01.nrc.gov>

Accept-Language: en-US

Content-Language: en-US

X-MS-Has-Attach:

X-MS-TNEF-Correlator:

acceptlanguage: en-US

Content-Type: multipart/alternative;

boundary="\_000\_65FB43187ED87C46B3F00CB97D081E603957F0DAE4HQCLSTR01nrcg\_"

MIME-Version: 1.0

Attachment E-mail response.msg (2560 Bytes) cannot be converted to PDF format.

**From:** [Hayden, Elizabeth](#)  
**To:** [Schwartzman, Jennifer](#)  
**Subject:** RE: NEA Flashnews - do we have access?  
**Date:** Wednesday, April 06, 2011 10:01:00 AM

---

yes

*Beth Hayden  
Senior Advisor  
Office of Public Affairs  
U.S. Nuclear Regulatory Commission  
--- Protecting People and the Environment  
301-415-8202  
[elizabeth.hayden@nrc.gov](mailto:elizabeth.hayden@nrc.gov)*

**From:** Schwartzman, Jennifer  
**Sent:** Wednesday, April 06, 2011 10:00 AM  
**To:** Hayden, Elizabeth  
**Subject:** FW: NEA Flashnews - do we have access?

Beth,

This is the working group you are on, right? This was an item in the NEA monthly news bulletin that we received yesterday. I have not personally seen the Flashnews system – do you have access?

**From:** Breskovic, Clarence  
**Sent:** Wednesday, April 06, 2011 9:56 AM  
**To:** Schwartzman, Jennifer  
**Subject:** NEA Flashnews - do we have access?

**Flashnews activated to share accurate emergency information among nuclear regulators**

On 11 March the NEA [Working Group on Public Communication of Nuclear Regulatory Organisations \(WGPC\)](#) activated the Flashnews system in response to the Fukushima accident. Flashnews allows for the fast exchange of information among national nuclear regulators and is used to help inform the public about nuclear events occurring around the world.

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

CCCC/15

**From:** Burnell, Scott  
**To:** Decker, David; Powell, Amy; Riley (OCA), Timothy; Weil, Jenny  
**Cc:** Hayden, Elizabeth  
**Subject:** FW: NRC believes Fukushima had hardened vents?  
**Date:** Wednesday, April 06, 2011 10:29:18 AM  
**Importance:** High

---

Do we know who briefed Markey?

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

From: Tracy, Tennille [<mailto:Tennille.Tracy@dowjones.com>]  
Sent: Wednesday, April 06, 2011 10:26 AM  
To: Burnell, Scott  
Subject: NRC believes Fukushima had hardened vents?

Scott - Ed Markey just said in a House hearing that the NRC told him yesterday that Fukushima plant had hardened vents and that they either did not use them or that the hardened vents did not work. Can you verify this?

Tennille Tracy  
Dow Jones Newswires / Wall Street Journal  
Office: 202.862.6619  
Cell: (b)(6)  
1025 Connecticut Ave., NW  
Washington D.C., 20036

CCCC/16



**From:** Paine, Anne  
**To:** McIntyre, David; Burnell, Scott; Hannah, Roger  
**Cc:** Hayden, Elizabeth  
**Subject:** RE: spent fuel pools versus dry cask storage  
**Date:** Wednesday, April 06, 2011 10:30:58 AM

---

Ok. Thanks.

Anne Paine  
Environmental Reporter  
The Tennessean  
1100 Broadway  
Nashville, TN 37203

office: 615-259-8071  
cell: (b)(6)

---

**From:** McIntyre, David [mailto:David.McIntyre@nrc.gov]  
**Sent:** Wednesday, April 06, 2011 9:25 AM  
**To:** Paine, Anne; Burnell, Scott; Hannah, Roger  
**Cc:** Hayden, Elizabeth  
**Subject:** RE: spent fuel pools versus dry cask storage

I guess I was misinformed about the casks. At least, this answers your question about them.

Of the US spent fuel inventory, about 22 percent is in cask. We don't have info on how long the rest has been in pools; and generally it is five years before it can be transferred to cask.

**From:** Paine, Anne [mailto:APAIN@tennessean.com]  
**Sent:** Wednesday, April 06, 2011 10:18 AM  
**To:** McIntyre, David; Burnell, Scott; Hannah, Roger  
**Cc:** Hayden, Elizabeth  
**Subject:** RE: spent fuel pools versus dry cask storage

I'm a little mystified by the response. I had been told there were at least 8, maybe 9 there. I thought y'all could give me details.

I've now checked the TEPCO website and found this:

<http://www.tepco.co.jp/en/press/corp-com/release/11031901-e.html>

Includes the sentence:

\*On March 17th, we patrolled buildings for dry casks and found no signs of abnormal situation for the casks by visual observation. A detailed inspection is under preparation.

\*dry cask: a measure to store spent fuel in a dry storage casks in storages. Fukushima Daiichi Nuclear Power Station started to utilize the measure from August 1995.

Can y'all tell me how much of the spent fuel is in pools in the U.S. and how much is in dry cask storage?

Also, can you tell me how much has been in the pools for eight or longer years so could be eligible to be moved to dry casks?

CCCC/17

Thanks  
Anne P.

Anne Paine  
Environmental Reporter  
The Tennessean  
1100 Broadway  
Nashville, TN 37203

office: 615-259-8071  
cell: (b)(6)

---

**From:** McIntyre, David [mailto:David.McIntyre@nrc.gov]  
**Sent:** Wednesday, April 06, 2011 5:18 AM  
**To:** Paine, Anne; Burnell, Scott; Hannah, Roger  
**Cc:** Hayden, Elizabeth  
**Subject:** Re: spent fuel pools versus dry cask storage

There weren't any.

David McIntyre  
NRC Office of Public Affairs  
(b)(6) (mobile)  
301-415-8200 (office)  
Sent from my BlackBerry, which is wholly responsible for all typos.

---

**From:** Paine, Anne <APAIN@tennessean.com>  
**To:** Paine, Anne <APAIN@tennessean.com>; Burnell, Scott; Hannah, Roger; McIntyre, David  
**Cc:** Hayden, Elizabeth  
**Sent:** Tue Apr 05 18:55:39 2011  
**Subject:** RE: spent fuel pools versus dry cask storage

Who can tell me... (Wednesday is fine), How the few spent fuel dry casks at the Japan plant fared during all this?  
Anne

Anne Paine  
Environmental Reporter  
The Tennessean  
1100 Broadway  
Nashville, TN 37203

office: 615-259-8071  
cell: (b)(6)

---

**From:** Paine, Anne  
**Sent:** Tuesday, April 05, 2011 5:47 PM

**To:** 'Burnell, Scott'; Hannah, Roger; McIntyre, David  
**Cc:** Hayden, Elizabeth  
**Subject:** RE: spent fuel pools versus dry cask storage

Thanks.

Anne Paine  
Environmental Reporter  
The Tennessean  
1100 Broadway  
Nashville, TN 37203

office: 615-259-8071

cell: (b)(6)

---

**From:** Burnell, Scott [mailto:Scott.Burnell@nrc.gov]  
**Sent:** Tuesday, April 05, 2011 5:18 PM  
**To:** Paine, Anne; Hannah, Roger; McIntyre, David  
**Cc:** Hayden, Elizabeth  
**Subject:** Re: spent fuel pools versus dry cask storage

Anne;

All the Chairman's recent prepared remarks are available on the website's Japan page -- the link's prominent on the home page.

Beyond that, I don't have a transcript of the 3/30 hearing, so I can't comment on AFP's quote accuracy. I will note, however, that the entire Commission voted for the staff to perform the two-pronged review, starting with the 90-day look to see if any immediate actions are warranted. That will be followed by a 6-month effort to see if any permanent regulation changes are called for.

Thanks.

Scott

Sent from an NRC Blackberry  
Scott Burnell

(b)(6)

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**From:** Paine, Anne <APAIN@tennessean.com>  
**To:** Burnell, Scott; Hannah, Roger; McIntyre, David  
**Sent:** Tue Apr 05 18:05:01 2011  
**Subject:** RE: spent fuel pools versus dry cask storage

I'm still trying to get a citation on the Rand report info...  
Also, is this all correct (what I've highlighted in a French news report) about the NRC and what Jaczko said?

Agence France Presse -- English

April 2, 2011 Saturday 6:17 PM GMT

Two of the Japanese plant's six spent fuel rod pools were apparently damaged following the quake and tsunami, said Gregory Jaczko, head of the US Nuclear Regulatory Commission (NRC).

"It was possible there was a leak," he told a US Senate hearing on March 30, soon after he returned from Japan.

US observers fear the fuel storage containment pools, located on an upper part of the reactor buildings at Fukushima, were cracked by explosions after the quake and tsunami and are leaking.

Jaczko said that in the United States, such pools are "robust structures equipped to withstand natural disasters like an earthquake and tsunami," strong enough to safely store nuclear waste for at least a century.

But he nevertheless ordered a 90-day review of the Fukushima disaster, which would go far to help assess the safety status at the spent fuel pools at 104 US reactors.

Anne Paine  
Environmental Reporter  
The Tennessean  
1100 Broadway  
Nashville, TN 37203

office: 615-259-8071

cell: (b)(6)

---

**From:** Burnell, Scott [mailto:Scott.Burnell@nrc.gov]  
**Sent:** Tuesday, April 05, 2011 3:47 PM  
**To:** Paine, Anne; Hannah, Roger; McIntyre, David  
**Subject:** RE: spent fuel pools versus dry cask storage

Hi Anne;

Without knowing the Rand citation, all I can refer you to is testimony by Chairman Jaczko and Acting Asst Sec Energy Lyons (a former NRC Commissioner) last Thursday, 3/31, before the House Appropriations Subcommittee on Energy and Water Development:

REP. FATTAH(?): Is one safer than the other?

MR. JACZKO: We think that both --

REP. FATTAH(?): I know you think both are safe.

MR. JACZKO: -- are safe.

REP. FATTAH(?): I'm asking, in a relative sense, is one safer?

MR. JACZKO: It's not clear at this point. They both provide a very, very high degree of safety, and when you get into the level of safety that we're talking about, the likelihood of anything bad happening is so small in a spent fuel pool and it's so small in a dry cask storage, that it's hard at those very, very small levels to really say one is more or less safe, because it's -- it's just very, very low likelihood of any

concern. And I would just add that we are constantly reviewing and monitoring the safety of the spent fuel pools, of the dry cask storage, so the review we're doing is not -- is not a review to --

REP. FATTAH(?): I'm not trying to cast any suggestions to the contrary, and I don't think that we -- that that would be right to do so. I think we should -- I'm pro-nuclear. Part of this process is spent fuel, and we have a lot more of it than, for instance, the French do because they have a different process altogether, right, in terms of reusing this. But, Dr. Lyons, would you care to offer to the committee whether one process is safer -- the dry cask versus the pool? You have a degree from Cal Tech in astrophysics. Would you like to -- we're just politicians so --

MR. LYONS: I would give you the same answer that Dr. Jaczko did. They're both carefully evaluated; they're both safe.

The Commission's recent update of the waste confidence decision concludes at this point that existing spent fuel storage methods are acceptable for up to 60 years beyond the licensed operational life of a reactor. Thanks.

Scott

---

**From:** Paine, Anne [mailto:APAIN@tennessean.com]  
**Sent:** Tuesday, April 05, 2011 4:25 PM  
**To:** Burnell, Scott; Hannah, Roger; McIntyre, David  
**Subject:** RE: spent fuel pools versus dry cask storage

I can't find a footnote or citation beyond the (NRC, 1990, 2008b).  
I'll see if I can get more info.

In the meantime, what does the NRC think about this topic?

Is there any preference for moving the spent fuel out of the pool after 7-8 years (or however many in which it would have cooled a lot) into dry casks?

Or does the NRC think that it's just as safe to leave spent fuel in a pool for scores of years - so long as there room in it to download all the fuel in the core as needed.

Thanks,  
Anne

Anne Paine  
Environmental Reporter  
The Tennessean  
1100 Broadway  
Nashville, TN 37203

office: 615-259-8071  
cell: (b)(6)

---

**From:** Burnell, Scott [mailto:Scott.Burnell@nrc.gov]  
**Sent:** Tuesday, April 05, 2011 2:55 PM  
**To:** Paine, Anne; Hannah, Roger; McIntyre, David  
**Subject:** RE: spent fuel pools versus dry cask storage

Hello Anne;

Please provide a specific URL or other reference where I can see that quote and

footnote in full. Thanks.

Scott

---

**From:** Paine, Anne [mailto:APAIN@tennessean.com]  
**Sent:** Tuesday, April 05, 2011 3:51 PM  
**To:** Hannah, Roger; Burnell, Scott  
**Subject:** spent fuel pools versus dry cask storage

A Rand report "Managing Spent Nuclear Fuel" dated 2010 says that the NRC "considers dry storage safer than pool storage and has concluded that dry storage of spent fuel at nuclear power plants is safe for at least 100 years." (NRC, 1990, 2008b)  
Is this correct?

The operable word being "safer." I assume the NRC says the pools are safe but the dry casks offer additional safety factors. Correct? Thanks.

Anne P.

Anne Paine  
Environmental Reporter  
The Tennessean  
1100 Broadway  
Nashville, TN 37203

office: 615-259-8071  
cell: (b)(6)

**From:** Burnell, Scott  
**To:** (b)(6)  
**Cc:** Brenner, Eliot; Shapiro, Nicholas S.; Hayden, Elizabeth  
**Subject:** RE: Nyt article  
**Date:** Wednesday, April 06, 2011 10:32:57 AM

---

Hi Julie;

We're working on a quick response, as well as the possible availability of the source documents -- please check in with me directly for further developments. Thanks.

Scott Burnell  
Public Affairs Officer  
Nuclear Regulatory Commission

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

**From:** Shapiro, Nicholas S. [mailto:(b)(6)]  
**Sent:** Wednesday, April 06, 2011 6:58 AM  
**To:** Brenner, Eliot; 'Dan.Leistikow@hq.doe.gov'  
**Subject:** Re: Nyt article

Adding doe

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

**From:** Brenner, Eliot <Eliot.Brenner@nrc.gov>  
**To:** Shapiro, Nicholas S.  
**Sent:** Wed Apr 06 03:10:07 2011  
**Subject:** Nyt article

Nick: I am enroute back from vienna and don't have immediately handy the email of our counterpart at DOE so perhaps you can share this with him

Our chairman is sending/wants to send word to our reactor safety team to be exceptionally careful with whom they share these assessments. Some suspicion on our end it may have gotten out via industry. When you guys asked about this late last week I now know why it did not ring a bell -- chairman said existence of these assessments was not widely shared internally.

The folks copied here will be working on or have developed a response and will keep you on the loop. I'll be incommunicado airborne til about 3pm eastern.

Eliot  
Eliot Brenner  
Director, Office of Public Affairs  
US Nuclear Regulatory Commission  
Protecting People and the Environment  
301 415 8200  
C: (b)(6)  
Sent from my Blackberry

CCCC/18

**From:** Hayden, Elizabeth  
**To:** ANS Hoc  
**Subject:** RE: ACTION: Commissioners Assistants Briefing Notification  
**Date:** Wednesday, April 06, 2011 10:42:00 AM

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I understand the document highlighted is being requested by the Chairman to be provided to Congress. We need to get straight the classification of this document because reporters are asking for it as well and OUC does not give us carte blanche to withhold it from the public under an FOIA request.

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

---

**From:** ANS.HOC@nrc.gov [mailto:ANS.HOC@nrc.gov]  
**Sent:** Wednesday, April 06, 2011 9:08 AM  
**Subject:** ACTION: Commissioners Assistants Briefing Notification

There will be a Commissioners Assistants Briefing given by NRC HQ at 1000 EDT this morning, Wednesday April 6, concerning the Reactor Events in Japan. Call (b)(6) approximately 5 minutes before the scheduled start time. When prompted, enter security code (b)(6). You may call 301-816-5164 at this time and follow the voice prompts if you do not wish to receive this notification from our Automatic Notification System.

CCCC/19



**Taylor, Renee**

---

**From:** Borchardt, Bill  
**Sent:** Wednesday, March 16, 2011 6:24 PM  
**To:** Ross-Lee, MaryJane  
**Cc:** Jaczko, Gregory; Batkin, Joshua  
**Subject:** Re: Status for unit 4

Thanks MJ  
Bill Borchardt  
Via blackberry

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

**From:** Ross-Lee, MaryJane  
**To:** Borchardt, Bill  
**Sent:** Wed Mar 16 18:04:43 2011  
**Subject:** Status for unit 4

From chuck and team:

Unit 4 spent fuel pool-

Likely dry, structural integrity uncertain, uncertain can hold water Sent from my blackberry MJ

(b)(6)

**Wittick, Brian**

---

**From:** Wittick, Brian  
**Sent:** Wednesday, April 06, 2011 12:20 PM  
**To:** Hoc, PMT12; ET07 Hoc; Merzke, Daniel  
**Cc:** Andersen, James  
**Subject:** RE: : Permanent reentry guidance

Thanks...very helpful.

Brian Wittick  
Executive Technical Assistant for Reactors  
Office of the Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
301-415-2496 (w) (b)(6) (c)

---

**From:** Hoc, PMT12  
**Sent:** Wednesday, April 06, 2011 12:15 PM  
**To:** Wittick, Brian; ET07 Hoc; Merzke, Daniel  
**Cc:** Andersen, James  
**Subject:** RE: : Permanent reentry guidance

Brian...just learned that Dan has been the lead for this correspondence.

- Generated by NRC and EPA staff level based on a request from the White House.
- Vetted through the ET at NRC after sending to interagency and Japan site team for comments.
- EPA and the White House will have final approval on release.
- Not sure of the plan for promulgation. It may or may not be discussed at a Deputies meeting next week and possibly then transmitted to the Ambassador. Just speculation now how it will be implemented.

---

**From:** Wittick, Brian  
**Sent:** Wednesday, April 06, 2011 12:03 PM  
**To:** Hoc, PMT12; ET07 Hoc  
**Cc:** Andersen, James  
**Subject:** RE: : Permanent reentry guidance

Do you have any additional details on the document such as:

- Who generated the document
- Who is it vetted with
- Who has final approval on release
- What is the plan for promulgation

Thanks,  
Brian Wittick  
Executive Technical Assistant for Reactors  
Office of the Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
301-415-2496 (w) (b)(6) (c)

---

**From:** Hoc, PMT12  
**Sent:** Wednesday, April 06, 2011 11:45 AM

**To:** ET07 Hoc; Wittick, Brian  
**Cc:** Andersen, James  
**Subject:** FW: : Permanent reentry guidance

Brian,

This document was requested by Commissioner Svinicki's office (Castleman), so please forward to the other Commission offices as well.

Thanks,

PMT

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**From:** Milligan, Patricia  
**Sent:** Tuesday, April 05, 2011 12:58 PM  
**To:** Hoc, PMT12  
**Subject:** : Permanent reentry guidance

Electronic copy of previously delivered document. Please provide your comments by the end of the day.  
Thanks

## Wittick, Brian

---

**From:** Wittick, Brian  
**Sent:** Wednesday, April 13, 2011 8:08 PM  
**To:** Bernhard, Rudolph; Blamey, Alan; Call, Michel; Casto, Chuck; Collins, Elmo; Dorman, Dan; Emche, Danielle; Garchow, Steve; Gepford, Heather; Hay, Michael; Holahan, Vincent; Huffert, Anthony; Lupold, Timothy; Meighan, Sean; Mitman, Jeffrey; Moore, Carl; Norwood, Donald; Reynolds, Steven; Salay, Michael; Wittick, Brian  
**Subject:** FW: EPA personnel radiation dosimeters sent to Japan

FYI – air cards have been reactivated.

---

**From:** LIA08 Hoc  
**Sent:** Wednesday, April 13, 2011 8:04 PM  
**To:** Wittick, Brian  
**Subject:** RE: EPA personnel radiation dosimeters sent to Japan

No worries!

Do you have an AT&T air card? Hopefully Alan can spread the message for me that the AT & T brands have been turned back on in hopes of easing your internet network problems. Don Norwood is bringing 3 more over with him when he arrives in a day or so.

Take care  
Lisa

---

**From:** Wittick, Brian  
**Sent:** Wednesday, April 13, 2011 8:02 PM  
**To:** LIA08 Hoc  
**Subject:** RE: EPA personnel radiation dosimeters sent to Japan

Thanks Lisa

---

**From:** LIA08 Hoc  
**Sent:** Wednesday, April 13, 2011 8:00 PM  
**To:** Wittick, Brian  
**Subject:** FW: EPA personnel radiation dosimeters sent to Japan

FYI-This offer of electronic dosimeters was passed to NRC HQ by the CDC liaison. I'm not sure if that is something for your Asks and Offers matrix or not.

Contact information for EPA Region V can be found at the bottom of this note-

Thanks  
Lisa

Lisa Gibney Wright  
Liaison Team Coordinator  
US Nuclear Regulatory Commission  
email: [lia08.hoc@nrc.gov](mailto:lia08.hoc@nrc.gov)  
Desk Ph: 301-816-5185

---

**From:** PMT10 Hoc  
**Sent:** Wednesday, April 13, 2011 5:58 PM

**To:** LIA08 Hoc  
**Cc:** Hoc, PMT12; [jablonowski.eugene@epa.gov](mailto:jablonowski.eugene@epa.gov)  
**Subject:** EPA personnel radiation dosimeters sent to Japan

Liaison Team,

EPA Region 5 just informed me that they have a large number of electronic personnel radiation dosimeters that are ready to be or have already been sent to Japan. If you hear of any need to assist with use of that equipment, please contact Eugene Jablonowski using the contact information below, and copy me.

Thanks,  
Sam Keith  
CDC Liaison

EPA point of contact for PRDs:  
Eugene Jablonowski, Health Physicist  
U.S. EPA Region 5 Emergency Response  
77 W. Jackson Blvd. (SM-5J)  
Chicago, IL 60604  
(312) 886-4591 office  
(b)(6) cell <---- NEW  
(312) 692-2466 fax  
[jablonowski.eugene@epa.gov](mailto:jablonowski.eugene@epa.gov)

## Weber, Michael

---

**From:** Weber, Michael  
**Sent:** Thursday, March 17, 2011 6:01 PM  
**To:** RST01 Hoc  
**Cc:** OST02 HOC  
**Subject:** FYI - High Expansion Foam

**Importance:** High

Here is a recommendation from Pete for considering High Expansion Foam, which should be readily available from civilian (airport) and military supplies in Japan.

I expect that you will continue to receive unsolicited suggestions and ideas like this, especially after tomorrow's all hands meeting. I suggest that you consider them for their own merit and not assume any endorsement by the source of the sender. For example, Angela Coggins told me that the Chairman is now receiving lots of these suggestions. I asked her to forward these messages to the RST for consideration (expanded brainstorming).

Thanks

**From:** Lee, Pete  
**Sent:** Thursday, March 17, 2011 9:59 AM  
**To:** Ross-Lee, MaryJane; Leeds, Eric; Weber, Michael; Correia, Richard  
**Cc:** Lain, Paul; Huyck, Doug; Prescott, Peter  
**Subject:** High Expansion Foam  
**Importance:** High

Has anyone suggested or looked at the option of using high expansion foam (firefighting agent) to fill the remaining cavity of the containment building to form a blanket that provide cooling and contain radiological fission product for the spent fuel pool and the reactor?

The high expansion foam is used for firefighting where it is difficult or too hazardous (temp hot, toxic, etc.) to enter in enclosures (i.e., where the water from hose stream or helicopter drop can't get to the heat source). Based on the pictures from the link, I think if the onsite responders have not considered using HX foam, they should take a hard look at this option. Below are four desired outcomes that should be important:

- (1) the high-expansion foam will reach areas that can't be reach by fire hoses and at sufficient rate will fill the volume of the entire enclosure;
- (2) it will prevent access to oxygen by burning metal mass;
- (3) the foam (water content) bubbles will provide cooling – larger surface area to absorb heat – convert to steam;
- (4) trap material release within the foam to plate out material.

It has been a long time, but equipment should be available worldwide from vendors that provide such foam agent and supply equipment of such application. They should also available at some fire departments, but this is a not widely used firefighting technique.

The information on this subject is available in the Fire Protection Handbook from our technical library.

**From:** Ross-Lee, MaryJane  
**Sent:** Wednesday, March 16, 2011 11:36 PM

**To:** Lee, Pete  
**Subject:** check out

This website for some great pictures of plants:

DigitalGlobe

Mary Jane Ross-Lee (MJ)  
Director, Division of Facilities and Security  
TWFN 3D3

US Nuclear Regulatory Commission

☎ Direct: 301-415-3281

📞 Mobile: (b)(6)

e-mail: [maryjane.ross-lee@nrc.gov](mailto:maryjane.ross-lee@nrc.gov)

## Landau, Mindy

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**From:** Landau, Mindy  
**Sent:** Thursday, March 17, 2011 4:54 PM  
**To:** Rihm, Roger; Ellmers, Glenn  
**Subject:** FW: Presidential directive

**From:** Brenner, Eliot  
**Sent:** Thursday, March 17, 2011 4:45 PM  
**To:** Burnell, Scott; Ledford, Joey; McIntyre, David; Harrington, Holly; Couret, Ivonne; Janbergs, Holly; Hannah, Roger; Screnci, Diane; Sheehan, Neil; Chandrathil, Prema; Mitlyng, Viktoria; Widomski, Michael; Landau, Mindy; Uselding, Lara  
**Subject:** RE: Presidential directive

To futher elaborate ... we will be undertaking a methodical and systematic review of the information to be gleaned from this to inform a decision as to whether any changes need to be made to strengthen an already strong safety regulatory system. As a first step, the commission will be meeting Monday to begin discussing the form of this review.

Eliot

**From:** Burnell, Scott  
**Sent:** Thursday, March 17, 2011 4:25 PM  
**To:** Ledford, Joey; McIntyre, David; Brenner, Eliot; Harrington, Holly; Couret, Ivonne; Janbergs, Holly; Hannah, Roger; Screnci, Diane; Sheehan, Neil; Chandrathil, Prema; Mitlyng, Viktoria; Widomski, Michael; Landau, Mindy; Uselding, Lara  
**Subject:** RE: Presidential directive

Eliot's OK with this language:

"The NRC has received the President's request and we will be responding to it."

No timelines, no further details at this point.

**From:** Ledford, Joey  
**Sent:** Thursday, March 17, 2011 4:02 PM  
**To:** McIntyre, David; Brenner, Eliot; Harrington, Holly; Burnell, Scott; Couret, Ivonne; Janbergs, Holly; Hannah, Roger; Screnci, Diane; Sheehan, Neil; Chandrathil, Prema; Mitlyng, Viktoria; Widomski, Michael; Landau, Mindy; Uselding, Lara  
**Subject:** Presidential directive

Reuters says the President has directed us to do a systematic review of all plants. True? They want a comment, and I'm not willing to tackle this one blind.

**Joey Ledford**  
**Public Affairs Officer**  
**Region II -- Atlanta, Ga.**  
**O: 404.997.4416**

**C:** (b)(6)

[joey.ledford@nrc.gov](mailto:joey.ledford@nrc.gov)





United States Nuclear Regulatory Commission

*Protecting People and the Environment*

**Weber, Michael**

---

**From:** Weber, Michael  
**Sent:** Thursday, March 17, 2011 7:51 PM  
**To:** OST02 HOC  
**Subject:** FYI- TEPCO Earthquake Information Update as of March 14, 0200(JST) - Fukushima Daini Unit 1 is now under cold shutdown

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

**From:** Grobe, Jack  
**Sent:** Sunday, March 13, 2011 4:00 PM  
**To:** Leeds, Eric; Borchardt, Bill; Virgilio, Martin; Weber, Michael  
**Subject:** Fw: TEPCO Earthquake Information Update as of March 14, 0200(JST) - Fukushima Daini Unit 1 is now under cold shutdown

FYI - Info from GEH - about 2 hours old.  
Jack Grobe, Deputy Director, NRR

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

**From:** Nichols, Craig (GE Power & Water) <craig.nichols@ge.com>  
**To:** Grobe, Jack; Crowthers, Michael H. (GE Infra, Energy, Non-GE) [REDACTED (b)(6)]; Schiffley, Frederick (GE Infra, Energy, Non-GE) <frederick.schiffley@exeloncorp.com>  
**Sent:** Sun Mar 13 15:45:32 2011  
**Subject:** FW: TEPCO Earthquake Information Update as of March 14, 0200(JST) - Fukushima Daini Unit 1 is now under cold shutdown

Just got this from TEPCO.

Thank you, Craig

**From:** 松尾 建次 [mailto:matsuo.kenji@wash.tepco.com] On Behalf Of matsuo.kenji@tepco.co.jp  
**Sent:** Sunday, March 13, 2011 3:48 PM  
**To:** matsuo.kenji@tepco.co.jp  
**Subject:** TEPCO Earthquake Information Update as of March 14, 0200(JST) - Fukushima Daini Unit 1 is now under cold shutdown

Dear Friends,

Please find TEPCO's Fukushima-Daini NPS update as of 2:00am , March 14.

At Unit 1, the reactor is now under cold shutdown. This has been completed and cooling of the reactor has been commenced at 1:24 am, Mar 14th.

CCCC/25

Contacts:

TEPCO Washington Office 202-457-0790

Kenji Matsuo, General Manager

Yuichi Nagano, Deputy General Manager,

Masayuki Yamamoto, Manager, Nuclear Power Programs

=====

Press Release (Mar 14,2011)

Plant Status of Fukushima Daini Nuclear Power Station (as of 2:00 am March 14th)

Unit 1 (shut down at 2:48pm on March 11th)

- Reactor is shut down and reactor water level is stable.
  - Offsite power is available.
  - At 8:19am, Mar 12th, there was an alarm indicating that one of the control rods was not properly inserted, however, at 10:43am, Mar 12th the alarm was spontaneously called off. Other control rods has been confirmed that they are fully inserted (reactor is in subcritical status)
  - Status of main steam isolation valve: closed
  - Injection of water into the reactor is done by Make-up Water Condensate System.
  - We do not believe there is leakage of reactor coolant in the containment vessel at this moment.
  - At 5:22am, Mar 12th, the temperature of the suppression chamber exceeded 100 degrees. As the reactor pressure suppression function was lost, at 5:22am, Mar 12th, it was determined that a specific incident stipulated in article 15, clause 1 has occurred.
- 1.1.1.1.1
- We decided to prepare implementing measures to reduce the pressure of the reactor containment vessel (partial discharge of air containing radioactive materials) in order to fully secure safety. This preparation work started at around 9:43am, Mar 12th and finished at 6:30pm, Mar 12th.

- Restoration work in reactor cooling function that was conducted to achieve reactor cold shutdown has been completed and cooling of the reactor has been commenced at 1:24 am, Mar 14th.

Unit 2 (shut down at 2:48pm on March 11th)

- Reactor is shut down and reactor water level is stable.
- Offsite power is available.
- Control rods are fully inserted (reactor is in subcritical status)
- Status of main steam isolation valve: closed
- Injection of water into the reactor is done by Make-up Water Condensate System.
- We do not believe there is leakage of reactor coolant in the containment vessel.
- At 5:32am, Mar 12th, the temperature of the suppression chamber exceeded 100 degrees. As the reactor pressure suppression function was lost, at 5:32am, Mar 12th, it was determined that a specific incident stipulated in article 15, clause 1 has occurred.

- We decided to prepare implementing measures to reduce the pressure of the reactor containment vessel (partial discharge of air containing radioactive materials) in order to fully secure safety. This preparation work started at around 10:33am, Mar 12th and finished at 10:58pm, Mar 12th.

- Restoration work in reactor cooling function is in progress to achieve reactor cold shutdown.

Unit 3 (shut down at 2:48pm on March 11th)

- Reactor is shut down and reactor water level is stable.
- Offsite power is available.
- Control rods are fully inserted (reactor is in subcritical status)
- Status of main steam isolation valve: closed
- We do not believe there is leakage of reactor coolant in the containment vessel.
- We decided to prepare implementing measures to reduce the pressure of the reactor containment vessel (partial discharge of air containing radioactive materials) in order to fully secure safety. The preparation work started at around 12:08pm, Mar 12th and finished at 12:13pm, Mar 12th.

- Reactor cold shutdown at 12:15pm, Mar 12th

Unit 4 (shut down at 2:48pm on March 11th)

- Reactor is shut down and reactor water level is stable.
- Offsite power is available.
- At 0:43PM, there was a signal indicating that one of the control rods may have not properly inserted. However, we confirmed that it was inserted completely by another signal. We will inspect the reason of this.
- Status of main steam isolation valve: closed
- Injection of water into the reactor is done by Make-up Water Condensate System.
- We do not believe there is leakage of reactor coolant in the containment vessel.
- In order to cool down the reactor, injection of water into the reactor had been done by the Reactor Core Isolation Cooling System, however, At 6:07am, Mar 12th, the temperature of the suppression chamber exceeded 100 degrees. As the reactor pressure suppression function was lost, at 6:07am, Mar 12th, it was determined that a specific incident stipulated in article 15, clause 1 has occurred.
- We decided to prepare implementing measures to reduce the pressure of the reactor containment vessel (partial discharge of air containing radioactive materials) in order to fully secure safety. The preparation work started at around 11:44am, Mar 12th and finished at around 11:52am, Mar 12th.
- Restoration work in reactor cooling function is in progress to achieve reactor cold shutdown.

Indication from monitoring posts installed at the site boundary did not show any difference from ordinary level.

No radiation impact to the external environment has been confirmed. We will continue to monitor in detail the possibility of radioactive material being discharged from exhaust stack or discharge canal.

**Landau, Mindy**

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**From:** Landau, Mindy  
**Sent:** Thursday, March 17, 2011 8:49 AM  
**To:** Harrington, Holly  
**Subject:** RE: Call Center Hotline announcement

Holly – what time is good for you?

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**From:** Jarriel, Lisamarie  
**Sent:** Wednesday, March 16, 2011 8:23 PM  
**To:** Landau, Mindy; Harrington, Holly; Muessle, Mary  
**Subject:** RE: Call Center Hotline announcement

Sounds good, I can make myself available anytime after 10.

Lisa

---

**From:** Landau, Mindy  
**Sent:** Wednesday, March 16, 2011 8:22 PM  
**To:** Harrington, Holly; Jarriel, Lisamarie; Muessle, Mary  
**Subject:** Re: Call Center Hotline announcement

Holly/Lisa,

Let's try to meet and discuss this tomorrow. I agree it's an NRC, not only an OPA, issue.

Sent from my NRC Blackberry  
Mindy Landau  
(b)(6)  
Mindy.Landau@nrc.gov

---

**From:** Harrington, Holly  
**To:** Jarriel, Lisamarie  
**Cc:** Landau, Mindy  
**Sent:** Wed Mar 16 20:06:44 2011  
**Subject:** RE: Call Center Hotline announcement

I'm going to elevate this inquiry to the EDO. OPA doesn't have the staffing to handle hundreds of these calls, particularly in addition to the media and information coordination responsibilities we are also concurrently doing. I think we need to address this as an NRC issue, not an OPA issue.

Mindy – Can we get top management involved? We have a good system in place right now, but we have two-three people loaned to us in the short-term and I do not think they can handle hundreds of additional calls. If we are able to add staff to the system (NSDPers or some other pool of staff), we could do it within the existing system. Putting our e-mail address rather than the phone number does make it more manageable for us, but this is being rejected as an option, apparently.

Holly

**From:** Jarriel, Lisamarie

**Sent:** Wednesday, March 16, 2011 7:48 PM

**To:** Taylor, Nick; James, Lois; Petrosino, Joseph; Crutchley, Julie; Coker, Shyrl; Tabatabai, Omid; Witt, Kevin; Brown, Carrie; Urban, Richard; McFadden, John; Johnson, Sharon; DeMiranda, Oscar; Lewis, Shani; Checkle, Melanie; Heller, James; Pelke, Paul; Weaver, Judith

**Cc:** Hernandez, Pete; Uselding, Lara; Howell, Art; Kellar, Ray; Vito, David; Howell, Linda; Harrington, Holly; Hilton, Nick; Zimmerman, Roy

**Subject:** RE: Call Center Hotline announcement

Thanks Nick – Your points are well taken. Referencing a phone number (and preferably an 800 number) would be best. Also, I know you say you are ok with answering these inquiries, but I remain concerned that, because they are so numerous (in RIV alone you indicated you were getting a dozen/hour) they have the potential to impact an alleegeer's ability to report of a nuclear safety concern involving a US plant.

Holly – thank you for your help so far with this issue, and OPA's efforts in general to communicate the NRC's messages regarding this tragic situation. The staff has been directed to forward inquiries to the 301-415-8200 number. If we just direct them to the OPA email address, the phone calls will continue to come into our allegation safety hotlines – because as Nick points out, 1) they want to talk to a human and 2) its toll free – and the allegation staff will forward them to the x8200 ext. as directed. So, whether we list the number or not, all these calls will go to OPA. Providing the number (even without an 800 ext.) will at least eliminate the need for the allegation staff to manage a large number of these misdirected calls and ensure they remain available to address allegations of safety and security inadequacies at our own plants.

I'd like to see the number (or an 800 number if you have one) put back in as originally proposed.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

### Events in Japan

For general questions related to the Japanese reactor events and their potential impact on US facilities please see the NRC's latest press releases at [www.nrc.gov](http://www.nrc.gov) or email [opa.resource@nrc.gov](mailto:opa.resource@nrc.gov) or phone 301-415-8200.

Individuals with a specific nuclear safety concern related to an NRC facility, please see the instructions below.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Again, thank you for your time. I know you are swamped as well.

LL Jarriel

**From:** Taylor, Nick

**Sent:** Wednesday, March 16, 2011 7:12 PM

**To:** Jarriel, Lisamarie; James, Lois; Petrosino, Joseph; Crutchley, Julie; Coker, Shyrl; Tabatabai, Omid; Witt, Kevin; Brown, Carrie; Urban, Richard; McFadden, John; Johnson, Sharon; DeMiranda, Oscar; Lewis, Shani; Checkle, Melanie; Heller, James;

Pelke, Paul; Weaver, Judith

**Cc:** Hernandez, Pete; Uselding, Lara; Howell, Art; Kellar, Ray; Vito, David; Howell, Linda

**Subject:**

RE: Call Center Hotline announcement

Lisa,

Thanks for concerned call a toll-another sending an (i.e. call the hotline). isn't going people are today OPA

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

**Events in Japan**

For general questions related to the Japanese reactor events and their potential impact on US facilities please see the NRC's latest press releases at [www.nrc.gov](http://www.nrc.gov) or email [opa.resource@nrc.gov](mailto:opa.resource@nrc.gov).

Individuals with a specific nuclear safety concern related to an NRC facility, please see the instructions below.

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your note below. If I were a citizen, I would much rather free number and speak to human being versus email hoping for a response toll-free NRC safety Reading the press releases to provide the answers looking for either. Earlier told us to start providing

their number (301-415-8200) to anyone with a question. I called it twice today and got an answering machine both times. If OPA wants to take these calls they need to publish the number (and perhaps make it toll free) and staff up with enough people to take the calls. Otherwise people will just continue to call our safety hotline, which is OK as long as we are provided with the Q/A's that OPA wants communicated.

Just my opinion,

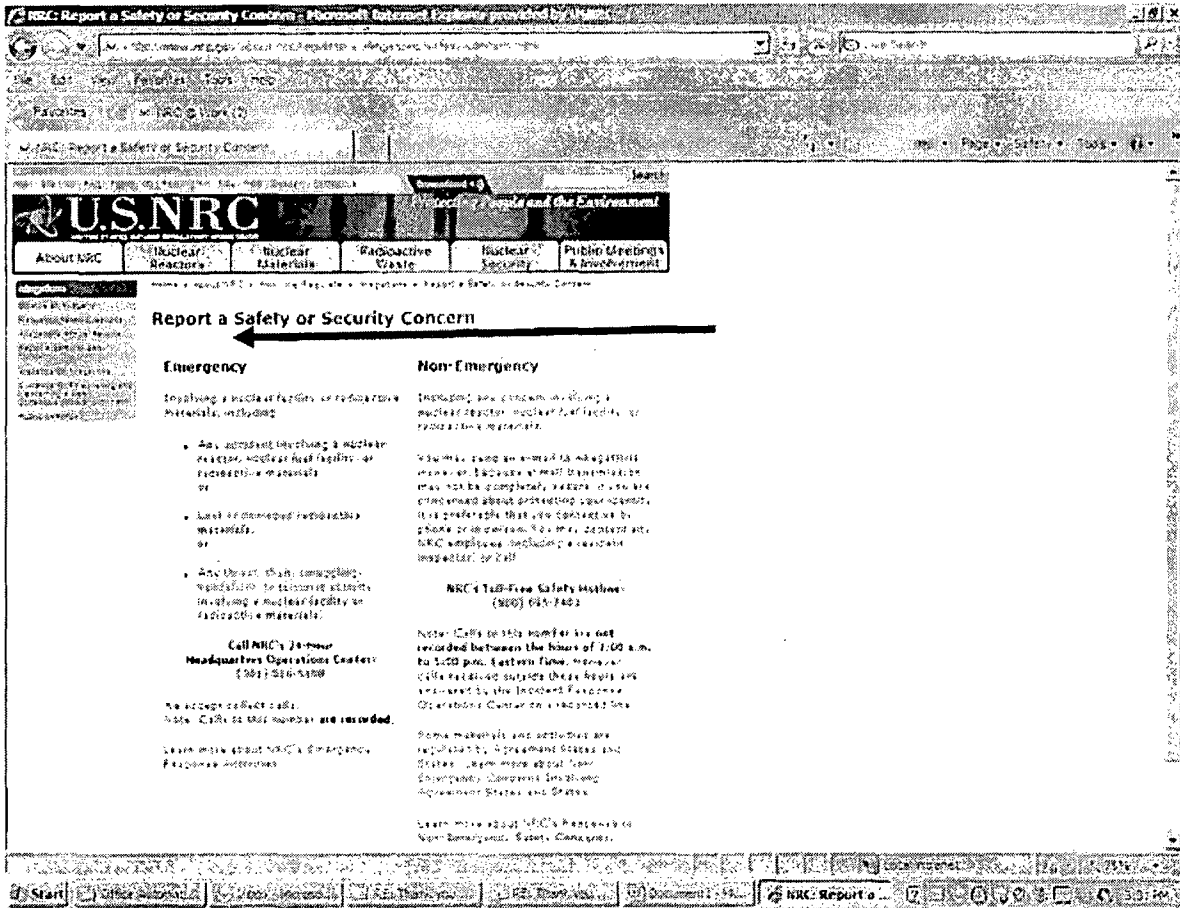
Nick Taylor  
Senior Allegations Coordinator  
USNRC Region IV  
O: (817) 276-6520  
C: (b)(6)  
F: (817) 276-6525  
E: nick.taylor@nrc.gov

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**From:** Jarriel, Lisamarie  
**Sent:** Wednesday, March 16, 2011 5:59 PM  
**To:** Taylor, Nick; James, Lois; Petrosino, Joseph; Crutchley, Julie; Coker, Shyrl; Tabatabai, Omid; Witt, Kevin; Brown, Carrie; Urban, Richard; McFadden, John; Johnson, Sharon; DeMiranda, Oscar; Lewis, Shani; Checkle, Melanie; Heller, James; Pelke, Paul; Weaver, Judith  
**Cc:** Hernandez, Pete  
**Subject:** RE: Call Center Hotline announcement

Guys, here is what OPA wants added right under "Report a Safety or Security Concern". I'll let you know when it's up.





**From:** Taylor, Nick  
**Sent:** Wednesday, March 16, 2011 4:47 PM  
**To:** Jarriel, Lisamarie; James, Lois; Petrosino, Joseph; Crutchley, Julie; Coker, Shyrl; Tabatabai, Omid; Witt, Kevin; Brown, Carrie; Urban, Richard; McFadden, John; Johnson, Sharon; DeMiranda, Oscar; Lewis, Shani; Checkle, Melanie; Heller, James; Pelke, Paul; Weaver, Judith  
**Subject:** RE: Call Center Hotline announcement

Excellent! When will it go on the website?

Nick

**From:** Jarriel, Lisamarie  
**Sent:** Wednesday, March 16, 2011 3:16 PM  
**To:** James, Lois; Petrosino, Joseph; Crutchley, Julie; Coker, Shyrl; Tabatabai, Omid; Witt, Kevin; Brown, Carrie; Urban, Richard; McFadden, John; Johnson, Sharon; DeMiranda, Oscar; Lewis, Shani; Checkle, Melanie; Heller, James; Pelke, Paul; Taylor, Nick; Weaver, Judith  
**Subject:** Call Center Hotline announcement

Gang,

Take a quick look at the proposed addition to our "Report a Safety Concern" web page pointing concerned individuals to the newly established hotline for Japan-related issues and provide any comments for improvement.

We (OE) is making the necessary calls to OIS and OPA to get their approval.

Thanks for the suggestion Nick,

Lisa

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**From:** OST01 HOC  
**Sent:** Sunday, March 27, 2011 3:12 PM  
**To:** ET07 Hoc; PMT02 Hoc; PMT11 Hoc; Hoc, PMT12  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Japan Radiological Data  
**Attachments:** Japan\_Combined\_Survey\_Data\_27\_MAR\_1200\_EDT.xlsx

Please forward, if necessary.

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

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Sunday, March 27, 2011 1:50 PM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Japan Radiological Data

-----  
**From:** NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]  
**Sent:** Sunday, March 27, 2011 1:50:06 PM  
**To:** DL-Policy Working Group; CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc; Hoc, PMT12  
**Cc:** NITOPS  
**Subject:** FW: Japan Radiological Data  
Auto forwarded by a Rule

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

**From:** Naples, Elmer M SES SEA 08 NR [mailto:(b)(6)]  
**Sent:** Sunday, March 27, 2011 1:45 PM  
**To:** rst01.hoc@nrc.gov; Mueller, Troy J SES CIV NAVSEA 08 NR; Brown, Courtney M (NST); CooperJD@state.gov; NITOPS; Steve Fetter; (b)(6) tdykelsord@state.gov  
**Cc:** Burrows, Charles W SES CIV NAVSEA 08 NR; Conran, Thomas C SES CIV NAVSEA 08 NR; Hale, Andrew M SES NAVSEA, 08; McKenzie, John M SES CIV NAVSEA 08 NR  
**Subject:** FW: Japan Radiological Data

Attached is the daily update of Navy radiological survey data dated 3/27/11. Please note the Iishioka team moved to Mito after 0700 on 27 March 2011 JST. Mito is 15 miles closer to Fukushima; they moved due to increased traffic in Iishioka associated with reopening of a train station.

V/R,  
Elmer Naples  
Naval Reactors

CCCC/27



3/19/11 0238	3/19/11 1538	0.01	720	<5.0E-10
3/19/11 0335	3/19/11 1635	0.01	675	<5.0E-10
3/19/11 0430	3/19/11 1730	0.01	585	<5.0E-10
3/19/11 0530	3/19/11 1830	0.01	585	<5.0E-10
3/19/11 0630	3/19/11 1930	0.01	450	<5.0E-10
3/19/11 0730	3/19/11 2030	0.01	495	<5.0E-10
3/19/11 0830	3/19/11 2130	0.01	<450	<5.0E-10
3/19/11 0930	3/19/11 2230	0.01	450	<5.0E-10
3/19/11 1030	3/19/11 2330	0.01	495	<5.0E-10
3/19/11 1130	3/20/11 0030	0.01	450	<5.0E-10
3/19/11 1230	3/20/11 0130	0.01	495	<5.0E-10
3/19/11 1330	3/20/11 0230	0.01	495	<5.0E-10
3/19/11 1430	3/20/11 0330	0.01	495	<5.0E-10
3/19/11 1630	3/20/11 0530	0.01	<450	<5.0E-10
3/19/11 1730	3/20/11 0630	0.01	<450	<5.0E-10
3/19/11 1831	3/20/11 0731	0.01	<450	6.0E-10
3/19/11 1932	3/20/11 0832	0.01	540	5.5E-10
3/19/11 2031	3/20/11 0931	0.01	450	5.5E-10
3/19/11 2128	3/20/11 1028	0.01	495	6.5E-10
3/19/11 2228	3/20/11 1128	0.01	450	5.5E-10
3/19/11 2338	3/20/11 1238	0.01	540	5.0E-10
3/20/11 0027	3/20/11 1327	0.01	495	5.0E-10
3/20/11 0130	3/20/11 1430	0.01	450	5.5E-10
3/20/11 0230	3/20/11 1530	0.01	<450	5.0E-10
3/20/11 0325	3/20/11 1625	0.01	450	<5.0E-10
3/20/11 0520	3/20/11 1820	0.01	450	5.5E-10
3/20/11 0630	3/20/11 1930	0.01	3,150	<5.0E-10
3/20/11 0730	3/20/11 2030	0.01	2,475	<5.0E-10
3/20/11 0830	3/20/11 2130	0.01	2,475	<5.0E-10
3/20/11 0930	3/20/11 2230	0.01	2,025	<5.0E-10
3/20/11 1030	3/20/11 2330	0.01	2,700	<5.0E-10
3/20/11 1130	3/21/11 0030	0.01	7,200	<5.0E-10
3/20/11 1230	3/21/11 0130	0.01	7,200	<5.0E-10
3/20/11 1330	3/21/11 0230	0.01	7,200	<5.0E-10

3/20/11 1430	3/21/11 0330	0.01	7,200	<5.0E-10
3/20/11 1530	3/21/11 0430	0.01	7,200	<5.0E-10
3/20/11 1630	3/21/11 0530	0.01	7,200	<5.0E-10
3/20/11 1730	3/21/11 0630	0.01	7,200	<5.0E-10
3/20/11 1830	3/21/11 0730	0.01	7,200	<5.0E-10
3/20/11 1928	3/21/11 0828	0.01	7,200	<5.0E-10
3/20/11 2035	3/21/11 0935	0.01	7,200	1.6E-09
3/20/11 2058	3/21/11 0958	0.01	7,200	1.6E-09
3/20/11 2115	3/21/11 1015	0.01	7,200	2.6E-09
3/20/11 2140	3/21/11 1040	0.01	7,200	3.1E-09
3/20/11 2200	3/21/11 1100	0.01	7,200	3.2E-09
3/20/11 2218	3/21/11 1118	0.01	7,200	3.2E-09
3/20/11 2235	3/21/11 1135	0.01	7,200	4.8E-09
3/20/11 2257	3/21/11 1157	0.01	7,200	6.0E-09
3/20/11 2318	3/21/11 1218	0.01		<1.0E-7
3/20/11 2346	3/21/11 1246	0.01	7,200	6.0E-10
3/21/11 0012	3/21/11 1312	0.01	7,200	5.0E-10
3/21/11 0033	3/21/11 1333	0.01	6,750	7.5E-10
3/21/11 0057	3/21/11 1357	0.01	1,800	1.0E-09
3/21/11 0120	3/21/11 1420	0.01	1,350	7.5E-10
3/21/11 0139	3/21/11 1439	0.01	1,800	7.5E-10
3/21/11 0157	3/21/11 1457	0.01	1,800	8.0E-10
3/21/11 0214	3/21/11 1514	0.01	2,250	1.0E-09
3/21/11 0245	3/21/11 1545	0.01	1,800	1.3E-09
3/21/11 0303	3/21/11 1603	0.01		7.5E-10
3/21/11 0325	3/21/11 1625	0.01	1,800	8.0E-10
3/21/11 0345	3/21/11 1645	0.01	1,350	7.0E-10
3/21/11 0402	3/21/11 1702	0.01	900	5.0E-10
3/21/11 0418	3/21/11 1718	0.01	1,800	7.0E-10
3/21/11 0432	3/21/11 1732	0.01	2,250	5.0E-10
3/21/11 0450	3/21/11 1750	0.01	7,200	8.5E-10
3/21/11 0509	3/21/11 1809	0.01	7,200	7.5E-10
3/21/11 0525	3/21/11 1825	0.01	9,450	1.2E-09
3/21/11 0545	3/21/11 1845	0.01	9,900	1.0E-09

4.38E-10	2.41E-10	3.02E-10	4.85E-11	4.00E-10	3.32E-10
7.50E-10	2.65E-10	4.01E-10	6.05E-11	5.31E-10	4.27E-10

3/21/11 0600	3/21/11 1900	0.01	9,900	9.0E-10
3/21/11 0615	3/21/11 1915	0.01	9,900	1.0E-09
3/21/11 0630	3/21/11 1930	0.01	9,900	1.0E-09
3/21/11 0645	3/21/11 1945	0.01	8,550	1.0E-09
3/21/11 0700	3/21/11 2000	0.01	8,100	2.3E-09
3/21/11 0715	3/21/11 2015	0.01	7,650	2.3E-09
3/21/11 0732	3/21/11 2032	0.01	8,100	1.5E-09
3/21/11 0745	3/21/11 2045	0.01	7,650	1.0E-09
3/21/11 0800	3/21/11 2100	0.01	8,100	7.5E-10
3/21/11 0815	3/21/11 2115	0.01	8,100	5.0E-10
3/21/11 0830	3/21/11 2130	0.01	8,100	5.0E-10
3/21/11 0845	3/21/11 2145	0.01	8,550	5.0E-10
3/21/11 0900	3/21/11 2200	0.01	9,450	5.0E-10
3/21/11 0930	3/21/11 2230	0.01	7,650	<5.0E-10
3/21/11 1000	3/21/11 2300	0.01	9,450	<5.0E-10
3/21/11 1100	3/22/11 0000	0.01	8,100	<5.0E-10
3/21/11 1200	3/22/11 0100	0.01	7,650	5.0E-10
3/21/11 1300	3/22/11 0200	0.01	8,550	<5.0E-10
3/21/11 1400	3/22/11 0300	0.01	7,200	<5.0E-10
3/21/11 1500	3/22/11 0400	0.01	7,200	<5.0E-10
3/21/11 1600	3/22/11 0500	0.01	6,750	<5.0E-10
3/21/11 1700	3/22/11 0600	0.01	7,200	<5.0E-10
3/21/11 1755	3/22/11 0655	0.01	7,200	<5.0E-10
3/21/11 1900	3/22/11 0800	0.01	7,200	<5.0E-10
3/21/11 1958	3/22/11 0858	0.01	7,200	<5.0E-10
3/21/11 2100	3/22/11 1000	0.01	7,200	<5.0E-10
3/21/11 2200	3/22/11 1100	0.01	7,200	<5.0E-10
3/21/11 2300	3/22/11 1200	0.01	7,200	<5.0E-10
3/22/11 0000	3/22/11 1300	0.01	7,200	5.0E-10
3/22/11 0100	3/22/11 1400	0.01	7,200	9.5E-10
3/22/11 0200	3/22/11 1500	0.01	7,200	1.0E-09
3/22/11 0300	3/22/11 1600	0.01	7,200	7.0E-10
3/22/11 0400	3/22/11 1700	0.01	7,200	6.0E-10
3/22/11 0500	3/22/11 1800	0.01	7,200	7.5E-10

3/22/11 0600	3/22/11 1900	0.01	7,650	7.5E-10					
3/22/11 0700	3/22/11 2000	0.01	8,550	1.3E-09					
3/22/11 0800	3/22/11 2100	0.01	9,000	1.1E-09					
3/22/11 0900	3/22/11 2200	0.01	8,100	1.3E-09					
3/22/11 1000	3/22/11 2300	0.01	8,550	2.8E-09					
3/22/11 1100	3/23/11 0000	0.01	9,450	2.8E-09		7.55E-10	4.36E-11	1.68E-11	1.80E-11 6.64E-11 1.98E-12
3/22/11 1200	3/23/11 0100	0.01	9,000	1.8E-09					
3/22/11 1300	3/23/11 0200	0.01	9,450	1.3E-09					
3/22/11 1400	3/23/11 0300	0.01	9,450	1.0E-09					
3/22/11 1500	3/23/11 0400	0.01	9,900	1.3E-09					
3/22/11 1600	3/23/11 0500	0.01	9,450	5.0E-09					
3/22/11 1700	3/23/11 0600	0.01	9,450	<5.0E-10					
3/22/11 1800	3/23/11 0700	0.01	9,900	5.0E-10					
3/22/11 1900	3/23/11 0800	0.01	9,900	7.5E-10					
3/22/11 2000	3/23/11 0900	0.01	9,900	7.5E-10					
3/22/11 2100	3/23/11 1000	0.01	9,900	6.0E-10					
3/22/11 2200	3/23/11 1100	0.01	9,900	5.0E-10					
3/22/11 2300	3/23/11 1200	0.01	10,000	5.0E-10	(N-1)	2.07E-11	5.76E-12		3.04E-12
3/23/11 0000	3/23/11 1300	0.01	10,000	5.0E-10					
3/23/11 0100	3/23/11 1400	0.01	10,000	5.0E-10					
3/23/11 0200	3/23/11 1500	0.01	10,000	<5.0E-10					
3/23/11 0300	3/23/11 1600	0.01	10,000	5.0E-10					
3/23/11 0400	3/23/11 1700	0.01	9,450	7.5E-10					
3/23/11 0500	3/23/11 1800	0.01	9,450	5.0E-10	(N-1)	1.17E-10			1.82E-12
3/23/11 0600	3/23/11 1900	0.01	7,650	5.0E-10					
3/23/11 0700	3/23/11 2000	0.01	8,100	7.5E-10					
3/23/11 0800	3/23/11 2100	0.01	8,550	6.0E-10					
3/23/11 0900	3/23/11 2200	0.01	9,000	7.5E-10					
3/23/11 1000	3/23/11 2300	0.01	10,000	5.0E-10					
3/23/11 1100	3/24/11 0000	0.01	9,900	5.0E-10	(N-1)	4.42E-11	3.27E-12		2.03E-12
3/23/11 1200	3/24/11 0100	0.01	10,000	5.0E-10	(N-1)	3.85E-11			1.34E-12
3/23/11 1300	3/24/11 0200	0.01	9,900	<5.0E-10					
3/23/11 1400	3/24/11 0300	0.01	9,900	<5.0E-10					
3/23/11 1500	3/24/11 0400	0.01	10,000	<5.0E-10					



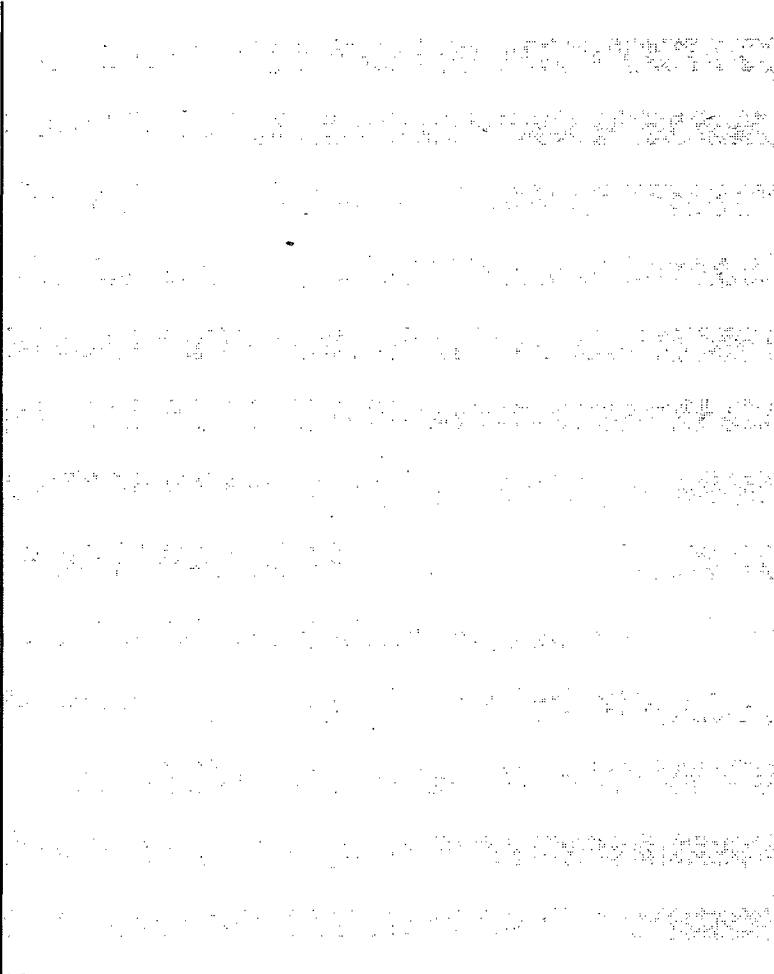
3/23/11 1600	3/24/11 0500	0.01	10,000	<5.0E-10			
3/23/11 1700	3/24/11 0600	0.01	9,900	<5.0E-10			
3/23/11 1800	3/24/11 0700	0.01	10,000	<5.0E-10			
3/23/11 1900	3/24/11 0800	0.01	10,000	<5.0E-10			
3/23/11 2000	3/24/11 0900	0.01	9,900	<5.0E-10			
3/23/11 2100	3/24/11 1000	0.01	9,900	<5.0E-10			
3/23/11 2200	3/24/11 1100	0.01	10,000	<5.0E-10			
3/23/11 2300	3/24/11 1200	0.01	9,900	<5.0E-10			
3/24/11 0000	3/24/11 1300	0.01	9,900	<5.0E-10			
3/24/11 0100	3/24/11 1400	0.01	2,250	<5.0E-10			
3/24/11 0200	3/24/11 1500	0.01	2,925	<5.0E-10			
3/24/11 0300	3/24/11 1600	0.01	9,900	<5.0E-10			
3/24/11 0400	3/24/11 1700	0.01	9,900	<5.0E-10			
3/24/11 0500	3/24/11 1800	0.01	9,900	<5.0E-10	(N-1)	4.11E-11	2.53E-12
3/24/11 0600	3/24/11 1900	0.01	9,900	<5.0E-10			
3/24/11 0700	3/24/11 2000	0.01	9,450	5.0E-10	(N-2)		
3/24/11 0800	3/24/11 2100	0.01	10,000	<5.0E-10	(N-2)		
3/24/11 0900	3/24/11 2200	0.01	10,000	<5.0E-10	(N-2)		
3/24/11 1000	3/24/11 2300	0.01	9,900	5.0E-10	(N-2)		
3/24/11 1100	3/25/11 0000	0.01	9,900	5.0E-10	(N-1) (N-2)	7.53E-12	1.70E-12
3/24/11 1200	3/25/11 0100	0.01	9,450	5.0E-10	(N-2)		
3/24/11 1400	3/25/11 0300	0.01	9,450	6.0E-10	(N-2)		
3/24/11 1500	3/25/11 0400	0.01	9,900	5.0E-10	(N-2)		
3/24/11 1600	3/25/11 0500	0.01	9,900	5.0E-10	(N-2)		
3/24/11 1700	3/25/11 0600	0.01	10,000	6.3E-10	(N-1) (N-2)	8.06E-12	
3/24/11 1800	3/25/11 0700	0.01	9,900	<5.0E-10			
3/24/11 1900	3/25/11 0800	0.01	9,900	<5.0E-10			
3/24/11 2000	3/25/11 0900	0.01	9,900	5.0E-10			
3/24/11 2100	3/25/11 1000	0.01	9,900	6.0E-10			
3/24/11 2200	3/25/11 1100	0.01	9,900	6.0E-10			
3/24/11 2300	3/25/11 1200	0.01	9,900	6.5E-10	(N-1)	9.00E-12	
3/25/11 0000	3/25/11 1300	0.01	9,900	5.0E-10	(N-1)	1.07E-11	
3/25/11 0100	3/25/11 1400	0.01	9,900	<5.0E-10			
3/25/11 0200	3/25/11 1500	0.01	9,900	<5.0E-10			

3/25/11 0300	3/25/11 1600	0.01	9,450	<5.0E-10
3/25/11 0400	3/25/11 1700	0.01	9,900	<5.0E-10
3/25/11 0500	3/25/11 1800	0.01	9,900	<5.0E-10
3/25/11 0600	3/25/11 1900	0.01	9,000	<5.0E-10
3/25/11 0700	3/25/11 2000	0.01	8,100	<5.0E-10
3/25/11 0800	3/25/11 2100	0.01	9,000	<5.0E-10
3/25/11 0900	3/25/11 2200	0.01	10,000	<5.0E-10
3/25/11 1000	3/25/11 2300	0.01	9,000	<5.0E-10
3/25/11 1100	3/26/11 0000	0.01	9,450	<5.0E-10
3/25/11 1200	3/26/11 0100	0.01	9,900	<5.0E-10
3/25/11 1300	3/26/11 0200	0.01	9,450	5.0E-10
3/25/11 1400	3/26/11 0300	0.01	9,450	5.0E-10
3/25/11 1500	3/26/11 0400	0.01	9,000	5.0E-10
3/25/11 1600	3/26/11 0500	0.01	9,450	5.0E-10
3/25/11 1700	3/26/11 0600	0.01	9,900	5.0E-10
3/25/11 1800	3/26/11 0700	0.01	9,450	6.0E-10
3/25/11 1900	3/26/11 0800	0.01	9,900	5.0E-10
3/25/11 2000	3/26/11 0900	0.01	9,900	5.5E-10
3/25/11 2100	3/26/11 1000	0.01	9,900	<5.0E-10
3/25/11 2200	3/26/11 1100	0.01	9,900	<5.0E-10
3/25/11 2300	3/26/11 1200	0.01	9,900	<5.0E-10
3/26/11 0000	3/26/11 1300	0.01	9,900	<5.0E-10
3/26/11 0100	3/26/11 1400	0.01	9,900	<5.0E-10
3/26/11 0200	3/26/11 1500	0.01	9,900	<5.0E-10
3/26/11 0300	3/26/11 1600	0.01	9,000	<5.0E-10
3/26/11 0400	3/26/11 1700	0.01	9,000	<5.0E-10
3/26/11 0500	3/26/11 1800	0.01	9,000	<5.0E-10
3/26/11 0600	3/26/11 1900	0.01	9,000	<5.0E-10
3/26/11 0700	3/26/11 2000	0.01	9,000	<5.0E-10
3/26/11 0800	3/26/11 2100	0.01	9,000	<5.0E-10
3/26/11 0900	3/26/11 2200	0.01	9,000	<5.0E-10
3/26/11 1000	3/26/11 2300	0.01	9,000	<5.0E-10
3/26/11 1100	3/27/11 0000	0.01	9,000	<5.0E-10
3/26/11 1200	3/27/11 0100	0.01	9,450	<5.0E-10

7.4E-12

2.63E-12

3/26/11 1300	3/27/11 0200	0.01	9,450	<5.0E-10
3/26/11 1400	3/27/11 0300	0.01	9,900	5.0E-10
3/26/11 1500	3/27/11 0400	0.01	9,900	5.0E-10
3/26/11 1600	3/27/11 0500	0.01	9,450	<5.0E-10
3/26/11 1700	3/27/11 0600	0.01	9,000	<5.0E-10
3/26/11 1800	3/27/11 0700	0.01	9,000	<5.0E-10
3/26/11 1900	3/27/11 0800	0.01	9,000	<5.0E-10
3/26/11 2000	3/27/11 0900	0.01	9,000	<5.0E-10
3/26/11 2100	3/27/11 1000	0.01	9,000	<5.0E-10
3/26/11 2200	3/27/11 1100	0.01	8,550	<5.0E-10
3/26/11 2300	3/27/11 1200	0.01	8,550	<5.0E-10
3/27/11 0000	3/27/11 1300	0.01	9,000	<5.0E-10
3/27/11 0100	3/27/11 1400	0.01	9,000	<5.0E-10
3/27/11 0200	3/27/11 1500	0.01	8,550	<5.0E-10
3/27/11 0300	3/27/11 1600	0.01	8,550	<5.0E-10
3/27/11 0400	3/27/11 1700	0.01	8,550	<5.0E-10
3/27/11 0500	3/27/11 1800	0.01	9,000	<5.0E-10
3/27/11 0600	3/27/11 1900	0.01	9,000	<5.0E-10
3/27/11 0700	3/27/11 2000	0.01	9,000	<5.0E-10
3/27/11 0800	3/27/11 2100	0.01	9,000	<5.0E-10
3/27/11 0900	3/27/11 2200	0.01	9,000	<5.0E-10
3/27/11 1000	3/27/11 2300	0.01	9,000	<5.0E-10
3/27/11 1100	3/28/11 0000	0.01	9,000	<5.0E-10



**Notes**

(N-1) Isotopic analysis samples were identified as OS1 rather than Nanaban Tower in the ECCDDS.

(N-2) 3/25/11 0545 (JST): NACCC reports possible Temp. Inv. for air samples over past 6 to 8 hours. NACCC update pending.



3/15/11 0255	3/15/11 1555	0.01	855	
3/15/11 0315	3/15/11 1615	0.01	1,170	
3/15/11 0330	3/15/11 1630	0.01	1,080	
3/15/11 0400	3/15/11 1700	0.01	945	
3/15/11 0415	3/15/11 1715	0.01	900	
3/15/11 0445	3/15/11 1745	0.01	945	
3/15/11 0500	3/15/11 1800	0.01	1,170	
3/15/11 0515	3/15/11 1815	0.01	990	
3/15/11 0530	3/15/11 1830	0.01	900	
3/15/11 0600	3/15/11 1900	0.01	900	2.3E-09
3/15/11 0615	3/15/11 1915	0.01	990	2.0E-09
3/15/11 0630	3/15/11 1930	0.01	990	2.4E-09
3/15/11 0653	3/15/11 1953	0.01	990	1.8E-09
3/15/11 0700	3/15/11 2000	0.01	1,125	2.3E-09
3/15/11 0715	3/15/11 2015	0.01	990	1.8E-09
3/15/11 0730	3/15/11 2030	0.01	1,035	1.8E-09
3/15/11 0745	3/15/11 2045	0.01	1,125	2.0E-09
3/15/11 0800	3/15/11 2100	0.01	1,170	1.8E-09
3/15/11 0830	3/15/11 2130	0.01	1,125	1.8E-09
3/15/11 0900	3/15/11 2200	0.01	1,170	2.5E-09
3/15/11 0930	3/15/11 2230	0.01	1,125	4.2E-09
3/15/11 1000	3/15/11 2300	0.01	1,125	4.0E-09
3/15/11 1030	3/15/11 2330	0.01	1,125	3.8E-09
3/15/11 1100	3/16/11 0000	0.01	1,125	1.5E-09
3/15/11 1130	3/16/11 0030	0.01	1,125	2.0E-09
3/15/11 1200	3/16/11 0100	0.01	1,125	2.1E-09
3/15/11 1230	3/16/11 0130	0.01	1,125	1.5E-09
3/15/11 1300	3/16/11 0200	0.01	990	1.8E-09
3/15/11 1330	3/16/11 0230	0.01	990	2.4E-09
3/15/11 1400	3/16/11 0300	0.01	990	2.9E-09
3/15/11 1430	3/16/11 0330	0.01	990	4.3E-09
3/15/11 1500	3/16/11 0400	0.01	990	5.5E-09
3/15/11 1530	3/16/11 0430	0.01	945	6.4E-09
3/15/11 1600	3/16/11 0500	0.01	945	5.0E-09

3/15/11 1630	3/16/11 0530	0.01	900	6.0E-09
3/15/11 1700	3/16/11 0600	0.01	1,080	3.5E-09
3/15/11 1730	3/16/11 0630	0.01	945	2.3E-09
3/15/11 1800	3/16/11 0700	0.01	990	2.8E-09
3/15/11 1830	3/16/11 0730	0.01	1,080	2.3E-09
3/15/11 1900	3/16/11 0800	0.01	1,080	2.3E-09
3/15/11 1930	3/16/11 0830	0.01	1,080	2.5E-09
3/15/11 2000	3/16/11 0900	0.01	1,215	2.0E-09
3/15/11 2130	3/16/11 1030	0.01	1,305	2.0E-09
3/15/11 2200	3/16/11 1100	0.01	1,485	2.3E-09
3/15/11 2330	3/16/11 1230	0.01	1,440	8.8E-10
3/16/11 0030	3/16/11 1330	0.01	1,080	1.5E-09
3/16/11 0100	3/16/11 1400	0.01	1,125	1.5E-09
3/16/11 0130	3/16/11 1430	0.01	990	9.0E-10
3/16/11 0300	3/16/11 1600	0.01	900	1.6E-09
3/16/11 0330	3/16/11 1630	0.01	945	1.5E-09
3/16/11 0400	3/16/11 1700	0.01	900	1.2E-09
3/16/11 0430	3/16/11 1730	0.01	900	1.2E-09
3/16/11 0500	3/16/11 1800	0.01	945	1.0E-09
3/16/11 0530	3/16/11 1830	0.01	900	8.0E-10
3/16/11 0600	3/16/11 1900	0.01	990	8.0E-10
3/16/11 0630	3/16/11 1930	0.01	900	1.2E-09
3/16/11 0700	3/16/11 2000	0.01	945	8.0E-10
3/16/11 0730	3/16/11 2030	0.01	900	9.0E-10
3/16/11 0800	3/16/11 2100	0.01	900	9.3E-10
3/16/11 0830	3/16/11 2130	0.01	990	1.1E-09
3/16/11 0900	3/16/11 2200	0.01	990	8.8E-10
3/16/11 0930	3/16/11 2230	0.01	1,035	8.8E-10
3/16/11 1000	3/16/11 2300	0.01	990	9.0E-10
3/16/11 1030	3/16/11 2330	0.01	990	1.0E-09
3/16/11 1100	3/17/11 0000	0.01	1,125	8.0E-10
3/16/11 1130	3/17/11 0030	0.01	1,080	1.2E-09
3/16/11 1200	3/17/11 0100	0.01	900	1.0E-09
3/16/11 1230	3/17/11 0130	0.01	1,125	1.0E-09

3/16/11 1300	3/17/11 0200	0.01	945	9.0E-10
3/16/11 1330	3/17/11 0230	0.01	900	8.8E-10
3/16/11 1400	3/17/11 0300	0.01	810	1.0E-09
3/16/11 1430	3/17/11 0330	0.01	810	9.0E-10
3/16/11 1500	3/17/11 0400	0.01	810	9.0E-10
3/16/11 1530	3/17/11 0430	0.01	900	7.5E-10
3/16/11 1600	3/17/11 0500	0.01	945	1.0E-09
3/16/11 1630	3/17/11 0530	0.01	900	9.5E-10
3/16/11 1700	3/17/11 0600	0.01	810	9.0E-10
3/16/11 1730	3/17/11 0630	0.01	810	1.1E-09
3/16/11 1800	3/17/11 0700	0.01	855	1.1E-09
3/16/11 1830	3/17/11 0730	0.01	720	1.0E-09
3/16/11 1900	3/17/11 0800	0.01	1,260	7.5E-10
3/16/11 1930	3/17/11 0830	0.01	1,440	8.5E-10
3/16/11 2000	3/17/11 0900	0.01	1,440	7.0E-10
3/16/11 2030	3/17/11 0930	0.01	810	7.0E-10
3/16/11 2100	3/17/11 1000	0.01	1,035	7.5E-10
3/17/11 0930	3/17/11 2230	0.01	1,215	1.1E-09
3/17/11 1000	3/17/11 2300	0.01	1,575	1.1E-09
3/17/11 1030	3/17/11 2330	0.01	1,035	1.0E-09
3/17/11 1100	3/18/11 0000	0.01	810	8.5E-10
3/17/11 1130	3/18/11 0030	0.01	990	1.1E-09
3/17/11 1500	3/18/11 0400	0.01	900	8.5E-10
3/17/11 1900	3/18/11 0800	0.01	990	1.1E-09
3/17/11 2300	3/18/11 1200	0.01	1,170	1.0E-09
3/18/11 0700	3/18/11 2000	0.01	585	5.0E-10
3/18/11 1100	3/19/11 0000	0.01	563	5.0E-10
3/18/11 1500	3/19/11 0400	0.01	585	<5.0E-10
3/18/11 1900	3/19/11 0800	0.01	450	8.0E-10
3/18/11 2300	3/19/11 1200	0.01	675	<5.0E-10
3/19/11 0300	3/19/11 1600	0.01	675	5.0E-10
3/19/11 0700	3/19/11 2000	0.01	585	<5.0E-10
3/19/11 1100	3/20/11 0000	0.01	585	<5.0E-10
3/19/11 1500	3/20/11 0400	0.01	630	5.0E-10

3/19/11 1900	3/20/11 0800	0.01	495	5.5E-10
3/19/11 2300	3/20/11 1200	0.01	630	6.5E-10
3/20/11 0330	3/20/11 1630	0.01	585	6.5E-10
3/20/11 0400	3/20/11 1700	0.01	720	6.5E-10
3/20/11 0430	3/20/11 1730	0.01	990	5.0E-10
3/20/11 0500	3/20/11 1800	0.01	900	5.0E-10
3/20/11 0530	3/20/11 1830	0.01	720	5.0E-10
3/20/11 0600	3/20/11 1900	0.01	585	<5.0E-10
3/20/11 1700	3/21/11 0600	0.01	<450	2.3E-09
3/20/11 1800	3/21/11 0700	0.01	450	2.6E-09
3/20/11 1815	3/21/11 0715	0.01	450	2.5E-09
3/20/11 1830	3/21/11 0730	0.01	450	2.3E-09
3/20/11 1845	3/21/11 0745	0.01	450	2.5E-09
3/20/11 1900	3/21/11 0800	0.01	450	2.3E-09
3/20/11 1915	3/21/11 0815	0.01	450	2.3E-09
3/20/11 1930	3/21/11 0830	0.01	450	2.5E-09
3/20/11 1945	3/21/11 0845	0.01	450	3.0E-09
3/20/11 2000	3/21/11 0900	0.01	450	2.8E-09
3/20/11 2015	3/21/11 0915	0.01	450	2.5E-09
3/20/11 2030	3/21/11 0930	0.01	450	2.3E-09
3/20/11 2045	3/21/11 0945	0.01	450	2.0E-09
3/20/11 2100	3/21/11 1000	0.01	450	2.2E-09
3/20/11 2115	3/21/11 1015	0.01	450	2.3E-09
3/20/11 2130	3/21/11 1030	0.01	450	2.1E-09
3/20/11 2145	3/21/11 1045	0.01	450	2.0E-09
3/20/11 2200	3/21/11 1100	0.01	450	1.6E-09
3/20/11 2215	3/21/11 1115	0.01	450	1.3E-09
3/20/11 2230	3/21/11 1130	0.01	450	1.3E-09
3/20/11 2245	3/21/11 1145	0.01	495	1.4E-09
3/20/11 2315	3/21/11 1215	0.01	495	1.6E-09
3/20/11 2330	3/21/11 1230	0.01	450	1.3E-09
3/20/11 2345	3/21/11 1245	0.01	495	1.9E-09
3/21/11 0000	3/21/11 1300	0.01	450	1.2E-09
3/21/11 0015	3/21/11 1315	0.01	450	1.5E-09



3/21/11 0030	3/21/11 1330	0.01	450	1.8E-09
3/21/11 0045	3/21/11 1345	0.01	450	1.8E-09
3/21/11 0100	3/21/11 1400	0.01	450	2.5E-09
3/21/11 0115	3/21/11 1415	0.01	450	1.1E-09
3/21/11 0145	3/21/11 1445	0.01	450	8.0E-10
3/21/11 0200	3/21/11 1500	0.01	810	7.0E-10
3/21/11 0215	3/21/11 1515	0.01	945	9.5E-10
3/21/11 0230	3/21/11 1530	0.01	540	1.2E-09
3/21/11 0245	3/21/11 1545	0.01	900	9.5E-10
3/21/11 0300	3/21/11 1600	0.01	855	8.0E-10
3/21/11 0315	3/21/11 1615	0.01	945	6.5E-10
3/21/11 0330	3/21/11 1630	0.01	1,350	8.5E-10
3/21/11 0345	3/21/11 1645	0.01	990	6.0E-10
3/21/11 0400	3/21/11 1700	0.01	900	7.0E-10
3/21/11 0415	3/21/11 1715	0.01	765	8.5E-10
3/21/11 0445	3/21/11 1745	0.01	855	8.5E-10
3/21/11 0545	3/21/11 1845	0.01	1,845	1.2E-09
3/21/11 0615	3/21/11 1915	0.01	2,025	1.0E-09
3/21/11 0645	3/21/11 1945	0.01	2,025	1.5E-09
3/21/11 0715	3/21/11 2015	0.01	1,800	1.5E-09
3/21/11 0745	3/21/11 2045	0.01	1,575	1.3E-09
3/21/11 0815	3/21/11 2115	0.01	1,800	1.3E-09
3/21/11 0845	3/21/11 2145	0.01	1,800	1.0E-09
3/21/11 1029	3/21/11 2329	0.01	1,800	5.0E-10
3/21/11 1148	3/22/11 0048	0.01	2,025	5.0E-10
3/21/11 1430	3/22/11 0330	0.01	1,800	5.0E-10
3/21/11 1630	3/22/11 0530	0.01	1,575	5.0E-10
3/21/11 1730	3/22/11 0630	0.01	1,575	<5.0E-10
3/21/11 1837	3/22/11 0737	0.01	1,575	<5.0E-10
3/21/11 1930	3/22/11 0830	0.01	2,025	<5.0E-10
3/21/11 2030	3/22/11 0930	0.01	2,250	<5.0E-10
3/21/11 2130	3/22/11 1030	0.01	2,025	5.0E-10
3/21/11 2230	3/22/11 1130	0.01	2,025	5.0E-10
3/21/11 2330	3/22/11 1230	0.01	2,250	5.0E-10

3/22/11 0030	3/22/11 1330	0.01	1,800	6.0E-10
3/22/11 0130	3/22/11 1430	0.01	1,710	6.5E-10
3/22/11 0230	3/22/11 1530	0.01	1,800	<5.0E-10
3/22/11 0330	3/22/11 1630	0.01	1,800	9.5E-10
3/22/11 0430	3/22/11 1730	0.01	1,800	8.5E-10
3/22/11 0530	3/22/11 1830	0.01	1,800	5.0E-10
3/22/11 0630	3/22/11 1930	0.01	1,800	5.0E-10
3/22/11 0730	3/22/11 2030	0.01	2,025	6.0E-10
3/22/11 0830	3/22/11 2130	0.01	2,025	7.5E-10
3/22/11 1030	3/22/11 2330	0.01	1,800	1.4E-09
3/22/11 1130	3/23/11 0030	0.01	1,800	1.7E-09
3/22/11 1330	3/23/11 0230	0.01	2,700	1.5E-09
3/22/11 1430	3/23/11 0330	0.01	2,700	1.3E-09
3/22/11 1630	3/23/11 0530	0.01	2,700	5.0E-10
3/22/11 1730	3/23/11 0630	0.01	3,150	6.0E-10
3/22/11 1830	3/23/11 0730	0.01	2,925	7.0E-10
3/22/11 1930	3/23/11 0830	0.01	3,600	5.0E-10
3/22/11 2030	3/23/11 0930	0.01	3,600	5.0E-10
3/22/11 2130	3/23/11 1030	0.01	3,825	<5.0E-10
3/22/11 2230	3/23/11 1130	0.01	4,050	5.0E-10
3/22/11 2330	3/23/11 1230	0.01	4,050	5.0E-10
3/23/11 0030	3/23/11 1330	0.01	4,050	5.0E-10
3/23/11 0130	3/23/11 1430	0.01	3,825	6.0E-10
3/23/11 0230	3/23/11 1530	0.01	4,950	5.0E-10
3/23/11 0330	3/23/11 1630	0.01	5,400	5.0E-10
3/23/11 0430	3/23/11 1730	0.01	5,400	9.0E-10
3/23/11 0530	3/23/11 1830	0.01	5,400	7.5E-10
3/23/11 0630	3/23/11 1930	0.01	3,375	<5.0E-10
3/23/11 0730	3/23/11 2030	0.01	3,825	5.0E-10
3/23/11 0830	3/23/11 2130	0.01	1,575	5.0E-10
3/23/11 1030	3/23/11 2330	0.01	2,700	<5.0E-10
3/23/11 1339	3/24/11 0239	0.01	2,475	<5.0E-10
3/23/11 1500	3/24/11 0400	0.01	2,475	<5.0E-10
3/23/11 1900	3/24/11 0800	0.01	3,375	6.0E-10

3/23/11 2100	3/24/11 1000	0.01	3,150	<5.0E-10	
3/23/11 2300	3/24/11 1200	0.01	3,240	<5.0E-10	
3/24/11 0100	3/24/11 1400	0.01	3,375	<5.0E-10	
3/24/11 0300	3/24/11 1600	0.01	3,060	<5.0E-10	
3/24/11 0500	3/24/11 1800	0.01	3,645	<5.0E-10	
3/24/11 0700	3/24/11 2000	0.01	3,600	<5.0E-10	
3/24/11 1300	3/25/11 0200	0.01	3,375	7.5E-10	(A-1)
3/24/11 1700	3/25/11 0600	0.01	3,150	1.0E-09	(A-1)
3/24/11 1900	3/25/11 0800	0.01	3,150	8.0E-10	(A-1)
3/24/11 2100	3/25/11 1000	0.01	3,150	9.0E-10	(A-1)
3/24/11 2300	3/25/11 1200	0.01	3,150	6.0E-10	(A-1)
3/25/11 0100	3/25/11 1400	0.01	3,150	7.0E-10	(A-1)
3/25/11 0300	3/25/11 1600	0.01	3,150	6.5E-10	(A-1)
3/25/11 0500	3/25/11 1800	0.01	3,150	6.0E-10	(A-1)
3/25/11 0700	3/25/11 2000	0.01	5,850	5.0E-10	
3/25/11 1100	3/26/11 0000	0.01	3,600	5.0E-10	
3/25/11 1300	3/26/11 0200	0.01	2,700	5.0E-10	
3/25/11 1500	3/26/11 0400	0.01	2,700	7.5E-10	
3/25/11 1500	3/26/11 0400	0.01	2,700	7.5E-10	
3/25/11 1700	3/26/11 0600	0.01	2,700	1.0E-09	
3/25/11 1900	3/26/11 0800	0.01	2,565	8.0E-10	
3/25/11 2100	3/26/11 1000	0.01	2,925	<5.0E-10	
3/25/11 2300	3/26/11 1200	0.01	3,330	<5.0E-10	
3/26/11 0100	3/26/11 1400	0.01	2,880	6.00E-10	
3/26/11 0300	3/26/11 1600	0.01	2,745	6.00E-10	
3/26/11 0500	3/26/11 1800	0.01	3,015	<5.0E-10	
3/26/11 0700	3/26/11 2000	0.01	3,600	<5.0E-10	
3/26/11 0900	3/26/11 2200	0.01	2,700	<5.0E-10	
3/26/11 1100	3/27/11 0000	0.01	2,700	5E-10	
3/26/11 1300	3/27/11 0200	0.01	2,700	5E-10	
3/26/11 1500	3/27/11 0400	0.01	2,700	<5.0E-10	
3/26/11 1700	3/27/11 0600	0.01	2,700	5.00E-10	
3/26/11 1900	3/27/11 0800	0.01	2,700	6.50E-10	
3/26/11 2100	3/27/11 1000	0.01	3,150	5.00E-10	

3/26/11 2300	3/27/11 1200	0.01	2,970	5.00E-10	
3/27/11 0300	3/27/11 1600	0.01	3,645	<5.0E-10	
3/27/11 0500	3/27/11 1800	0.01	3,375	5.00E-10	
3/27/11 0700	3/27/11 2000	0.01	2,610	5.00E-10	
3/27/11 0900	3/27/11 2200	0.01	2,700	9.00E-10	

**Notes**

(A-1) 3/25/11 0545 (JST): NACCC reports possible Temp. Inv. for air samples over past 6 to 8 hours. NACCC update pending.



3/21/11 0145	3/21/11 1445	0.02	4,050	1.0E-09
3/21/11 0200	3/21/11 1500	0.02	4,500	1.0E-09
3/21/11 0215	3/21/11 1515	0.02	4,050	7.5E-10
3/21/11 0230	3/21/11 1530	0.02	4,050	7.5E-10
3/21/11 0245	3/21/11 1545	0.02	4,500	7.5E-10
3/21/11 0300	3/21/11 1600	0.02	4,500	1.3E-09
3/21/11 0315	3/21/11 1615	0.02	4,050	5.0E-10
3/21/11 0330	3/21/11 1630	0.01	4,050	1.0E-09
3/21/11 0345	3/21/11 1645	0.01	4,950	1.0E-09
3/21/11 0400	3/21/11 1700	0.01	4,950	7.5E-10
3/21/11 0415	3/21/11 1715	0.01	36,000	1.0E-09
3/21/11 0430	3/21/11 1730	0.01	32,000	5.0E-10
3/21/11 0445	3/21/11 1745	0.01	32,000	7.5E-10
3/21/11 0500	3/21/11 1800	0.01	36,000	7.5E-10
3/21/11 0515	3/21/11 1815	0.01	36,000	1.0E-09
3/21/11 0530	3/21/11 1830	0.01	36,000	1.0E-09
3/21/11 0545	3/21/11 1845	0.01	36,000	5.0E-10
3/21/11 0600	3/21/11 1900	0.01	36,000	7.5E-10
3/21/11 0630	3/21/11 1930	0.01	36,000	5.0E-10
3/21/11 0700	3/21/11 2000	0.01	36,000	5.0E-10
3/21/11 0730	3/21/11 2030	0.01	36,000	5.0E-10
3/21/11 0800	3/21/11 2100	0.01	36,000	5.5E-10
3/21/11 0830	3/21/11 2130	0.03	36,000	1.2E-09
3/21/11 0845	3/21/11 2145			8.2E-10
3/21/11 0900	3/21/11 2200			2.4E-09
3/21/11 0900	3/21/11 2200	0.02	36,000	7.5E-10
3/21/11 0930	3/21/11 2230	0.01	36,000	5.0E-10
3/21/11 1000	3/21/11 2300	0.01	36,000	<5.0E-10
3/21/11 1100	3/22/11 0000	0.01	36,000	<5.0E-10
3/21/11 1300	3/22/11 0200	0.01	36,000	<5.0E-10
3/21/11 1400	3/22/11 0300	0.01	36,000	<5.0E-10
3/21/11 1600	3/22/11 0500	0.01	36,000	<5.0E-10
3/21/11 1700	3/22/11 0600	0.01	36,000	<5.0E-10
3/21/11 1800	3/22/11 0700	0.01	36,000	<5.0E-10

1.51E-10	3.16E-10	8.63E-11	1.22E-10	1.90E-11	1.26E-10
1.72E-09	1.43E-10	1.16E-10	1.38E-11	1.46E-10	2.07E-10

3/21/11 1900	3/22/11 0800	0.01	36,000	7.5E-10
3/21/11 2000	3/22/11 0900	0.01	36,000	6.5E-09
3/21/11 2100	3/22/11 1000	0.02	37,000	6.0E-09
3/21/11 2200	3/22/11 1100	0.01	36,000	2.0E-09
3/21/11 2300	3/22/11 1200	0.01	36,000	1.4E-09
3/21/11 2330	3/22/11 1230	0.01	45,000	1.8E-09
3/22/11 0000	3/22/11 1300	0.01	47,000	2.5E-09
3/22/11 0030	3/22/11 1330	0.01	48,000	2.0E-09
3/22/11 0100	3/22/11 1400	0.01	36,000	2.8E-09
3/22/11 0130	3/22/11 1430	0.02	36,000	2.5E-09
3/22/11 0200	3/22/11 1500	0.01	36,000	2.3E-09
3/22/11 0230	3/22/11 1530	0.01	38,000	2.0E-09
3/22/11 0300	3/22/11 1600	0.01	42,000	2.0E-09
3/22/11 0330	3/22/11 1630	0.01	44,000	3.5E-09
3/22/11 0400	3/22/11 1700	0.01	48,000	4.5E-09
3/22/11 0430	3/22/11 1730	0.01	52,000	8.5E-09
3/22/11 0445	3/22/11 1745	0.02	52,000	1.1E-08
3/22/11 0500	3/22/11 1800	0.02	52,000	1.0E-08
3/22/11 0515	3/22/11 1815	0.02	52,000	4.5E-09
3/22/11 0530	3/22/11 1830	0.01	48,000	5.0E-09
3/22/11 0545	3/22/11 1845	0.02	50,000	2.0E-09
3/22/11 0600	3/22/11 1900	0.01	50,000	1.5E-09
3/22/11 0615	3/22/11 1915	0.02	45,000	1.0E-09
3/22/11 0630	3/22/11 1930	0.02	45,000	1.5E-09
3/22/11 0645	3/22/11 1945	0.02	45,000	1.3E-09
3/22/11 0700	3/22/11 2000	0.02	45,000	1.8E-09
3/22/11 0715	3/22/11 2015	0.02	45,000	4.3E-09
3/22/11 0730	3/22/11 2030	0.04	43,000	5.0E-09
3/22/11 0745	3/22/11 2045	0.04	32,000	2.0E-09
3/22/11 0800	3/22/11 2100	0.04	32,000	2.3E-09
3/22/11 0815	3/22/11 2115	0.03	32,000	1.8E-09
3/22/11 0830	3/22/11 2130	0.01	36,000	1.5E-09
3/22/11 0845	3/22/11 2145	0.03	32,000	1.0E-09
3/22/11 0900	3/22/11 2200	0.03	32,000	7.5E-10

3/22/11 0915	3/22/11 2215	0.03	32,000	7.5E-10
3/22/11 1100	3/23/11 0000	0.03	36,000	<5.0E-10
3/22/11 1130	3/23/11 0030	0.02	36,000	<5.0E-10
3/22/11 1200	3/23/11 0100	0.02	36,000	<5.0E-10
3/22/11 1300	3/23/11 0200	0.02	36,000	<5.0E-10
3/22/11 1400	3/23/11 0300	0.02	36,000	<5.0E-10
3/22/11 1500	3/23/11 0400	0.01	36,000	<5.0E-10
3/22/11 1600	3/23/11 0500	0.02	36,000	<5.0E-10
3/22/11 1700	3/23/11 0600	0.01	41,000	<5.0E-10
3/22/11 1800	3/23/11 0700	0.03	41,000	<5.0E-10
3/22/11 1900	3/23/11 0800	0.03	41,000	5.0E-10
3/22/11 2000	3/23/11 0900	0.03	45,000	5.0E-10
3/22/11 2100	3/23/11 1000	0.03	45,000	5.0E-10
3/22/11 2200	3/23/11 1100	0.03	45,000	5.0E-10
3/22/11 2300	3/23/11 1200	0.03	49,000	5.0E-10
3/23/11 0000	3/23/11 1300	0.03	55,000	5.0E-10
3/23/11 0030	3/23/11 1330	0.03	53,000	2.5E-09
3/23/11 0100	3/23/11 1400	0.03	53,000	2.5E-09
3/23/11 0130	3/23/11 1430	0.03	55,000	1.3E-09
3/23/11 0200	3/23/11 1500	0.03	53,000	1.3E-09
3/23/11 0230	3/23/11 1530	0.03	55,000	1.3E-09
3/23/11 0300	3/23/11 1600	0.03	56,000	1.0E-09
3/23/11 0330	3/23/11 1630	0.03	54,000	1.5E-09
3/23/11 0400	3/23/11 1700	0.04	53,000	1.5E-09
3/23/11 0430	3/23/11 1730	0.03	52,000	1.3E-09
3/23/11 0500	3/23/11 1800	0.03	52,000	1.4E-09
3/23/11 0530	3/23/11 1830	0.03	50,000	7.0E-10
3/23/11 0530	3/23/11 1830			
3/23/11 0600	3/23/11 1900	0.03	50,000	8.0E-10
3/23/11 0700	3/23/11 2000	0.03	50,000	7.5E-10
3/23/11 0800	3/23/11 2100	0.03	50,000	7.5E-10
3/23/11 0900	3/23/11 2200	0.02	50,000	<5.0E-10
3/23/11 1000	3/23/11 2300	0.02	50,000	<5.0E-10
3/23/11 1100	3/24/11 0000	0.02	50,000	<5.0E-10

1.75E-10

2.19E-12

4.13E-12



3/23/11 1200	3/24/11 0100	0.02	50,000	5.0E-10	
3/23/11 1300	3/24/11 0200	0.02	50,000	<5.0E-10	
3/23/11 1500	3/24/11 0400	0.02	50,000	<5.0E-10	
3/23/11 1600	3/24/11 0500	0.02	50,000	6.0E-10	
3/23/11 1700	3/24/11 0600	0.01	45,000	1.3E-09	
3/23/11 1730	3/24/11 0630	0.02	46,000	9.0E-10	
3/23/11 1800	3/24/11 0700	0.02	47,000	9.0E-10	
3/23/11 1830	3/24/11 0730	0.02	47,000	7.5E-10	
3/23/11 1900	3/24/11 0800	0.02	47,000	5.0E-10	
3/23/11 2000	3/24/11 0900	0.02	50,000	5.0E-10	
3/23/11 2100	3/24/11 1000	0.02	49,000	5.0E-10	
3/23/11 2100	3/24/11 1000				1.1E-11
3/23/11 2200	3/24/11 1100	0.03	50,000	5.0E-10	
3/23/11 2300	3/24/11 1200	0.03	49,000	5.0E-10	
3/24/11 0000	3/24/11 1300	0.03	49,000	5.0E-10	
3/24/11 0100	3/24/11 1400	0.01	49,000	5.0E-10	
3/24/11 0200	3/24/11 1500	0.03	52,000	5.0E-10	
3/24/11 0300	3/24/11 1600	0.03	50,000	5.0E-10	
3/24/11 0400	3/24/11 1700	0.03	47,000	5.0E-10	
3/24/11 0500	3/24/11 1800	0.03	50,000	5.0E-10	
3/24/11 0600	3/24/11 1900	0.03	47,000	5.0E-10	
3/24/11 0700	3/24/11 2000	0.03	50,000	5.0E-10	
3/24/11 0800	3/24/11 2100	0.03	49,000	5.0E-10	(I-2)
3/24/11 0913	3/24/11 2213	0.03	50,000	5.0E-10	(I-2)
3/24/11 1100	3/25/11 0000	0.03	49,000	5.0E-10	(I-2)
3/24/11 1200	3/25/11 0100	0.03	50,000	5.0E-10	(I-2)
3/24/11 1400	3/25/11 0300	0.03	49,000	5.0E-10	(I-2)
3/24/11 1500	3/25/11 0400	0.03	48,000	5.0E-10	(I-2)
3/24/11 1600	3/25/11 0500	0.03	49,000	5.0E-10	(I-2)
3/24/11 1700	3/25/11 0600	0.03	46,000	5.0E-10	(I-2)
3/24/11 1800	3/25/11 0700	0.03	46,000	5.0E-10	(I-2)
3/24/11 1800	3/25/11 0700				1.1E-11
3/24/11 1900	3/25/11 0800	0.03	45,000	<5.0E-10	(I-2)
3/24/11 2000	3/25/11 0900	0.03	45,000	<5.0E-10	

3/24/11 2100	3/25/11 1000	0.03	45,000	5.0E-10
3/24/11 2200	3/25/11 1100	0.03	45,000	5.0E-10
3/24/11 2300	3/25/11 1200	0.03	45,000	5.0E-10
3/25/11 0000	3/25/11 1300	0.03	45,000	5.0E-10
3/25/11 0100	3/25/11 1400	0.03	45,000	<5.0E-10
3/25/11 0200	3/25/11 1500	0.03	45,000	<5.0E-10
3/25/11 0300	3/25/11 1600	0.03	45,000	<5.0E-10
3/25/11 0400	3/25/11 1700	0.03	45,000	<5.0E-10
3/25/11 0500	3/25/11 1800	0.03	45,000	<5.0E-10
3/25/11 0600	3/25/11 1900	0.03	45,000	<5.0E-10
3/25/11 0700	3/25/11 2000	0.03	46,000	<5.0E-10
3/25/11 0800	3/25/11 2100	0.03	45,000	<5.0E-10
3/25/11 0900	3/25/11 2200	0.03	45,000	<5.0E-10
3/25/11 1000	3/25/11 2300	0.03	44,000	<5.0E-10
3/25/11 1100	3/26/11 0000	0.03	44,000	<5.0E-10
3/25/11 1200	3/26/11 0100	0.03	44,000	<5.0E-10
3/25/11 1300	3/26/11 0200	0.03	43,000	<5.0E-10
3/25/11 1400	3/26/11 0300	0.03	43,000	<5.0E-10
3/25/11 1500	3/26/11 0400	0.03	43,000	<5.0E-10
3/25/11 1600	3/26/11 0500	0.03	44,000	<5.0E-10
3/25/11 1700	3/26/11 0600	0.03	43,000	<5.0E-10
3/25/11 1800	3/26/11 0700	0.01	43,000	<5.0E-10
3/25/11 1900	3/26/11 0800	0.03	41,000	8.0E-10
3/25/11 2000	3/26/11 0900	0.03	41,000	<5.0E-10
3/25/11 2100	3/26/11 1000	0.03	41,000	5.0E-10
3/25/11 2200	3/26/11 1100	0.03	41,000	<5.0E-10
3/25/11 2300	3/26/11 1200	0.03	41,000	<5.0E-10
3/26/11 0000	3/26/11 1300	0.03	41,000	<5.0E-10
3/26/11 0100	3/26/11 1400	0.03	41,000	<5.0E-10
3/26/11 0200	3/26/11 1500	0.03	41,000	<5.0E-10
3/26/11 0300	3/26/11 1600	0.03	40,000	<5.0E-10
3/26/11 0400	3/26/11 1700	0.03	40,000	<5.0E-10
3/26/11 0500	3/26/11 1800	0.03	41,000	<5.0E-10
3/26/11 0600	3/26/11 1900	0.03	41,000	<5.0E-10

9.78E-12

3/26/11 0700	3/26/11 2000	0.03	40,000	<5.0E-10	
3/26/11 0800	3/26/11 2100	0.03	40,000	<5.0E-10	
3/26/11 0900	3/26/11 2200	0.03	41,000	<5.0E-10	
3/26/11 1000	3/26/11 2300	0.03	40,000	<5.0E-10	
3/26/11 1100	3/27/11 0000	0.03	40,000	<5.0E-10	
3/26/11 1200	3/27/11 0100	0.03	40,000	<5.0E-10	
3/26/11 1300	3/27/11 0200	0.03	39,000	<5.0E-10	
3/26/11 1400	3/27/11 0300	0.03	39,000	<5.0E-10	
3/26/11 1500	3/27/11 0400	0.03	38,000	<5.0E-10	
3/26/11 1600	3/27/11 0500	0.03	40,000	<5.0E-10	
3/26/11 1700	3/27/11 0600	0.03	38,000	5.0E-10	
3/26/11 1800	3/27/11 0700	0.03	37,000	5.0E-10	(I-3)

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**Notes**

(I-1) 3/21/11 0945 (JST): RI results considered to be in error due to sample/analysis error. Subsequent RI samples at 2245 and 0030 on 3/21/11 were negative. Recount of the 2045 RI sample 2hrs later had no detectable activity.

(I-2) 3/25/11 0545 (JST): NACCC reports possible Temp. Inv. for air samples over past 6 to 8 hours. NACCC update pending.

(I-3) 3/27/11 0800 (JST): Team Re-Deployed to Mito



3/27/11 1100	3/28/11 0000	0.01	3,600	<5.0E-10
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Notes



3/24/11 1700	3/25/11 0600	0.01	6,300	1.3E-09	(T-2)	
3/24/11 1800	3/25/11 0700	0.01	6,525	1.0E-09	(T-2)	
3/24/11 1900	3/25/11 0800	0.01	6,525	1.0E-09		
3/24/11 2000	3/25/11 0900	0.01	6,750	7.0E-10		4.4E-11
3/24/11 2100	3/25/11 1000	0.01	6,525	<5.0E-10		
3/24/11 2200	3/25/11 1100	0.01	6,525	<5.0E-10		
3/24/11 2300	3/25/11 1200	0.01	6,300	<5.0E-10		
3/25/11 0000	3/25/11 1300	0.01	6,525	<5.0E-10		
3/25/11 0100	3/25/11 1400	0.01	6,300	<5.0E-10		
3/25/11 0200	3/25/11 1500	0.01	6,300	<5.0E-10		
3/25/11 0300	3/25/11 1600	0.01	6,300	<5.0E-10		
3/25/11 0400	3/25/11 1700	0.01	6,075	<5.0E-10		
3/25/11 0500	3/25/11 1800	0.01	5,850	<5.0E-10		
3/25/11 0600	3/25/11 1900	0.01	5,850	<5.0E-10		
3/25/11 0700	3/25/11 2000	0.01	5,850	<5.0E-10		
3/25/11 0800	3/25/11 2100	0.01	5,850	<5.0E-10		
3/25/11 0900	3/25/11 2200	0.01	5,850	<5.0E-10		
3/25/11 1000	3/25/11 2300	0.01	5,850	<5.0E-10		
3/25/11 1100	3/26/11 0000	0.01	5,850	<5.0E-10		
3/25/11 1200	3/26/11 0100	0.01	6,075	<5.0E-10		
3/25/11 1300	3/26/11 0200	0.01	5,850	<5.0E-10		
3/25/11 1400	3/26/11 0300	0.01	5,850	<5.0E-10		
3/25/11 1500	3/26/11 0400	0.01	6,075	<5.0E-10		
3/25/11 1600	3/26/11 0500	0.01	6,075	<5.0E-10		
3/25/11 1700	3/26/11 0600	0.01	6,075	<5.0E-10		
3/25/11 1800	3/26/11 0700	0.01	5,850	5.5E-10		
3/25/11 1900	3/26/11 0800	0.01	6,075	5.0E-10		2.88E-11
3/25/11 2000	3/26/11 0900	0.01	5,850	<5.0E-10		
3/25/11 2100	3/26/11 1000	0.01	6,075	<5.0E-10		
3/25/11 2200	3/26/11 1100	0.01	5,850	<5.0E-10		
3/25/11 2300	3/26/11 1200	0.01	5,850	<5.0E-10		
3/26/11 0000	3/26/11 1300	0.01	5,850	<5.0E-10		
3/26/11 0100	3/26/11 1400	0.01	5,850	<5.0E-10		
3/26/11 0200	3/26/11 1500	0.01	5,850	<5.0E-10		

3/26/11 0300	3/26/11 1600	0.01	5,850	<5.0E-10
3/26/11 0400	3/26/11 1700	0.01	5,850	<5.0E-10
3/26/11 0500	3/26/11 1800	0.01	5,850	<5.0E-10
3/26/11 0600	3/26/11 1900	0.01	5,850	<5.0E-10
3/26/11 0700	3/26/11 2000	0.01	5,850	<5.0E-10
3/26/11 0800	3/26/11 2100	0.01	5,625	<5.0E-10
3/26/11 0900	3/26/11 2200	0.01	5,625	<5.0E-10
3/26/11 1000	3/26/11 2300	0.01	5,625	<5.0E-10
3/26/11 1100	3/27/11 0000	0.01	5,625	<5.0E-10
3/26/11 1200	3/27/11 0100	0.01	5,400	<5.0E-10
3/26/11 1300	3/27/11 0200	0.01	5,580	<5.0E-10
3/26/11 1400	3/27/11 0300	0.01	5,580	<5.0E-10
3/26/11 1500	3/27/11 0400	0.01	5,400	<5.0E-10
3/26/11 1600	3/27/11 0500	0.01	5,580	<5.0E-10
3/26/11 1700	3/27/11 0600	0.01	5,580	<5.0E-10
3/26/11 1800	3/27/11 0700	0.01	5,625	<5.0E-10
3/26/11 1900	3/27/11 0800	0.01	5,625	<5.0E-10
3/26/11 2000	3/27/11 0900	0.01	5,850	<5.0E-10
3/26/11 2100	3/27/11 1000	0.01	5,625	<5.0E-10
3/26/11 2200	3/27/11 1100	0.01	5,625	<5.0E-10
3/26/11 2300	3/27/11 1200	0.01	5,625	<5.0E-10
3/27/11 0000	3/27/11 1300	0.01	5,175	<5.0E-10
3/27/11 0100	3/27/11 1400	0.01	5,400	<5.0E-10
3/27/11 0200	3/27/11 1500	0.01	5,400	<5.0E-10
3/27/11 0300	3/27/11 1600	0.01	4,950	<5.0E-10
3/27/11 0400	3/27/11 1700	0.01	4,950	<5.0E-10
3/27/11 0500	3/27/11 1800	0.01	4,950	<5.0E-10
3/27/11 0600	3/27/11 1900	0.01	5,175	<5.0E-10
3/27/11 0700	3/27/11 2000	0.01	5,175	<5.0E-10
3/27/11 0800	3/27/11 2100	0.01	4,950	<5.0E-10
3/27/11 0900	3/27/11 2200	0.01	4,950	<5.0E-10
3/27/11 1000	3/27/11 2300	0.01	4,950	<5.0E-10
3/27/11 1100	3/28/11 0000	0.01	4,950	<5.0E-10



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**Notes**

(T-1) The 1300 air sample was analyzed via full isotopic analysis, and contained I-131.

(T-2) 3/25/11 0545 (JST): NACCC reports possible Temp. Inv. for air samples over past 6 to 8 hours. NACCC update pending.



3/24/11 1730	3/25/11 0630	0.01	1350	1.1E-09	(O-1)	
3/24/11 1800	3/25/11 0700	0.01	1350	9.5E-10	(O-1)	1.2E-11
3/24/11 1830	3/25/11 0730	0.01	1350	9.5E-10	(O-1)	
3/24/11 1900	3/25/11 0800	0.01	1350	8.5E-10	(O-1)	
3/24/11 1930	3/25/11 0830	0.01	1350	8.5E-10	(O-1)	1.2E-11
3/24/11 2000	3/25/11 0900	0.01	1350	<5.0E-10		
3/24/11 2030	3/25/11 0930	0.01	1350	<5.0E-10		
3/24/11 2100	3/25/11 1000	0.01	1350	<5.0E-10		
3/24/11 2130	3/25/11 1030	0.01	1350	<5.0E-10		
3/24/11 2200	3/25/11 1100	0.01	1350	<5.0E-10		
3/24/11 2300	3/25/11 1200	0.01	1350	<5.0E-10		
3/25/11 0000	3/25/11 1300	0.01	1350	<5.0E-10		
3/25/11 0100	3/25/11 1400	0.01	1350	<5.0E-10		
3/25/11 0200	3/25/11 1500	0.01	1350	<5.0E-10		
3/25/11 0300	3/25/11 1600	0.01	1350	<5.0E-10		
3/25/11 0400	3/25/11 1700	0.01	1350	<5.0E-10		
3/25/11 0500	3/25/11 1800	0.01	1350	<5.0E-10		
3/25/11 0600	3/25/11 1900	0.01	1350	<5.0E-10		
3/25/11 0700	3/25/11 2000	0.01	1350	<5.0E-10		
3/25/11 0800	3/25/11 2100	0.01	1350	<5.0E-10		
3/25/11 0900	3/25/11 2200	0.01	1350	<5.0E-10		
3/25/11 1000	3/25/11 2300	0.01	1350	<5.0E-10		
3/25/11 1100	3/26/11 0000	0.01	1350	<5.0E-10		
3/25/11 1200	3/26/11 0100	0.01	1350	<5.0E-10		
3/25/11 1300	3/26/11 0200	0.01	1350	<5.0E-10		
3/25/11 1400	3/26/11 0300	0.01	1350	<5.0E-10		
3/25/11 1500	3/26/11 0400	0.01	1350	<5.0E-10		
3/25/11 1600	3/26/11 0500	0.01	1305	<5.0E-10		
3/25/11 1700	3/26/11 0600	0.01	1305	<5.0E-10		
3/25/11 1800	3/26/11 0700	0.01	1305	<5.0E-10		
3/25/11 1900	3/26/11 0800	0.01	1350	<5.0E-10		
3/25/11 2000	3/26/11 0900	0.01	1305	<5.0E-10		
3/25/11 2100	3/26/11 1000	0.01	1305	<5.0E-10		
3/25/11 2200	3/26/11 1100	0.01	1305	<5.0E-10		
3/25/11 2300	3/26/11 1200	0.01	1305	<5.0E-10		

3/26/11 0000	3/26/11 1300	0.01	1305	<5.0E-10
3/26/11 0100	3/26/11 1400	0.01	1305	<5.0E-10
3/26/11 0200	3/26/11 1500	0.01	1305	<5.0E-10
3/26/11 0300	3/26/11 1600	0.01	1305	<5.0E-10
3/26/11 0400	3/26/11 1700	0.01	1305	<5.0E-10
3/26/11 0500	3/26/11 1800	0.01	1305	<5.0E-10
3/26/11 0600	3/26/11 1900	0.01	1305	<5.0E-10
3/26/11 0700	3/26/11 2000	0.01	1305	<5.0E-10
3/26/11 0800	3/26/11 2100	0.01	1305	<5.0E-10
3/26/11 0900	3/26/11 2200	0.01	1305	<5.0E-10
3/26/11 1000	3/26/11 2300	0.01	1305	<5.0E-10
3/26/11 1100	3/27/11 0000	0.01	1305	<5.0E-10
3/26/11 1200	3/27/11 0100	0.01	1305	<5.0E-10
3/26/11 1300	3/27/11 0200	0.01	1305	<5.0E-10
3/26/11 1400	3/27/11 0300	0.01	1305	<5.0E-10
3/26/11 1500	3/27/11 0400	0.01	1305	<5.0E-10
3/26/11 1600	3/27/11 0500	0.01	1305	<5.0E-10
3/26/11 1700	3/27/11 0600	0.01	1305	<5.0E-10
3/26/11 1800	3/27/11 0700	0.01	1305	<5.0E-10
3/26/11 1900	3/27/11 0800	0.01	1305	<5.0E-10
3/26/11 2000	3/27/11 0900	0.01	1305	<5.0E-10
3/26/11 2100	3/27/11 1000	0.01	1305	<5.0E-10
3/26/11 2200	3/27/11 1100	0.01	1305	<5.0E-10
3/26/11 2300	3/27/11 1200	0.01	1305	<5.0E-10
3/27/11 0000	3/27/11 1300	0.10	1305	<5.0E-10
3/27/11 0100	3/27/11 1400	0.01	1305	<5.0E-10
3/27/11 0200	3/27/11 1500	0.01	1305	<5.0E-10
3/27/11 0300	3/27/11 1600	0.01	1305	<5.0E-10
3/27/11 0400	3/27/11 1700	0.01	1305	<5.0E-10
3/27/11 0500	3/27/11 1800	0.01	1305	<5.0E-10
3/27/11 0600	3/27/11 1900	0.01	1305	<5.0E-10
3/27/11 0700	3/27/11 2000	0.01	1260	<5.0E-10
3/27/11 0800	3/27/11 2100	0.01	1260	<5.0E-10
3/27/11 0900	3/27/11 2200	0.01	1260	<5.0E-10

3/27/11 1000	3/27/11 2300	0.01	1260	<5.0E-10	
3/27/11 1100	3/28/11 0000	0.01	1260	<5.0E-10	

**Notes**

(O-1) 3/25/11 0545 (JST): NACCC reports possible Temp. Inv. for air samples over past 6 to 8 hours. NACCC update pending.



3/21/11 0200	3/21/11 1500	0.01	<450	5.9E-10
3/21/11 0230	3/21/11 1530	0.01	<450	<5.0E-10
3/21/11 0300	3/21/11 1600	0.01	<450	6.0E-10
3/21/11 0330	3/21/11 1630	0.01	<450	5.9E-10
3/21/11 0400	3/21/11 1700	0.01	<450	6.3E-10
3/21/11 0430	3/21/11 1730	0.01	<450	6.0E-10
3/21/11 0500	3/21/11 1800	0.01	<450	6.0E-10
3/21/11 0530	3/21/11 1830	0.01	<450	6.5E-10
3/21/11 0600	3/21/11 1900	0.01	<450	6.5E-10
3/21/11 0630	3/21/11 1930	0.01	<450	6.0E-10
3/21/11 0700	3/21/11 2000	0.01	<450	6.5E-10
3/21/11 0730	3/21/11 2030	0.01	<450	7.3E-10
3/21/11 0800	3/21/11 2100	0.01	<450	6.3E-10
3/21/11 0830	3/21/11 2130	0.01	<450	6.5E-10
3/21/11 1100	3/22/11 0000	0.01	<450	6.5E-10
3/21/11 1200	3/22/11 0100	0.01	<450	<5.0E-10
3/21/11 1600	3/22/11 0500	0.01	<450	<5.0E-10
3/21/11 1900	3/22/11 0800	0.01	<450	5.5E-10
3/21/11 2300	3/22/11 1200	0.01	<450	<5.0E-10
3/22/11 0300	3/22/11 1600	0.01	<450	5.7E-10
3/22/11 0700	3/22/11 2000	0.01	<450	<5.0E-10
3/22/11 1100	3/23/11 0000	0.01	<450	<5.0E-10
3/22/11 1200	3/23/11 0100	0.01	<450	<5.0E-10
3/22/11 1900	3/23/11 0800	0.01	<450	<5.0E-10
3/22/11 2300	3/23/11 1200	0.01	<450	5.5E-10
3/23/11 0300	3/23/11 1600	0.01	<450	5.0E-10
3/23/11 0700	3/23/11 2000	0.01	<450	5.0E-10
3/23/11 1514	3/24/11 0414	0.01	<450	<5.0E-10
3/23/11 1900	3/24/11 0800	0.01	<450	<5.0E-10
3/23/11 2300	3/24/11 1200	0.01	<450	<5.0E-10
3/24/11 0300	3/24/11 1600	0.01	<450	<5.0E-10
3/24/11 0700	3/24/11 2000	0.01	<450	<5.0E-10
3/24/11 1900	3/25/11 0800	0.01	<450	5.0E-10
3/24/11 2300	3/25/11 1200	0.01	<450	<5.0E-10

3/25/11 0300	3/25/11 1600	0.01	<450	<5.0E-10
3/25/11 0700	3/25/11 2000	0.01	<450	<5.0E-10
3/25/11 1100	3/26/11 0000	0.01	<450	<5.0E-10
3/25/11 1500	3/26/11 0400	0.01	<450	<5.0E-10
3/25/11 1900	3/26/11 0800	0.01	<450	<5.0E-10
3/25/11 2300	3/26/11 1200	0.01	<450	<5.0E-10
3/26/11 0300	3/26/11 1600	0.01	<450	<5.0E-10
3/26/11 0700	3/26/11 2000	0.01	<450	<5.0E-10
3/26/11 1100	3/27/11 0000	0.01	<450	<5.0E-10
3/26/11 1500	3/27/11 0400	0.01	<450	<5.0E-10
3/26/11 1900	3/27/11 0800	0.01	<450	<5.0E-10
3/26/11 2300	3/27/11 1200	0.01	<450	<5.0E-10
3/27/11 0300	3/27/11 1600	0.01	<450	<5.0E-10
3/27/11 0700	3/27/11 2000	0.01	<450	<5.0E-10
3/27/11 1100	3/28/11 0000	0.01	<450	<5.0E-10

Notes



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**From:** Michael Dudek <(b)(6)>  
**Sent:** Sunday, April 17, 2011 12:59 PM  
**To:** Milligan, Patricia  
**Cc:** OST01 HOC  
**Subject:** Fwd: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

Sent from my iPhone

Begin forwarded message:

**From:** "Wiggins, Jim" <Jim.Wiggins@nrc.gov>  
**Date:** April 17, 2011 12:43:03 PM EDT  
**To:** "(b)(6)" <(b)(6)> "Evans, Michele"  
<Michele.Evans@nrc.gov>  
**Cc:** "McDermott, Brian" <Brian.McDermott@nrc.gov>, "Morris, Scott"  
<Scott.Morris@nrc.gov>, "Marshall, Jane" <Jane.Marshall@nrc.gov>, "Milligan, Patricia"  
<Patricia.Milligan@nrc.gov>  
**Subject:** Re: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

Outstanding piece of work from my perspective. One nit - units vs unites in Encl 1. Two questions on infrastructure: should we include the need for sources of "clean" food and water being available? Also, not knowing how the Japanese organize and conduct evacs, I'd guess some form of LLEA or JDF force would be used. If the Japanese decide to expand their evac zone beyond the 20/30km distances, would we want them to have the capability to execute it?

---

**From:** Mike Dudek <(b)(6)>  
**To:** Evans, Michele; Wiggins, Jim  
**Cc:** McDermott, Brian; Morris, Scott; Marshall, Jane; Milligan, Patricia  
**Sent:** Sun Apr 17 10:05:41 2011  
**Subject:** ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

FYI - NSIR was specifically assigned; however, I wanted to ensure that you had the opportunity to provide comments on the document. The tasking states that comments are due back to Trish Milligan by 3:00 PM today.

Thanks!  
Michael I. Dudek

--- On Sun, 4/17/11, OST01 HOC <OST01.HOC@nrc.gov> wrote:

**From:** OST01 HOC <OST01.HOC@nrc.gov>  
**Subject:** FW: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process  
**To:** "(b)(6)" <(b)(6)>  
**Date:** Sunday, April 17, 2011, 9:11 AM

**From:** OST01 HOC  
**Sent:** Sunday, April 17, 2011 3:54 AM  
**To:** Deegan, George; Lewis, Robert; Weaver, Doug; Hiland, Patrick; Skeen, David; Dudek, Michael; Milligan, Patricia; Gibson, Kathy; Case, Michael; Anderson, James; Tracy, Glenn  
**Subject:** ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

\*\*\*\*\*Please note: All attachments are Official Use Only\*\*\*\*\*

The Operations Center has identified a task that falls in the purview of the Line Organization. You were provided as a POC for NRR/NSIR/RES/FSME/NMSS.

NSIR: Please provide the latest version of the composite document to Marty Virgilio by 0900 Monday morning 4/18.

NRR/FSME/NMSS/RES: Please review and provide comments to Trish Milligan, NSIR and OST 01 HOC by 4/17/2011, 1500 EDT.

This ticket is being tracked in the Japan SharePoint page (<http://nsir-ops.nrc.gov/Lists/HOC%20Red%20Tickets/AllItems.aspx>) under ticket number 4771.

Please provide a response to this email to confirm receipt. Thank you,

Executive Support Team

\*\*\*\*\*Please note: All attachments are Official Use Only\*\*\*\*\*

---

**From:** OST01 HOC  
**Sent:** Sunday, April 17, 2011 12:23 PM  
**To:** Andersen, James  
**Subject:** RE: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

I will. Thank you.

---

**From:** Andersen, James  
**Sent:** Sunday, April 17, 2011 12:22 PM  
**To:** OST01 HOC  
**Subject:** Re: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

No that is okay. Just let me know if you need assistance from the EDO's office. Thanks.

Sent from an NRC Blackberry  
James Andersen  
(b)(6)

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**From:** OST01 HOC  
**To:** Andersen, James  
**Sent:** Sun Apr 17 11:53:34 2011  
**Subject:** RE: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

Do you want me to send and make sure your name is listed? I have only gotten 1 reply so far.

---

**From:** Andersen, James  
**Sent:** Sunday, April 17, 2011 11:52 AM  
**To:** OST01 HOC  
**Subject:** Re: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

I probably will not see the responses for reply to all, please let me know if you do not hear back from the lead offices. Thanks.

Sent from an NRC Blackberry  
James Andersen  
(b)(6)

---

**From:** OST01 HOC  
**To:** Andersen, James  
**Sent:** Sun Apr 17 09:44:03 2011  
**Subject:** FW: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

Here you go.

---

**From:** OST01 HOC  
**Sent:** Sunday, April 17, 2011 3:54 AM  
**To:** Deegan, George; Lewis, Robert; Weaver, Doug; Hiland, Patrick; Skeen, David; Dudek, Michael; Milligan, Patricia;

Gibson, Kathy; Case, Michael; Anderson, James; Tracy, Glenn

**Subject:** ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

\*\*\*\*\*Please note: All attachments are Official Use Only\*\*\*\*\*

The Operations Center has identified a task that falls in the purview of the Line Organization. You were provided as a POC for NRR/NSIR/RES/FSME/NMSS.

NSIR: Please provide the latest version of the composite document to Marty Virgilio by 0900 Monday morning 4/18.

NRR/FSME/NMSS/RES: Please review and provide comments to Trish Milligan, NSIR and OST 01 HOC by 4/17/2011, 1500 EDT

This ticket is being tracked in the Japan SharePoint page (<http://nsir-ops.nrc.gov/Lists/HOC%20Red%20Tickets/AllItems.aspx>) under ticket number **4771**.

Please provide a response to this email to confirm receipt. Thank you,

Executive Support Team

\*\*\*\*\*Please note: All attachments are Official Use Only\*\*\*\*\*

---

**From:** OST01 HOC  
**Sent:** Friday, March 25, 2011 7:21 PM  
**To:** Lubinski, John  
**Subject:** Can you work as PMTR Director on Sunday, March 27 and/or Monday, March 28 from 3pm to 11pm?

Please contact me at (b)(6) or via e-mail at [Anthony.McMurtray@nrc.gov](mailto:Anthony.McMurtray@nrc.gov) or at this e-mail address. This spot just opened due to Vince Holahan being assigned to another task.

Tony McMurtray  
EST Coordinator

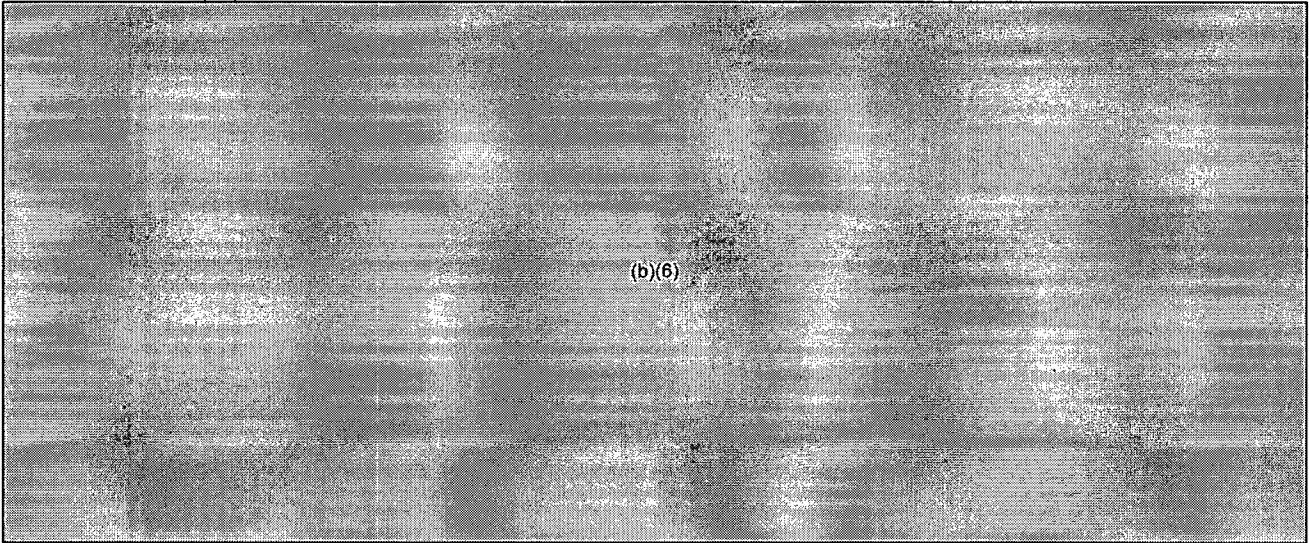
cccc/30

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**From:** HOO Hoc  
**Sent:** Wednesday, April 06, 2011 8:05 PM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: URGENT:Start of Injection of Nitrogen Gas  
**Attachments:** TEPCO.pdf

---

**From:** Hinds, Lynda J [mailto:HindsLJ@state.gov] **On Behalf Of** Tokyo Staff Assistant  
**Sent:** Wednesday, April 06, 2011 7:21 PM



**Subject:** FW: URGENT:Start of Injection of Nitrogen Gas

Lynda Hinds  
Staff Assistant  
(03) 3224- 5370

---

**From:** PROTOCOLOFFICE-EM [mailto:protocoloffice-em@mofa.go.jp]  
**Sent:** Wednesday, April 06, 2011 10:45 PM  
**To:** PROTOCOLOFFICE-EM  
**Subject:** URGENT:Start of Injection of Nitrogen Gas

**URGENT**  
**(22:10) Wednesday, 6 April 2011**

To All Missions (Embassies, Consular posts and International Organizations in Japan)

CCCC/31

TEPCO announced that the start of injection of nitrogen gas into the containment vessel of the Unit 1 of the Fukushima Dai-ichi Nuclear Power Plant at around 22:30 with a view to avoiding possibility of a hydrogen explosion.

The press release by TEPCO (only in Japanese at this stage) is attached to this message.

Details will follow at the tomorrow's regular briefing.

Contact: International Nuclear Energy Cooperation Division, Tel 03-5501-8227

## 福島第一原子力発電所1号機原子炉格納容器への窒素封入の実施について

平成 23 年 4 月 6 日

東京電力株式会社

当社福島第一原子力発電所1号機につきましては、原子炉格納容器内に水素ガスが蓄積している可能性があることから、原子炉格納容器内に窒素ガスを封入することを検討しておりました。

本件について、本日、経済産業大臣より、同発電所1号機の窒素封入に関して、窒素封入の必要性、実施方法、安全性に係る影響評価等についての報告徴収の指示を受けたことから、同日、この指示に基づきその内容を取りまとめ、経済産業大臣にご報告いたしました。報告内容につきましては、経済産業省において審議いただき、当社の報告内容について了解をいただきました。

今後、当社が報告した実施方法に基づき、本日午後 10 時 30 分頃より1号機原子炉格納容器への窒素封入を実施いたします。

以 上



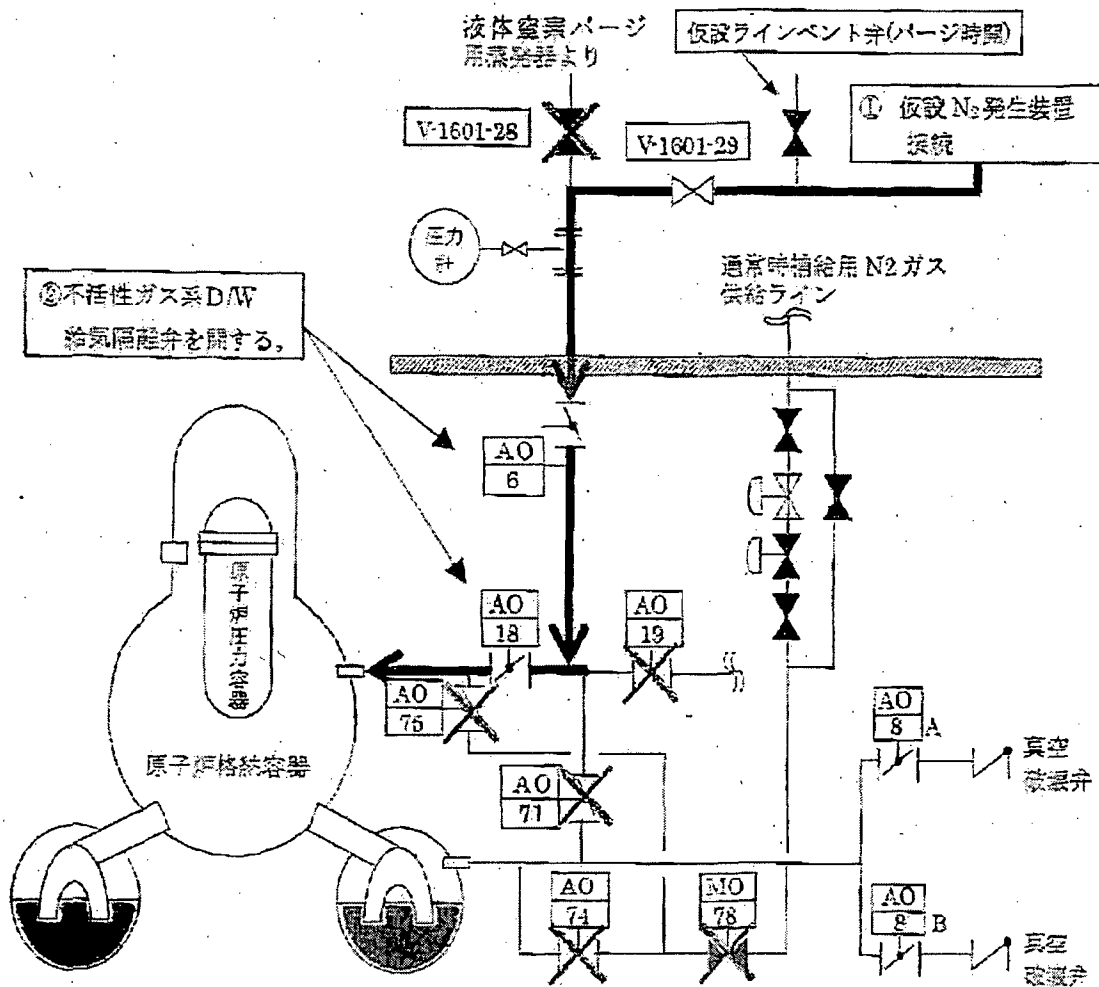
### 窒素封入の必要性

- ・福島第一原子力発電所1～3号機全て、現在は炉心部の崩壊熱除去に伴う蒸気が供給されている状況であり、原子炉格納容器(PCV)内が蒸気雰囲気となっていると考えられるため、原子炉圧力容器(RPV)内で発生した水素の爆発のリスクは極めて小さい。
- ・しかし、1～3号機全てRPVバウンダリ損傷の可能性があると考えられる。この状態において炉心注水冷却を続けると、やがてRPVからPCVにリークした水素のPCV中濃度が高まることによって可燃限界に達する懸念があるため、1～3号機ともPCVに窒素(N<sub>2</sub>)を封入して水素燃焼のポテンシャルを下げる必要がある。

PCV内の蒸気は、PCV壁での凝縮(原子炉建屋側への伝熱)と、原子炉への注水のうち崩壊熱除去に寄与しなかった水による凝縮で減少する。なお、PCV壁での凝縮熱伝達は崩壊熱除去に寄与しなかった水による凝縮と比較し、大きくはない。一方で原子炉への注水は継続することが必須であり、崩壊熱除去に必要な流量以上での注水は継続される。

- ・1号機はD/Wの損傷が2、3号機と比較して軽度であると考えられ、従って今後炉心注水冷却によって水素と共にPCV内の水蒸気が凝縮した場合、PCVが負圧となり、インリークによってPCV内に窒素が供給され、かつ水素分圧が高まって可燃限界に達しやすいと考えられるため、まず1号機のN<sub>2</sub>封入を実施、その後2、3号機のN<sub>2</sub>封入も実施する。

以上



原子炉格納容器への窒素ガス封入 系統概略図

---

**From:** Michael Dudek (b)(6)  
**Sent:** Sunday, April 17, 2011 12:59 PM  
**To:** Milligan, Patricia  
**Cc:** OST01 HOC  
**Subject:** Fwd: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

Sent from my iPhone

Begin forwarded message:

**From:** "McDermott, Brian" <Brian.McDermott@nrc.gov>  
**Date:** April 17, 2011 12:52:38 PM EDT  
**To:** "(b)(6)" <(b)(6)>, "Milligan, Patricia" <Patricia.Milligan@nrc.gov>  
**Subject:** Re: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

Mike - thought trish was going to align on terms reentry and return, to follow FEMA terms in U.S.

May be OBE. Not a show stopper.

Brian

Brian J. McDermott  
(b)(6) (mobile)

---

**From:** Mike Dudek (b)(6)  
**To:** Evans, Michele; Wiggins, Jim  
**Cc:** McDermott, Brian; Morris, Scott; Marshall, Jane; Milligan, Patricia  
**Sent:** Sun Apr 17 10:05:41 2011  
**Subject:** ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

FYI - NSIR was specifically assigned; however, I wanted to ensure that you had the opportunity to provide comments on the document. The tasking states that comments are due back to Trish Milligan by 3:00 PM today.

Thanks!  
Michael I. Dudek

--- On Sun, 4/17/11, OST01 HOC <OST01.HOC@nrc.gov> wrote:

From: OST01 HOC <OST01.HOC@nrc.gov>  
Subject: FW: ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process  
To: (b)(6) <(b)(6)>

Date: Sunday, April 17, 2011, 9:11 AM

**From:** OST01 HOC  
**Sent:** Sunday, April 17, 2011 3:54 AM  
**To:** Deegan, George; Lewis, Robert; Weaver, Doug; Hiland, Patrick; Skeen, David; Dudek, Michael; Milligan, Patricia; Gibson, Kathy; Case, Michael; Anderson, James; Tracy, Glenn  
**Subject:** ACTION - New Ticket for Japanese Event Task Tracking (JETT) Process

\*\*\*\*\*Please note: All attachments are Official Use Only\*\*\*\*\*

The Operations Center has identified a task that falls in the purview of the Line Organization. You were provided as a POC for NRR/NSIR/RES/FSME/NMSS.

NSIR: Please provide the latest version of the composite document to Marty Virgilio by 0900 Monday morning 4/18.

NRR/FSME/NMSS/RES: Please review and provide comments to Trish Milligan, NSIR and OST 01 HOC by 4/17/2011, 1500 EDT

This ticket is being tracked in the Japan SharePoint page (<http://nsir-ops.nrc.gov/Lists/HOC%20Red%20Tickets/AllItems.aspx>) under ticket number 4771.

Please provide a response to this email to confirm receipt. Thank you,

Executive Support Team

\*\*\*\*\*Please note: All attachments are Official Use Only\*\*\*\*\*

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**From:** OST01 HOC  
**Sent:** Friday, March 25, 2011 8:58 AM  
**To:** RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** 20110325\_22.pdf; 20110325\_23.pdf; 20110325\_24.pdf; 20110325\_25.pdf; 20110324\_21\_Rev.pdf

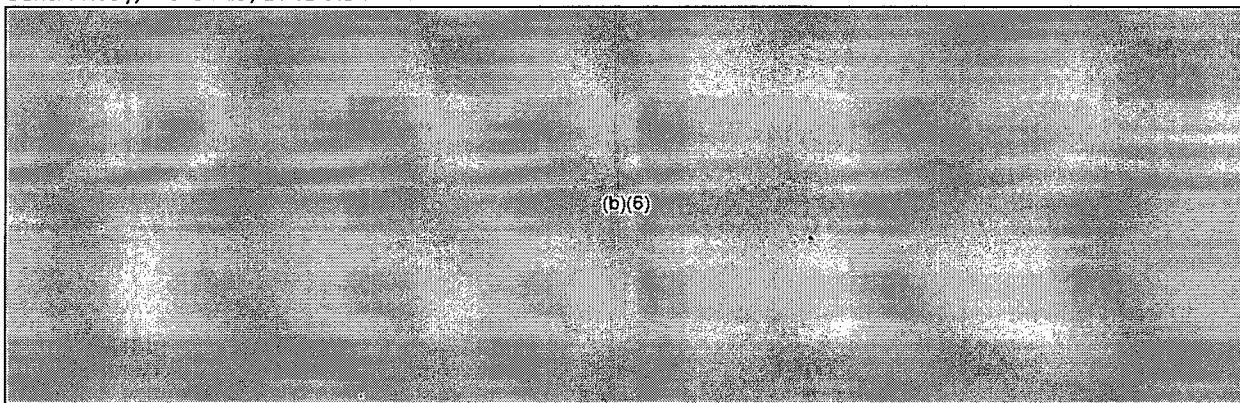
-----Original Message-----

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Friday, March 25, 2011 8:57 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

-----  
**From:** NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]  
**Sent:** Friday, March 25, 2011 8:57:23 AM  
**To:** CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc; Hoc, PMT12  
**Subject:** FW: Radiation data by MEXT  
Auto forwarded by a Rule

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

**From:** JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]  
**Sent:** Friday, March 25, 2011 8:54 AM



**Subject:** FW: Radiation data by MEXT

fyi

This email is UNCLASSIFIED.

on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

Lynda Hinds  
Staff Assistant to Ambassador John V. Roos U.S. Embassy  
1-10-5 Akasaka, Minato-ku  
Tokyo 107-8420  
Tel. (03) 3224- 5370

Twitter.com/AmbassadorRoos

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

From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]

Sent: Friday, March 25, 2011 9:50 PM

To: Cherry, Ronald C

Cc: Duncan, Aleshia D; Uchida, Koichi; akasaka@mext.go.jp; senami@mext.go.jp; cmht@nnsa.doe.gov;

(b)(6) Robinson, Alexis M CTR DTRA; Wright,  
Curry D Civ DTRA; Wong, Christopher L MAJ USA DTRA; Peeke, Richard S. MAJ USA; Davis, Latrice Y. CPT USA;

(b)(6) JapanEmbassy, TaskForce; Carden,

Terry L CWO4 USMC; (b)(6) cmht@nnsa.doe.gov; Guss, Paul P.

CTR; (b)(6) Peeke, Richard S MAJ USA; (b)(6)

Subject: Radiation data by MEXT

Dear Sir,

Please see attached the document.

File 20110324\_21\_Rev is revised version of last fallout document.

Sincerely yours,  
Naoaki AKASAKA

Naoaki AKASAKA  
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology  
- Japan

環境放射能水準調査結果

H23.3.25 19:00

( $\mu$ Sv/h(マイクロシーベルト毎時))

	都道府県名	3月24日							3月25日							過去の平常値の範囲	
		17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-1	1-2	2-3	3-4	4-5	5-6	6-7		
1	北海道(札幌市)	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.029	0.029	0.029	0.029	0.029	0.029	0.02	0.105
2	青森県(青森市)	0.024	0.025	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.024	0.027	0.025	0.017	0.102
3	岩手県(盛岡市)	0.033	0.031	0.031	0.030	0.031	0.031	0.031	0.030	0.030	0.031	0.030	0.031	0.031	0.031	0.014	0.084
4	宮城県(仙台市)															0.0176	0.0513
5	秋田県(秋田市)	0.034	0.034	0.034	0.034	0.034	0.034	0.035	0.035	0.036	0.036	0.036	0.036	0.036	0.036	0.022	0.086
6	山形県(山形市)	0.082	0.081	0.081	0.081	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.081	0.081	0.025	0.082
7	福島県(双葉郡)															0.037	0.071
8	茨城県(水戸市)	0.298	0.297	0.296	0.295	0.295	0.294	0.293	0.292	0.292	0.291	0.291	0.289	0.288	0.288	0.036	0.056
9	栃木県(宇都宮市)	0.130	0.130	0.130	0.129	0.129	0.129	0.129	0.128	0.128	0.128	0.128	0.128	0.128	0.127	0.030	0.067
10	群馬県(前橋市)	0.087	0.087	0.087	0.087	0.087	0.088	0.087	0.087	0.087	0.087	0.086	0.087	0.086	0.085	0.017	0.045
11	埼玉県(さいたま市)	0.113	0.114	0.113	0.113	0.113	0.114	0.113	0.114	0.113	0.113	0.113	0.113	0.113	0.113	0.031	0.060
12	千葉県(市原市)	0.096	0.096	0.095	0.094	0.095	0.094	0.095	0.094	0.094	0.094	0.094	0.094	0.093	0.093	0.022	0.044
13	東京都(新宿区)	0.135	0.134	0.134	0.134	0.135	0.135	0.135	0.134	0.134	0.134	0.133	0.132	0.132	0.132	0.028	0.079
14	神奈川県(茅ヶ崎市)	0.091	0.092	0.091	0.092	0.091	0.092	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.035	0.069
15	新潟県(新潟市)	0.046	0.047	0.049	0.053	0.061	0.054	0.049	0.054	0.062	0.055	0.051	0.059	0.063	0.051	0.031	0.153
16	富山県(射水市)	0.052	0.050	0.048	0.051	0.050	0.050	0.050	0.050	0.049	0.048	0.048	0.048	0.049	0.049	0.029	0.147
17	石川県(金沢市)	0.052	0.049	0.049	0.052	0.050	0.050	0.051	0.052	0.049	0.048	0.046	0.047	0.047	0.047	0.0291	0.1275
18	福井県(福井市)	0.049	0.052	0.049	0.052	0.051	0.054	0.051	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.032	0.097
19	山梨県(甲府市)	0.045	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.046	0.046	0.040	0.064
20	長野県(長野市)	0.051	0.051	0.051	0.050	0.051	0.052	0.051	0.051	0.052	0.052	0.052	0.052	0.052	0.052	0.0299	0.0974
21	岐阜県(各務原市)	0.063	0.064	0.064	0.061	0.060	0.061	0.060	0.061	0.062	0.062	0.062	0.063	0.063	0.063	0.057	0.110
22	静岡県(静岡市)	0.047	0.047	0.046	0.047	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0281	0.0765
23	愛知県(名古屋)	0.040	0.039	0.039	0.040	0.039	0.039	0.040	0.039	0.040	0.040	0.040	0.041	0.041	0.042	0.035	0.074
24	三重県(四日市市)	0.047	0.047	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.046	0.046	0.046	0.046	0.0416	0.0789
25	滋賀県(大津市)	0.034	0.034	0.033	0.033	0.033	0.033	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.036	0.031	0.061
26	京都府(京都市)	0.039	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.039	0.039	0.039	0.040	0.040	0.041	0.033	0.087
27	大阪府(大阪市)	0.043	0.043	0.043	0.043	0.042	0.042	0.042	0.042	0.043	0.043	0.043	0.043	0.043	0.044	0.042	0.061
28	兵庫県(神戸市)	0.037	0.037	0.037	0.037	0.037	0.037	0.036	0.037	0.037	0.037	0.037	0.037	0.038	0.037	0.035	0.076
29	奈良県(奈良市)	0.047	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.049	0.049	0.049	0.049	0.046	0.08
30	和歌山県(和歌山市)	0.032	0.032	0.032	0.032	0.031	0.032	0.032	0.032	0.032	0.033	0.033	0.034	0.034	0.034	0.031	0.056
31	鳥取県(東伯郡)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.064	0.064	0.064	0.064	0.064	0.063	0.036	0.11
32	島根県(松江市)	0.036	0.036	0.036	0.036	0.037	0.037	0.037	0.038	0.037	0.038	0.038	0.037	0.038	0.041	0.033	0.079
33	岡山県(岡山市)	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.049	0.050	0.049	0.050	0.050	0.051	0.051	0.043	0.104
34	広島県(広島市)	0.046	0.046	0.047	0.047	0.047	0.048	0.049	0.049	0.050	0.050	0.050	0.051	0.051	0.051	0.035	0.069
35	山口県(山口市)	0.090	0.091	0.091	0.092	0.092	0.093	0.093	0.094	0.095	0.095	0.096	0.097	0.098	0.108	0.084	0.128
36	徳島県(徳島市)	0.037	0.037	0.038	0.038	0.037	0.038	0.038	0.038	0.038	0.039	0.039	0.039	0.039	0.039	0.037	0.067
37	香川県(高松市)	0.059	0.061	0.066	0.068	0.063	0.064	0.069	0.072	0.072	0.068	0.073	0.070	0.071	0.067	0.051	0.077
38	愛媛県(松山市)	0.047	0.047	0.048	0.048	0.049	0.049	0.050	0.049	0.050	0.050	0.050	0.049	0.049	0.049	0.045	0.074
39	高知県(高知市)	0.025	0.025	0.025	0.025	0.025	0.026	0.026	0.026	0.027	0.027	0.028	0.028	0.028	0.028	0.023	0.076
40	福岡県(太宰府市)	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.037	0.038	0.037	0.037	0.038	0.039	0.040	0.034	0.079
41	佐賀県(佐賀市)	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.041	0.041	0.041	0.041	0.043	0.045	0.044	0.037	0.086
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.030	0.030	0.027	0.069
43	熊本県(宇土市)	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.029	0.029	0.021	0.067
44	大分県(大分市)	0.049	0.050	0.050	0.049	0.050	0.050	0.050	0.050	0.051	0.051	0.051	0.050	0.050	0.050	0.048	0.085
45	宮崎県(宮崎市)	0.026	0.026	0.026	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.026	0.0243	0.0664
46	鹿児島県(鹿児島市)	0.034	0.034	0.034	0.035	0.035	0.035	0.035	0.035	0.035	0.036	0.036	0.036	0.036	0.036	0.0306	0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133	0.0575

\*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、宮城県原子力安全対策室HP(<http://www.pref.miyagi.jp/gentai/Press/PressH230315.html>)で公開  
 \*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。  
 別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月25日19:00現在)」参照。  
 \*空欄は機器点検等のための欠測等  
 \*本データは、1 $\mu$ Gy/h(マイクログレイ毎時)=1 $\mu$ Sv/h(マイクロシーベルト毎時)と換算して算出  
 \*文部科学省が各都道府県等からの報告に基づき作成

環境放射能水準調査結果

H23.3.25 19:00

( $\mu$ Sv/h(マイクロシーベルト毎時))

	都道府県名	3月25日										過去の平常値の範囲
		7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	
1	北海道(札幌市)	0.029	0.028	0.028	0.028	0.028	0.029	0.030	0.031	0.031	0.030	0.02~0.105
2	青森県(青森市)	0.024	0.023	0.023	0.022	0.023	0.023	0.023	0.023	0.023	0.023	0.017~0.102
3	岩手県(盛岡市)	0.031	0.031	0.030	0.030	0.029	0.030	0.030	0.029	0.029	0.029	0.014~0.084
4	宮城県(仙台市)											0.0176~0.0513
5	秋田県(秋田市)	0.035	0.035	0.035	0.035	0.035	0.034	0.034	0.035	0.035	0.034	0.022~0.086
6	山形県(山形市)	0.080	0.079	0.079	0.079	0.078	0.078	0.078	0.078	0.078	0.078	0.025~0.082
7	福島県(双葉郡)											0.037~0.071
8	茨城県(水戸市)	0.287	0.285	0.285	0.286	0.282	0.281	0.283	0.279	0.278	0.277	0.036~0.056
9	栃木県(宇都宮市)	0.127	0.126	0.125	0.125	0.124	0.123	0.123	0.122	0.123	0.122	0.030~0.067
10	群馬県(前橋市)	0.085	0.085	0.083	0.081	0.080	0.080	0.080	0.080	0.079	0.080	0.017~0.045
11	埼玉県(さいたま市)	0.112	0.111	0.110	0.109	0.109	0.108	0.107	0.107	0.107	0.106	0.031~0.060
12	千葉県(京都市)	0.092	0.091	0.091	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.022~0.044
13	東京都(新宿区)	0.132	0.132	0.132	0.132	0.129	0.130	0.130	0.129	0.129	0.127	0.028~0.079
14	神奈川県(茅ヶ崎市)	0.090	0.089	0.089	0.087	0.087	0.087	0.086	0.086	0.086	0.086	0.035~0.069
15	新潟県(新潟市)	0.046	0.049	0.048	0.047	0.046	0.046	0.047	0.046	0.047	0.046	0.031~0.153
16	富山県(射水市)	0.049	0.048	0.048	0.048	0.048	0.048	0.049	0.048	0.051	0.057	0.029~0.147
17	石川県(金沢市)	0.048	0.048	0.048	0.048	0.047	0.048	0.049	0.050	0.057	0.062	0.0291~0.1275
18	福井県(福井市)	0.046	0.046	0.046	0.046	0.046	0.045	0.046	0.046	0.046	0.047	0.032~0.097
19	山梨県(甲府市)	0.047	0.046	0.046	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.040~0.064
20	長野県(長野市)	0.052	0.052	0.052	0.051	0.051	0.051	0.050	0.050	0.050	0.050	0.0299~0.0974
21	岐阜県(各務原市)	0.063	0.063	0.062	0.061	0.061	0.061	0.060	0.061	0.061	0.065	0.057~0.110
22	静岡県(静岡市)	0.046	0.046	0.048	0.048	0.048	0.048	0.047	0.047	0.054	0.050	0.0281~0.0765
23	愛知県(名古屋市)	0.043	0.042	0.041	0.041	0.040	0.039	0.040	0.039	0.040	0.043	0.035~0.074
24	三重県(四日市市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.049	0.054	0.056	0.0416~0.0789
25	滋賀県(大津市)	0.036	0.035	0.034	0.034	0.033	0.033	0.033	0.034	0.037	0.035	0.031~0.061
26	京都府(京都市)	0.040	0.039	0.039	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.033~0.087
27	大阪府(大阪市)	0.044	0.044	0.043	0.043	0.043	0.043	0.046	0.045	0.043	0.043	0.042~0.061
28	兵庫県(神戸市)	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.035~0.076
29	奈良県(奈良市)	0.049	0.048	0.048	0.048	0.047	0.047	0.048	0.048	0.050	0.049	0.046~0.08
30	和歌山県(和歌山市)	0.033	0.033	0.032	0.032	0.031	0.032	0.039	0.039	0.034	0.032	0.031~0.056
31	鳥取県(東伯郡)	0.063	0.063	0.065	0.068	0.067	0.065	0.064	0.064	0.063	0.063	0.036~0.11
32	島根県(松江市)	0.043	0.047	0.044	0.039	0.037	0.037	0.037	0.036	0.036	0.036	0.033~0.079
33	岡山県(岡山市)	0.052	0.051	0.051	0.051	0.050	0.049	0.049	0.052	0.051	0.049	0.043~0.104
34	広島県(広島市)	0.052	0.056	0.051	0.048	0.046	0.046	0.046	0.046	0.046	0.046	0.035~0.069
35	山口県(山口市)	0.102	0.095	0.092	0.091	0.091	0.090	0.090	0.090	0.090	0.090	0.084~0.128
36	徳島県(徳島市)	0.040	0.039	0.039	0.038	0.038	0.038	0.038	0.037	0.037	0.037	0.037~0.067
37	香川県(高松市)	0.057	0.056	0.056	0.055	0.054	0.054	0.054	0.054	0.055	0.054	0.051~0.077
38	愛媛県(松山市)	0.049	0.048	0.048	0.048	0.049	0.047	0.047	0.047	0.047	0.047	0.045~0.074
39	高知県(高知市)	0.028	0.028	0.027	0.026	0.025	0.025	0.025	0.024	0.024	0.024	0.023~0.076
40	福岡県(太宰府市)	0.038	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.034~0.079
41	佐賀県(佐賀市)	0.041	0.040	0.040	0.039	0.039	0.039	0.039	0.039	0.040	0.039	0.037~0.086
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.027~0.069
43	熊本県(宇土市)	0.027	0.027	0.027	0.026	0.026	0.026	0.026	0.026	0.027	0.027	0.021~0.067
44	大分県(大分市)	0.050	0.050	0.050	0.050	0.050	0.049	0.049	0.049	0.049	0.049	0.048~0.085
45	宮崎県(宮崎市)	0.026	0.027	0.027	0.027	0.026	0.026	0.026	0.026	0.026	0.026	0.0243~0.0664
46	鹿児島県(鹿児島市)	0.035	0.035	0.037	0.035	0.034	0.034	0.034	0.034	0.034	0.034	0.0306~0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133~0.0575

\*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、宮城県原子力安全対策室HP (<http://www.pref.miyagi.jp/gentai/Press/PressH230315.html>) で公開

\*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月25日19:00現在)」参照。

\*空欄は機器点検等のための欠測等

\*本データは、1 $\mu$ Gy/h(マイクログレイ毎時)=1 $\mu$ Sv/h(マイクロシーベルト毎時)と換算して算出

\*文部科学省が各都道府県等からの報告に基づき作成



## 福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月25日19時00分現在  
文 部 科 学 省

### 1. 文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガー=ミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【2】 (約55Km北西)	3月25日17時33分	<u>6.9</u> <sup>*2</sup>	降雨有り	日本原子力研究開発機構
測定エリア【2】 (約55Km北西)	3月25日10時01分	5.4 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
測定エリア【3】 (約45Km北西)	3月25日17時06分	<u>7.5</u> <sup>*2</sup>	降雨有り	日本原子力研究開発機構
測定エリア【3】 (約45Km北西)	3月25日10時38分	7.0 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
測定エリア【4】 (約50Km北西)	3月25日9時33分	2.3 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【5】 (約45Km北)	3月25日11時18分	2.7 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【6】 (約45Km北)	3月25日12時16分	3.7 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
測定エリア【7】 (約45Km北)	3月25日12時29分	3.2 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
測定エリア【10】 (約40Km北西)	3月25日9時55分	2.0 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【11】 (約40Km北西)	3月25日10時06分	2.8 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【12】 (約40Km西)	3月25日11時29分	0.5 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【13】 (約40Km西)	3月25日11時46分	0.8 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【14】 (約35Km西)	3月25日11時56分	0.9 <sup>*2</sup>	降雨無し	文部科学省

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【15】 (約35Km西)	3月25日12時08分	2.1 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【20】 (約45Km北西)	3月25日10時31分	1.4 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【21】 (約30Km西北西)	3月25日10時57分	7.4 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【22】 (約30Km西北西)	3月25日10時50分	1.0 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【23】 (約30Km西北西)	3月25日10時40分	1.8 <sup>*2</sup>	降雨無し	文部科学省
測定エリア【31】 (約30Km西北西)	3月25日14時14分	30.5 <sup>*2</sup>	降雨有り	文部科学省
測定エリア【31】 (約30Km西北西)	3月25日11時41分	22.0 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
<b>測定エリア【32】 (約30Km北西)</b>	<b>3月25日15時02分</b>	<b>63.5 <sup>*2</sup></b>	<b>降雨有り</b>	<b>文部科学省</b>
測定エリア【32】 (約30Km北西)	3月25日12時00分	65.0 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
<b>測定エリア【33】 (約30Km北西)</b>	<b>3月25日15時28分</b>	<b>25.0 <sup>*2</sup></b>	<b>降雨有り</b>	<b>日本原子力研究開発機構</b>
<b>測定エリア【33】 (約30Km北西)</b>	<b>3月25日14時43分</b>	<b>27.0 <sup>*2</sup></b>	<b>降雨有り</b>	<b>文部科学省</b>
測定エリア【33】 (約30Km北西)	3月25日14時28分	24.0 <sup>*2</sup>	降雨有り	日本原子力研究開発機構
測定エリア【33】 (約30Km北西)	3月25日13時28分	27.0 <sup>*2</sup>	降雨有り	日本原子力研究開発機構
測定エリア【33】 (約30Km北西)	3月25日12時28分	27.0 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
測定エリア【34】 (約30Km北西)	3月25日13時15分	10.6 <sup>*2</sup>	降雨有り	文部科学省
測定エリア【35】 (約35Km北西)	3月25日13時54分	2.0 <sup>*2</sup>	降雨有り	文部科学省
測定エリア【36】 (約40Km北西)	3月25日11時00分	7.0 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
<b>測定エリア【41】 (約20Km西)</b>	<b>3月25日13時35分</b>	<b>1.8 <sup>*2</sup></b>	<b>降雨有り</b>	<b>関西電力</b>

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

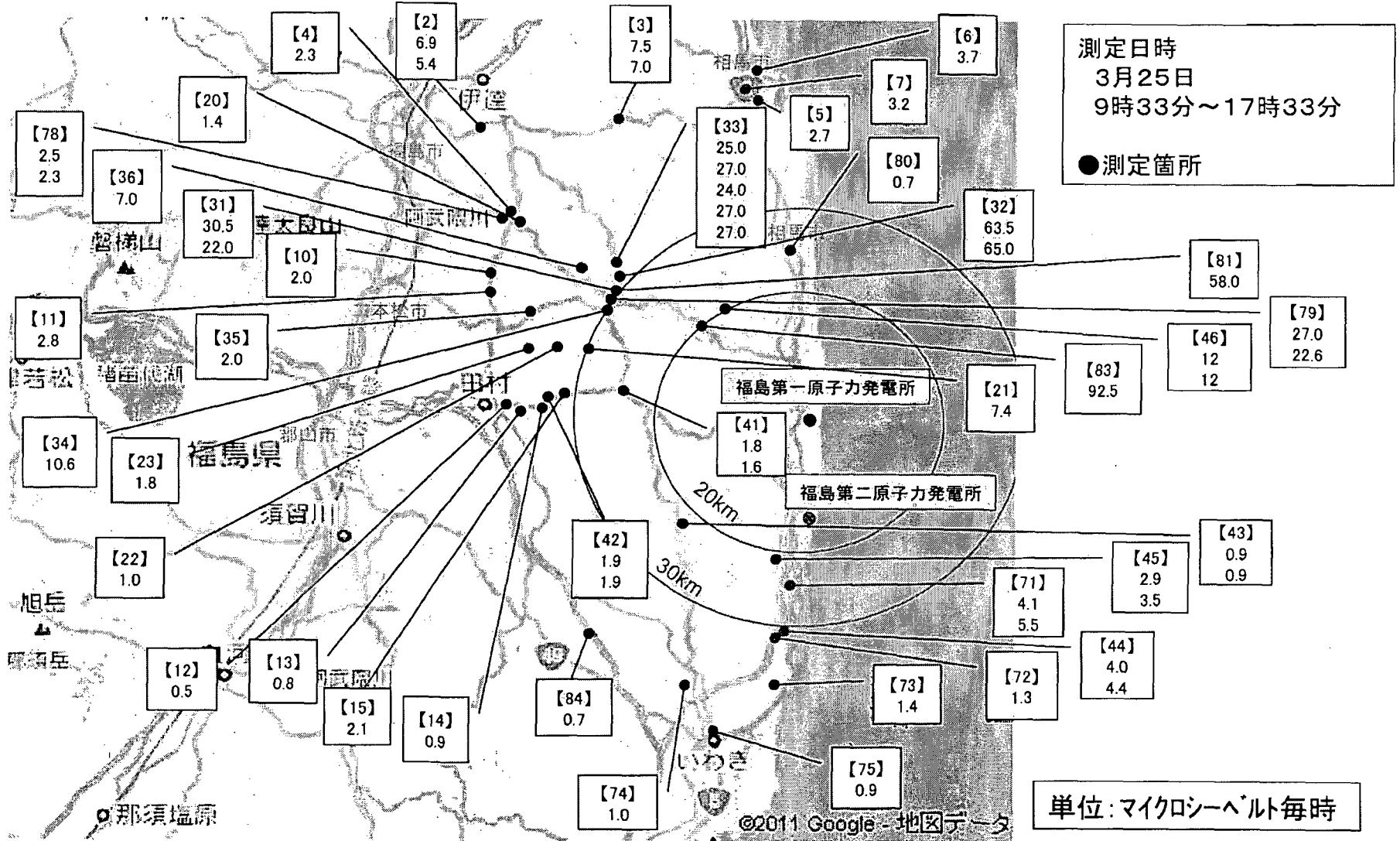
場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【41】 (約20Km西)	3月25日10時28分	1.6 <sup>*2</sup>	降雨なし	関西電力
測定エリア【42】 (約30Km西)	3月25日13時42分	1.9 <sup>*2</sup>	降雨有り	関西電力
測定エリア【42】 (約30Km西)	3月25日10時01分	1.9 <sup>*2</sup>	降雨無し	関西電力
測定エリア【43】 (約20Km南西)	3月25日14時50分	0.9 <sup>*2</sup>	降雨なし	日本原燃
測定エリア【43】 (約20Km南西)	3月25日10時50分	0.9 <sup>*2</sup>	降雨なし	日本原燃
測定エリア【44】 (約30Km南)	3月25日13時33分	4.0 <sup>*2</sup>	降雨なし	四国電力
測定エリア【44】 (約30Km南)	3月25日10時24分	4.4 <sup>*2</sup>	降雨なし	四国電力
測定エリア【45】 (約20Km南)	3月25日13時15分	2.9 <sup>*2</sup>	降雨無し	九州電力
測定エリア【45】 (約20Km南)	3月25日10時15分	3.5 <sup>*2</sup>	降雨無し	九州電力
測定エリア【46】 (約20Km北西)	3月25日14時30分	12.0 <sup>*2</sup>	降雨有り	中部電力
測定エリア【46】 (約20Km北西)	3月25日11時25分	12.0 <sup>*2</sup>	降雨無し	中部電力
測定エリア【71】 (約25Km南)	3月25日15時00分	4.1 <sup>*2</sup>	降雨無し	日本原子力研究開発機構
測定エリア【71】 (約25Km南)	3月25日9時03分	5.5 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【72】 (約30Km南)	3月25日9時32分	1.3 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【73】 (約35Km南)	3月25日9時52分	1.4 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【74】 (約35Km南)	3月25日10時31分	1.0 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【75】 (約45Km南)	3月25日7時30分	0.9 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【78】 (約45Km北西)	3月25日12時08分	2.5 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【78】 (約45Km北西)	3月25日7時56分	2.3 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【79】 (約30Km北西)	3月25日13時24分	27.0 <sup>*2</sup>	降雨有り	文部科学省
測定エリア【79】 (約30Km北西)	3月25日8時48分	22.6 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【80】 (約25Km北)	3月25日10時54分	0.7 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【81】 (約30Km西北西)	3月25日8時35分	58.0 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【83】 (約20Km北西)	3月25日9時00分	92.5 <sup>*2</sup>	降雨無し	警察(NBC対策部隊)
測定エリア【84】 (約40km南西)	3月28日10時40分	0.7 <sup>*2</sup>	降雨無し	日本原子力研究開発機構

2. 防衛省の測定については準備中

# 福島第一原子力発電所周辺のモニタリング結果



環境放射能水準調査結果(定時降下物)  
(3月24日9時~25日9時採取)

H23.3.25 19:00

(MBq/km<sup>2</sup>)

	都道府県名	定 時 降 下 物		
		I-131	Cs-137	備考
1	北海道(札幌市)	不検出	不検出	
2	青森県(青森市)	不検出	不検出	
3	岩手県(盛岡市)	2.8	0.34	
4	宮城県	-	-	震災被害によって計測不能
5	秋田県(秋田市)	不検出	不検出	
6	山形県(山形市)	150	150	
7	福島県	-	-	震災対応により計測不能
8	茨城県(ひたちなか市)	480	99	
9	栃木県(宇都宮市)	-	-	現在測定中
10	群馬県(前橋市)	27	不検出	
11	埼玉県(さいたま市)	160	17	
12	千葉県(市原市)	130	23	
13	東京都(新宿区)	173	37	
14	神奈川県(茅ヶ崎市)	-	-	現在測定中
15	新潟県(新潟市)	不検出	不検出	
16	富山県(射水市)	不検出	不検出	
17	石川県(金沢市)	不検出	不検出	
18	福井県(福井市)	不検出	不検出	
19	山梨県(甲府市)	9.2	不検出	
20	長野県(長野市)	不検出	不検出	
21	岐阜県(各務原市)	-	-	機器調整中
22	静岡県(御前崎市)	4.6	8.0	
23	愛知県(名古屋市)	不検出	不検出	
24	三重県(四日市市)	不検出	不検出	
25	滋賀県(大津市)	不検出	不検出	
26	京都府(京都市)	不検出	不検出	
27	大阪府(大阪市)	不検出	不検出	
28	兵庫県(神戸市)	不検出	不検出	
29	奈良県(奈良市)	不検出	不検出	
30	和歌山県(和歌山市)	不検出	不検出	
31	鳥取県(東伯郡)	不検出	不検出	
32	島根県(松江市)	不検出	不検出	
33	岡山県(岡山市)	不検出	不検出	
34	広島県(広島市)	不検出	不検出	
35	山口県(山口市)	不検出	不検出	
36	徳島県(徳島市)	不検出	不検出	
37	香川県(高松市)	不検出	不検出	
38	愛媛県(八幡浜市)	不検出	不検出	
39	高知県(高知市)	不検出	不検出	
40	福岡県(太宰府市)	不検出	不検出	
41	佐賀県(佐賀市)	不検出	不検出	
42	長崎県(大村市)	不検出	不検出	
43	熊本県(宇土市)	不検出	不検出	
44	大分県(大分市)	-	-	機器調整中
45	宮崎県(宮崎市)	不検出	不検出	
46	鹿児島県(鹿児島市)	不検出	不検出	
47	沖縄県(南城市)	不検出	不検出	

\*文部科学省が各都道府県等からの報告に基づき作成

環境放射能水準調査結果(定時降下物)  
(3月23日9時~24日9時採取)

H23.3.24 19:00

(MBq/km<sup>2</sup>)

	都道府県名	定時降下物		
		I-131	Cs-137	備考
1	北海道(札幌市)	不検出	不検出	
2	青森県(青森市)	1.5	不検出	
3	岩手県(盛岡市)	不検出	5.6	
4	宮城県	-	-	震災被害によって計測不能
5	秋田県(秋田市)	3.9	4.7	
6	山形県(山形市)	170	150	
7	福島県	-	-	震災対応により計測不能
8	茨城県(ひたちなか市)	1,200	63	
9	栃木県(宇都宮市)	1,200	95	
10	群馬県(前橋市)	42	不検出	
11	埼玉県(さいたま市)	16,000	180	
12	千葉県(市原市)	7,700	210	
13	東京都(新宿区)	13,000	160	
14	神奈川県(茅ヶ崎市)	3,100	42	
15	新潟県(新潟市)	不検出	不検出	
16	富山県(射水市)	不検出	不検出	
17	石川県(金沢市)	不検出	不検出	
18	福井県(福井市)	不検出	不検出	
19	山梨県(甲府市)	3,300	180	
20	長野県(長野市)	不検出	不検出	
21	岐阜県(各務原市)	不検出	不検出	
22	静岡県(御前崎市)	5.8	5.9	
23	愛知県(名古屋市)	不検出	不検出	
24	三重県(四日市市)	不検出	不検出	
25	滋賀県(大津市)	不検出	不検出	
26	京都府(京都市)	不検出	不検出	
27	大阪府(大阪市)	不検出	不検出	
28	兵庫県(神戸市)	不検出	不検出	
29	奈良県(奈良市)	不検出	不検出	
30	和歌山県(和歌山市)	不検出	不検出	
31	鳥取県(東伯郡)	不検出	不検出	
32	島根県(松江市)	0.96	不検出	
33	岡山県(岡山市)	1.6	不検出	機器調整を行っていたが、到達
34	広島県(広島市)	不検出	不検出	
35	山口県(山口市)	不検出	不検出	
36	徳島県(徳島市)	不検出	不検出	
37	香川県(高松市)	不検出	不検出	
38	愛媛県(八幡浜市)	不検出	不検出	
39	高知県(高知市)	不検出	不検出	
40	福岡県(太宰府市)	不検出	不検出	機器調整を行っていたが、到達
41	佐賀県(佐賀市)	不検出	不検出	
42	長崎県(大村市)	不検出	不検出	
43	熊本県(宇土市)	不検出	不検出	
44	大分県(大分市)	-	-	機器調整中
45	宮崎県(宮崎市)	不検出	不検出	
46	鹿児島県(鹿児島市)	不検出	不検出	
47	沖縄県(南城市)	不検出	不検出	

\*文部科学省が各都道府県等からの報告に基づき作成

# 茨城県におけるモニタリング状況(1/1)

文部科学省

H23.3.25 19:00

μSv/h(マイクロシーベルト毎時)

日時	日本原子力研究開発機構 原子力科学研究所 (茨城県東海村)	日本原子力研究開発機構 核燃料サイクル工学研究所 (茨城県東海村)	東京大学弥生 (茨城県東海村)
3月25日			
0:00	2.20	1.40	1.93
1:00	2.19	1.40	1.88
2:00	2.18	1.30	1.73
3:00	2.18	1.30	1.89
4:00	2.18	1.30	1.97
5:00	2.17	1.30	1.81
6:00	2.17	1.30	1.91
7:00	2.16	1.30	1.92
8:00	2.15	1.30	1.86
9:00	2.14	1.30	1.87
10:00	2.13	1.30	1.85
11:00	2.12	1.30	1.86
12:00	2.11	1.30	1.77
13:00	2.10	1.30	1.91
14:00	2.08	1.30	1.88
15:00	2.08	1.30	1.88
16:00	2.07	1.30	1.68
17:00	2.06	1.30	1.78
18:00	2.06	1.30	

※3月24日以降は、1時間毎とした。なお、日本原子力研究開発機構原子力科学研究所及び日本原子力研究開発機構核燃料サイクル工学研究所のデータは、それぞれ以下のホームページでも掲載されている。

日本原子力研究開発機構原子力科学研究所

<http://erms.jaea.go.jp/Chart.htm>

日本原子力研究開発機構核燃料サイクル工学研究所

[http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl\\_10mStPo01.html](http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl_10mStPo01.html)



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**Subject:** 2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call  
**Location:** Phone: 877-700-1237 and Passcode: (b)(6) /International TOLL NUMBER:  
1-210-339-7059 Passcode: (b)(6)

**Start:** Fri 4/8/2011 11:00 AM  
**End:** Fri 4/8/2011 12:00 PM  
**Show Time As:** Tentative

**Recurrence:** (none)

**Meeting Status:** Not yet responded

**Organizer:** OS Secretarys Operations Center

**ALCON:**

**NOTE:** You have been identified as a supporting entity to HHS and ESF8. Please, ensure that you have a representative participate on the CONCALL denoted below: Thank you again for your support.

**2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call**

**AGENDA (Calls will now be held Tues. and Fri.)**

**Phone: 877-700-1237 and Pass code: (b)(6)**  
**(International Callers) TOLL NUMBER: 1-210-339-7059 PARTICIPANT PASSCODE:**  
**(b)(6)**

**Objective: Discussion of current response operations and future actions.**

Japan Weather Updates:

HHS – Opening Comment  
- Quick summary on any HHS issues/concerns

Regions:

R9 update  
R10 update

EMG Updates:

EMG OPS/FIELD OPS/OFRD OPS  
EMG Logs  
EMG Plans

EMG A/F  
Public Affairs  
CI/KR

Other OPDIVs/STAFF DIVs:

FDA update  
CDC update  
ACF update

Supporting Agencies:

DOS update  
NRC update  
USDA update  
EPA update  
FAA update  
OSHA update  
ARC update  
Canadian update  
NORTHCOM update

Other supporting Agencies update

Questions:

Adjournment & Closing Comments:

Time for the next conference call: **1100EDT, FRIDAY 08Apr11 (Calls will be Tues. and Fri. weekly)**

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**From:** OST01 HOC  
**Sent:** Thursday, April 28, 2011 6:52 AM  
**To:** OST01 HOC; RST01 Hoc; RST02 Hoc; LIA08 Hoc; Hoc, PMT12; Skeen, David; Correia, Richard; Tracy, Glenn  
**Cc:** HOO Hoc; Evans, Michele; Kowalczyk, Jeffrey  
**Subject:** RE: UPDATED Recurring Daily Actions and Calls | Also posted on SharePoint's "HOC Watchbill" folder...  
**Attachments:** Recurring Daily Actions and Calls Rev 37.docx

OUO

Please see attached (same as SharePoint version)

-EST

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**From:** OST01 HOC  
**Sent:** Thursday, April 28, 2011 2:27 AM  
**To:** OST01 HOC; RST01 Hoc; RST02 Hoc; LIA08 Hoc; Hoc, PMT12; Skeen, David; Correia, Richard; Tracy, Glenn  
**Cc:** HOO Hoc; Evans, Michele; Kowalczyk, Jeffrey  
**Subject:** UPDATED Recurring Daily Actions and Calls | Also posted on SharePoint's "HOC Watchbill" folder...

All,

The updated "Recurring Daily Actions and Calls" file has been uploaded to SharePoint under the "HOC Watchbill" folder.

Updates include: removal of PMT from the 0300 site team call and clarifying of purpose of the 0300 and 1830 site team calls.

Regards,  
EST

CCCC/35

## Recurring Daily Actions and Calls

(Information Rolled into Recurring Daily Actions and Calls on WebEOC under ET Misc. Document Collection)

Time (EDT)	Description	Lead Team	Action/Purpose of the Call
0300	RST call with Japan Team	RST (arranged by HOO's (b)(6) (b)(6))	Daily update for Site Team and HQ RST (convenient time for Site Team)
0530	Input for 1200 NRC Status Update	LT	Send out input request to ET, PMT and RST for 1200 NRC Status Update
0600	Congressional Update	LT	Taken From Status Update (Confirm w/ OCA)
0600	One Pager ( <i>end of shift</i> )	ET, Response Advisor	Provide input to EST Support
0830	Daily call with Chuck Casto/Site Team	ET	Update chairman and staff during turnover
0845	Chairman Joins the Daily Call	ET	
	Deputy Secretaries (as scheduled)	ET	White House lead (- <i>Chairman participates</i> ) -Interagency discussion
0930	UK/Canada/France Call Call occurs Wednesdays only (Mike Brown)	RST/PMT (arranged by HOO) Bridge (b)(6)	Information Exchange. Focused on Operational issues (Combining PMT call from 1400 for Dose issues. Starting 3/28)
1000	Input due to for Daily SITREP	All	Inputs due to LT Coordinator for Status Update
1000	TAs & CAs briefing	ET (arranged by HOO) (b)(6)	ET Director lead -briefed Commission TAs and Ods (Tuesday and Thursday ONLY)
1100	Technical Coordination with Industry Consortium	RST (arranged by HOO) (b)(6)	Technical discussion
1100	Info Exchange: US Environmental Monitoring Data	Arranged by NEI	"Radiological Status & Implications" call between NRC, NEI, EPA, DOE and OSTP. NEI or OSTP will set up the bridge line. (weekly after 4/5; next call to be April 19 at 11:00)
1230	NTAG teleconference (chaired by NSS) Call Occurs As Needed	PMT	Nuclear Technical Advisory Group -email sent out AS NEEDED with phone # and pass code
1400	USAID Starting 4/5 call will be on Tuesdays only 877.334.8037 Password (b)(6)	LT/OCA	USAID lead -Interagency discussion: Federal pre-coordination takes place at 1:45 and then the 2pm call with Congressional staff. (Tuesday Only)
1400	Advisory Team (A-Team)	White House/PMT	Call with the White House. These calls are now on Tuesdays and Thursdays only. NO CALL ON APRIL 21. Call: (b)(6) Pin: (b)(6)

April 28, 2011 0200 hrs

Recurring Daily Actions and Calls Rev 37

CURRENT VERSION: See WebEOC, ET Misc. Document Collection

## Recurring Daily Actions and Calls

(Information Rolled into Recurring Daily Actions and Calls on WebEOC under ET Misc. Document Collection)

			(b)(6) Pin #: (b)(6)
1400	One Pager <i>(end of shift)</i>	ET, Response Advisor	Provide Input to EST Support
1500	Congressional call	OCA & NRC Go-To Team (Leeds, M. Johnson, Sherron, B. Boger, etc) 800-593-7189 (b)(6)	OCA lead -Audience is Congressional staff who have or are near a plant; Oversight committees; House & Senate leadership
1700	PACOM J2 call	RST/PMT	Occurs in SGT Room on <b>Mon, Wed, Fri.</b> PACOM will dial into 301-415-5393.
1700	HHS call with 50 states and federal partners	<b>FSME</b> (Rich Turtli)	Meeting occurs each <b>Tuesday and Thursday</b> evening, as organized by HHS (N.Natarajan). HHS provides bridge line day of call
1700	DOE Science Panel	RES	Brian Sheron and Richard Lee, out of the box solutions.
1700	RST/PMT call with Japan Team	RST/PMT (arranged by the HOO) (b)(6)	Daily update for Site Team and HQ (convenient time for the Site Team)
1830	PMT call with Japan Team	PMT (arranged by the HOO) (b)(6)	Daily update for PMT Site Team and HQ PMT (convenient time for the Site Team)
1900	Call with Vince Holahan PACCOM	PMT	Status of Radiological Conditions Vince Direct Line – 808.477.9536, if no answer 808.477.9286 or SWO 808.477.8173 Cell (b)(6)
2000	HHS Call with Pacific	HHS	Meeting occurs each <b>Wed. evening.</b> Call in 888-455-7847, (b)(6) is the passcode. PMT to participate
2000	Call with Industry Consortium (Every Monday and Thursday at 2000 EDT)	ET (arranged by HOO) (b)(6)	ET Led High-level discussions with industry and NRC Site Team (Call covers "Nuclear Team Asks and Offers Tracker XX-XX-2011.xlsx" spreadsheet of major items).
2200	One Pager <i>(end of shift)</i>	ET, Response Advisor	Provide Input to EST Support
2200	One pager	EST	Update chairman via email using one-pager

April 28, 2011 0200 hrs

Recurring Daily Actions and Calls Rev 37

CURRENT VERSION: See WebEOC, ET Misc. Document Collection

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**From:** OST01 HOC  
**Sent:** Saturday, March 26, 2011 12:44 PM  
**To:** PMT02 Hoc; PMT11 Hoc; Hoc, PMT12  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: March 27 01:00 SPEEDI data  
**Attachments:** FUKUSHIMA1 air doseüi01-02hüj.gif; FUKUSHIMA1 air doseüi02-03hüj.gif;  
FUKUSHIMA1 air concentrationüi01-02hüj.gif; FUKUSHIMA1 air doseüi03-04hüj.gif;  
FUKUSHIMA1 wind(01hüj.gif; FUKUSHIMA1 air concentrationüi03-04hüj.gif;  
FUKUSHIMA1 air concentrationüi02-03hüj.gif

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

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Saturday, March 26, 2011 12:42 PM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: March 27 01:00 SPEEDI data

-----  
**From:** JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]  
**Sent:** Saturday, March 26, 2011 12:40:28 PM  
**To:** 374 OSS; Acosta, Esteban F SSgt USAF PACAF 374 OSS/OSW; Ulses, Anthony; CAT 5; Cherry, Ronald C; cmht@nnsa.doe.gov; Coleman, Michael; Craig Haas; Curry Wright; David Mack; HOO Hoc; John Okon; John Szymanski; (b)(6) Lewis, Brian M; Mears, Jeremy M; Morales, Russell A; NACC; NARAC; Paul Guss; Hoc, PMT12; PMT01 Hoc; PRLH\_PHNS\_RDCON; (b)(6) Richard Peeke; Richard Peeke (2); Richard Reed; Schiller, Bryan S; SES-O; TaskForce 1 (State); Theodore Shaw; Thur, Randy R; Uchida, Koichi; Alan Remick DOE; Aleshia Duncan; Amy Sink OFDA; Cook, William; Brian Lewis; Smith, Brooke; Bryan Moyers Liaison Dir Submarine Group Seven; Casto, Chuck; Courtney Brown; Damian Peko; Dorman, Dan; Daniel Blumenthal; Darrel DeHaven, Senior NR Rep Yokosuka; Dudley, Katherine F; Duncan, Aleshia D; Howard, E. Bruce; Foster, Jack; Trapp, James; James Trapp NRC; Jessica Webster; Joe Hughart HHS; Joe Hughart OFDA; Monninger, John; Johnstone, Gregg M; Ken Spurlock; Foggie, Kirk; Lewis, Brian M (TDY/RSO); LTC Andrae Brooks; MAJ Keith Simmers; Devercelly, Richard; Russ Morales; Thomas Murphy, Rad.Controls Dir. Puget Sound Navel; Nakanishi, Tony; Webster, Jessica M (TDY/ECN)  
**Cc:** JapanEmbassy, TaskForce  
**Subject:** March 27 01:00 SPEEDI data  
Auto forwarded by a Rule

Please find attached 01:00[27-Mar] SPEEDI Data

NUSTEC on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

Timothy Cipullo  
Japan Embassy Command Center  
[JapanEmbassyTaskForce@state.gov](mailto:JapanEmbassyTaskForce@state.gov)  
+81 3-3224-5530

SBU

This email is UNCLASSIFIED

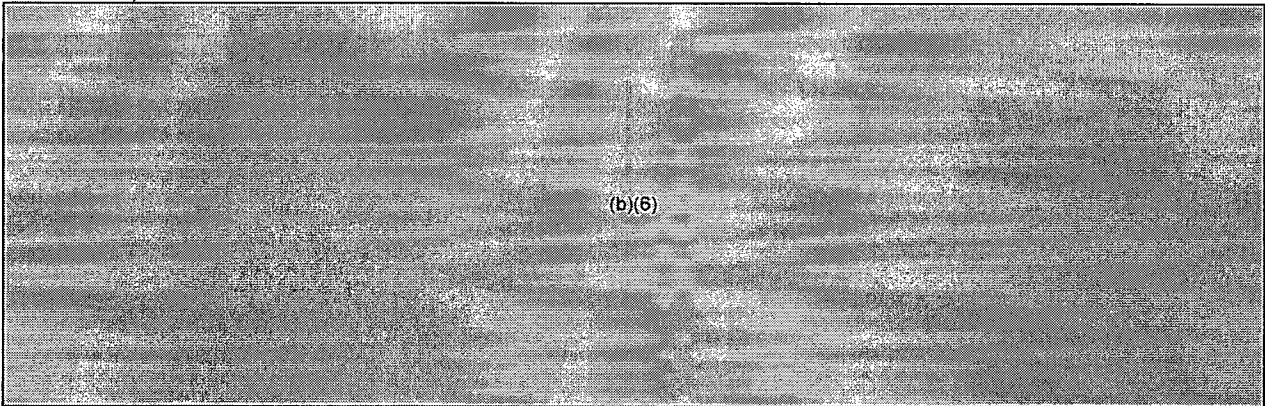
---

**From:** OST01 HOC  
**Sent:** Friday, March 25, 2011 4:26 AM  
**To:** RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT (latitude and longitude)  
**Attachments:** 20110325\_01\_ll\_unofficial.pdf; 20110325\_03\_ll\_unofficial.pdf; 20110325\_07\_ll\_unofficial.pdf; 20110325\_09\_ll\_unofficial.pdf; 20110325\_12\_ll\_unofficial.pdf

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

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Friday, March 25, 2011 4:26 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT (latitude and longitude)

-----  
**From:** JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]  
**Sent:** Friday, March 25, 2011 4:24:44 AM



**Subject:** FW: Radiation data by MEXT (latitude and longitude) Auto forwarded by a Rule

fyi

This email is UNCLASSIFIED

on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

Lynda Hinds  
Staff Assistant to Ambassador John V. Roos U.S. Embassy  
1-10-5 Akasaka, Minato-ku  
Tokyo 107-8420  
Tel. (03) 3224- 5370

Twitter.com/AmbassadorRoos



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

From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]

Sent: Friday, March 25, 2011 5:17 PM

To: Cherry, Ronald C

Cc: Duncan, Aleshia D; Uchida, Koichi; akasaka@mext.go.jp; senami@mext.go.jp; cmht@nnsa.doe.gov;

(b)(6) Robinson, Alexis M CTR DTRA; Wright, Curry D Civ DTRA; Wong, Christopher L MAJ USA DTRA; Peeke, Richard S. MAJ USA; Davis, Latrice Y. CPT USA;

(b)(6) JapanEmbassy, TaskForce; Carden,

Terry L CWO4 USMC; (b)(6) cmht@nnsa.doe.gov; Guss, Paul P. CTR; (b)(6)

Peeke, Richard S MAJ USA; (b)(6)

Subject: Radiation data by MEXT (latitude and longitude)

Dear Mr. Cherry,

Please see attached the document.

I am sorry to be late in sending information of latitude and longitude.

I'm sending new files to which latitude and longitude have been added.

Subjects of adding are files which I sent to you today.

Please refer to file name.

Plural organization are doing monitoring, some of them cannot report latitude and longitude.

Sincerely yours,  
Eiko SENAMI

Eiko SENAMI (Ms.)

Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology  
- Japan

福島第一原子力発電所の20Km以遠の走行モニタリング結果について

平成23年3月25日10時00分現在  
文 部 科 学 省

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【A】 (約24km南)	3月24日10時06分	6.4 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時07分	6.4 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時10分	8.7 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日10時12分	12.0 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時16分	7.6 <sup>*2</sup>	N: 37° 12' 58.3" E: 140° 57' 16.5"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日10時19分	8.8 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時22分	8.3 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時24分	5.7 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時26分	6.6 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時53分	6.8 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時55分	7.2 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時58分	9.4 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日11時00分	10.6 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時04分	7.9 <sup>*2</sup>	N: 37° 12' 58.3" E: 140° 57' 16.5"	降雨無し	文部科学省

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【A】 (約22km南)	3月24日11時07分	9.1 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時09分	7.4 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時12分	5.1 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時14分	6.0 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時44分	6.2 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時46分	7.4 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時49分	9.7 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日11時51分	10.1 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時55分	7.8 <sup>*2</sup>	N: 37° 12' 58.3" E: 140° 57' 16.5"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日11時59分	7.9 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日12時01分	7.5 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日12時04分	5.1 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日12時06分	5.8 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省

## 福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月25日10時00分現在  
文 部 科 学 省

### 1. 文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガー=ミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【1】 (約60Km北西)	3月24日16時12分	3.6 <sup>*2</sup>	N: 37° 44' 12.6" E: 140° 28' 02.9"	降雨無し	文部科学省
測定エリア【1】 (約60Km北西)	3月24日7時45分	3.4 <sup>*2</sup>	N: 37° 44' 12.6" E: 140° 28' 02.9"	降雨無し	文部科学省
測定エリア【15】 (約35Km西)	3月24日15時58分	2.2 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】 (約35Km西)	3月24日14時58分	2.5 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】 (約35Km西)	3月24日13時58分	2.2 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】 (約35Km西)	3月24日12時58分	2.5 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】 (約35Km西)	3月24日11時58分	2.8 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】 (約35Km西)	3月24日10時58分	2.0 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【31】 (約30Km西北西)	3月24日11時08分	25.0 <sup>*2</sup>	N: 37° 33' 12.5" E: 140° 44' 13.9"	降雨無し	文部科学省
測定エリア【32】 (約30Km北西)	3月24日11時20分	65.0 <sup>*2</sup>	N: 37° 35' 11.7" E: 140° 45' 04.0"	降雨無し	文部科学省
測定エリア【33】 (約30Km北西)	3月24日15時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【33】 (約30Km北西)	3月24日14時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【33】 (約30Km北西)	3月24日13時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構

- \* 1 GM(ガイガー=ミューラー計測管)における値  
 \* 2 電離箱における値  
 \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【33】(約30Km北西)	3月24日12時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【33】(約30Km北西)	3月24日11時32分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	文部科学省
測定エリア【33】(約30Km北西)	3月24日11時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【34】(約30Km北西)	3月24日11時00分	14.0 <sup>*2</sup>	N: 37° 33' 00.8" E: 140° 44' 07.0"	降雨無し	文部科学省
測定エリア【35】(約35Km北西)	3月24日10時35分	2.5 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 39' 00.9"	降雨無し	文部科学省
測定エリア【36】(約40Km北西)	3月24日13時13分	10.0 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	文部科学省
測定エリア【41】(約20Km西)	3月24日13時43分	1.7 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	関西電力
測定エリア【41】(約20Km西)	3月24日10時41分	1.8 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	関西電力
測定エリア【42】(約30Km西)	3月24日14時00分	2.1 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	関西電力
測定エリア【42】(約30Km西)	3月24日10時35分	2.1 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	関西電力
測定エリア【43】(約20Km南西)	3月24日14時50分	1.0 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	日本原燃
測定エリア【43】(約20Km南西)	3月24日10時50分	1.0 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	日本原燃
測定エリア【44】(約30Km南)	3月24日13時25分	4.5 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	四国電力
測定エリア【44】(約30Km南)	3月24日9時51分	4.6 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	四国電力
測定エリア【45】(約20Km南)	3月24日14時00分	3.2 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	九州電力
測定エリア【45】(約20Km南)	3月24日10時35分	3.1 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	九州電力
測定エリア【46】(約20Km北西)	3月24日14時40分	13.0 <sup>*2</sup>	N: . . . " E: . . . "	降雨無し	中部電力

- \* 1 GM(ガイガー=ミュラー計測管)における値  
 \* 2 電離箱における値  
 \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【46】(約20Km北西)	3月24日11時10分	13.0 <sup>*2</sup>	N: E:	降雨無し	中部電力
測定エリア【51】(約40Km南西)	3月24日16時44分	0.3 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【51】(約40Km南西)	3月24日13時16分	0.4 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【52】(約40Km西)	3月24日17時20分	0.5 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【52】(約40Km西)	3月24日11時35分	0.4 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【61】(約40Km北西)	3月24日15時48分	11.8 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【61】(約40Km北西)	3月24日14時05分	11.7 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【62】(約40Km北西)	3月24日15時56分	12.3 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【62】(約40Km北西)	3月24日13時58分	13.2 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【63】(約45Km北西)	3月24日16時10分	4.1 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【63】(約45Km北西)	3月24日12時52分	5.0 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【71】(約25Km南)	3月24日9時27分	5.6 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【72】(約30Km南)	3月24日10時05分	3.7 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【73】(約35Km南)	3月24日10時34分	2.0 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【74】(約35Km南)	3月24日11時08分	1.6 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【75】(約45Km南)	3月24日8時16分	1.4 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【76】(約25Km南西)	3月24日12時28分	1.6 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【77】(約25Km南西)	3月24日12時08分	3.5 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【78】(約45Km北西)	3月24日8時23分	2.0 *2	N: . . . E: . . .	降雨無し	警察(NBC対策部隊)
測定エリア【79】(約30Km北西)	3月24日9時31分	29.0 *2	N: . . . E: . . .	降雨無し	警察(NBC対策部隊)
測定エリア【80】(約25Km北)	3月24日11時53分	1.2 *2	N: . . . E: . . .	降雨無し	警察(NBC対策部隊)
測定エリア【81】(約30Km西北西)	3月24日9時17分	66.0 *2	N: . . . E: . . .	降雨無し	警察(NBC対策部隊)
測定エリア【83】(約20Km北西)	3月24日9時46分	106.0 *2	N: . . . E: . . .	降雨無し	警察(NBC対策部隊)

2. 防衛省の測定については準備中

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月25日13時00分現在  
文 部 科 学 省

1. 文部科学省が集計した結果

- \* 1 GM(ガイガー=ミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【2】 (約55Km北西)	3月25日10時01分	5.4 <sup>*2</sup>	N: 37° 41' 03.5" E: 140° 33' 08.2"	降雨無し	日本原子力研究開発機構
測定エリア【3】 (約45Km北西)	3月25日10時38分	7.0 <sup>*2</sup>	N: 37° 45' 12.5" E: 140° 44' 05.5"	降雨無し	日本原子力研究開発機構
測定エリア【4】 (約50Km北西)	3月25日9時33分	2.3 <sup>*2</sup>	N: 37° 39' 00.1" E: 140° 35' 00.2"	降雨無し	文部科学省
測定エリア【5】 (約45Km北)	3月25日11時18分	2.7 <sup>*2</sup>	N: 37° 47' 04.8" E: 140° 55' 16.4"	降雨無し	文部科学省
測定エリア【10】 (約40Km北西)	3月25日9時55分	2.0 <sup>*2</sup>	N: 37° 35' 00.1" E: 140° 35' "	降雨無し	文部科学省
測定エリア【11】 (約40Km北西)	3月25日10時06分	2.8 <sup>*2</sup>	N: 37° 34' 00.0" E: 140° 34' 00.1"	降雨無し	文部科学省
測定エリア【12】 (約40Km西)	3月25日11時29分	0.5 <sup>*2</sup>	N: 37° 25' 14.9" E: 140° 35' 12.3"	降雨無し	文部科学省
測定エリア【13】 (約40Km西)	3月25日11時46分	0.8 <sup>*2</sup>	N: 37° 26' 06.0" E: 140° 37' 05.8"	降雨無し	文部科学省
測定エリア【14】 (約35Km西)	3月25日11時56分	0.9 <sup>*2</sup>	N: 37° 26' 02.6" E: 140° 38' 13.8"	降雨無し	文部科学省
測定エリア【20】 (約45Km北西)	3月25日10時31分	1.4 <sup>*2</sup>	N: 37° 29' 06.7" E: 140° 34' 15.1"	降雨無し	文部科学省
測定エリア【21】 (約30Km西北西)	3月25日10時57分	7.4 <sup>*2</sup>	N: 37° 30' 08.0" E: 140° 42' 02.4"	降雨無し	文部科学省
測定エリア【22】 (約30Km西北西)	3月25日10時50分	1.0 <sup>*2</sup>	N: 37° 30' 11.5" E: 140° 39' 08.0"	降雨無し	文部科学省
測定エリア【23】 (約30Km西北西)	3月25日10時40分	1.8 <sup>*2</sup>	N: 37° 30' 05.3" E: 140° 34' 11.3"	降雨無し	文部科学省



- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【36】 (約40Km北西)	3月25日11時00分	7.0 *2	N:                    " E:                    "	降雨無し	日本原子力研究開発機構
測定エリア【84】 (約40km南西)	3月28日10時40分	0.7 *2	N: 37° 10' 20.0" E: 140° 43' 30.7"	降雨無し	日本原子力研究開発機構

2. 防衛省の測定については準備中

福島第一原子力発電所周辺の海域モニタリング結果

平成23年3月25日  
文部科学省

1. 海水中の放射能濃度

測定試料採取点	採取日時	核種	放射能濃度(Bq/L)
第1海域※1測点1	3月24日8時07分	<sup>131</sup> I	22.3
		<sup>137</sup> Cs	15.1
第1海域測点2	3月24日9時09分	<sup>131</sup> I	16.9
		<sup>137</sup> Cs	8.32
第1海域測点3	3月24日10時00分	<sup>131</sup> I	57.4
		<sup>137</sup> Cs	26.1
第1海域測点4	3月24日11時00分	<sup>131</sup> I	59.1
		<sup>137</sup> Cs	16.0
第2海域※2測点1	3月24日11時48分	<sup>131</sup> I	40.5
		<sup>137</sup> Cs	11.1
第2海域測点2	3月24日12時35分	<sup>131</sup> I	36.2
		<sup>137</sup> Cs	16.9
第2海域測点3	3月24日13時24分	<sup>131</sup> I	33.4
		<sup>137</sup> Cs	12.3
第2海域測点4	3月24日14時18分	<sup>131</sup> I	37.5
		<sup>137</sup> Cs	13.4

※1 第1海域:福島第一原子力発電所沖合

※2 第2海域:福島第二原子力発電所沖合

2. 海上の空間線量率

場所	測定日時	数値(マイクロシーベルト毎時)※ (記載のない限り屋外)	測定位置				天候	
			N	E	W	S		
第1海域測点1	3月24日8時07分	0.080	37°	140°	30'	45'	11.4"	降雨無し
							51.3"	
第1海域測点2	3月24日9時09分	0.080	37°	140°	30'	45'	58.0"	降雨無し
							21.7"	
第1海域測点3	3月24日10時00分	0.060	37°	140°	31'	44'	24.1"	降雨無し
							52.4"	
第1海域測点4	3月24日11時00分	0.046	37°	140°	32'	44'	01.7"	降雨無し
							42.3"	
第2海域測点1	3月24日11時48分	0.055	37°	140°	32'	44'	46.2"	降雨無し
							12.4"	
第2海域測点2	3月24日12時35分	0.080	37°	140°	33'	44'	13.5"	降雨無し
							12.2"	
第2海域測点3	3月24日13時24分	0.060	37°	140°	33'	45'	35.0"	降雨無し
							37.4"	
第2海域測点4	3月24日14時18分	0.059	37°	140°	33'	44'	40.7"	降雨無し
							37.6"	

※ 検出器型式 CsI(Tl)シンチレーション検出器(PDF-101、アロカ株式会社)

3. 海上の塵中の放射能濃度

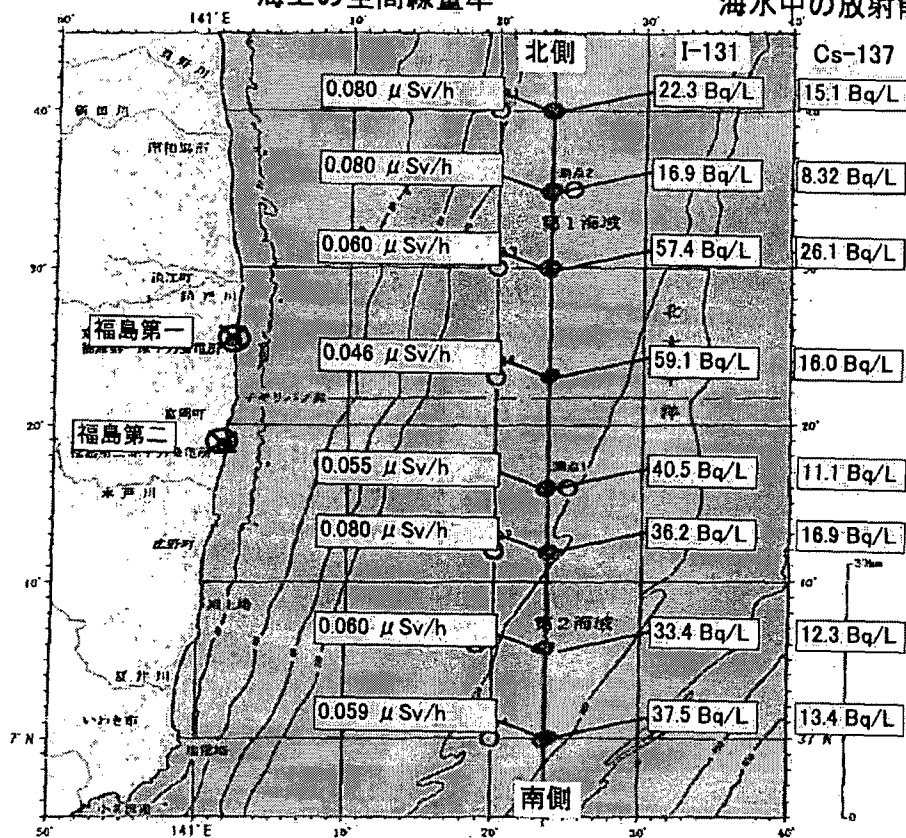
測定試料採取点	採取日時	核種	放射能濃度(Bq/m <sup>3</sup> )
第1海域測点1	3月24日8時07分	<sup>131</sup> I	0.000213
		<sup>137</sup> Cs	不検出
第1海域測点2	3月24日9時09分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	0.0000467
第1海域測点3	3月24日10時00分	<sup>131</sup> I	0.00396
		<sup>137</sup> Cs	不検出
第1海域測点4	3月24日11時00分	<sup>131</sup> I	0.0197
		<sup>137</sup> Cs	不検出
第2海域測点1	3月24日11時48分	<sup>131</sup> I	0.00111
		<sup>137</sup> Cs	不検出
第2海域測点2	3月24日12時35分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	不検出
第2海域測点3	3月24日13時24分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	不検出
第2海域測点4	3月24日14時18分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	0.000493

各測定点の位置は次のとおり

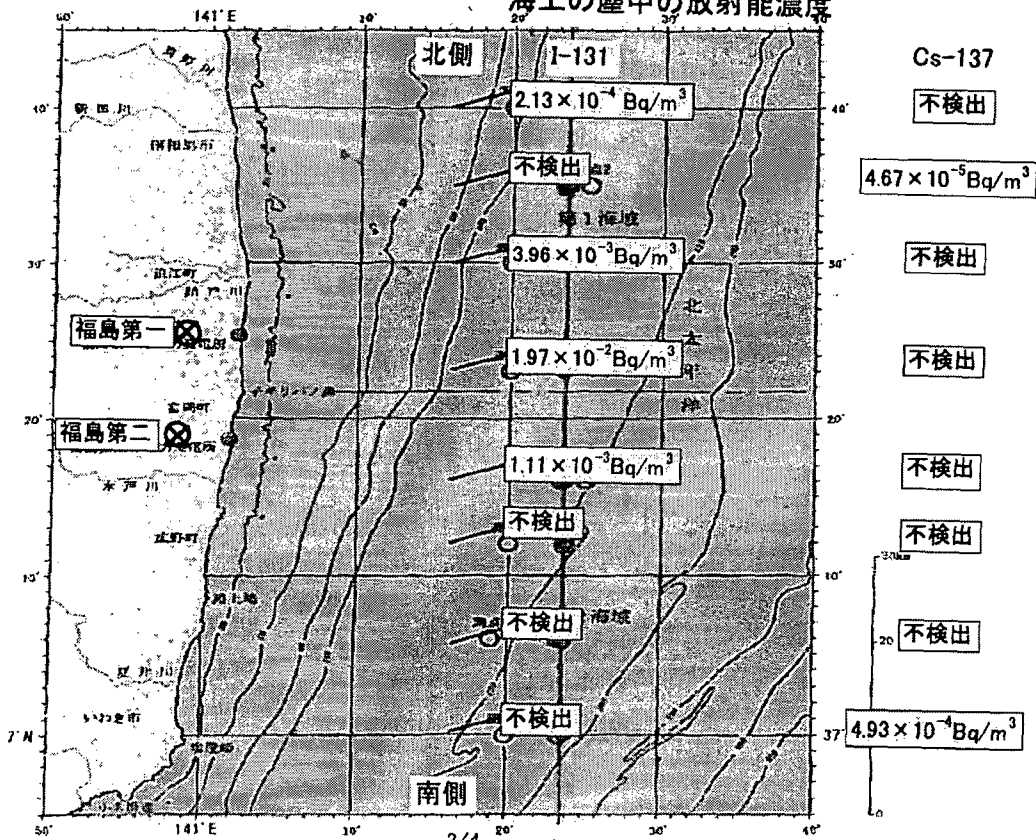
測定点	緯度	経度	N	E
			′	′
第1海域測点1	37° 39.8′ N	141° 24.3′ E	37° 30′ 11.4″	140° 45′ 51.3″
第1海域測点2	37° 35.0′ N	141° 23.9′ E	37° 30′ 58.0″	140° 45′ 21.7″
第1海域測点3	37° 30.1′ N	141° 24.3′ E	37° 31′ 24.1″	140° 44′ 52.4″
第1海域測点4	37° 23.2′ N	141° 24.1′ E	37° 32′ 01.7″	140° 44′ 42.3″
第2海域測点1	37° 16.1′ N	141° 23.8′ E	37° 32′ 46.2″	140° 44′ 12.4″
第2海域測点2	37° 12.1′ N	141° 23.9′ E	37° 33′ 13.5″	140° 44′ 12.2″
第2海域測点3	37° 05.7′ N	141° 24.0′ E	37° 33′ 35.0″	140° 45′ 37.4″
第2海域測点4	36° 59.9′ N	141° 23.8′ E	37° 33′ 40.7″	140° 44′ 37.6″

### 海上の空間線量率

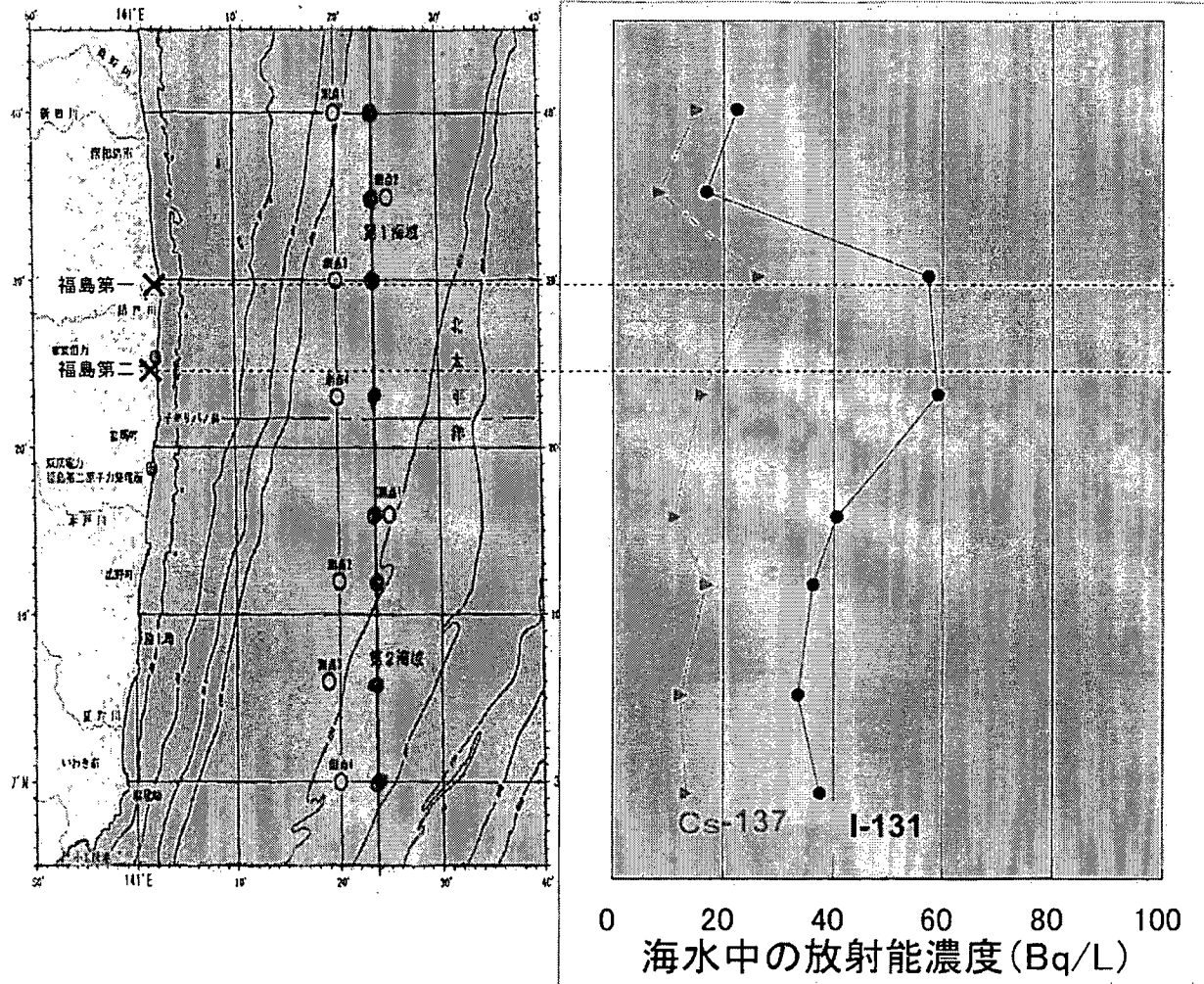
### 海水中の放射能濃度



### 海上の塵中の放射能濃度



# 海域モニタリング結果(平成23年3月24日採取)



福島第一原子力発電所の20Km以遠の積算線量結果について

平成23年3月25日10時00分現在  
文 部 科 学 省

\*1 簡易型線量計(ポケット線量計)における値

場所(福島第1発電所からの距離)	設置日時	データ採取日時	経過時間(a)	積算数値(b) (マイクロシーベルト)	測定位置	天候
測定エリア【31】 (約30km北西)	3月23日11時43分	3月24日12時35分	24時間52分	698 <sup>±1</sup> (28.1 μ Sv/時)	N: 37' 33" 45.0" E: 140' 44" 49.9"	降雨無し
測定エリア【32】 (約30km北西)	3月23日12時14分	3月24日12時22分	24時間8分	1437 <sup>±1</sup> (59.6 μ Sv/時)	N: 37' 35" 42.0" E: 140' 45" 14.5"	降雨無し
測定エリア【33】 (約30km北西)	3月23日12時32分	3月24日12時35分	24時間3分	864 <sup>±1</sup> (35.9 μ Sv/時)	N: 37' 36" 34.6" E: 140' 45" 09.1"	降雨無し
測定エリア【34】 (約30km北西)	3月23日13時08分	3月24日12時50分	23時間42分	310 <sup>±1</sup> (13.0 μ Sv/時)	N: 37' 33" 03.2" E: 140' 44" 28.6"	降雨無し
測定エリア【71】 (約25km南)	3月23日13時00分	3月24日12時38分	23時間38分	109 <sup>±1</sup> (4.6 μ Sv/時)	N: . . ." E: . . ."	降雨無し
測定エリア【79】 (約30km北西)	3月23日14時09分	3月24日12時42分	21時間27分	738 <sup>±1</sup> (34.4 μ Sv/時)	N: 37' 33" 22.2" E: 140' 45" 46.9"	降雨無し

注)積算数値の括弧書きは、積算数値を経過時間で割った値(b/a)である。

・測定者:文部科学省

**Maier, Bill**

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**From:** Maier, Bill  
**Sent:** Thursday, March 17, 2011 10:23 PM  
**To:** LIA04 Hoc; OST05 Hoc  
**Cc:** Howell, Linda  
**Subject:** FW: Japan rad map

Offered by one of my state stakeholders as a suggestion/aid.

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

**From:** Free, Robert [<mailto:Robert.Free@dshs.state.tx.us>]  
**Sent:** Thursday, March 17, 2011 2:48 PM  
**To:** Maier, Bill  
**Subject:** FW: Japan rad map

Bill, I received this map from A former employee of ours. I'm curious to know if this information is near correct. One of the cities listed on the table at the bottom indicates readings of 850 nGy/hr. I can't tell how far Ibaraki is from Fukushima.

I also wonder if EPA could offer to deploy some of it's portable monitoring equipment to Japan in near site locations.

Just a thought. I know you have a lot on your plate now.

Robert Free, Manager  
Environmental Monitoring Group  
Inspections Unit  
512 834-6770 x 2022 Office  
(b)(6) Cell

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

**From:** Joseph F. Thiel [[mailto:\(b\)\(6\)@targetmap.com](mailto:(b)(6)@targetmap.com)]  
**Sent:** Thursday, March 17, 2011 1:28 PM  
**To:** Ratliff, Richard; Richard Ratliff; Free, Robert  
**Cc:** Clarence Born  
**Subject:** Japan rad map

<http://www.targetmap.com/viewer.aspx?reportId=4870>

-JoeT

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**From:** OST01 HOC  
**Sent:** Friday, March 25, 2011 8:22 AM  
**To:** RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT (latitude and longitude)  
**Attachments:** 20110325\_01\_II\_unofficial.pdf; 20110325\_03\_II\_unofficial.pdf; 20110325\_07\_II\_unofficial.pdf; 20110325\_09\_II\_unofficial.pdf; 20110325\_12\_II\_unofficial.pdf

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

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Friday, March 25, 2011 8:21 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT (latitude and longitude)

-----  
**From:** NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]  
**Sent:** Friday, March 25, 2011 8:21:11 AM  
**To:** CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc; Hoc, PMT12  
**Subject:** FW: Radiation data by MEXT (latitude and longitude) Auto forwarded by a Rule

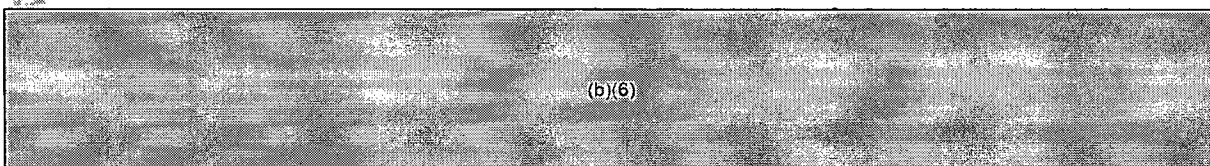
-----Original Message-----

**From:** NITOPS  
**Sent:** Friday, March 25, 2011 8:01 AM  
**To:** CMHT; hoo.hoc@nrc.gov; NARAC; pmt01.hoc@nrc.gov; PMT02.Hoc@nrc.gov; pmt12.hoc@nrc.gov  
**Cc:** NITOPS  
**Subject:** FW: Radiation data by MEXT (latitude and longitude)

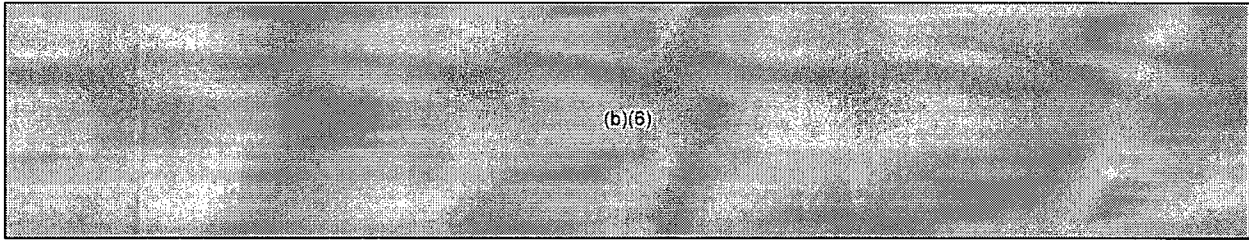
Nuclear Incident Team (NIT)  
Office of Emergency Response (NA-42)  
National Nuclear Security Administration U.S. Department of Energy [nitops@nnsa.doe.gov](mailto:nitops@nnsa.doe.gov) [nit@doe.gov](mailto:nit@doe.gov) 202-586-8100

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

**From:** JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]  
**Sent:** Friday, March 25, 2011 4:25 AM







Subject: FW: Radiation data by MEXT (latitude and longitude)

fyi

This email is UNCLASSIFIED

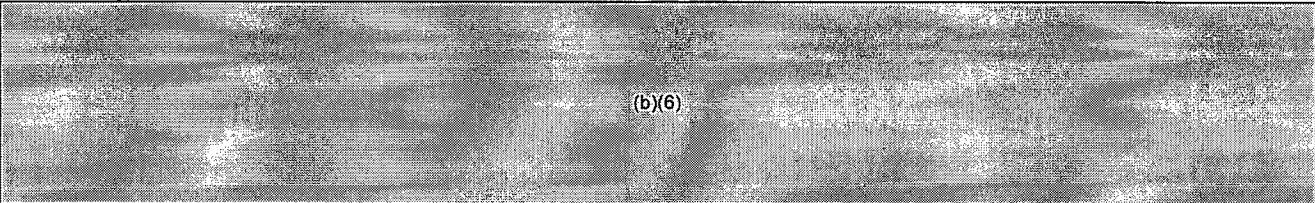
on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

Lynda Hinds  
Staff Assistant to Ambassador John V. Roos U.S. Embassy  
1-10-5 Akasaka, Minato-ku  
Tokyo 107-8420  
Tel. (03) 3224- 5370

[Twitter.com/AmbassadorRoos](https://twitter.com/AmbassadorRoos)

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

From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]  
Sent: Friday, March 25, 2011 5:17 PM  
To: Cherry, Ronald C



Subject: Radiation data by MEXT (latitude and longitude)

Dear Mr. Cherry,

Please see attached the document.

I am sorry to be late in sending information of latitude and longitude.  
I'm sending new files to which latitude and longitude have been added.

Subjects of adding are files which I sent to you today.  
Please refer to file name.

Plural organization are doing monitoring, some of them cannot report latitude and longitude.

Sincerely yours,  
Eiko SENAMI

Eiko SENAMI (Ms.)  
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology  
- Japan

福島第一原子力発電所の20Km以遠の走行モニタリング結果について

平成23年3月25日10時00分現在  
文 部 科 学 省

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【A】 (約24km南)	3月24日10時06分	6.4 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時07分	6.4 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時10分	8.7 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日10時12分	12.0 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時16分	7.6 <sup>*2</sup>	N: 37° 12' 58.3" E: 140° 57' 16.5"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日10時19分	8.8 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時22分	8.3 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時24分	5.7 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時26分	6.6 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時53分	6.8 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時55分	7.2 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日10時58分	9.4 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日11時00分	10.6 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時04分	7.9 <sup>*2</sup>	N: 37° 12' 58.3" E: 140° 57' 16.5"	降雨無し	文部科学省

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【A】 (約22km南)	3月24日11時07分	9.1 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時09分	7.4 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時12分	5.1 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時14分	6.0 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時44分	6.2 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時46分	7.4 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時49分	9.7 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日11時51分	10.1 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日11時55分	7.8 <sup>*2</sup>	N: 37° 12' 58.3" E: 140° 57' 16.5"	降雨無し	文部科学省
測定エリア【A】 (約22km南)	3月24日11時59分	7.9 <sup>*2</sup>	N: 37° 13' 32.4" E: 140° 58' 19.1"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日12時01分	7.5 <sup>*2</sup>	N: 37° 12' 47.3" E: 140° 58' 53.3"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日12時04分	5.1 <sup>*2</sup>	N: 37° 12' 15.0" E: 140° 59' 48.0"	降雨無し	文部科学省
測定エリア【A】 (約24km南)	3月24日12時06分	5.8 <sup>*2</sup>	N: 37° 12' 32.4" E: 141° 00' 08.3"	降雨無し	文部科学省

## 福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月25日10時00分現在  
文 部 科 学 省

### 1. 文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガー=ミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【1】(約60Km北西)	3月24日16時12分	3.6 <sup>*2</sup>	N: 37° 44' 12.6" E: 140° 28' 02.9"	降雨無し	文部科学省
測定エリア【1】(約60Km北西)	3月24日7時45分	3.4 <sup>*2</sup>	N: 37° 44' 12.6" E: 140° 28' 02.9"	降雨無し	文部科学省
測定エリア【15】(約35Km西)	3月24日15時58分	2.2 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】(約35Km西)	3月24日14時58分	2.5 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】(約35Km西)	3月24日13時58分	2.2 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】(約35Km西)	3月24日12時58分	2.5 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】(約35Km西)	3月24日11時58分	2.8 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【15】(約35Km西)	3月24日10時58分	2.0 <sup>*2</sup>	N: 37° 26' 15.0" E: 140° 40' 14.8"	降雨無し	日本原子力研究開発機構
測定エリア【31】(約30Km西北西)	3月24日11時08分	25.0 <sup>*2</sup>	N: 37° 33' 12.5" E: 140° 44' 13.9"	降雨無し	文部科学省
測定エリア【32】(約30Km北西)	3月24日11時20分	65.0 <sup>*2</sup>	N: 37° 35' 11.7" E: 140° 45' 04.0"	降雨無し	文部科学省
測定エリア【33】(約30Km北西)	3月24日15時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【33】(約30Km北西)	3月24日14時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【33】(約30Km北西)	3月24日13時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構

- \* 1 GM(ガイガー=ミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【33】(約30Km北西)	3月24日12時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【33】(約30Km北西)	3月24日11時32分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	文部科学省
測定エリア【33】(約30Km北西)	3月24日11時20分	30.0 <sup>*2</sup>	N: 37° 36' 09.6" E: 140° 45' 02.5"	降雨無し	日本原子力研究開発機構
測定エリア【34】(約30Km北西)	3月24日11時00分	14.0 <sup>*2</sup>	N: 37° 33' 00.8" E: 140° 44' 07.0"	降雨無し	文部科学省
測定エリア【35】(約35Km北西)	3月24日10時35分	2.5 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 39' 00.9"	降雨無し	文部科学省
測定エリア【36】(約40Km北西)	3月24日13時13分	10.0 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	文部科学省
測定エリア【41】(約20Km西)	3月24日13時43分	1.7 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	関西電力
測定エリア【41】(約20Km西)	3月24日10時41分	1.8 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	関西電力
測定エリア【42】(約30Km西)	3月24日14時00分	2.1 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	関西電力
測定エリア【42】(約30Km西)	3月24日10時35分	2.1 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	関西電力
測定エリア【43】(約20Km南西)	3月24日14時50分	1.0 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	日本原燃
測定エリア【43】(約20Km南西)	3月24日10時50分	1.0 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	日本原燃
測定エリア【44】(約30Km南)	3月24日13時25分	4.5 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	四国電力
測定エリア【44】(約30Km南)	3月24日9時51分	4.6 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	四国電力
測定エリア【45】(約20Km南)	3月24日14時00分	3.2 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	九州電力
測定エリア【45】(約20Km南)	3月24日10時35分	3.1 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	九州電力
測定エリア【46】(約20Km北西)	3月24日14時40分	13.0 <sup>*2</sup>	N: ° ' " E: ° ' "	降雨無し	中部電力

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【46】(約20Km北西)	3月24日11時10分	13.0 <sup>*2</sup>	N: E:	降雨無し	中部電力
測定エリア【51】(約40Km南西)	3月24日16時44分	0.3 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【51】(約40Km南西)	3月24日13時16分	0.4 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【52】(約40Km西)	3月24日17時20分	0.5 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【52】(約40Km西)	3月24日11時35分	0.4 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【61】(約40Km北西)	3月24日15時48分	11.8 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【61】(約40Km北西)	3月24日14時05分	11.7 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【62】(約40Km北西)	3月24日15時56分	12.3 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【62】(約40Km北西)	3月24日13時58分	13.2 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【63】(約45Km北西)	3月24日16時10分	4.1 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【63】(約45Km北西)	3月24日12時52分	5.0 <sup>*3</sup>	N: E:	降雨無し	福島県
測定エリア【71】(約25Km南)	3月24日9時27分	5.6 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【72】(約30Km南)	3月24日10時05分	3.7 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【73】(約35Km南)	3月24日10時34分	2.0 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【74】(約35Km南)	3月24日11時08分	1.6 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【75】(約45Km南)	3月24日8時16分	1.4 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【76】(約25Km南西)	3月24日12時28分	1.6 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)
測定エリア【77】(約25Km南西)	3月24日12時08分	3.5 <sup>*2</sup>	N: E:	降雨無し	警察(NBC対策部隊)

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【78】(約45Km北西)	3月24日8時23分	2.0 *2	N: . . . " E: . . . "	降雨無し	警察(NBC対策部隊)
測定エリア【79】(約30Km北西)	3月24日9時31分	29.0 *2	N: . . . " E: . . . "	降雨無し	警察(NBC対策部隊)
測定エリア【80】(約25Km北)	3月24日11時53分	1.2 *2	N: . . . " E: . . . "	降雨無し	警察(NBC対策部隊)
測定エリア【81】(約30Km西北西)	3月24日9時17分	66.0 *2	N: . . . " E: . . . "	降雨無し	警察(NBC対策部隊)
測定エリア【83】(約20Km北西)	3月24日9時46分	106.0 *2	N: . . . " E: . . . "	降雨無し	警察(NBC対策部隊)

2. 防衛省の測定については準備中



## 福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月25日13時00分現在  
文 部 科 学 省

### 1. 文部科学省が集計した結果

- \* 1 GM(ガイガー=ミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【2】 (約55Km北西)	3月25日10時01分	5.4 <sup>*2</sup>	N: 37° 41' 03.5" E: 140° 33' 08.2"	降雨無し	日本原子力研究開発機構
測定エリア【3】 (約45Km北西)	3月25日10時38分	7.0 <sup>*2</sup>	N: 37° 45' 12.5" E: 140° 44' 05.5"	降雨無し	日本原子力研究開発機構
測定エリア【4】 (約50Km北西)	3月25日9時33分	2.3 <sup>*2</sup>	N: 37° 39' 00.1" E: 140° 35' 00.2"	降雨無し	文部科学省
測定エリア【5】 (約45Km北)	3月25日11時18分	2.7 <sup>*2</sup>	N: 37° 47' 04.8" E: 140° 55' 16.4"	降雨無し	文部科学省
測定エリア【10】 (約40Km北西)	3月25日9時55分	2.0 <sup>*2</sup>	N: 37° 35' 00.1" E: 140° 35' "	降雨無し	文部科学省
測定エリア【11】 (約40Km北西)	3月25日10時06分	2.8 <sup>*2</sup>	N: 37° 34' 00.0" E: 140° 34' 00.1"	降雨無し	文部科学省
測定エリア【12】 (約40Km西)	3月25日11時29分	0.5 <sup>*2</sup>	N: 37° 25' 14.9" E: 140° 35' 12.3"	降雨無し	文部科学省
測定エリア【13】 (約40Km西)	3月25日11時46分	0.8 <sup>*2</sup>	N: 37° 26' 06.0" E: 140° 37' 05.8"	降雨無し	文部科学省
測定エリア【14】 (約35Km西)	3月25日11時56分	0.9 <sup>*2</sup>	N: 37° 26' 02.6" E: 140° 38' 13.8"	降雨無し	文部科学省
測定エリア【20】 (約45Km北西)	3月25日10時31分	1.4 <sup>*2</sup>	N: 37° 29' 06.7" E: 140° 34' 15.1"	降雨無し	文部科学省
測定エリア【21】 (約30Km西北西)	3月25日10時57分	7.4 <sup>*2</sup>	N: 37° 30' 08.0" E: 140° 42' 02.4"	降雨無し	文部科学省
測定エリア【22】 (約30Km西北西)	3月25日10時50分	1.0 <sup>*2</sup>	N: 37° 30' 11.5" E: 140° 39' 08.0"	降雨無し	文部科学省
測定エリア【23】 (約30Km西北西)	3月25日10時40分	1.8 <sup>*2</sup>	N: 37° 30' 05.3" E: 140° 34' 11.3"	降雨無し	文部科学省

- \* 1 GM(ガイガー=ミューラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	天候	実施者
測定エリア【36】 (約40Km北西)	3月25日11時00分	7.0 *2	N:                    " E:                    "	降雨無し	日本原子力研究開発機構
測定エリア【84】 (約40km南西)	3月28日10時40分	0.7 *2	N: 37° 10' 20.0" E: 140° 43' 30.7"	降雨無し	日本原子力研究開発機構

2. 防衛省の測定については準備中

## 福島第一原子力発電所周辺の海域モニタリング結果

平成23年3月25日  
文部科学省

### 1. 海水中の放射能濃度

測定試料採取点	採取日時	核種	放射能濃度(Bq/L)
第1海域※1測点1	3月24日8時07分	<sup>131</sup> I	22.3
		<sup>137</sup> Cs	15.1
第1海域測点2	3月24日9時09分	<sup>131</sup> I	16.9
		<sup>137</sup> Cs	8.32
第1海域測点3	3月24日10時00分	<sup>131</sup> I	57.4
		<sup>137</sup> Cs	26.1
第1海域測点4	3月24日11時00分	<sup>131</sup> I	59.1
		<sup>137</sup> Cs	16.0
第2海域※2測点1	3月24日11時48分	<sup>131</sup> I	40.5
		<sup>137</sup> Cs	11.1
第2海域測点2	3月24日12時35分	<sup>131</sup> I	36.2
		<sup>137</sup> Cs	16.9
第2海域測点3	3月24日13時24分	<sup>131</sup> I	33.4
		<sup>137</sup> Cs	12.3
第2海域測点4	3月24日14時18分	<sup>131</sup> I	37.5
		<sup>137</sup> Cs	13.4

※1 第1海域:福島第一原子力発電所沖合

※2 第2海域:福島第二原子力発電所沖合

### 2. 海上の空間線量率

場所	測定日時	数値(マイクロシーベルト毎時)※ (記載のない限り屋外)	測定位置			天候
			N	E	W	
第1海域測点1	3月24日8時07分	0.080	37°	30°	11.4″	降雨無し
			140°	45°	51.3″	
第1海域測点2	3月24日9時09分	0.080	37°	30°	58.0″	降雨無し
			140°	45°	21.7″	
第1海域測点3	3月24日10時00分	0.060	37°	31°	24.1″	降雨無し
			140°	44°	52.4″	
第1海域測点4	3月24日11時00分	0.046	37°	32°	01.7″	降雨無し
			140°	44°	42.3″	
第2海域測点1	3月24日11時48分	0.055	37°	32°	46.2″	降雨無し
			140°	44°	12.4″	
第2海域測点2	3月24日12時35分	0.080	37°	33°	13.5″	降雨無し
			140°	44°	12.2″	
第2海域測点3	3月24日13時24分	0.060	37°	33°	35.0″	降雨無し
			140°	45°	37.4″	
第2海域測点4	3月24日14時18分	0.059	37°	33°	40.7″	降雨無し
			140°	44°	37.6″	

※ 検出器型式 Csi(Tl)シンチレーション検出器(PDF-101、アロカ株式会社)

3. 海上の塵中の放射能濃度

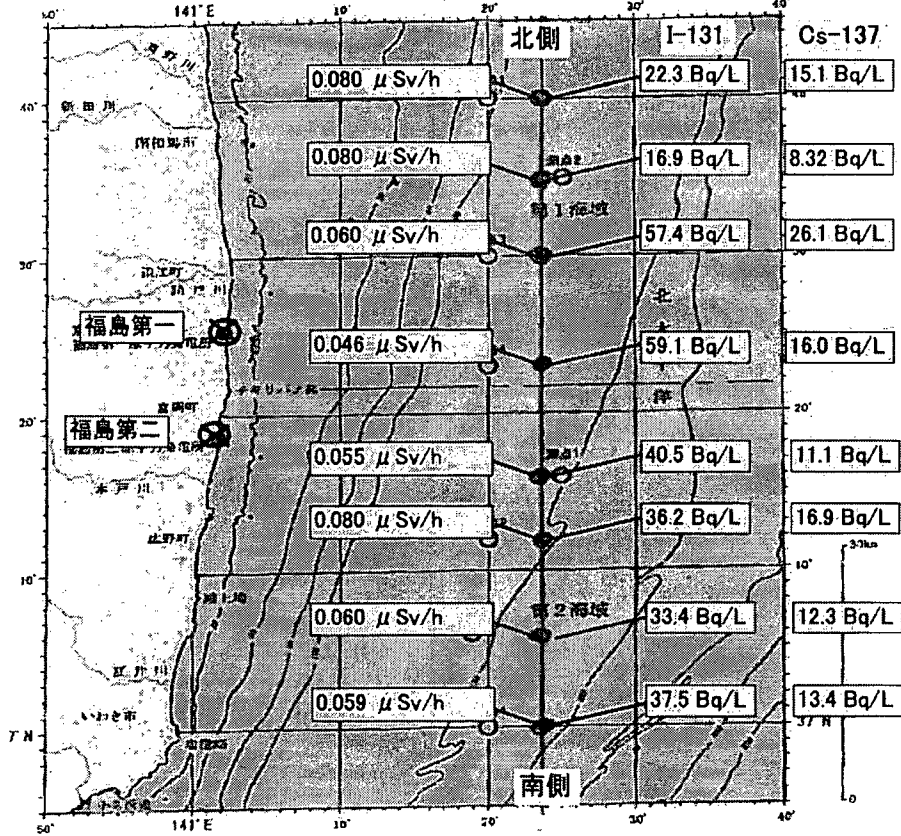
測定試料採取点	採取日時	核種	放射能濃度(Bq/m <sup>3</sup> )
第1海域測点1	3月24日8時07分	<sup>131</sup> I	0.000213
		<sup>137</sup> Cs	不検出
第1海域測点2	3月24日9時09分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	0.0000467
第1海域測点3	3月24日10時00分	<sup>131</sup> I	0.00396
		<sup>137</sup> Cs	不検出
第1海域測点4	3月24日11時00分	<sup>131</sup> I	0.0197
		<sup>137</sup> Cs	不検出
第2海域測点1	3月24日11時48分	<sup>131</sup> I	0.00111
		<sup>137</sup> Cs	不検出
第2海域測点2	3月24日12時35分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	不検出
第2海域測点3	3月24日13時24分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	不検出
第2海域測点4	3月24日14時18分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	0.000493

各測定点の位置は次のとおり

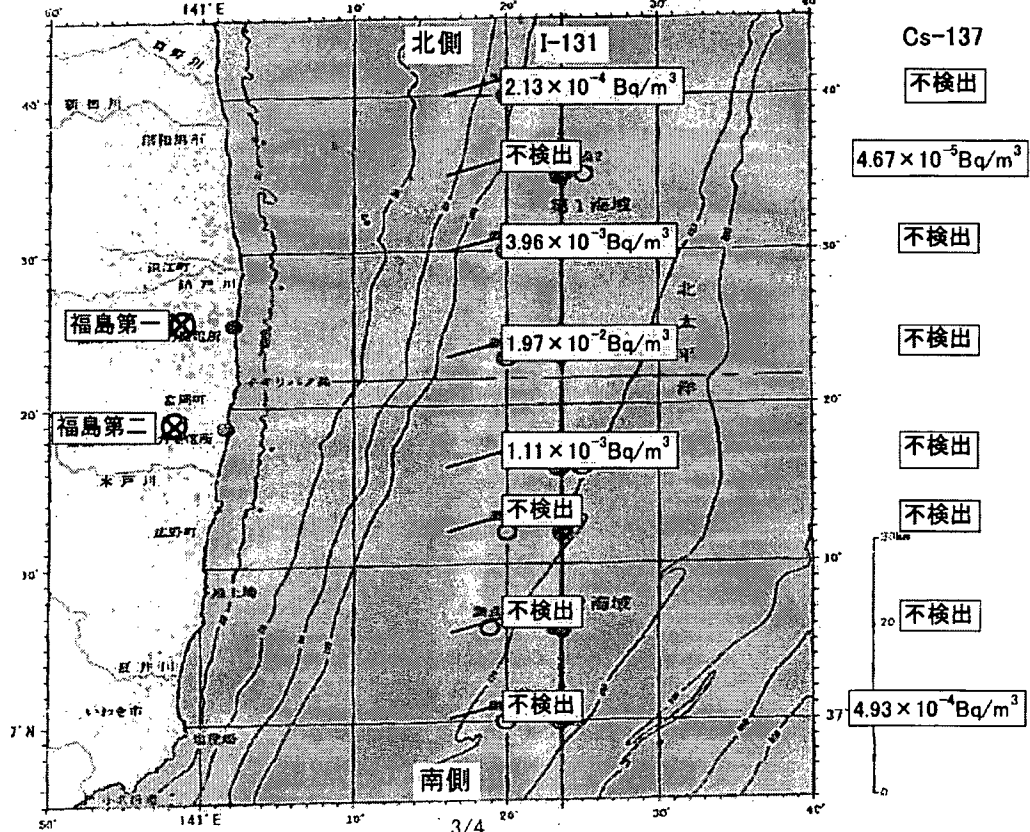
第1海域測点1	37° 39.8′ N, 141° 24.3′ E	N: 37° 30′ 11.4″
		E: 140° 45′ 51.3″
第1海域測点2	37° 35.0′ N, 141° 23.9′ E	N: 37° 30′ 58.0″
		E: 140° 45′ 21.7″
第1海域測点3	37° 30.1′ N, 141° 24.3′ E	N: 37° 31′ 24.1″
		E: 140° 44′ 52.4″
第1海域測点4	37° 23.2′ N, 141° 24.1′ E	N: 37° 32′ 01.7″
		E: 140° 44′ 42.3″
第2海域測点1	37° 16.1′ N, 141° 23.8′ E	N: 37° 32′ 46.2″
		E: 140° 44′ 12.4″
第2海域測点2	37° 12.1′ N, 141° 23.9′ E	N: 37° 33′ 13.5″
		E: 140° 44′ 12.2″
第2海域測点3	37° 05.7′ N, 141° 24.0′ E	N: 37° 33′ 35.0″
		E: 140° 45′ 37.4″
第2海域測点4	36° 59.9′ N, 141° 23.8′ E	N: 37° 33′ 40.7″
		E: 140° 44′ 37.6″

### 海上の空間線量率

### 海水中の放射能濃度



### 海上の塵中の放射能濃度





福島第一原子力発電所の20Km以遠の積算線量結果について

平成23年3月25日10時00分現在  
文 部 科 学 省

\*1 簡易型線量計(ポケット線量計)における値

場所(福島第1発電所からの距離)	設置日時	データ採取日時	経過時間(a)	積算数値(b) (マイクロシーベルト)	測定位置	天候
測定エリア【31】(約30km北西)	3月23日11時43分	3月24日12時35分	24時間52分	698 <sup>*1</sup> (28.1 $\mu$ Sv/時)	N: 37° 33' 45.0" E: 140° 44' 49.9"	降雨無し
測定エリア【32】(約30km北西)	3月23日12時14分	3月24日12時22分	24時間8分	1437 <sup>*1</sup> (59.6 $\mu$ Sv/時)	N: 37° 35' 42.0" E: 140° 45' 14.5"	降雨無し
測定エリア【33】(約30km北西)	3月23日12時32分	3月24日12時35分	24時間3分	864 <sup>*1</sup> (35.9 $\mu$ Sv/時)	N: 37° 36' 34.6" E: 140° 45' 09.1"	降雨無し
測定エリア【34】(約30km北西)	3月23日13時08分	3月24日12時50分	23時間42分	310 <sup>*1</sup> (13.0 $\mu$ Sv/時)	N: 37° 33' 03.2" E: 140° 44' 28.6"	降雨無し
測定エリア【71】(約25km南)	3月23日13時00分	3月24日12時38分	23時間38分	109 <sup>*1</sup> (4.6 $\mu$ Sv/時)	N: ° ' " E: ° ' "	降雨無し
測定エリア【79】(約30km北西)	3月23日14時09分	3月24日12時42分	21時間27分	738 <sup>*1</sup> (34.4 $\mu$ Sv/時)	N: 37° 33' 22.2" E: 140° 45' 46.9"	降雨無し

注)積算数値の括弧書きは、積算数値を経過時間で割った値(b/a)である。

・測定者:文部科学省

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**From:** OST01 HOC  
**Sent:** Saturday, April 02, 2011 2:23 AM  
**To:** RST01 Hoc; PMT02 Hoc; PMT11 Hoc; Hoc, PMT12  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** Unofficial(English)20110402\_03with lat\_long.pdf; (English)20110402\_03.pdf; (English)20110402\_02.pdf; Unofficial(English) 20110402\_01with lat\_long.pdf; (English)20110402\_01.pdf

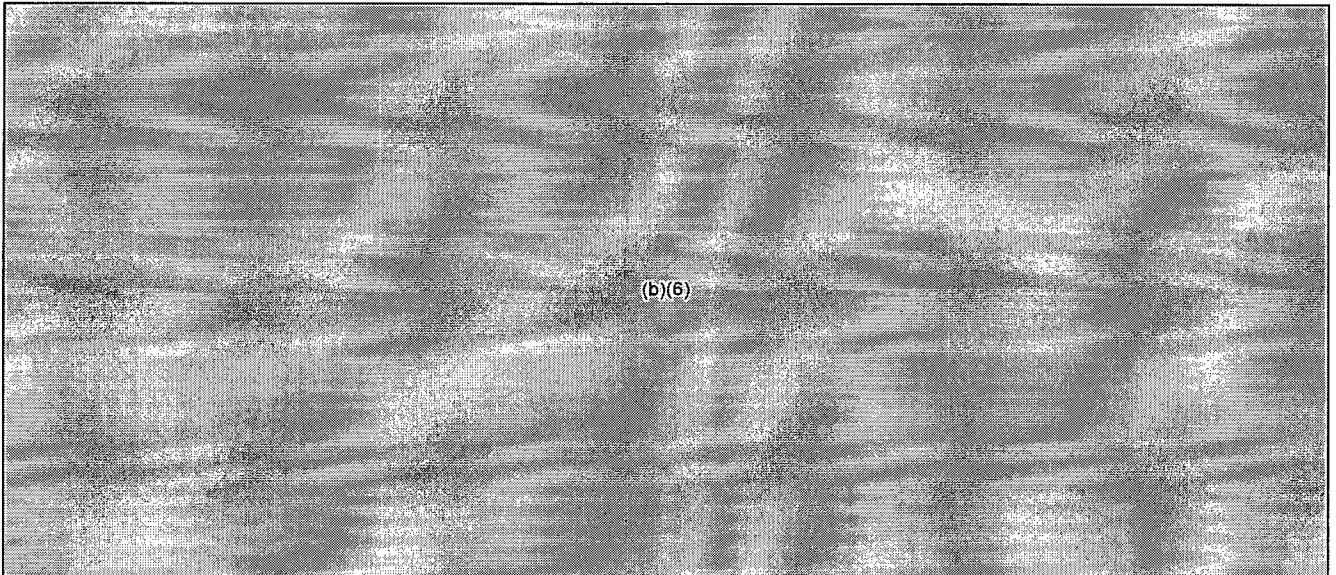
-----Original Message-----

**From:** HOO Hoc  
**Sent:** Saturday, April 02, 2011 2:22 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

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

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

**From:** saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]  
**Sent:** Saturday, April 02, 2011 2:18 AM



CCCC/40



(b)(6)

Subject: Radiation data by MEXT

Dear Sir,

Please see attached the document.

Sincerely yours,  
Naoaki Akasaka

Readings of dust sampling(1/2)

  : the readings in this thick-frame box are new.

As of 10:00 April 2, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Sampling Point	Sampling Time and Date	Radioactivity Concentration(Bq/m <sup>3</sup> )		Reading ( $\mu$ Sv/h)	Monitoring Point by monitoring car	
		<sup>131</sup> I	<sup>137</sup> Cs			
<b>[1-1]</b> (About45kmNorthWest)	3/23 10:45~10:55	4.0	1.2	5.5	<b>[3]</b>	
<b>[1-2]</b> (About40kmNorthWest)	3/23 10:50~11:10	5.2	<1.2	9.0	<b>[36]</b>	
<b>[1-3]</b> (About30kmWestNorthWest)	3/23 13:54~14:17	8.0	<1.4	9.4	<b>[21]</b>	
<b>[1-4]</b> (About35kmWest)	3/23 12:40~13:02	2.8	<1.1	2.3	<b>[15]</b>	
<b>[1-4]</b> (About35kmWest) 1st	3/24 10:58~11:09	3.1	<0.99	2		
<b>[1-4]</b> (About35kmWest) 2nd	3/24 11:58~12:09	2.4	1.3	2.8		
<b>[1-4]</b> (About35kmWest) 3rd	3/24 12:58~13:09	2.5	<1.2	2.5		
<b>[1-4]</b> (About35kmWest) 4th	3/24 13:58~14:09	2.2	1.6	2.2		
<b>[1-4]</b> (About35kmWest) 5th	3/24 14:58~15:09	2.8	<1.2	2.5		
<b>[1-4]</b> (About35kmWest) 6th	3/24 15:58~16:09	2.1	<1.0	2.2		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey1st	3/23 13:15~13:58	530.0	6.6	5.5~14.0	<b>[71]</b>	
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey2nd	3/23 14:30~15:10	180.0	2.3	5.5~14.0		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey3rd	3/23 15:20~15:59	110.0	2.1	5.5~14.0		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey1st	3/24 10:06~10:44	5.9	<0.66	5.6		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey2nd	3/24 10:53~11:33	9.2	<0.71	5.6		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey3rd	3/24 11:44~12:26	12.0	1.1	5.6		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey	3/25 11:51~12:38	43.0	2.0	4.1~5.5		
<b>[1-5]</b> (About25kmSouth) 1st	3/25 13:12~13:42	23.0	1.4	2		
<b>[1-5]</b> (About25kmSouth) 2nd	3/25 14:12~14:42	19.0	1.3	2.8		
<b>[1-5]</b> (About25kmSouth) 3rd	3/25 15:12~15:42	24.0	2.5	2.5		
<b>[1-5]</b> (About25kmSouth) 4th	3/25 16:12~16:42	10.0	1.3	2.2		
<b>[1-5]</b> (About25kmSouth) 1st	3/26 12:47~13:21	13.0	1.3	3.9		
<b>[1-5]</b> (About25kmSouth) 2nd	3/26 14:21~14:57	10.0	1.5	3.9		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey1st	3/27 12:36~13:26	20.0	0.8	2.8~3.8		
<b>[1-5]</b> (About25kmSouth) 1st	3/27 13:58~14:33	7.1	<0.98	3.8		
<b>[1-5]</b> (About25kmSouth) 2nd	3/27 15:33~16:08	6.6	<1.0	3.8		
<b>[1-5]</b> (About25kmSouth) 3rd	3/27 16:16~16:53	10.0	<1.1	3.8		
<b>[1-5]</b> (About25kmSouth) Vehicle-Borne Survey2nd	3/27 14:43~15:18	5.5	1.2	2.8~3.8		
<b>[1-5]</b> (About25kmSouth) 1st	3/28 9:48~13:03	6.6	0.57	3.0		
<b>[1-5]</b> (About25kmSouth) 2nd	3/28 13:23~14:07	54.0	8.0	3.0		
<b>[1-5]</b> (About25kmSouth) 3rd	3/28 14:18~15:19	20.0	3.0	3.0		
<b>[1-5]</b> (About25kmSouth) 1st	3/31 12:22~13:12	24.0	4.5	2.1		
<b>[1-5]</b> (About25kmSouth) 2nd	3/31 13:17~14:01	18.0	1.3	2.0		
<b>[1-5]</b> (About25kmSouth) 3rd	3/31 14:06~14:50	13.0	1.0	1.9		
<b>[1-5]</b> (About25kmSouth) 4th	3/31 15:00~15:44	13.0	<0.79	2.0		
<b>[1-7]</b> (About40kmNorth) 1st	3/25 12:58~13:09	3.5	<0.99	3.2		<b>[7]</b>
<b>[1-7]</b> (About40kmNorth) 1st	3/25 13:58~14:09	4.3	1.6	3.2		
<b>[1-7]</b> (About40kmNorth) 1st	3/25 14:57~15:08	15.0	<0.98	3.2		
<b>[1-7]</b> (About40kmNorth) 1st	3/25 15:58~16:09	22.0	1.1	3.2		
<b>[1-7]</b> (About40kmNorth) 1st	3/26 11:27~11:38	2.9	1.0	1.5		
<b>[1-7]</b> (About40kmNorth) 1st	3/26 13:00~13:11	2.2	1.3	1.5		
<b>[1-8]</b> (About45kmNorth) 1st	3/28 13:00~16:00	19.0	3.2	0.6~1.2		

Sampling Point	Sampling Time and Date	Radioactivity Concentration (Bq/m <sup>3</sup> )		Reading ( $\mu$ Sv/h)	Monitoring Point by monitoring car
		<sup>131</sup> I	<sup>137</sup> Cs		
【2-1】(About40kmNorthWest) 1st	3/29 12:50~13:45	4.2	0.73	7.0	【61】
【2-1】(About40kmNorthWest) 2nd	3/29 13:49~14:46	3.4	0.79	7.0	
【2-1】(About40kmNorthWest) 3rd	3/29 14:47~15:50	2.9	<0.74	7.0	
【2-1】(About40kmNorthWest) 1st	3/30 11:15~11:35	4.8	<1.8	6.7	
【2-1】(About40kmNorthWest) 2nd	3/30 12:15~12:35	4.7	2.00	7.2	
【2-1】(About40kmNorthWest) 3rd	3/30 13:15~13:35	3.4	1.80	7.0	
【2-1】(About40kmNorthWest) 4th	3/30 14:15~14:35	28.0	20.00	7.4	
【2-1】(About40kmNorthWest) 5th	3/30 15:15~15:35	7.7	1.90	7.5	
【2-4】(About25kmNorth) 1st	3/29 11:17~12:15	75.0	46.0	1.7	【80】
【2-4】(About25kmNorth) 2nd	3/29 12:15~13:15	29.0	34.0	0.4	
【2-4】(About25kmNorth) 3rd	3/29 13:15~14:15	32.0	23.0	0.6	
【2-4】(About25kmNorth) 4th	3/29 14:15~15:00	29.0	25.0	0.5	
【2-4】(About25kmNorth) 1st	3/30 11:09~11:29	1.8	0.5	0.0	
【2-4】(About25kmNorth) 2nd	3/30 12:10~12:30	1.6	0.5	0.8	
【2-4】(About25kmNorth) 3rd	3/30 13:10~13:30	1.2	0.4	0.2	
【2-4】(About25kmNorth) 4th	3/30 14:10~14:30	1.5	0.5	0.3	
【2-4】(About25kmNorth) 5th	3/30 15:10~15:30	1.1	<0.49	0.6	
【2-7】(About35KmNorthWest)	3/29 12:00~13:00	0.95	0.59	8.0	【46】
【2-7】(About35KmNorthWest)	3/29 13:00~14:00	0.66	<0.70	8.0	
【2-7】(About35KmNorthWest)	3/29 14:00~15:00	0.75	<0.76	8.0	
【2-7】(About35KmNorthWest)	3/29 15:00~16:00	0.90	<0.58	8.0	
【2-7】(About35KmNorthWest)	3/29 16:00~17:00	0.69	<0.59	8.0	
【2-7】(About35kmNorthWest) 1st	3/30 12:11~12:31	1.9	1.0	13.9	
【2-7】(About35kmNorthWest) 2nd	3/30 13:11~13:33	1.3	1.0	15.2	
【2-7】(About35kmNorthWest) 3rd	3/30 14:11~14:32	89.0	91.0	14.6	
【2-7】(About35kmNorthWest) 4th	3/30 15:11~15:32	180.0	140.0	15.0	
【3-1】(About30kmNorthWest) 1st	3/24 11:20~11:41	43.0	2.0	30	【33】
【3-1】(About30kmNorthWest) 2nd	3/24 12:20~12:40	3.3	<0.98	30	
【3-1】(About30kmNorthWest) 3rd	3/24 13:20~13:42	3.8	<1.2	30	
【3-1】(About30kmNorthWest) 4th	3/24 14:20~14:42	3.8	1.5	30	
【3-1】(About30kmNorthWest) 5th	3/24 15:20~15:42	3.3	1.7	30	
【3-1】(About30kmNorthWest) 1st	3/26 11:38~12:00	5.8	4.8	26	
【3-1】(About30kmNorthWest) 2nd	3/26 13:18~13:39	5.2	2.2	26	
【3-1】(About30kmNorthWest) 1st	3/28 11:31~11:52	2.6	1.8	26	
【3-1】(About30kmNorthWest) 2nd	3/28 12:53~13:15	2.7	<1.2	26	
【3-1】(About30kmNorthWest) 1st	3/29 11:18~11:40	2.4	1.1	18.9	
【3-1】(About30kmNorthWest) 2nd	3/29 13:23~13:50	1.9	<1.0	-	

Readings are already announced in "Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP"

### Readings of dust sampling(2/2)

: the readings in this thick-frame box are new.

Sampling Point	Sampling Time and Date		Radioactivity Concentration(Bq/m <sup>3</sup> )		Reading (μ Sv/h)
			<sup>131</sup> I	<sup>137</sup> Cs	
【1】(About60km NorthWest)	3/19	18:30~18:50	1.22	ND	7.2
	3/20	18:30~18:50	203.00	32.20	5.0
	3/21	18:30~18:50	2.50	ND	4.5
	3/22	18:30~18:50	3.06	ND	5.2
	3/23	19:38~19:58	3.69	1.20	4.0
	3/24	18:30~18:55	ND	ND	3.6
	3/25	19:10~19:20	24.00	14.20	2.5
	3/26	18:30~18:40	1.75	ND	2.5
	3/27	18:30~18:50	0.87	ND	3.5
	3/28	18:33~18:43	1.13	ND	3.2
	3/29	18:30~18:50	1.56	ND	2.1
3/30	18:40~19:00	0.91	ND	2.0	
3/31	18:30~18:45	2.34	0.56	2.6	
【2-1】(About40 kmNorthWest)	3/21	13:00~13:20	12.80	2.37	4.1
	3/22	12:26~12:46	5.87	ND	4.2
	3/23	12:50~13:10	2.99	ND	16.8
	3/24	13:30~13:50	5.80	1.51	10.0
	3/25	12:45~13:05	5.87	ND	12.3
	3/26	12:26~12:46	5.39	1.33	7.8
	3/27	12:06~12:26	2.22	ND	11.2
	3/28	12:05~12:25	1.66	ND	9.6
	3/29	12:07~12:27	2.42	6.79	9.2
	3/30	13:22~13:42	3.47	LTD	8.5
3/31	11:50~12:10	1.74	LTD	8.0	
【2-2】(About45 kmNorthWest)	3/22	11:10~11:30	10.50	ND	7.8
	3/23	11:31~11:51	1.47	ND	6.0
	3/24	11:20~11:40	1.47	ND	2.0
	3/25	11:25~11:45	2.15	ND	7.5
	3/26	11:10~11:30	1.19	ND	4.3
	3/27	10:50~11:10	2.97	ND	5.5
	3/28	11:00~11:20	1.66	0.87	5.5
	3/29	11:30~11:23	1.10	2.02	4.8
	3/30	11:37~11:57	1.38	1.11	4.6
	3/31	10:40~11:00	1.36	ND	4.8
【2-3】(About40kmWest)	3/21	12:30~12:50	3.74	ND	0.9
	3/22	11:32~11:52	3.92	ND	2.2
	3/23	11:50~12:10	1.75	ND	1.0
	3/24	12:12~12:32	0.97	ND	-
	3/25	13:33~13:53	37.00	1.45	0.8
	3/26	11:52~12:12	1.77	ND	0.8
	3/27	11:48~12:08	1.07	ND	0.8
	3/28	11:39~11:59	ND	ND	0.7
	3/29	13:44~13:54	2.29	0.63	0.7
	3/30	12:25~12:35	1.59	ND	0.5
	3/31	12:05~12:15	2.07	ND	0.5

Sampling Point	Sampling Time and Date		Radioactivity Concentration(Bq/m <sup>3</sup> )		Reading (μSv/h)
			<sup>131</sup> I	<sup>137</sup> Cs	
【2-4】(About25kmNorth)	3/21	14:20~14:40	13.20	0.74	2.8
	3/22	13:35~13:55	3.81	ND	1.8
	3/23	14:10~14:30	2.62	ND	1.1
	3/24	14:55~15:15	193.00	2.94	1.2
	3/25	14:20~14:40	16.10	ND	0.7
	3/26	13:57~14:17	2.62	ND	1.3
	3/27	13:38~13:58	1.31	ND	1.4
	3/28	13:30~13:50	16.40	2.80	0.7
	3/29	13:30~13:50	63.40	38.60	1.0
	3/30	14:50~15:10	ND	LTD	0.0~1.3
【2-5】(About40kmSouthWest)	3/20	13:57~14:17	24.00	1.75	0.6
	3/21	13:37~13:57	2.69	ND	0.5
	3/22	12:32~12:52	6.29	ND	0.4
	3/23	12:50~13:10	1.86	ND	0.5
	3/24	13:21~13:41	1.19	ND	-
	3/25	13:35~13:55	12.40	ND	0.4
	3/26	11:55~12:15	ND	ND	0.6
	3/27	11:05~11:25	1.04	ND	0.5
	3/28	11:25~11:45	0.82	ND	-
	3/29	11:25~11:45	0.89	ND	0.3
	3/30	11:00~11:20	ND	ND	0.3
3/31	11:07~11:27	ND	ND	0.3	
【2-6】(About45kmSouth)	3/20	15:25~15:45	6.89	ND	0.6
	3/21	15:00~15:20	28.90	ND	1.5
	3/22	14:00~14:20	17.00	ND	0.6
	3/23	14:15~14:35	6.93	ND	1.0
	3/24	15:12~15:32	8.25	ND	1.4
	3/25	13:47~14:07	40.60	ND	1.1
	3/27	12:30~12:50	1.55	ND	0.8
	3/28	13:10~13:30	3.56	ND	0.3
	3/29	12:55~13:15	2.68	ND	0.7
	3/30	12:32~12:52	4.59	1.56	0.3
【2-7】(About35kmNorthWest)	3/25	15:05~15:22	555.00	12.40	12.0
	3/26	14:06~14:26	1.54	ND	8.8
	3/27	13:51~14:11	1.02	ND	8.7
	3/28	13:39~13:59	2.14	ND	8.4
	3/29	15:02~15:12	3.51	1.46	8.0
	3/30	14:05~14:15	1.33	0.89	13.9~15.4
	3/31	13:35~13:45	2.49	1.38	6.9
【2-8】(About50kmNorthWest)	3/24	12:05~12:25	2.71	ND	-
	3/25	16:13~16:33	34.00	ND	-
	3/26	15:15~15:35	ND	ND	-
	3/27	14:52~15:12	ND	ND	-
	3/28	14:38~14:58	ND	ND	-
	3/29	15:59~16:09	1.60	ND	1.6
	3/30	16:05~16:15	2.09	0.77	-
3/31	14:25~14:35	1.04	LTD	-	

Sampling Point	Sampling Time and Date	Radioactivity Concentration(Bq/m <sup>3</sup> )		Reading (μ Sv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【2-9】(About45km WestNorthWest)	3/25 11:32~11:52	8.67	ND	-
	3/26 10:10~10:30	7.98	ND	-
	3/27 10:28~10:48	ND	ND	-
	3/28 10:12~10:32	0.78	ND	-
	3/29 11:56~12:06	2.53	0.59	-
	3/30 11:00~11:10	1.54	ND	-
	3/31 10:40~10:50	1.34	0.92	-
【2-10】(About50km North)	3/25 16:25~16:45	33.60	0.84	-

The government requests Fukushima Prefecture to gain the readings above.

## Readings of soil monitoring



: the readings in this thick-frame box are new.

Boldface and underlined are corrected.

Sampling Point	Sampling Time and Date	Radioactivity Concentration (Bq/m <sup>3</sup> )		Reading (μSv/h)	Monitoring Point by monitoring car
		<sup>131</sup> I	<sup>137</sup> Cs		
[1-1] (About 45km North West)	3/31	29,000	9,400	4.8	[3]
[1-1] (About 45km North West)	4/1	11,000	2,900	3.3	[3]
[2] (About 55km North West)	3/31	48,000	15,000	4.1	[2]
[2] (About 55km North West)	3/31	16,000	6,300	2.1	[2]
[2] (About 55km North West)	4/1	31,000	8,800	3.8	[2]
[2] (About 55km North West)	4/1	13,000	5,700	3.8	[2]
[3-1] (About 30km North West)	3/23	200,000	45,000	103.0	[33]
[3-1] (About 30km North West)	3/25	251,000	60,100	27.0	[33]
[3-1] (About 30km North West)	3/25	341,000*	68,500*	27.0	[33]
[3-1] (About 30km North West)	3/26	15,000	3,000	26.0	[33]
[3-1] (About 30km North West)	3/27	93,000	29,000	26.0	[33]
[3-1] (About 30km North West)	3/28	110,000	36,000	43.0	[33]
[3-1] (About 30km North West)	3/29	220,000	65,000	18.9	[33]
[3-1] (About 30km North West)	3/30	190,000	70,000	17.3	[33]
[3-2] (About 30km North West)	3/23	92,000	15,000	15.0	[34]
[3-3] (About 35km West)	3/23	11,000	3,300	2.3	[15]
[3-3] (About 35km West)	3/24	4,900	220	2.5	[15]
[3-4] (About 40km North West)	3/23	33,000	8,600	2.8	[11]
[3-5] (About 50km North West)	3/23	4,200	770	2.8	[4]
[3-6] (About 30km West North West)	3/23	70,000	12,000	9.4	[21]
[3-6] (About 30km West North West)	3/26	13,000	2,900	6.5	[21]
[3-6] (About 30km West North West)	3/28	14,000	4,600	5.3	[21]
[3-6] (About 30km West North West)	3/29	25,000	7,100	-	[21]
[3-7] (About 25km South)	3/23	69,000	2,600	14.0	[71]
[3-8] (About 25km South)	3/23	140,000	2,900	14.0	[71]
[3-9] (About 45km North)	3/25	6,900	1,600	2.7	[5]
[3-9] (About 45km North)	3/26	6,900	1,600	1.0	[5]
[3-9] (About 45km North)	3/26	110,000	2,800	1.0	[5]
[3-9] (About 45km North)	3/28	12,000	4,100	0.6~1.2	[5]
[3-10] (About 40km North)	3/25	11,000	3,300	3.7	[6]
[3-10] (About 40km North)	3/26	14,000	3,800	1.5	[6]
[3-10] (About 40km North)	3/28	11,000	3,600	1.2	[6]
[3-10] (About 40km North)	3/29	8,400	3,200	1.3	[6]
[3-10] (About 40km North)	3/30	6,100	2,000	1.4	[6]
[3-10] (About 40km North)	3/31	9,600	4,700	1.3	[6]
[3-10] (About 40km North)	4/1	5,400	2,800	1.0	[6]
[3-11] (About 40km North)	3/25	8,000	1,300	3.2	[7]
[3-11] (About 40km North)	3/26	13,000	4,300	1.5	[7]
[3-11] (About 40km North)	3/28	8,200	2,000	3.3	[7]
[3-12] (About 30km West North West)	3/25	29,000	627	30.5	[31]
[3-12] (About 30km West North West)	3/26	22,000	1,600	17.8	[31]
[3-12] (About 30km West North West)	3/27	120,000	27,000	25.0	[31]
[3-12] (About 30km West North West)	3/28	120,000	28,000	23.0	[31]
[3-12] (About 30km West North West)	3/29	710,000	220,000	18.3	[31]
[3-12] (About 30km West North West)	3/30	710,000	290,000	16.3	[31]

【3-13】 (About30kmNorthWest)	3/25	88,700	9,260	65.0	【32】
【3-13】 (About30kmNorthWest)	3/26	290,000	33,000	46.0	【32】
【3-13】 (About30kmNorthWest)	3/27	550,000	80,000	45.0	【32】
【3-13】 (About30kmNorthWest)	3/28	210,000	9,200	50.0	【32】
【3-13】 (About30kmNorthWest)	3/29	660,000	94,000	43.0	【32】
【3-13】 (About30kmNorthWest)	3/30	260,000	52,000	41.6	【32】
【3-14】 (About40kmNorthWest)	3/25	73,000	18,000	7.0	【36】
【3-14】 (About40kmNorthWest)	3/26	49,000	9,300	7.8	【36】
【3-14】 (About40kmNorthWest)	3/28	65,000	21,000	8.0	【36】
【3-14】 (About40kmNorthWest)	3/29	63,000	21,000	6.0	【36】
【3-14】 (About40kmNorthWest)	3/30	71,000	24,000	5.6	【36】
【3-14】 (About40kmNorthWest)	3/31	59,000	28,000	5.3	【36】
【3-15】(About25kmSouth)	3/25	560	410	5.5	【71】
【3-15】(About25kmSouth)	3/26	31,000	1,800	3.9	【71】
【3-15】(About25kmSouth)	3/28	42,000	1,500	3.0	【71】
【3-16】 (About45kmNorthWest)	3/28	7,800	3,500	1.7	-
【37】(About50kmNorthWest)	4/1	15,000	16,000	4.6	【37】
【72】(About30kmSouth)	3/31	18,000	1,500	1.5	【72】
【73】(About35kmSouth)	3/31	13,000	1,100	1.3	【73】
【74】(About35kmSouth)	3/31	4,300	330	0.5	【74】
【75】(About45kmSouth)	3/31	14,000	650	0.7	【75】
【83】(About20kmNorthWest)	3/30	340,000	170,000	59.3	【83】

\*1 For reference, the sample is collected from about 5mm of soil. (Samples are usually collected from about 5cm of soil.)



Readings of environmental monitoring samples

: the readings in this thick-frame box are new.

Sampling Point	Address of Sampling Point	Sample	Sort or Region	Sampling Time and Date	Radioactivity Concentration (Bq/kg)		Reading ( $\mu$ Sv/h)	Note
					<sup>131</sup> I	<sup>137</sup> Cs		
<b>[2-1](About40 kmNorthWest)</b>	litate Village	Weed	Leaf Vegetable	2011/3/18 12:20	2,520,000	1,800,000	30以上	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/19 11:40	845,000	1,010,000	26.5	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/20 12:40	2,540,000	2,650,000	25.8	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/21 12:32	1,330,000	1,240,000	20.4	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/22 12:00	1,110,000	1,600,000	15.3	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/23 11:30	819,000	1,620,000	16.8	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/24 13:05	805,000	1,050,000	13.2	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/25 12:20	400,000	398,000	12.3	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/26 12:00	1,030,000	2,870,000	10.2	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/27 11:40	508,000	910,000	11.2	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/28 11:50	381,000	480,000	9.6	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/29 11:10	330,000	311,000	9.2	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/30 12:25	576,000	1,890,000	8.5	
[2-1](About40 kmNorthWest)	litate Village	Weed	Leaf Vegetable	2011/3/31 11:30	303,000	1,620,000	8.0	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/18 11:45	173,000	72,800	-	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/19 11:00	184,000	65,100	-	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/20 12:05	308,000	138,000	4.2	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/21 12:03	315,000	120,000	3.5	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/22 11:00	180,000	89,000	7.8	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/23 11:30	170,000	73,700	5.5	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/23 11:30	74,400	23,100	5.5	Washed
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/23 11:30	46,200	16,000	5.5	No Washed
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/24 11:20	141,000	43,200	5.0	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/25 11:30	155,000	53,000	7.5	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/26 11:20	79,500	54,700	4.3	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/27 10:45	50,000	32,900	5.5	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/28 11:05	46,000	33,600	5.5	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/29 11:00	71,900	67,900	4.8	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/30 11:35	33,500	27,500	4.6	
[2-2](About45 kmNorthWest)	Kawamata Town	Weed	Leaf Vegetable	2011/3/31 10:35	33,000	34,100	4.8	
[2-3](About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/18 11:35	36,000	40,100	1.6	
[2-3](About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/19 11:35	68,000	38,500	0.8	

Sampling Point	Address of Sampling Point	Sample	Sort or Region	Sampling Time and Date	Radioactivity Concentration (Ba/kg)		Reading ( $\mu$ Sv/h)	Note
					$^{131}\text{I}$	$^{137}\text{Cs}$		
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/20 12:40	75,700	50,000	0.7	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/21 12:30	30,800	25,000	0.7	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/22 11:30	43,200	25,000	1.4	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/23 11:50	24,100	17,000	1.0	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/24 11:35	29,400	32,600	0.5	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/25 13:28	23,400	13,700	0.8	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/26 11:35	33,100	10,700	0.6	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/27 11:45	33,300	19,800	0.4	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/28 11:38	37,000	22,400	0.7	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/29 13:35	24,800	34,500	0.7	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/30 12:30	18,600	18,800	0.5	
【2-3】(About40 kmWest)	Tamura City	Weed	Leaf Vegetable	2011/3/31 12:10	15,500	11,500	0.5	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/18 13:30	88,600	17,800	-	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/19 13:00	455,000	24,900	-	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/20 14:30	497,000	24,700	3.4	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/21 14:07	289,000	13,400	2.8	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/22 13:35	140,000	17,200	1.8	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/23 14:10	185,000	17,200	1.1	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/24 14:40	184,000	27,900	1.2	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/25 14:20	217,000	18,800	0.7	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/26 13:50	83,700	10,500	1.3	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/27 13:25	161,000	39,900	1.4	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/28 13:27	113,000	23,900	0.7	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/29 13:30	109,000	17,000	1.0	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/30 14:45	113,000	13,100	0.0~1.3	
【2-4】(About25 kmNorth)	Minamisouma City	Weed	Leaf Vegetable	2011/3/31 13:15	65,100	20,600	1.4	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/18 12:35	181,000	28,300	0.9	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/19 12:15	201,000	73,800	0.7	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/20 13:50	36,900	11,700	0.6	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/21 13:40	20,300	11,200	0.4	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/22 12:40	32,000	8,120	0.5	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/23 12:50	22,300	10,300	0.5	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/24 13:18	29,700	4,900	0.4	
【2-5】(About40 kmSouthWest)	Ono Town	Weed	Leaf Vegetable	2011/3/25 11:30	21,800	8,040	0.4	

Sampling Point	Address of Sampling Point	Sample	Sort or Region	Sampling Time and Date	Radioactivity Concentration (Bq/kg)		Reading ( $\mu$ Sv/h)	Note
					<sup>131</sup> I	<sup>137</sup> Cs		
[2-5] (About 40 km South West)	Ono Town	Weed	Leaf Vegetable	2011/3/26 11:50	25,800	5,150	0.6	
[2-5] (About 40 km South West)	Ono Town	Weed	Leaf Vegetable	2011/3/27 11:10	18,600	4,970	0.5	
[2-5] (About 40 km South West)	Ono Town	Weed	Leaf Vegetable	2011/3/28 11:25	16,700	4,550	-	
[2-5] (About 40 km South West)	Ono Town	Weed	Leaf Vegetable	2011/3/29 11:30	16,700	3,770	0.3	
[2-5] (About 40 km South West)	Ono Town	Weed	Leaf Vegetable	2011/3/30 11:08	10,300	6,280	0.3	
[2-5] (About 40 km South West)	Ono Town	Weed	Leaf Vegetable	2011/3/31 11:11	9,960	6,600	0.3	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/18 13:15	690,000	17,400	-	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/18 13:40	468,000	10,100	-	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/20 15:25	548,000	17,500	0.6	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/21 15:10	115,000	2,380	1.5	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/22 13:50	448,000	18,600	0.6	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/23 14:20	451,000	30,300	1.0	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/24 15:00	454,000	6,210	1.4	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/25 13:45	170,000	6,860	1.1	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/26 13:50	291,000	12,800	1.0	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/27 12:30	126,000	7,470	0.8	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/28 12:50	71,800	4,370	0.3	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/29 13:05	132,000	9,310	0.7	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/30 12:30	121,000	10,100	0.3	
[2-6] (About 45 km South)	Iwaki City	Weed	Leaf Vegetable	2011/3/31 12:51	81,600	4,990	0.7	
[2-7] (About 35 km North West)	Kawamata Town	Weed	Leaf Vegetable	2011/3/25 15:07	663,000	497,000	12.0	
[2-7] (About 35 km North West)	Kawamata Town	Weed	Leaf Vegetable	2011/3/28 14:03	488,000	571,000	8.8	
[2-7] (About 35 km North West)	Kawamata Town	Weed	Leaf Vegetable	2011/3/27 13:44	402,000	490,000	8.7	
[2-7] (About 35 km North West)	Kawamata Town	Weed	Leaf Vegetable	2011/3/28 13:39	443,000	689,000	8.4	
[2-7] (About 35 km North West)	Kawamata Town	Weed	Leaf Vegetable	2011/3/29 14:50	242,000	383,000	8.0	
[2-7] (About 35 km North West)	Kawamata Town	Weed	Leaf Vegetable	2011/3/30 14:00	267,000	338,000	13.9~15.4	
[2-7] (About 35 km North West)	Kawamata Town	Weed	Leaf Vegetable	2011/3/31 13:40	227,000	465,000	6.9	
[2-8] (About 50 km North West)	Date City	Weed	Leaf Vegetable	2011/3/25 16:18	77,100	40,700	-	
[2-8] (About 50 km North West)	Date City	Weed	Leaf Vegetable	2011/3/26 15:13	39,400	24,000	-	
[2-8] (About 50 km North West)	Date City	Weed	Leaf Vegetable	2011/3/27 15:50	43,900	44,600	-	
[2-8] (About 50 km North West)	Date City	Weed	Leaf Vegetable	2011/3/28 14:37	43,300	52,000	-	
[2-8] (About 50 km North West)	Date City	Weed	Leaf Vegetable	2011/3/29 15:50	37,100	62,100	1.6	
[2-8] (About 50 km North West)	Date City	Weed	Leaf Vegetable	2011/3/30 16:05	33,800	44,300	-	
[2-8] (About 50 km North West)	Date City	Weed	Leaf Vegetable	2011/3/31 14:25	22,500	24,500	-	

Sampling Point	Address of Sampling Point	Sample	Sort or Region	Sampling Time and Date	Radioactivity Concentration (Bq/kg)		Reading ( $\mu$ Sv/h)	Note
					$^{131}\text{I}$	$^{137}\text{Cs}$		
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Weed	Leaf Vegetable	2011/3/25 11:40	73,400	235,000	-	
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Weed	Leaf Vegetable	2011/3/28 10:13	24,300	106,000	-	
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Weed	Leaf Vegetable	2011/3/27 10:30	73,400	230,000	-	
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Weed	Leaf Vegetable	2011/3/28 10:13	34,500	223,000	-	
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Weed	Leaf Vegetable	2011/3/29 11:45	34,000	160,000	-	
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Weed	Leaf Vegetable	2011/3/30 10:35	31,500	153,000	-	
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Weed	Leaf Vegetable	2011/3/31 10:50	17,700	131,000	-	
【2-10】(About50 kmNorth)	Shinchi Town	Weed	Leaf Vegetable	2011/3/25 16:20	29,300	12,500	-	

The government requests Fukushima Prefecture to gain the readings above.

### Readings of environmental monitoring samples

: the readings in this thick-frame box are new.

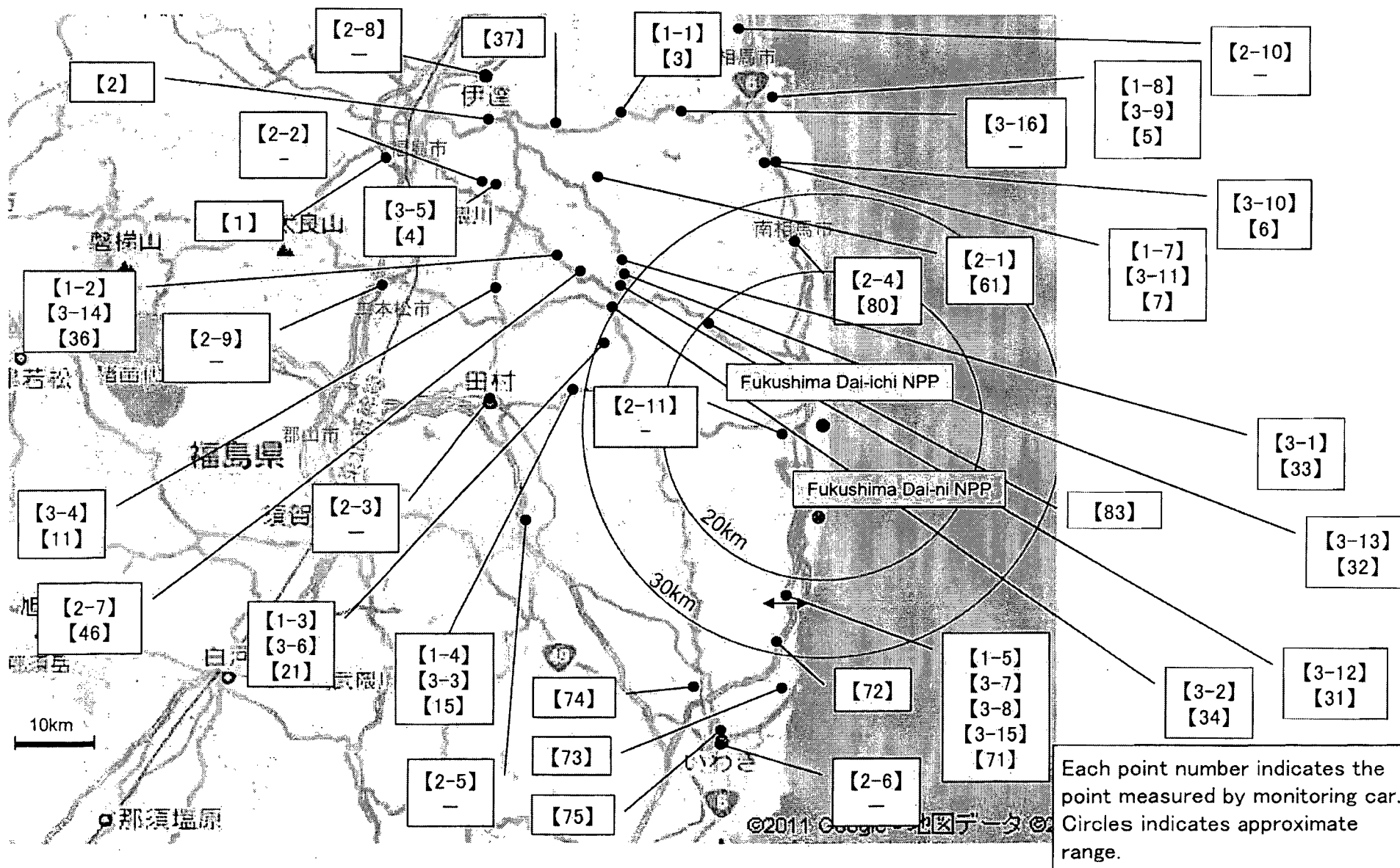
Sampling Point	Address of Sampling Point	Sample	Sort or Region	Sampling Time and Date	Radioactivity Concentration (Bq/kg)		Note
					<sup>131</sup> I	<sup>137</sup> Cs	
<b>【2-1】</b> (About 40km North West)	litate Village	Island Water	Pond Water	2011/3/18 12:20	2,090	511	
	litate Village	Island Water	Pond Water	2011/3/19 11:36	2,450	940	
	litate Village	Island Water	Pond Water	2011/3/20 12:40	2,010	437	
	litate Village	Island Water	Pond Water	2011/3/21 12:35	1,720	246	
	litate Village	Island Water	Pond Water	2011/3/22 12:00	1,330	172	
	litate Village	Island Water	Pond Water	2011/3/23 12:25	1,260	145	
	litate Village	Island Water	Pond Water	2011/3/24 13:05	1,330	268	
	litate Village	Island Water	Pond Water	2011/3/25 12:20	1,280	507	
	litate Village	Island Water	Pond Water	2011/3/26 12:00	835	162	
	litate Village	Island Water	Pond Water	2011/3/27 11:40	828	145	
	litate Village	Island Water	Pond Water	2011/3/28 11:50	884	183	
	litate Village	Island Water	Pond Water	2011/3/29 11:50	701	158	
	litate Village	Island Water	Pond Water	2011/3/30 12:25	629	113	
	litate Village	Island Water	Pond Water	2011/3/31 11:30	610	192	
	litate Village	Island Soil	Soil	2011/3/19 11:40	300,000	28,100	
	litate Village	Island Soil	Soil	2011/3/20 12:40	1,170,000	163,000	
	litate Village	Island Soil	Soil	2011/3/21 12:32	207,000	39,900	
	litate Village	Island Soil	Soil	2011/3/22 12:00	256,000	57,400	
	litate Village	Island Soil	Soil	2011/3/23 12:25	135,000	32,200	
	litate Village	Island Soil	Soil	2011/3/24 13:05	45,500	1,870	
	litate Village	Island Soil	Soil	2011/3/25 13:05	265,000	27,900	
	litate Village	Island Soil	Soil	2011/3/26 12:00	564,000	227,000	
	litate Village	Island Soil	Soil	2011/3/26 15:20	82,000	28,000	
	litate Village	Island Soil	Soil	2011/3/27 11:40	169,000	29,100	
	litate Village	Island Soil	Soil	2011/3/27 12:00	69,800	20,800	
	litate Village	Island Soil	Soil	2011/3/28 11:50	14,000	2,040	
	litate Village	Island Soil	Soil	2011/3/28 12:10	23,100	860	
	litate Village	Island Soil	Soil	2011/3/29 11:50	53,700	5,650	
	litate Village	Island Soil	Soil	2011/3/29 12:10	58,400	25,100	
	litate Village	Island Soil	Soil	2011/3/30 12:25	89,000	32,300	
	litate Village	Island Soil	Soil	2011/3/30 12:45	11,900	408	
	litate Village	Island Soil	Soil	2011/3/31 11:30	149,000	27,600	
litate Village	Island Soil	Soil	2011/3/31 11:45	60,800	26,500		
<b>【2-2】</b> (About 45km North West)	Kawamata Town	Island Soil	Soil	2011/3/18 11:45	84,300	14,200	
	Kawamata Town	Island Soil	Soil	2011/3/19 11:00	85,400	8,690	
	Kawamata Town	Island Soil	Soil	2011/3/20 12:04	151,000	15,100	
	Kawamata Town	Island Soil	Soil	2011/3/21 12:10	157,000	16,500	
	Kawamata Town	Island Soil	Soil	2011/3/22 11:00	38,900	4,720	
	Kawamata Town	Island Soil	Soil	2011/3/23 11:30	44,600	6,010	
	Kawamata Town	Island Soil	Soil	2011/3/24 11:20	21,500	1,160	
	Kawamata Town	Island Soil	Soil	2011/3/26 11:20	29,300	3,760	
	Kawamata Town	Island Soil	Soil	2011/3/27 10:45	44,900	7,580	
	Kawamata Town	Island Soil	Soil	2011/3/28 11:05	31,100	2,470	
	Kawamata Town	Island Soil	Soil	2011/3/29 11:00	34,400	5,900	
	Kawamata Town	Island Soil	Soil	2011/3/30 11:35	23,800	5,280	
	Kawamata Town	Island Soil	Soil	2011/3/31 10:35	32,300	6,810	

Sampling Point	Address of Sampling Point	Sample	Sort or Region	Sampling Time and Date	Radioactivity Concentration (Bq/kg)		Note
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-3】 (About40kmWest)	Tamura City	Island Soil	Soil	2011/3/18 11:50	19,300	3,510	
	Tamura City	Island Soil	Soil	2011/3/19 11:35	6,970	1,260	
	Tamura City	Island Soil	Soil	2011/3/20 12:40	5,390	1,250	
	Tamura City	Island Soil	Soil	2011/3/21 12:30	3,000	390	
	Tamura City	Island Soil	Soil	2011/3/22 11:30	7,290	1,290	
	Tamura City	Island Soil	Soil	2011/3/24 11:35	6,600	1,310	
	Tamura City	Island Soil	Soil	2011/3/25 13:35	5,480	778	
	Tamura City	Island Soil	Soil	2011/3/26 11:51	5,250	1,010	
	Tamura City	Island Soil	Soil	2011/3/27 11:45	3,700	796	
	Tamura City	Island Soil	Soil	2011/3/28 11:37	4,360	1,110	
	Tamura City	Island Soil	Soil	2011/3/29 13:35	5,080	1,610	
	Tamura City	Island Soil	Soil	2011/3/30 12:30	5,040	834	
Tamura City	Island Soil	Soil	2011/3/31 12:10	3,530	1,180		
【2-4】 (About25kmNorth)	Minamisouma City	Island Soil	Soil	2011/3/18 13:30	22,600	3,280	
	Minamisouma City	Island Soil	Soil	2011/3/19 13:00	35,800	4,040	
	Minamisouma City	Island Soil	Soil	2011/3/20 14:30	35,800	4,850	
	Minamisouma City	Island Soil	Soil	2011/3/21 14:07	83,200	8,660	
	Minamisouma City	Island Soil	Soil	2011/3/23 14:10	16,600	1,720	
	Minamisouma City	Island Soil	Soil	2011/3/24 14:40	14,900	1,990	
	Minamisouma City	Island Soil	Soil	2011/3/25 14:20	2,480	189	
	Minamisouma City	Island Soil	Soil	2011/3/26 13:50	15,100	2,490	
	Minamisouma City	Island Soil	Soil	2011/3/27 13:25	10,100	1,520	
	Minamisouma City	Island Soil	Soil	2011/3/28 13:27	7,730	1,330	
	Minamisouma City	Island Soil	Soil	2011/3/29 13:30	9,010	2,200	
	Minamisouma City	Island Soil	Soil	2011/3/30 14:45	14,900	3,300	
Minamisouma City	Island Soil	Soil	2011/3/31 13:15	7,980	2,850		
【2-5】 (About40kmSouth West)	Ono Town	Island Water	Rain Water	2011/3/22 12:40	7,440	107	
	Ono Town	Island Water	Rain Water	2011/3/25 11:38	3,000	800	
	Ono Town	Island Soil	Soil	2011/3/18 12:30	8,170	2,260	
	Ono Town	Island Soil	Soil	2011/3/19 12:15	14,100	4,630	
	Ono Town	Island Soil	Soil	2011/3/20 13:50	10,300	3,020	
	Ono Town	Island Soil	Soil	2011/3/21 13:40	4,830	910	
	Ono Town	Island Soil	Soil	2011/3/22 11:40	3,220	466	
	Ono Town	Island Soil	Soil	2011/3/23 12:50	6,430	1,590	
	Ono Town	Island Soil	Soil	2011/3/24 13:18	2,830	747	
	Ono Town	Island Soil	Soil	2011/3/25 11:39	3,000	800	
	Ono Town	Island Soil	Soil	2011/3/26 11:50	1,510	159	
	Ono Town	Island Soil	Soil	2011/3/27 11:10	2,140	158	
	Ono Town	Island Soil	Soil	2011/3/28 11:25	505	59	
	Ono Town	Island Water	Soil	2011/3/29 11:30	2,290	161	
	Ono Town	Island Soil	Soil	2011/3/30 11:02	2,230	947	
Ono Town	Island Soil	Soil	2011/3/31 11:10	1,690	342		

Sampling Point	Address of Sampling Point	Sample	Sort or Region	Sampling Time and Date	Radioactivity Concentration (Bq/kg)		Note
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-6】 (About45kmSouth)	Iwaki City	Island Soil	Soil	2011/3/19 13:15	12,600	288	
	Iwaki City	Island Soil	Soil	2011/3/20 15:17	14,600	460	
	Iwaki City	Island Soil	Soil	2011/3/21 15:10	30,700	1,220	
	Iwaki City	Island Soil	Soil	2011/3/22 13:50	1,960	1,290	
	Iwaki City	Island Soil	Soil	2011/3/23 14:20	32,600	840	
	Iwaki City	Island Soil	Soil	2011/3/24 15:00	27,100	951	
	Iwaki City	Island Soil	Soil	2011/3/25 13:45	23,900	519	
	Iwaki City	Island Soil	Soil	2011/3/26 13:50	41,100	875	
	Iwaki City	Island Soil	Soil	2011/3/27 12:30	25,100	849	
	Iwaki City	Island Soil	Soil	2011/3/28 12:50	11,500	465	
	Iwaki City	Island Soil	Soil	2011/3/29 13:05	15,700	617	
【2-7】(About35 kmNorthWest)	Kawamata Town	Island Soil	Soil	2011/3/25 15:05	112,000	21,800	
	Kawamata Town	Island Soil	Soil	2011/3/26 13:59	100,000	21,900	
	Kawamata Town	Island Soil	Soil	2011/3/27 13:47	50,800	7,350	
	Kawamata Town	Island Soil	Soil	2011/3/28 13:39	39,800	4,330	
	Kawamata Town	Island Soil	Soil	2011/3/29 14:50	61,800	23,400	
	Kawamata Town	Island Soil	Soil	2011/3/30 14:00	42,600	7,750	
	Kawamata Town	Island Soil	Soil	2011/3/31 13:40	14,700	949	
【2-8】(About50 kmNorthWest)	Date City	Island Soil	Soil	2011/3/24 12:10	41,200	6,850	
	Date City	Island Soil	Soil	2011/3/25 16:15	20,800	3,790	
	Date City	Island Soil	Soil	2011/3/26 15:13	16,000	3,740	
	Date City	Island Soil	Soil	2011/3/27 14:54	16,900	3,070	
	Date City	Island Soil	Soil	2011/3/28 14:34	22,300	5,320	
	Date City	Island Soil	Soil	2011/3/29 15:50	25,700	5,800	
	Date City	Island Soil	Soil	2011/3/30 16:05	20,500	3,360	
【2-9】(About45 kmWestNorthWest)	Nihonmatsu City	Island Soil	Soil	2011/3/25 11:35	32,900	9,330	
	Nihonmatsu City	Island Soil	Soil	2011/3/26 10:14	39,000	16,900	
	Nihonmatsu City	Island Soil	Soil	2011/3/27 10:26	49,300	22,700	
	Nihonmatsu City	Island Soil	Soil	2011/3/28 10:13	34,100	15,700	
	Nihonmatsu City	Island Soil	Soil	2011/3/29 11:45	36,400	21,100	
	Nihonmatsu City	Island Soil	Soil	2011/3/30 10:35	24,000	14,800	
【2-10】(About50 kmNorth) (Reference)	Shinchi Town	Island Soil	Soil	2011/3/25 16:20	44	3,740	
【2-11】(About5 kmSouthWest)	Ookuma Town	Island Soil	Soil	2011/3/31 13:00	423,000	98,100	

The government requests Fukushima Prefecture to gain the readings above.

# Sampling points out of Fukushima Dai-ichi NPP





## Readings of integrated Dose at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 10:00 April 2, 2011  
Ministry of Education, Culture, Sports,  
Science and Technology (MEXT)

\* 1 the readings are measured by pocket dosimeter

Monitoring Post (length from NPP)	Date and Time (last monitoring) (x)	Readings (last monitoring) (a) ( $\mu$ Sv)	Monitoring Date and Time (y)	Monitoring Date and Time (y)	Reading of Integrated Dose (b) ( $\mu$ Sv)	Accumulated Time (z = y - x)	Reading of integrated Dose (c = b - a) ( $\mu$ Sv)	Weather
Reading Point 【31】 (About30kmWestNorthWest)	2011/3/23 11:43	2011/3/31 10:45	3763.0 *1	2011/4/1 10:36	4078.0 *1	23hour51minutes	315.0 (13.2 $\mu$ Sv/hour)	No Rain
Reading Point 【32】 (About30kmNorthWest)	2011/3/23 12:14	2011/3/31 11:00	8260.0 *1	2011/4/1 10:58	8985.0 *1	23hour58minutes	725.0 (30.3 $\mu$ Sv/hour)	No Rain
Reading Point 【33】 (About30kmNorthWest)	2011/3/23 12:32	2011/3/31 11:20	4870.0 *1	2011/4/1 11:28	5339.0 *1	24hour08minutes	469.0 (19.4 $\mu$ Sv/hour)	No Rain
Reading Point 【34】 (About30kmNorthWest)	2011/3/23 13:08	2011/3/31 12:50	1646.0 *1	2011/4/1 13:04	1807.0 *1	24hour14minutes	161.0 (6.6 $\mu$ Sv/hour)	No Rain
Reading Point 【38】 (About35kmSouth)	2011/3/31 16:23	2011/3/31 16:23	0.0 *1	2011/4/1 11:40	15.0 *1	19hour17minutes	15.0 (0.8 $\mu$ Sv/hour)	No Rain
Reading Point 【71】 (About25kmSouth)	2011/3/23 13:00	2011/3/28 13:15	372.0 *1	-	-	-	-	-
Reading Point 【79】 (About30kmNorthWest)	2011/3/23 14:09	2011/3/31 12:00	3753.0 *1	2011/4/1 12:29	4127.0 *1	24hour29minutes	374.0 (15.3 $\mu$ Sv/hour)	No Rain
Reading Point 【7】 (About45kmNorth)	2011/3/23 12:06	2011/3/31 12:28	231.0 *1	2011/4/1 11:43	252.0 *1	23hour15minutes	21.0 (0.9 $\mu$ Sv/hour)	No Rain
Reading Point 【1】 (About60kmNorthWest)	2011/3/24 15:20	2011/3/31 15:20	213.0 *1	2011/4/1 17:52	244.0 *1	26hour32minutes	31.0 (1.2 $\mu$ Sv/hour)	No Rain
Reading Point 【15】 (About35kmWest)	2011/3/24 10:58	2011/3/31 13:38	358.0 *1	2011/4/1 12:19	395.0 *1	22hour41minutes	37.0 (1.6 $\mu$ Sv/hour)	No Rain
Reading Point 【84】 (About40kmSouthWest)	2011/3/25 10:40	2011/3/31 11:02	43.0 *1	2011/4/1 9:47	48.0 *1	22hour45minutes	5.0 (0.2 $\mu$ Sv/hour)	No Rain
Reading Point 【39】 (約45kmNorth)	2011/4/1 10:45	2011/4/1 10:45	0.0 *1	-	-	-	-	-

notes: The parentetic figures in the column "Integrated Dose" indicates the values of readings of integrated dose divided by accumulated time (z/c).

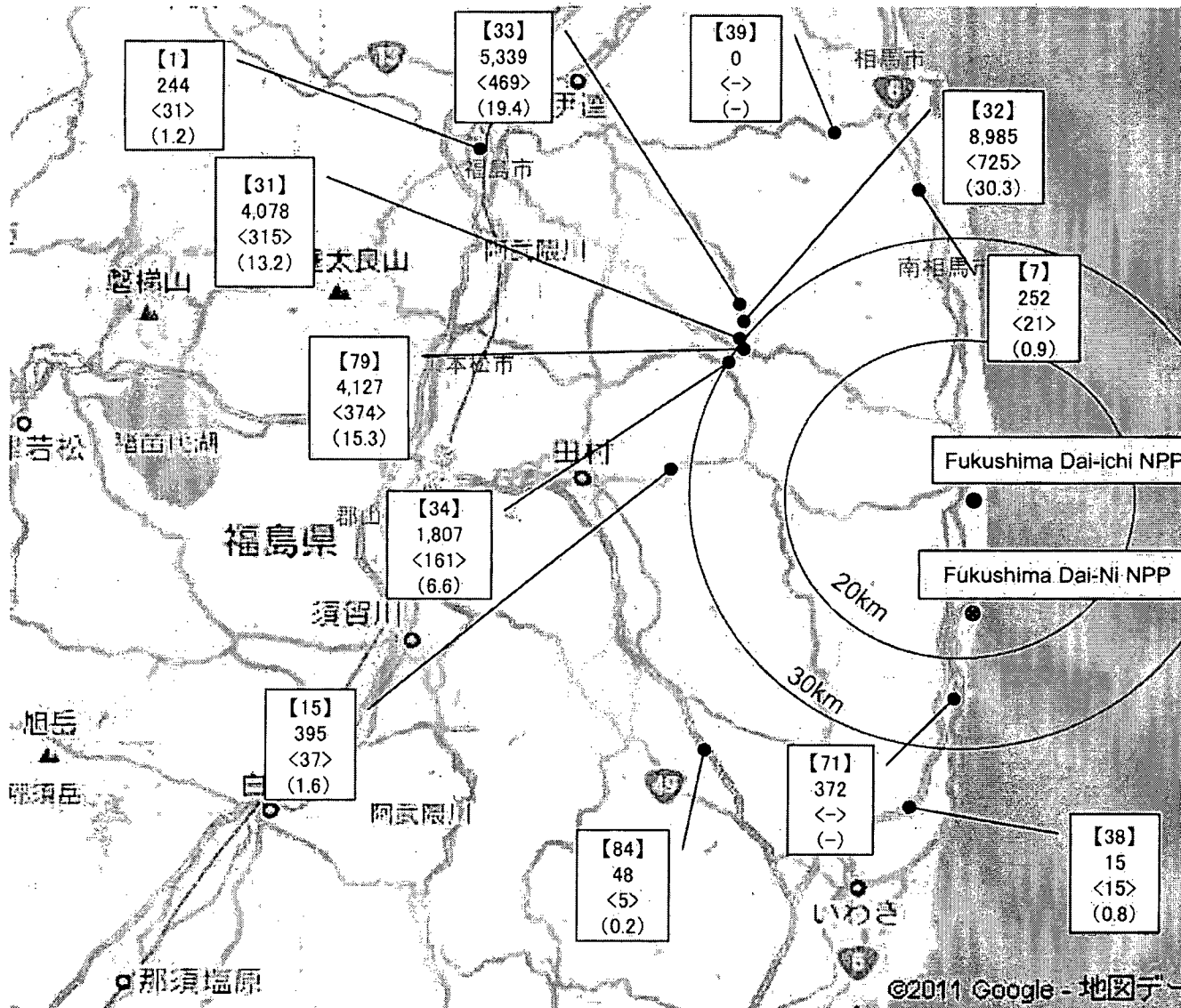
• Reading by MEXT

• The figures of 0.0 in the column "Date and Time (last monitoring)" indicate that there was new instlation in the area.

• Monitoring in the area 【71】 will be conducted from the next time, while it planed not to run car in these area on 31th March.

• Monitoring in the area 【38】 has started to conduct on March 3.

# Readings of Integrated Dose at Monitoring Post out of Fukushima Dai-ichi NPP



## Monitoring Time

- March 23th ~ April 1th  
(Monitoring Post : 7, 31~34, 79)
- March 23th~28th  
(Monitoring Post: 71)
- March 24th~31th  
(Monitoring Post: 1, 15)
- March 25th~31th  
(Monitoring Post : 84)
- March 31th~April 1th  
(Monitoring Post:38)
- April 1th  
(Monitoring Post:39)

● Monitoring Post

(explanatory note)

**【 Monitoring Post number】**  
Readings of Integrated Dose ※  
<increment from the last monitoring>  
(average dose per hour)

Readings of Integrated Dose indicate that accumulation of dose from each starting date till April 1th, for 1 day to 10days.

Unit:  $\mu$  Sv per hour

## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 10:00 April 2, 2011  
Ministry of Education, Culture, Sports, Science and  
Technology (MEXT)

○Monitoring Outputs by MEXT \*Boldface and underlined readings are new.

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point <b><u>[1]</u></b> (about60KmNorthWest)	<b><u>2011/4/1 18:07</u></b>	<b><u>1.7</u></b> *2	No Rain	<b><u>JAEA (Japan Atomic Energy Agency)</u></b>
Reading Point [1] (about60KmNorthWest)	2011/4/1 8:48	2.7 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [2] (about55KmNorthWest)	2011/4/1 9:18	3.8 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [3] (about45KmNorthWest)	2011/4/1 10:14	3.3 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [5] (about45KmNorth)	2011/4/1 11:12	0.8 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [6] (about45KmNorth)	2011/4/1 11:34	1.0 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [7] (about45KmNorth)	2011/4/1 11:43	1.1 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [10] (about40KmNorthWest)	2011/4/1 16:03	1.6 *2	No Rain	MEXT
Reading Point [12] (about40KmWest)	2011/4/1 11:39	0.5 *2	No Rain	MEXT
Reading Point [13] (about40KmWest)	2011/4/1 11:53	0.5 *2	No Rain	MEXT
Reading Point [14] (about35KmWest)	2011/4/1 12:06	0.2 *2	No Rain	MEXT
Reading Point [15] (about35KmWest)	2011/4/1 12:19	0.6 *2	No Rain	MEXT
Reading Point [20] (about45KmNorthWest)	2011/4/1 10:37	0.6 *2	No Rain	MEXT
Reading Point [21] (about30KmWestNorthWest)	2011/4/1 11:09	2.3 *2	No Rain	MEXT
Reading Point [22] (about30KmWestNorthWest)	2011/4/1 11:00	0.6 *2	No Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point [23] (about30KmWestNorthWest)	2011/4/1 10:48	0.6 *2	No Rain	MEXT
Reading Point [31] (about30KmWestNorthWest)	2011/4/1 10:33	15.4 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [32] (about30KmNorthWest)	2011/4/1 10:56	36.2 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [33] (about30KmNorthWest)	2011/4/1 11:22	18.2 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [34] (about30KmNorthWest)	2011/4/1 13:02	5.8 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [36] (about40KmNorthWest)	2011/4/1 10:08	5.7 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [37] (about50kmNorthWest)	2011/4/1 9:57	4.6 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [38] (about35kmSouth)	2011/4/1 11:37	1.0 *2	No Rain	MEXT
Reading Point [39] (about45kmNorth)	2011/4/1 10:53	1.3 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [41] (about20KmWest)	2011/4/1 13:15	1.0 *2	No Rain	Electric power company
Reading Point [41] (about20KmWest)	2011/4/1 8:45	1.1 *2	No Rain	Electric power company
Reading Point [42] (about30KmWest)	2011/4/1 13:00	1.2 *2	No Rain	Electric power company
Reading Point [42] (about30KmWest)	2011/4/1 9:40	1.2 *2	No Rain	Electric power company
Reading Point [43] (about20KmSouthWest)	2011/4/1 15:10	0.4 *2	No Rain	Electric power company
Reading Point [43] (about20KmSouthWest)	2011/4/1 11:10	0.4 *2	No Rain	Electric power company
Reading Point [44] (about30KmSouth)	2011/4/1 13:50	1.2 *2	No Rain	Electric power company
Reading Point [44] (about30KmSouth)	2011/4/1 10:30	1.3 *2	No Rain	Electric power company
Reading Point [45] (about20KmSouth)	2011/4/1 14:18	1.9 *2	No Rain	Electric power company
Reading Point [45] (about20KmSouth)	2011/4/1 10:57	2.2 *2	No Rain	Electric power company
Reading Point [46] (about20KmNorthWest)	2011/4/1 13:30	6.5 *2	No Rain	Electric power company

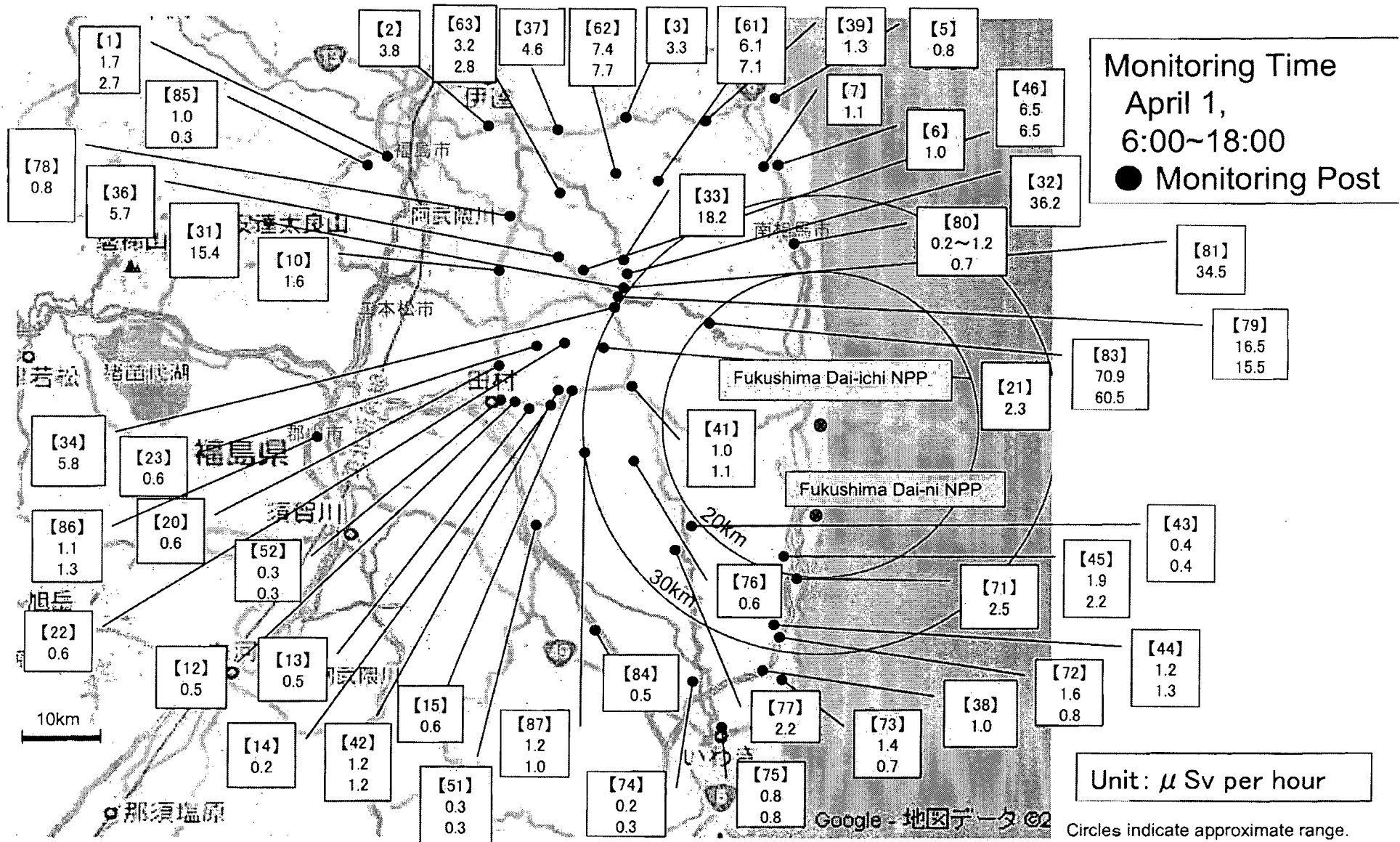
- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【46】 (about20KmNorthWest)	2011/4/1 10:15	6.5 * <sup>2</sup>	No Rain	Electric power company
Reading Point 【51】 (about40KmSouthWest)	2011/4/1 13:45	0.3 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【51】 (about40KmSouthWest)	2011/4/1 10:42	0.3 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【52】 (about40KmWest)	2011/4/1 14:23	0.3 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【52】 (about40KmWest)	2011/4/1 12:05	0.3 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【61】 (about40KmNorthWest)	2011/4/1 14:59	6.1 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【61】 (about40KmNorthWest)	2011/4/1 12:46	7.1 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【62】 (about40KmNorthWest)	2011/4/1 15:15	7.4 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【62】 (about40KmNorthWest)	2011/4/1 12:34	7.7 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【63】 (about45KmNorthWest)	2011/4/1 15:49	3.2 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【63】 (about45KmNorthWest)	2011/4/1 11:13	2.8 * <sup>3</sup>	No Rain	Fukushima Pref.
Reading Point 【71】 (about25KmSouth)	2011/4/1 8:31	2.5 * <sup>2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【72】 (about30KmSouth)	2011/4/1 12:42	1.6 * <sup>2</sup>	No Rain	MEXT
Reading Point 【72】 (about30KmSouth)	2011/4/1 9:11	0.8 * <sup>2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【73】 (about35KmSouth)	2011/4/1 11:57	1.4 * <sup>2</sup>	No Rain	MEXT
Reading Point 【73】 (about35KmSouth)	2011/4/1 9:27	0.7 * <sup>2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (about35KmSouth)	2011/4/1 11:08	0.2 * <sup>2</sup>	No Rain	MEXT
Reading Point 【74】 (about35KmSouth)	2011/4/1 9:55	0.3 * <sup>2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【75】 (about45KmSouth)	2011/4/1 10:30	0.8 * <sup>2</sup>	No Rain	MEXT
Reading Point 【75】 (about45KmSouth)	2011/4/1 7:00	0.8 * <sup>2</sup>	No Rain	Police ( counter NBC operations unit )

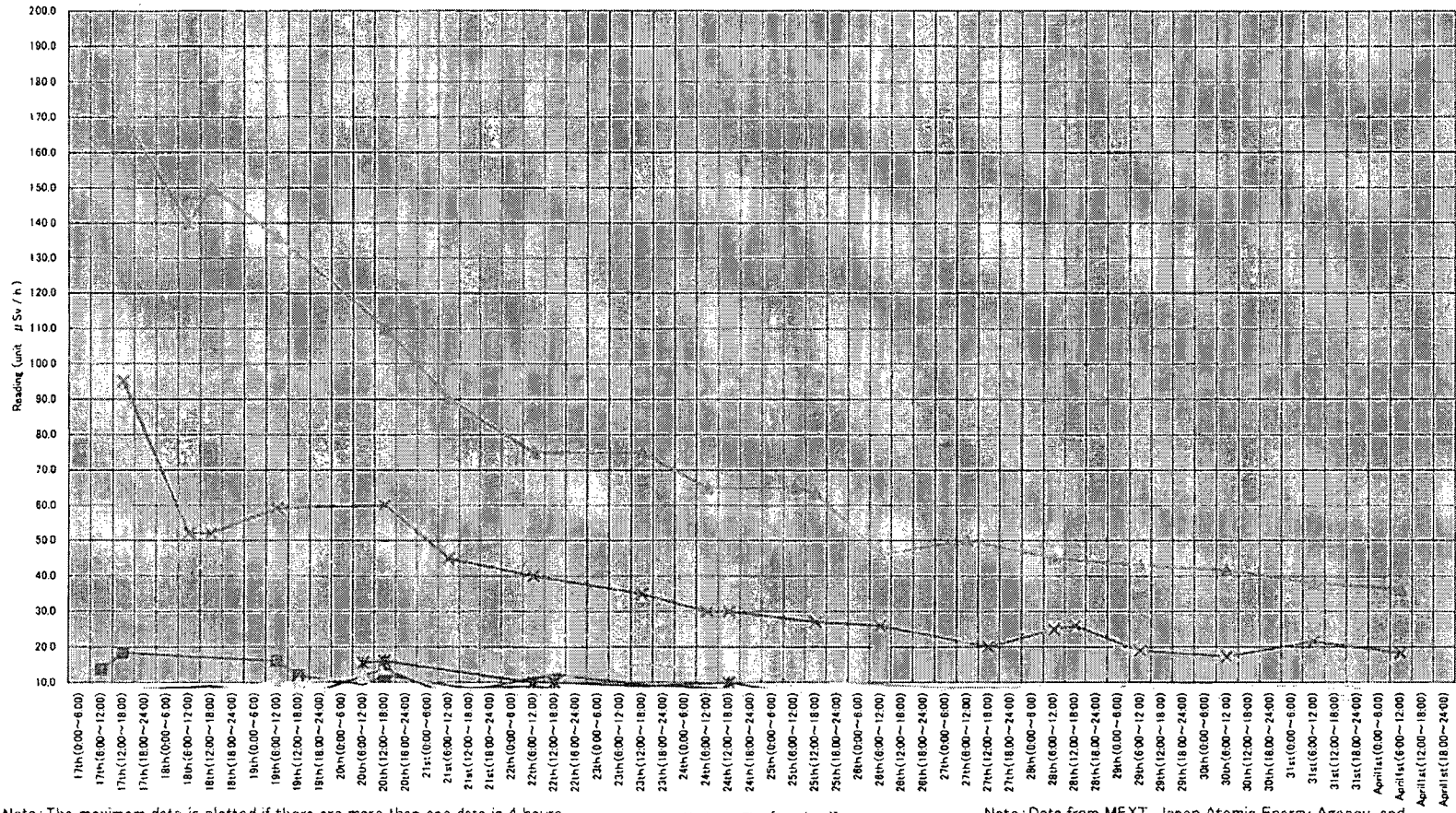
- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point [76] (about25KmSouthWest)	2011/4/1 11:03	0.6 *2	No Rain	Police ( counter NBC operations unit )
Reading Point [77] (about25KmSouthWest)	2011/4/1 10:45	2.2 *2	No Rain	Police ( counter NBC operations unit )
Reading Point [78] (about45KmNorthWest)	2011/4/1 7:47	0.8 *2	No Rain	Police ( counter NBC operations unit )
Reading Point [79] (about30KmNorthWest)	2011/4/1 12:26	16.5 *2	No Rain	JAEA ( Japan Atomic Energy Agency)
Reading Point [79] (about30KmNorthWest)	2011/4/1 9:56	15.5 *2	No Rain	Police ( counter NBC operations unit )
<u>Reading Point [80] (about25KmNorth)</u>	<u>2011/4/1 12:33~</u> <u>2011/4/1 15:53</u>	<u>0.2~1.2 *2*4</u>	<u>No Rain</u>	<u>JAEA ( Japan Atomic Energy Agency)</u>
Reading Point [80] (about25KmNorth)	2011/4/1 12:02	0.7 *2	No Rain	Police ( counter NBC operations unit )
Reading Point [81] (about30KmWestNorthWest)	2011/4/1 8:34	34.5 *2	No Rain	Police ( counter NBC operations unit )
Reading Point [83] (about20KmNorthWest)	2011/4/1 12:47	70.9 *2	No Rain	JAEA ( Japan Atomic Energy Agency)
Reading Point [83] (about20KmNorthWest)	2011/4/1 10:11	60.5 *2	No Rain	Police ( counter NBC operations unit )
Reading Point [84] (about40kmSouthWest)	2011/4/1 9:50	0.5 *2	No Rain	MEXT
Reading Point [85] (about60kmNorthWest)	2011/4/1 14:00	1.0 *2	No Rain	Ministry of Defense
Reading Point [85] (about60kmNorthWest)	2011/4/1 6:00	0.3 *2	No Rain	Ministry of Defense
Reading Point [86] (about55kmWest)	2011/4/1 14:00	1.1 *2	No Rain	Ministry of Defense
Reading Point [86] (about55kmWest)	2011/4/1 6:00	1.3 *2	No Rain	Ministry of Defense
Reading Point [87] (about30kmWestSouthWest)	2011/4/1 14:00	1.2 *2	No Rain	Ministry of Defense
Reading Point [87] (about30kmWestSouthWest)	2011/4/1 6:00	1.0 *2	No Rain	Ministry of Defense

# Readings at Monitoring Post out of Fukushima Dai-ichi NPP



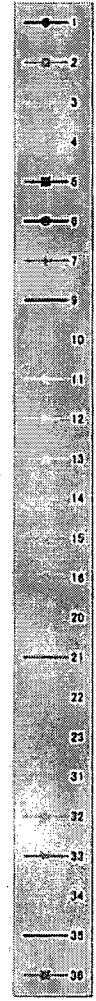
# Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP



Note: The maximum data is plotted if there are more than one data in 4 hours.  
 Note: This graph only shows the dates over 10  $\mu\text{Sv/h}$ .

Monitoring Time [Date (time)]

Note: Data from MEXT, Japan Atomic Energy Agency, and NUCLEAR Safety Technology Center





## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 10:00 April 2, 2011  
Ministry of Education, Culture, Sports, Science and  
Technology (MEXT)

○Monitoring Outputs by MEXT \*Boldface and underlined readings are new.

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h )	測定位置	Weather	Reading by
Reading Point <b><u>[1]</u></b> (about60KmNorthWest)	<b><u>2011/4/1 18:07</u></b>	<b><u>1.7</u></b> *2	N: <b><u>37° 44'</u></b> 12.6" E: <b><u>140° 28'</u></b> 02.9"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [1] (about60KmNorthWest)	2011/4/1 8:48	2.7 *2	N: 37° 44' 12.6" E: 140° 28' 02.9"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [2] (about55KmNorthWest)	2011/4/1 9:18	3.8 *2	N: 37° 41' 03.5" E: 140° 33' 08.2"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [3] (about45KmNorthWest)	2011/4/1 10:14	3.3 *2	N: 37° 45' 12.6" E: 140° 44' 05.5"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [5] (about45KmNorth)	2011/4/1 11:12	0.8 *2	N: 37° 47' 04.8" E: 140° 55' 16.4"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [6] (about45KmNorth)	2011/4/1 11:34	1.0 *2	N: 37° 42' 02.7" E: 140° 58' 00.0"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [7] (about45KmNorth)	2011/4/1 11:43	1.1 *2	N: 37° 41' 13.6" E: 140° 57' 16.0"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [10] (about40KmNorthWest)	2011/4/1 16:03	1.6 *2	N: 37° 35' 00.1" E: 140° 35' "	No Rain	MEXT
Reading Point [12] (about40KmWest)	2011/4/1 11:39	0.5 *2	N: 37° 25' 14.9" E: 140° 35' 12.3"	No Rain	MEXT
Reading Point [13] (about40KmWest)	2011/4/1 11:53	0.5 *2	N: 37° 26' 06.0" E: 140° 37' 05.8"	No Rain	MEXT
Reading Point [14] (about35KmWest)	2011/4/1 12:06	0.2 *2	N: 37° 26' 02.6" E: 140° 38' 13.8"	No Rain	MEXT
Reading Point [15] (about35KmWest)	2011/4/1 12:19	0.6 *2	N: 37° 26' 15.0" E: 140° 40' 14.8"	No Rain	MEXT
Reading Point [20] (about45KmNorthWest)	2011/4/1 10:37	0.6 *2	N: 37° 29' 06.7" E: 140° 34' 15.1"	No Rain	MEXT
Reading Point [21] (about30KmWestNorthWest)	2011/4/1 11:09	2.3 *2	N: 37° 30' 08.0" E: 140° 42' 02.4"	No Rain	MEXT
Reading Point [22] (about30KmWestNorthWest)	2011/4/1 11:00	0.6 *2	N: 37° 30' 11.5" E: 140° 39' 08.0"	No Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h )	測定位置	Weather	Reading by
Reading Point 【23】 (about30KmWestNorthWest)	2011/4/1 10:48	0.6 *2	N: 37° 30' 05.3" E: 140° 34' 11.3"	No Rain	MEXT
Reading Point 【31】 (about30KmWestNorthWest)	2011/4/1 10:33	15.4 *2	N: 37° 33' 30.0" E: 140° 44' 54.0"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【32】 (about30KmNorthWest)	2011/4/1 10:56	36.2 *2	N: 37° 35' 30.0" E: 140° 45' 54.0"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【33】 (about30KmNorthWest)	2011/4/1 11:22	18.2 *2	N: 37° 36' 30.0" E: 140° 45' 54.0"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【34】 (about30KmNorthWest)	2011/4/1 13:02	5.8 *2	N: 37° 33' 00.8" E: 140° 44' 07.0"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【36】 (about40KmNorthWest)	2011/4/1 10:08	5.7 *2	N: 37° 36' 18.8" E: 140° 40' 07.9"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【37】 (about50kmNorthWest)	2011/4/1 9:57	4.6 *2	N: 37° 45' 06.7" E: 140° 41' 29.2"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【38】 (about35kmSouth)	2011/4/1 11:37	1.0 *2	N: 37° 07' 30.7" E: 140° 57' 06.4"	No Rain	MEXT
Reading Point 【39】 (about45kmNorth)	2011/4/1 10:53	1.3 *2	N: 37° 45' 52.7" E: 140° 51' 47.1"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【41】 (about20KmWest)	2011/4/1 13:15	1.0 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【41】 (about20KmWest)	2011/4/1 9:45	1.1 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【42】 (about30KmWest)	2011/4/1 13:00	1.2 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【42】 (about30KmWest)	2011/4/1 9:40	1.2 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【43】 (about20KmSouthWest)	2011/4/1 15:10	0.4 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【43】 (about20KmSouthWest)	2011/4/1 11:10	0.4 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【44】 (about30KmSouth)	2011/4/1 13:50	1.2 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【44】 (about30KmSouth)	2011/4/1 10:30	1.3 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【45】 (about20KmSouth)	2011/4/1 14:18	1.9 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【45】 (about20KmSouth)	2011/4/1 10:57	2.2 *2	N: : : : E: : : :	No Rain	Electric power company
Reading Point 【46】 (about20KmNorthWest)	2011/4/1 13:30	6.5 *2	N: : : : E: : : :	No Rain	Electric power company

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置	Weather	Reading by
Reading Point 【48】 (about20KmNorthWest)	2011/4/1 10:15	6.5 <sup>*2</sup>	N: : : " E: : : "	No Rain	Electric power company
Reading Point 【51】 (about40KmSouthWest)	2011/4/1 13:45	0.3 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【51】 (about40KmSouthWest)	2011/4/1 10:42	0.3 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【52】 (about40KmWest)	2011/4/1 14:23	0.3 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【52】 (about40KmWest)	2011/4/1 12:05	0.3 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【61】 (about40KmNorthWest)	2011/4/1 14:59	6.1 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【61】 (about40KmNorthWest)	2011/4/1 12:46	7.1 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【62】 (about40KmNorthWest)	2011/4/1 15:15	7.4 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【62】 (about40KmNorthWest)	2011/4/1 12:34	7.7 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【63】 (about45KmNorthWest)	2011/4/1 15:49	3.2 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【63】 (about45KmNorthWest)	2011/4/1 11:13	2.8 <sup>*3</sup>	N: : : " E: : : "	No Rain	Fukushima Pref.
Reading Point 【71】 (about25KmSouth)	2011/4/1 8:31	2.5 <sup>*2</sup>		No Rain	Police ( counter NBC operations unit )
Reading Point 【72】 (about30KmSouth)	2011/4/1 12:42	1.6 <sup>*2</sup>		No Rain	MEXT
Reading Point 【72】 (about30KmSouth)	2011/4/1 9:11	0.8 <sup>*2</sup>		No Rain	Police ( counter NBC operations unit )
Reading Point 【73】 (about35KmSouth)	2011/4/1 11:57	1.4 <sup>*2</sup>		No Rain	MEXT
Reading Point 【73】 (about35KmSouth)	2011/4/1 9:27	0.7 <sup>*2</sup>		No Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (about35KmSouth)	2011/4/1 11:08	0.2 <sup>*2</sup>		No Rain	MEXT
Reading Point 【74】 (about35KmSouth)	2011/4/1 9:55	0.3 <sup>*2</sup>		No Rain	Police ( counter NBC operations unit )
Reading Point 【75】 (about45KmSouth)	2011/4/1 10:30	0.8 <sup>*2</sup>		No Rain	MEXT
Reading Point 【75】 (about45KmSouth)	2011/4/1 7:00	0.8 <sup>*2</sup>		No Rain	Police ( counter NBC operations unit )

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h )	測定位置	Weather	Reading by
Reading Point 【76】 (about25KmSouthWest)	2011/4/1 11:03	0.6 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【77】 (about25KmSouthWest)	2011/4/1 10:45	2.2 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【78】 (about45KmNorthWest)	2011/4/1 7:47	0.8 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【79】 (about30KmNorthWest)	2011/4/1 12:26	16.5 *2		No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【79】 (about30KmNorthWest)	2011/4/1 9:56	15.5 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【80】 (about25KmNorth)	<u>2011/4/1 12:33~</u> <u>2011/4/1 15:53</u>	<u>0.2~1.2 *2*4</u>		No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【80】 (about25KmNorth)	2011/4/1 12:02	0.7 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【81】 (about30KmWestNorthWest)	2011/4/1 8:34	34.5 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【83】 (about20KmNorthWest)	2011/4/1 12:47	70.9 *2		No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【83】 (about20KmNorthWest)	2011/4/1 10:11	60.5 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【84】 (about40kmSouthWest)	2011/4/1 9:50	0.5 *2		No Rain	MEXT
Reading Point 【85】 (about60kmNorthWest)	2011/4/1 14:00	1.0 *2	N: 37° 42' 45.0" E: 140° 22' 59.0"	No Rain	Ministry of Defense
Reading Point 【85】 (about60kmNorthWest)	2011/4/1 6:00	0.3 *2	N: 37° 42' 45.0" E: 140° 22' 59.0"	No Rain	Ministry of Defense
Reading Point 【86】 (about55kmWest)	2011/4/1 14:00	1.1 *2	N: 37° 23' 57.0" E: 140° 19' 35.0"	No Rain	Ministry of Defense
Reading Point 【86】 (about55kmWest)	2011/4/1 6:00	1.3 *2	N: 37° 23' 57.0" E: 140° 19' 35.0"	No Rain	Ministry of Defense
Reading Point 【87】 (about30kmWestSouthWest)	2011/4/1 14:00	1.2 *2	N: 37° 23' 57.0" E: 140° 19' 35.0"	No Rain	Ministry of Defense
Reading Point 【87】 (about30kmWestSouthWest)	2011/4/1 6:00	1.0 *2	N: 37° 23' 57.0" E: 140° 19' 35.0"	No Rain	Ministry of Defense

## Readings of integrated Dose at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 10:00 April 2, 2011  
 Ministry of Education, Culture, Sports, Science and Technology  
 (MEXT)

\* 1. the readings are measured by pocket dosimeter

Monitoring Post (length from NPP)	Date and Time (last monitoring) (x)	Readings (last monitoring) (a) ( $\mu$ Sv)	Monitoring Date and Time (y)	Monitoring Date and Time (y)	Reading of Integrated Dose (b) ( $\mu$ Sv)	Accumulated Time (z = y - x)	Reading of integrated Dose (c = b - a) ( $\mu$ Sv)	測定位置	Weather
Reading Point [31] (About30kmWestNorthWest)	2011/3/23 11:43	2011/3/31 10:45	3763.0 <sup>*1</sup>	2011/4/1 10:36	4078.0 <sup>*1</sup>	23hour51minutes	315.0 <sup>*1</sup> (13.2 $\mu$ Sv/hour)	N: 37° 33' 45.0" E: 140° 44' 49.9"	No Rain
Reading Point [32] (About30kmNorthWest)	2011/3/23 12:14	2011/3/31 11:00	8260.0 <sup>*1</sup>	2011/4/1 10:58	8985.0 <sup>*1</sup>	23hour58minutes	725.0 <sup>*1</sup> (30.3 $\mu$ Sv/hour)	N: 37° 35' 42.0" E: 140° 45' 14.5"	No Rain
Reading Point [33] (About30kmNorthWest)	2011/3/23 12:32	2011/3/31 11:20	4870.0 <sup>*1</sup>	2011/4/1 11:28	5339.0 <sup>*1</sup>	24hour08minutes	469.0 <sup>*1</sup> (19.4 $\mu$ Sv/hour)	N: 37° 38' 34.6" E: 140° 45' 09.1"	No Rain
Reading Point [34] (About30kmNorthWest)	2011/3/23 13:08	2011/3/31 12:50	1646.0 <sup>*1</sup>	2011/4/1 13:04	1807.0 <sup>*1</sup>	24hour14minutes	161.0 <sup>*1</sup> (6.6 $\mu$ Sv/hour)	N: 37° 33' 03.2" E: 140° 44' 28.6"	No Rain
Reading Point [38] (About35kmSouth)	2011/3/31 16:23	2011/3/31 16:23	0.0 <sup>*1</sup>	2011/4/1 11:40	15.0 <sup>*1</sup>	19hour17minutes	15.0 <sup>*1</sup> (0.8 $\mu$ Sv/hour)	N: 37° 12' 52.5" E: 140° 59' 40.2"	No Rain
Reading Point [71] (About25kmSouth)	2011/3/23 13:00	2011/3/28 13:15	372.0 <sup>*1</sup>	-	-	-	-	N: 37° 12' 52.5" E: 140° 59' 40.2"	-
Reading Point [79] (About30kmNorthWest)	2011/3/23 14:09	2011/3/31 12:00	3753.0 <sup>*1</sup>	2011/4/1 12:29	4127.0 <sup>*1</sup>	24hour29minutes	374.0 <sup>*1</sup> (15.3 $\mu$ Sv/hour)	N: 37° 47' 53.8" E: 140° 55' 24.7"	No Rain
Reading Point [7] (About45kmNorth)	2011/3/23 12:06	2011/3/31 12:28	231.0 <sup>*1</sup>	2011/4/1 11:43	252.0 <sup>*1</sup>	23hour15minutes	21.0 <sup>*1</sup> (0.9 $\mu$ Sv/hour)	N: 37° 47' 53.8" E: 140° 55' 24.7"	No Rain
Reading Point [1] (About60kmNorthWest)	2011/3/24 15:20	2011/3/31 15:20	213.0 <sup>*1</sup>	2011/4/1 17:52	244.0 <sup>*1</sup>	26hour32minutes	31.0 <sup>*1</sup> (1.2 $\mu$ Sv/hour)	N: 37° 44' 45.2" E: 140° 28' 10.6"	No Rain
Reading Point [15] (About35kmWest)	2011/3/24 10:58	2011/3/31 13:38	358.0 <sup>*1</sup>	2011/4/1 12:19	395.0 <sup>*1</sup>	22hour41minutes	37.0 <sup>*1</sup> (1.6 $\mu$ Sv/hour)	N: 37° 27' 08.1" E: 140° 40' 39.7"	No Rain
Reading Point [84] (About40kmSouthWest)	2011/3/25 10:40	2011/3/31 11:02	43.0 <sup>*1</sup>	2011/4/1 9:47	48.0 <sup>*1</sup>	22hour45minutes	5.0 <sup>*1</sup> (0.2 $\mu$ Sv/hour)	N: 37° 10' 20.0" E: 140° 43' 30.7"	No Rain
Reading Point [39] (約45kmNorth)	2011/4/1 10:45	2011/4/1 10:45	0.0 <sup>*1</sup>	-	-	-	-	N: 37° 45' 52.7" E: 140° 51' 47.1"	-

notes: The parenthesis figures in the column "Integrated Dose" indicates the values of readings of integrated dose divided by accumulated time (z/c).

•Reading by MEXT

•The figures of 0.0 in the column "Date and Time (last monitoring)" indicate that there was new installation in the area.

•Monitoring in the area [71] will be conducted from the next time, while it planned not to run car in these area on 31th March.

•Monitoring in the area [38] has started to conduct on March 3.

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**From:** OST01 HOC  
**Sent:** Friday, March 25, 2011 12:59 PM  
**To:** PMT02 Hoc; PMT11 Hoc; Hoc, PMT12  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation level at Fukushima NO.1 NPP as of March 25, 06:00  
**Attachments:** TEPCO-Rad Data at Plant-March 25, 0600.xlsx

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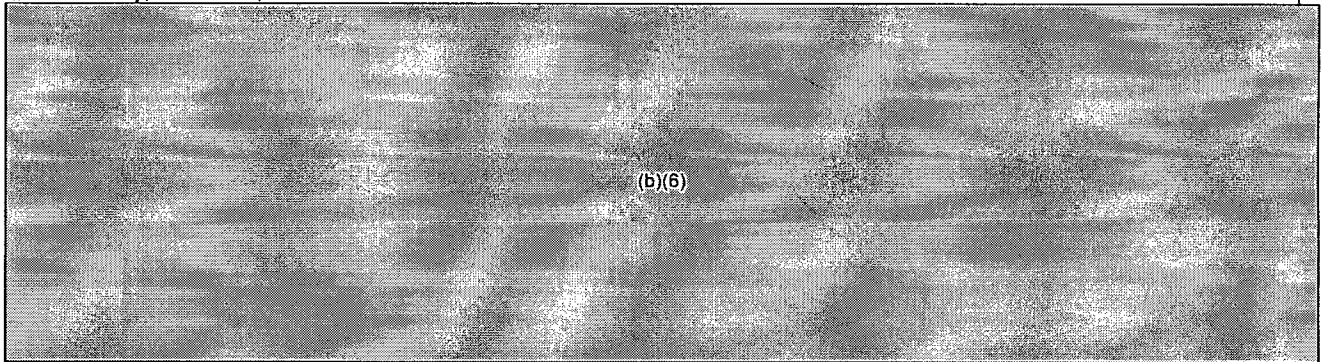
**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Friday, March 25, 2011 12:57 PM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation level at Fukushima NO.1 NPP as of March 25, 06:00

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**From:** NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]  
**Sent:** Friday, March 25, 2011 12:56:53 PM  
**To:** CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc; Hoc, PMT12  
**Subject:** FW: Radiation level at Fukushima NO.1 NPP as of March 25, 06:00  
**Auto forwarded by a Rule**

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**From:** JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]  
**Sent:** Friday, March 25, 2011 12:54 PM



**Subject:** Radiation level at Fukushima NO.1 NPP as of March 25, 06:00

Attached please find TEPCO radiation monitoring data from Fukushima No. 1 nuclear power plant.

<http://www.tepco.co.jp/en/nu/monitoring/index-e.html>

Naomi Walcott  
Emergency Action Officer  
Japan Emergency Command Center  
U.S. Embassy Tokyo

【別紙】福島第一原子力発電所モニタリングカーによる計測状況  
 Radaitaion data around Fukushima No.1 NPP by monitoring vehicle

Date	Time	Location	Location	γ-ray (μSv/h)
3/11	P.M. 5:30	体育館付近	around Gym	49 nG y/h
3/11	P.M. 5:40	正門付近	around Front Gate	56 nG y/h
3/11	P.M. 5:50	管理棟	admin. Bldg.	64 nG y/h
3/11	P.M. 6:45	MP-6		56 nG y/h
3/11	P.M. 7:00	MP-7		57 nG y/h
3/11	P.M. 7:10	MP-5		55 nG y/h
3/11	P.M. 7:15	MP-4		59 nG y/h
3/11	P.M. 7:20	MP-3		59 nG y/h
3/11	P.M. 7:52	MP-6		57 nG y/h
3/11	P.M. 8:00	MP-6		60 nG y/h
3/11	P.M. 8:10	MP-6		59 nG y/h
3/11	P.M. 8:20	MP-6		67 nG y/h
3/11	P.M. 9:30	正門付近	around Front Gate	62 nG y/h
3/11	P.M. 9:40	正門付近	around Front Gate	61 nG y/h
3/11	P.M. 9:50	正門付近	around Front Gate	61 nG y/h
3/11	P.M. 10:00	正門付近	around Front Gate	59 nG y/h
3/11	P.M. 10:10	正門付近	around Front Gate	60 nG y/h
3/11	P.M. 10:20	正門付近	around Front Gate	62 nG y/h
3/11	P.M. 10:30	正門付近	around Front Gate	60 nG y/h
3/11	P.M. 10:40	正門付近	around Front Gate	60 nG y/h
3/11	P.M. 10:50	正門付近	around Front Gate	59 nG y/h
3/11	P.M. 11:00	正門付近	around Front Gate	60 nG y/h
3/11	P.M. 11:10	正門付近	around Front Gate	63 nG y/h
3/11	P.M. 11:20	正門付近	around Front Gate	60 nG y/h
3/11	P.M. 11:40	正門付近	around Front Gate	63 nG y/h
3/11	P.M. 11:50	正門付近	around Front Gate	59 nG y/h
3/12	A.M.0:00	正門付近	around Front Gate	60 nG y/h
3/12	A.M. 0:10	正門	Front Gate	62 nG y/h
3/12	A.M. 0:20	正門	Front Gate	65 nG y/h
3/12	A.M. 0:30	正門	Front Gate	64 nG y/h
3/12	A.M. 0:40	正門	Front Gate	63 nG y/h
3/12	A.M. 1:40	正門	Front Gate	68 nG y/h
3/12	A.M. 1:50	正門	Front Gate	66 nG y/h
3/12	A.M. 2:00	正門	Front Gate	68 nG y/h
3/12	A.M. 2:10	正門	Front Gate	64 nG y/h
3/12	A.M. 2:20	正門	Front Gate	67 nG y/h
3/12	A.M. 2:30	正門	Front Gate	65 nG y/h
3/12	A.M. 2:40	正門	Front Gate	66 nG y/h
3/12	A.M. 2:50	正門	Front Gate	65 nG y/h

3/12	A.M. 3:00	正門	Front Gate	69 nG y/h
3/12	A.M. 3:10	正門	Front Gate	66 nG y/h
3/12	A.M. 3:20	正門	Front Gate	69 nG y/h
3/12	A.M. 3:30	正門	Front Gate	68 nG y/h
3/12	A.M. 3:40	正門	Front Gate	66 nG y/h
3/12	A.M. 3:50	正門	Front Gate	64 nG y/h
3/12	A.M. 4:00	正門	Front Gate	69 nG y/h
3/12	A.M. 4:40	正門	Front Gate	866 nGy/h
3/12	A.M. 4:50	正門	Front Gate	1002 nGy/h
3/12	A.M. 5:00	正門	Front Gate	1307 nGy/h
3/12	A.M. 5:10	正門	Front Gate	1590 nGy/h
3/12	A.M.6:25	MP - 8 付	around MP-8	1.21μSv/h
3/12	A.M. 6:30	正門	Front Gate	3.29μSv/h
3/12	A.M.6:30	MP - 8 付	around MP-8	1.53μSv/h
3/12	A.M. 6:40	正門	Front Gate	4.92μSv/h
3/12	A.M.7:35	MP - 8 付	around MP-8	2.47μSv/h
3/12	A.M.7:40	MP - 8 付	around MP-8	2.56μSv/h
3/12	A.M.7:45	MP - 8 付	around MP-8	2.53μSv/h
3/12	A.M. 7:50	正門	Front Gate	4.97μSv/h
3/12	A.M.7:50	MP - 8 付	around MP-8	2.50μSv/h
3/12	A.M.7:55	MP - 8 付	around MP-8	2.50μSv/h
3/12	A.M.8:00	MP - 8 付	around MP-8	2.42μSv/h
3/12	A.M. 8:00	正門	Front Gate	4.89μSv/h
3/12	A.M.8:05	MP - 8 付	around MP-8	2.43μSv/h
3/12	A.M. 8:10	正門	Front Gate	5.08μSv/h
3/12	A.M.8:15	MP - 8 付	around MP-8	2.40μSv/h
3/12	A.M. 8:20	正門	Front Gate	4.77μSv/h
3/12	A.M.8:20	MP - 8 付	around MP-8	2.37μSv/h
3/12	A.M.8:25	MP - 8 付	around MP-8	2.38μSv/h
3/12	A.M.8:30	MP - 8 付	around MP-8	2.36μSv/h
3/12	A.M.8:35	MP - 8 付	around MP-8	2.40μSv/h
3/12	A.M. 8:40	正門	Front Gate	4.56μSv/h
3/12	A.M.8:40	MP - 8 付	around MP-8	2.34μSv/h
3/12	A.M.8:45	MP - 8 付	around MP-8	2.51μSv/h
3/12	A.M. 8:50	正門	Front Gate	4.87μSv/h
3/12	A.M.9:10	MP - 8 付	around MP-8	2.68μSv/h
3/12	A.M.9:15	MP - 8 付	around MP-8	2.77μSv/h
3/12	A.M.9:20	MP - 8 付	around MP-8	2.55μSv/h
3/12	A.M.9:25	MP - 8 付	around MP-8	2.59μSv/h
3/12	A.M. 9:30	正門	Front Gate	5.16μSv/h
3/12	A.M.9:30	MP - 8 付	around MP-8	2.61μSv/h
3/12	A.M.9:35	MP - 8 付	around MP-8	2.59μSv/h
3/12	A.M.9:40	MP - 8 付	around MP-8	2.62μSv/h
3/12	A.M.9:45	MP - 8 付	around MP-8	2.64μSv/h
3/12	A.M. 9:50	正門	Front Gate	5.03μSv/h
3/12	A.M.9:50	MP - 8 付	around MP-8	2.61μSv/h
3/12	A.M.9:55	MP - 8 付	around MP-8	2.62μSv/h



3/12	A.M.10:00	正門	Front Gate	5.28 $\mu$ Sv/h
3/12	A.M.10:00	MP-8付	around MP-8	4.50 $\mu$ Sv/h
3/12	A.M.10:05	MP-8付	around MP-8	4.56 $\mu$ Sv/h
3/12	A.M.10:10	正門	Front Gate	6.65 $\mu$ Sv/h
3/12	A.M.10:10	MP-8付	around MP-8	4.61 $\mu$ Sv/h
3/12	A.M.10:15	MP-8付	around MP-8	4.25 $\mu$ Sv/h
3/12	A.M.10:20	正門	Front Gate	180.2 $\mu$ Sv/h
3/12	A.M.10:20	MP-8付	around MP-8	3.85 $\mu$ Sv/h
3/12	A.M.10:25	MP-8付	around MP-8	4.75 $\mu$ Sv/h
3/12	A.M.10:30	正門	Front Gate	385.5 $\mu$ Sv/h
3/12	A.M.10:30	MP-8付	around MP-8	9.14 $\mu$ Sv/h
3/12	A.M.10:35	MP-8付	around MP-8	24.1 $\mu$ Sv/h
3/12	A.M.10:40	正門	Front Gate	162.9 $\mu$ Sv/h
3/12	A.M.10:45	MP-8付	around MP-8	16.9 $\mu$ Sv/h
3/12	P.M. 10:50	正門	Front Gate	7.04 $\mu$ Sv/h
3/12	P.M. 10:50	MP-8付	around MP-8	6.65 $\mu$ Sv/h
3/12	A.M.11:00	正門	Front Gate	6.69 $\mu$ Sv/h
3/12	A.M.11:00	MP-8付	around MP-8	5.16 $\mu$ Sv/h
3/12	A.M.11:10	正門	Front Gate	6.32 $\mu$ Sv/h
3/12	A.M.11:10	MP-8付	around MP-8	4.86 $\mu$ Sv/h
3/12	A.M.11:20	正門	Front Gate	9.43 $\mu$ Sv/h
3/12	A.M.11:20	MP-8付	around MP-8	5.22 $\mu$ Sv/h
3/12	A.M.11:30	正門	Front Gate	35.77 $\mu$ Sv/h
3/12	A.M.11:30	MP-8付	around MP-8	5.03 $\mu$ Sv/h
3/12	A.M.11:40	正門	Front Gate	12.53 $\mu$ Sv/h
3/12	A.M.11:40	MP-8付	around MP-8	3.80 $\mu$ Sv/h
3/12	A.M.11:50	正門	Front Gate	17.10 $\mu$ Sv/h
3/12	A.M.11:50	MP-8付	around MP-8	4.05 $\mu$ Sv/h
3/12	P.M. 0:00	正門	Front Gate	23.21 $\mu$ Sv/h
3/12	P.M. 0:00	MP-8付	around MP-8	5.32 $\mu$ Sv/h
3/12	P.M. 0:05	MP-8付	around MP-8	8.80 $\mu$ Sv/h
3/12	P.M. 0:10	正門	Front Gate	48.23 $\mu$ Sv/h
3/12	A.M.0:10	MP-8付	around MP-8	13.5 $\mu$ Sv/h
3/12	P.M. 0:15	MP-8付	around MP-8	11.7 $\mu$ Sv/h
3/12	P.M. 0:20	正門	Front Gate	11.56 $\mu$ Sv/h
3/12	P.M. 0:20	MP-8付	around MP-8	4.13 $\mu$ Sv/h
3/12	P.M. 0:25	MP-8付	around MP-8	3.83 $\mu$ Sv/h
3/12	P.M. 0:30	正門	Front Gate	5.78 $\mu$ Sv/h
3/12	P.M. 0:30	MP-8付	around MP-8	3.58 $\mu$ Sv/h
3/12	P.M. 0:40	正門	Front Gate	5.62 $\mu$ Sv/h
3/12	P.M. 0:40	MP-8付	around MP-8	3.60 $\mu$ Sv/h
3/12	P.M. 0:50	正門	Front Gate	5.48 $\mu$ Sv/h
3/12	P.M. 0:50	MP-8付	around MP-8	3.52 $\mu$ Sv/h
3/12	P.M. 1:00	正門	Front Gate	5.39 $\mu$ Sv/h
3/12	P.M. 1:00	MP-8付	around MP-8	3.66 $\mu$ Sv/h
3/12	P.M. 1:10	正門	Front Gate	5.31 $\mu$ Sv/h
3/12	P.M. 1:10	MP-8付	around MP-8	3.74 $\mu$ Sv/h

3/12	P.M. 1:20	正門	Front Gate	10.90 $\mu$ Sv/h
3/12	P.M. 1:30	MP - 8 付	around MP-8	2.33 $\mu$ Sv/h
3/12	P.M. 1:40	正門	Front Gate	4.782 $\mu$ Sv/h
3/12	P.M. 1:40	MP - 8 付	around MP-8	2.31 $\mu$ Sv/h
3/12	P.M. 1:50	MP - 8 付	around MP-8	2.81 $\mu$ Sv/h
3/12	P.M. 1:50	正門	Front Gate	4.82 $\mu$ Sv/h
3/12	P.M. 1:55	MP - 8 付	around MP-8	3.13 $\mu$ Sv/h
3/12	P.M. 2:00	正門	Front Gate	4.60 $\mu$ Sv/h
3/12	P.M. 2:00	MP - 8 付	around MP-8	2.11 $\mu$ Sv/h
3/12	P.M. 2:10	正門	Front Gate	7.30 $\mu$ Sv/h
3/12	P.M. 2:10	MP - 8 付	around MP-8	3.02 $\mu$ Sv/h
3/12	P.M. 2:20	正門	Front Gate	10.90 $\mu$ Sv/h
3/12	P.M. 2:20	MP - 8 付	around MP-8	3.80 $\mu$ Sv/h
3/12	P.M. 2:30	正門	Front Gate	9.98 $\mu$ Sv/h
3/12	P.M. 2:30	MP - 8 付	around MP-8	3.49 $\mu$ Sv/h
3/12	P.M. 2:40	正門	Front Gate	8.86 $\mu$ Sv/h
3/12	P.M. 2:40	MP - 8 付	around MP-8	3.33 $\mu$ Sv/h
3/12	P.M. 2:50	正門	Front Gate	7.72 $\mu$ Sv/h
3/12	P.M. 2:50	MP - 8 付	around MP-8	3.50 $\mu$ Sv/h
3/12	P.M. 3:00	正門	Front Gate	6.95 $\mu$ Sv/h
3/12	P.M. 3:00	MP - 8 付	around MP-8	3.50 $\mu$ Sv/h
3/12	P.M. 3:10	正門	Front Gate	6.99 $\mu$ Sv/h
3/12	P.M. 3:10	MP - 8 付	around MP-8	3.33 $\mu$ Sv/h
3/12	P.M. 3:20	正門	Front Gate	5.59 $\mu$ Sv/h
3/12	P.M. 3:20	MP - 8 付	around MP-8	3.23 $\mu$ Sv/h
3/12	P.M. 3:30	正門	Front Gate	5.49 $\mu$ Sv/h
3/12	P.M. 3:30	MP - 8 付	around MP-8	3.21 $\mu$ Sv/h
3/12	P.M. 3:40	正門	Front Gate	8.23 $\mu$ Sv/h
3/12	P.M. 3:40	MP - 8 付	around MP-8	3.33 $\mu$ Sv/h
3/12	P.M. 3:50	正門	Front Gate	5.311 $\mu$ Sv/h
3/12	P.M. 3:50	MP - 8 付	around MP-8	2.19 $\mu$ Sv/h
3/12	P.M. 4:00	正門	Front Gate	5.29 $\mu$ Sv/h
3/12	P.M. 4:00	MP - 8 付	around MP-8	2.22 $\mu$ Sv/h
3/12	P.M. 4:10	正門	Front Gate	3.64 $\mu$ Sv/h
3/12	P.M. 4:10	MP - 8 付	around MP-8	2.20 $\mu$ Sv/h
3/12	P.M. 4:20	正門	Front Gate	3.43 $\mu$ Sv/h
3/12	P.M. 4:20	MP - 8 付	around MP-8	2.18 $\mu$ Sv/h
3/12	P.M. 4:30	正門	Front Gate	3.32 $\mu$ Sv/h
3/12	P.M. 4:30	MP - 8 付	around MP-8	2.12 $\mu$ Sv/h
3/12	P.M. 4:40	正門	Front Gate	3.25 $\mu$ Sv/h
3/12	P.M. 4:40	MP - 8 付	around MP-8	2.06 $\mu$ Sv/h
3/12	P.M. 4:50	正門	Front Gate	3.25 $\mu$ Sv/h
3/12	P.M. 4:50	MP - 8 付	around MP-8	3.78 $\mu$ Sv/h
3/12	P.M. 7:25	MP - 8 付	around MP-8	80.0 $\mu$ Sv/h
3/12	P.M. 7:50	正門	Front Gate	23.9 $\mu$ Sv/h
3/12	P.M. 8:00	正門	Front Gate	2.74 $\mu$ Sv/h
3/12	P.M. 8:00	MP - 8 付	around MP-8	10.0 $\mu$ Sv/h

3/12	P.M. 8:10	正門	Front Gate	3.21 $\mu$ Sv/h
3/12	P.M. 8:10	MP - 8 付	around MP-8	10.0 $\mu$ Sv/h
3/12	P.M. 8:20	正門	Front Gate	3.19 $\mu$ Sv/h
3/12	P.M. 8:20	MP - 8 付	around MP-8	10.0 $\mu$ Sv/h
3/12	P.M. 8:30	正門	Front Gate	3.16 $\mu$ Sv/h
3/12	P.M. 8:40	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/12	P.M. 8:50	MP - 8 付	around MP-8	6.0 $\mu$ Sv/h
3/12	P.M. 9:00	MP - 8 付	around MP-8	80.0 $\mu$ Sv/h
3/12	P.M. 9:10	MP - 8 付	around MP-8	80.0 $\mu$ Sv/h
3/12	P.M. 9:20	MP - 8 付	around MP-8	70.0 $\mu$ Sv/h
3/12	P.M. 9:30	MP - 8 付	around MP-8	80.0 $\mu$ Sv/h
3/12	P.M. 9:40	MP - 8 付	around MP-8	50.0 $\mu$ Sv/h
3/12	P.M. 9:50	正門	Front Gate	2.958 $\mu$ Sv/h
3/12	P.M. 9:50	MP - 8 付	around MP-8	70.0 $\mu$ Sv/h
3/12	P.M. 10:00	正門	Front Gate	2.985 $\mu$ Sv/h
3/12	P.M. 10:00	MP - 8 付	around MP-8	70.0 $\mu$ Sv/h
3/12	P.M. 10:10	正門	Front Gate	21.620 $\mu$ Sv/h
3/12	P.M. 10:20	正門	Front Gate	2.91 $\mu$ Sv/h
3/12	P.M. 10:30	正門	Front Gate	2.92 $\mu$ Sv/h
3/12	P.M. 10:30	MP - 8 付	around MP-8	4.87 $\mu$ Sv/h
3/12	P.M. 10:35	MP - 8 付	around MP-8	4.70 $\mu$ Sv/h
3/12	P.M. 10:40	正門	Front Gate	2.85 $\mu$ Sv/h
3/12	P.M. 10:40	MP - 8 付	around MP-8	4.12 $\mu$ Sv/h
3/12	P.M. 10:50	正門	Front Gate	3.14 $\mu$ Sv/h
3/12	P.M. 10:50	MP - 8 付	around MP-8	4.35 $\mu$ Sv/h
3/12	P.M. 11:00	正門	Front Gate	3.33 $\mu$ Sv/h
3/12	P.M. 11:00	MP - 8 付	around MP-8	4.30 $\mu$ Sv/h
3/12	P.M. 11:10	正門	Front Gate	3.29 $\mu$ Sv/h
3/12	P.M. 11:20	正門	Front Gate	3.27 $\mu$ Sv/h
3/12	P.M. 11:30	正門	Front Gate	3.09 $\mu$ Sv/h
3/12	P.M. 11:30	MP - 8 付	around MP-8	4.50 $\mu$ Sv/h
3/12	P.M. 11:40	正門	Front Gate	3.21 $\mu$ Sv/h
3/12	P.M. 11:50	正門	Front Gate	3.07 $\mu$ Sv/h
3/13	A.M. 0:00	正門	Front Gate	3.16 $\mu$ Sv/h
3/13	A.M.0:00	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 0:10	正門	Front Gate	3.291 $\mu$ Sv/h
3/13	A.M.0:10	MP - 8 付	around MP-8	4.7 $\mu$ Sv/h
3/13	A.M. 0:20	正門	Front Gate	3.016 $\mu$ Sv/h
3/13	A.M.0:20	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 0:30	正門	Front Gate	3.146 $\mu$ Sv/h
3/13	A.M.0:30	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 0:40	正門	Front Gate	3.181 $\mu$ Sv/h
3/13	A.M.0:40	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 0:50	正門	Front Gate	3.177 $\mu$ Sv/h
3/13	A.M.0:50	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 1:00	正門	Front Gate	3.201 $\mu$ Sv/h
3/13	A.M.1:00	MP - 8 付	around MP-8	5.5 $\mu$ Sv/h

3/13	A.M. 1:10	正門	Front Gate	3.207 $\mu$ Sv/h
3/13	A.M.1:10	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 1:20	正門	Front Gate	3.163 $\mu$ Sv/h
3/13	A.M.1:20	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 1:30	正門	Front Gate	3.127 $\mu$ Sv/h
3/13	A.M.1:30	MP - 8 付	around MP-8	5.5 $\mu$ Sv/h
3/13	A.M. 1:40	正門	Front Gate	3.329 $\mu$ Sv/h
3/13	A.M.1:40	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 1:50	正門	Front Gate	3.125 $\mu$ Sv/h
3/13	A.M.1:50	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 2:00	正門	Front Gate	3.186 $\mu$ Sv/h
3/13	A.M.2:00	MP - 8 付	around MP-8	5.5 $\mu$ Sv/h
3/13	A.M. 2:10	正門	Front Gate	3.116 $\mu$ Sv/h
3/13	A.M.2:10	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 2:20	正門	Front Gate	3.214 $\mu$ Sv/h
3/13	A.M.2:20	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 2:30	正門	Front Gate	3.164 $\mu$ Sv/h
3/13	A.M.2:30	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 2:40	正門	Front Gate	3.129 $\mu$ Sv/h
3/13	A.M.2:40	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 2:50	正門	Front Gate	3.104 $\mu$ Sv/h
3/13	A.M.2:50	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 3:00	正門	Front Gate	3.574 $\mu$ Sv/h
3/13	A.M. 3:10	正門	Front Gate	3.978 $\mu$ Sv/h
3/13	A.M. 3:20	正門	Front Gate	3.236 $\mu$ Sv/h
3/13	A.M. 3:30	正門	Front Gate	3.103 $\mu$ Sv/h
3/13	A.M. 3:40	正門	Front Gate	3.392 $\mu$ Sv/h
3/13	A.M.3:40	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 3:50	正門	Front Gate	3.186 $\mu$ Sv/h
3/13	A.M.3:50	MP - 8 付	around MP-8	5.1 $\mu$ Sv/h
3/13	A.M. 4:00	正門	Front Gate	3.039 $\mu$ Sv/h
3/13	A.M.4:00	MP - 8 付	around MP-8	5.2 $\mu$ Sv/h
3/13	A.M. 4:10	正門	Front Gate	3.564 $\mu$ Sv/h
3/13	A.M.4:10	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 4:20	正門	Front Gate	3.150 $\mu$ Sv/h
3/13	A.M.4:20	MP - 8 付	around MP-8	5.5 $\mu$ Sv/h
3/13	A.M. 4:30	正門	Front Gate	3.122 $\mu$ Sv/h
3/13	A.M.4:30	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 4:40	正門	Front Gate	3.256 $\mu$ Sv/h
3/13	A.M.4:40	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M.4:50	正門		3.104 $\mu$ Sv/h
3/13	A.M.4:50	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 5:00	正門	Front Gate	3.204 $\mu$ Sv/h
3/13	A.M.5:00	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 5:10	正門	Front Gate	3.360 $\mu$ Sv/h
3/13	A.M.5:10	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 5:20	正門	Front Gate	3.472 $\mu$ Sv/h

3/13	A.M.5:20	MP - 8 付	around MP-8	4.6 $\mu$ Sv/h
3/13	A.M. 5:30	正門	Front Gate	3.817 $\mu$ Sv/h
3/13	A.M.5:30	MP - 8 付	around MP-8	5.0 $\mu$ Sv/h
3/13	A.M. 5:40	正門	Front Gate	3.224 $\mu$ Sv/h
3/13	A.M.5:40	MP - 8 付	around MP-8	4.5 $\mu$ Sv/h
3/13	A.M. 5:50	正門	Front Gate	3.192 $\mu$ Sv/h
3/13	A.M.5:50	MP - 8 付	around MP-8	5.2 $\mu$ Sv/h
3/13	A.M. 6:00	正門	Front Gate	3.467 $\mu$ Sv/h
3/13	A.M.6:00	MP - 8 付	around MP-8	5.6 $\mu$ Sv/h
3/13	A.M. 6:10	正門	Front Gate	3.188 $\mu$ Sv/h
3/13	A.M.6:10	MP - 8 付	around MP-8	5.9 $\mu$ Sv/h
3/13	A.M. 6:20	正門	Front Gate	3.160 $\mu$ Sv/h
3/13	A.M.6:20	MP - 8 付	around MP-8	5.7 $\mu$ Sv/h
3/13	A.M. 6:30	正門	Front Gate	3.625 $\mu$ Sv/h
3/13	A.M.6:30	MP - 8 付	around MP-8	5.7 $\mu$ Sv/h
3/13	A.M. 6:40	正門	Front Gate	3.092 $\mu$ Sv/h
3/13	A.M.6:40	MP - 8 付	around MP-8	5.7 $\mu$ Sv/h
3/13	A.M. 6:50	正門	Front Gate	3.006 $\mu$ Sv/h
3/13	A.M.6:50	MP - 8 付	around MP-8	5.7 $\mu$ Sv/h
3/13	A.M. 7:00	正門	Front Gate	3.652 $\mu$ Sv/h
3/13	A.M.7:00	MP - 8 付	around MP-8	7.7 $\mu$ Sv/h
3/13	A.M. 7:10	正門	Front Gate	3.415 $\mu$ Sv/h
3/13	A.M.7:10	MP - 8 付	around MP-8	8.5 $\mu$ Sv/h
3/13	A.M. 7:20	正門	Front Gate	3.325 $\mu$ Sv/h
3/13	A.M.7:20	MP - 8 付	around MP-8	6.0 $\mu$ Sv/h
3/13	A.M. 7:30	正門	Front Gate	3.530 $\mu$ Sv/h
3/13	A.M.7:30	MP - 8 付	around MP-8	5.6 $\mu$ Sv/h
3/13	A.M. 7:40	正門	Front Gate	3.413 $\mu$ Sv/h
3/13	A.M. 7:50	正門	Front Gate	7.227 $\mu$ Sv/h
3/13	A.M. 8:00	正門	Front Gate	3.510 $\mu$ Sv/h
3/13	A.M. 8:10	正門	Front Gate	3.166 $\mu$ Sv/h
3/13	A.M.8:10	MP - 1 付	around MP-1	100 $\mu$ Sv/h
3/13	A.M. 8:20	正門	Front Gate	3.166 $\mu$ Sv/h
3/13	A.M.8:20	MP - 1 付	around MP-1	100 $\mu$ Sv/h
3/13	A.M. 8:30	正門	Front Gate	14.730 $\mu$ Sv/h
3/13	A.M.8:30	MP - 1 付	around MP-1	80 $\mu$ Sv/h
3/13	A.M. 8:40	正門	Front Gate	16.030 $\mu$ Sv/h
3/13	A.M.8:40	MP - 1 付	around MP-1	80 $\mu$ Sv/h
3/13	A.M. 8:50	正門	Front Gate	15.900 $\mu$ Sv/h
3/13	A.M.8:50	MP - 1 付	around MP-1	90 $\mu$ Sv/h
3/13	A.M. 9:00	正門	Front Gate	10.240 $\mu$ Sv/h
3/13	A.M.9:00	MP - 1 付	around MP-1	37 $\mu$ Sv/h
3/13	A.M.9:00	MP - 4 付	around MP-4	143.5 $\mu$ Sv/h
3/13	A.M. 9:10	正門	Front Gate	175.000 $\mu$ Sv/h
3/13	A.M.9:10	MP - 1 付	around MP-1	30 $\mu$ Sv/h
3/13	A.M.9:10	MP - 4 付	around MP-4	137.8 $\mu$ Sv/h
3/13	A.M. 9:20	正門	Front Gate	281.700 $\mu$ Sv/h

3/13	A.M.9:20	MP - 1 付	around MP-1	27 $\mu$ Sv/h
3/13	A.M.9:20	MP - 4 付	around MP-4	76.9 $\mu$ Sv/h
3/13	A.M. 9:30	正門	Front Gate	26.000 $\mu$ Sv/h
3/13	A.M.9:30	MP - 1 付	around MP-1	25 $\mu$ Sv/h
3/13	A.M.9:30	MP - 4 付	around MP-4	70.3 $\mu$ Sv/h
3/13	A.M.9:40	MP - 1 付	around MP-1	25 $\mu$ Sv/h
3/13	A.M.9:40	MP - 4 付	around MP-4	66.8 $\mu$ Sv/h
3/13	A.M.9:50	MP - 1 付	around MP-1	23 $\mu$ Sv/h
3/13	A.M.9:50	MP - 4 付	around MP-4	64.7 $\mu$ Sv/h
3/13	A.M.10:00	正門	Front Gate	6.512 $\mu$ Sv/h
3/13	A.M.10:00	MP - 1 付	around MP-1	23 $\mu$ Sv/h
3/13	A.M.10:00	MP - 4 付	around MP-4	62.9 $\mu$ Sv/h
3/13	A.M.10:10	正門	Front Gate	6.372 $\mu$ Sv/h
3/13	A.M.10:10	MP - 1 付	around MP-1	23 $\mu$ Sv/h
3/13	A.M.10:10	MP - 4 付	around MP-4	61.1 $\mu$ Sv/h
3/13	A.M.10:20	正門	Front Gate	8.265 $\mu$ Sv/h
3/13	A.M.10:20	MP - 1 付	around MP-1	20 $\mu$ Sv/h
3/13	A.M.10:20	MP - 4 付	around MP-4	61.8 $\mu$ Sv/h
3/13	A.M.10:30	正門	Front Gate	6.755 $\mu$ Sv/h
3/13	A.M.10:30	MP - 1 付	around MP-1	19 $\mu$ Sv/h
3/13	A.M.10:30	MP - 4 付	around MP-4	58.0 $\mu$ Sv/h
3/13	A.M.10:40	正門	Front Gate	6.020 $\mu$ Sv/h
3/13	A.M.10:40	MP - 1 付	around MP-1	19 $\mu$ Sv/h
3/13	A.M.10:40	MP - 4 付	around MP-4	56.8 $\mu$ Sv/h
3/13	A.M.10:50	正門	Front Gate	6.038 $\mu$ Sv/h
3/13	A.M.10:50	MP - 1 付	around MP-1	19 $\mu$ Sv/h
3/13	A.M.10:50	MP - 4 付	around MP-4	55.4 $\mu$ Sv/h
3/13	A.M.11:00	正門	Front Gate	5.766 $\mu$ Sv/h
3/13	A.M.11:00	MP - 1 付	around MP-1	18 $\mu$ Sv/h
3/13	A.M.11:00	MP - 4 付	around MP-4	54.3 $\mu$ Sv/h
3/13	A.M.11:10	正門	Front Gate	5.610 $\mu$ Sv/h
3/13	A.M.11:10	MP - 1 付	around MP-1	18 $\mu$ Sv/h
3/13	A.M.11:10	MP - 4 付	around MP-4	53.3 $\mu$ Sv/h
3/13	A.M.11:20	正門	Front Gate	5.998 $\mu$ Sv/h
3/13	A.M.11:20	MP - 1 付	around MP-1	18 $\mu$ Sv/h
3/13	A.M.11:20	MP - 4 付	around MP-4	53.7 $\mu$ Sv/h
3/13	A.M.11:30	正門	Front Gate	7.888 $\mu$ Sv/h
3/13	A.M.11:30	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	A.M.11:30	MP - 4 付	around MP-4	51.3 $\mu$ Sv/h
3/13	A.M.11:40	正門	Front Gate	6.837 $\mu$ Sv/h
3/13	A.M.11:40	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	A.M.11:40	MP - 4 付	around MP-4	50.0 $\mu$ Sv/h
3/13	A.M.11:50	正門	Front Gate	6.617 $\mu$ Sv/h
3/13	A.M.11:50	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	A.M.11:50	MP - 4 付	around MP-4	49.4 $\mu$ Sv/h
3/13	P.M. 0:00	正門	Front Gate	5.545 $\mu$ Sv/h
3/13	P.M. 0:00	MP - 1 付	around MP-1	17 $\mu$ Sv/h

3/13	P.M. 0:00	MP - 4 付	around MP-4	48.7 $\mu$ Sv/h
3/13	P.M. 0:10	正門	Front Gate	5.537 $\mu$ Sv/h
3/13	P.M. 0:10	MP - 1 付	around MP-1	18 $\mu$ Sv/h
3/13	P.M. 0:10	MP - 4 付	around MP-4	47.8 $\mu$ Sv/h
3/13	P.M. 0:20	正門	Front Gate	5.316 $\mu$ Sv/h
3/13	P.M. 0:20	MP - 1 付	around MP-1	18 $\mu$ Sv/h
3/13	P.M. 0:20	MP - 4 付	around MP-4	47.1 $\mu$ Sv/h
3/13	P.M. 0:30	正門	Front Gate	5.495 $\mu$ Sv/h
3/13	P.M. 0:30	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	P.M. 0:30	MP - 4 付	around MP-4	46.3 $\mu$ Sv/h
3/13	P.M. 0:40	正門	Front Gate	5.266 $\mu$ Sv/h
3/13	P.M. 0:40	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	P.M. 0:40	MP - 4 付	around MP-4	49.7 $\mu$ Sv/h
3/13	P.M. 0:50	正門	Front Gate	5.369 $\mu$ Sv/h
3/13	P.M. 0:50	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	P.M. 0:50	MP - 4 付	around MP-4	45.2 $\mu$ Sv/h
3/13	P.M. 1:00	正門	Front Gate	4.953 $\mu$ Sv/h
3/13	P.M. 1:00	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	P.M. 1:00	MP - 4 付	around MP-4	44.6 $\mu$ Sv/h
3/13	P.M. 1:10	正門	Front Gate	4.794 $\mu$ Sv/h
3/13	P.M. 1:10	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	P.M. 1:10	MP - 4 付	around MP-4	44.0 $\mu$ Sv/h
3/13	P.M. 1:20	正門	Front Gate	4.907 $\mu$ Sv/h
3/13	P.M. 1:20	MP - 1 付	around MP-1	17 $\mu$ Sv/h
3/13	P.M. 1:20	MP - 4 付	around MP-4	43.5 $\mu$ Sv/h
3/13	P.M. 1:30	正門	Front Gate	4.852 $\mu$ Sv/h
3/13	P.M. 1:30	MP - 1 付	around MP-1	16 $\mu$ Sv/h
3/13	P.M. 1:30	MP - 4 付	around MP-4	42.9 $\mu$ Sv/h
3/13	P.M. 1:40	正門	Front Gate	4.883 $\mu$ Sv/h
3/13	P.M. 1:40	MP - 1 付	around MP-1	16 $\mu$ Sv/h
3/13	P.M. 1:40	MP - 4 付	around MP-4	44.0 $\mu$ Sv/h
3/13	P.M. 1:50	正門	Front Gate	4.965 $\mu$ Sv/h
3/13	P.M. 1:50	MP - 1 付	around MP-1	24 $\mu$ Sv/h
3/13	P.M. 1:50	MP - 4 付	around MP-4	905.1 $\mu$ Sv/h
3/13	P.M. 2:00	正門	Front Gate	21.880 $\mu$ Sv/h
3/13	P.M. 2:00	MP - 1 付	around MP-1	21 $\mu$ Sv/h
3/13	P.M. 2:00	MP - 4 付	around MP-4	499.3 $\mu$ Sv/h
3/13	P.M. 2:10	正門	Front Gate	39.710 $\mu$ Sv/h
3/13	P.M. 2:10	MP - 1 付	around MP-1	21 $\mu$ Sv/h
3/13	P.M. 2:10	MP - 4 付	around MP-4	646.0 $\mu$ Sv/h
3/13	P.M. 2:20	正門	Front Gate	57.630 $\mu$ Sv/h
3/13	P.M. 2:20	MP - 1 付	around MP-1	21 $\mu$ Sv/h
3/13	P.M. 2:20	MP - 4 付	around MP-4	135.4 $\mu$ Sv/h
3/13	P.M. 2:30	正門	Front Gate	17.610 $\mu$ Sv/h
3/13	P.M. 2:30	MP - 1 付	around MP-1	32 $\mu$ Sv/h
3/13	P.M. 2:30	MP - 4 付	around MP-4	129.9 $\mu$ Sv/h
3/13	P.M. 2:40	正門	Front Gate	10.050 $\mu$ Sv/h

3/13	P.M. 2:40	MP - 1 付	around MP-1	52 $\mu$ Sv/h
3/13	P.M. 2:40	MP - 4 付	around MP-4	133.0 $\mu$ Sv/h
3/13	P.M. 2:50	正門	Front Gate	10.850 $\mu$ Sv/h
3/13	P.M. 2:50	MP - 1 付	around MP-1	35 $\mu$ Sv/h
3/13	P.M. 2:50	MP - 4 付	around MP-4	169.0 $\mu$ Sv/h
3/13	P.M. 3:00	正門	Front Gate	8.311 $\mu$ Sv/h
3/13	P.M. 3:00	MP - 1 付	around MP-1	52 $\mu$ Sv/h
3/13	P.M. 3:00	MP - 4 付	around MP-4	58.7 $\mu$ Sv/h
3/13	P.M. 3:10	正門	Front Gate	5.717 $\mu$ Sv/h
3/13	P.M. 3:10	MP - 1 付	around MP-1	100 $\mu$ Sv/h
3/13	P.M. 3:10	MP - 4 付	around MP-4	54.3 $\mu$ Sv/h
3/13	P.M. 3:20	正門	Front Gate	4.717 $\mu$ Sv/h
3/13	P.M. 3:20	MP - 1 付	around MP-1	24 $\mu$ Sv/h
3/13	P.M. 3:20	MP - 4 付	around MP-4	54.0 $\mu$ Sv/h
3/13	P.M. 3:30	正門	Front Gate	4.461 $\mu$ Sv/h
3/13	P.M. 3:30	MP - 1 付	around MP-1	34 $\mu$ Sv/h
3/13	P.M. 3:30	MP - 4 付	around MP-4	51.8 $\mu$ Sv/h
3/13	P.M. 3:40	正門	Front Gate	4.360 $\mu$ Sv/h
3/13	P.M. 3:40	MP - 1 付	around MP-1	24 $\mu$ Sv/h
3/13	P.M. 3:40	MP - 4 付	around MP-4	56.5 $\mu$ Sv/h
3/13	P.M. 3:50	正門	Front Gate	5.469 $\mu$ Sv/h
3/13	P.M. 3:50	MP - 1 付	around MP-1	30 $\mu$ Sv/h
3/13	P.M. 3:50	MP - 4 付	around MP-4	76.1 $\mu$ Sv/h
3/13	P.M. 4:00	正門	Front Gate	5.154 $\mu$ Sv/h
3/13	P.M. 4:00	MP - 1 付	around MP-1	31 $\mu$ Sv/h
3/13	P.M. 4:00	MP - 4 付	around MP-4	107.1 $\mu$ Sv/h
3/13	P.M. 4:10	正門	Front Gate	4.555 $\mu$ Sv/h
3/13	P.M. 4:10	MP - 1 付	around MP-1	45 $\mu$ Sv/h
3/13	P.M. 4:10	MP - 4 付	around MP-4	58.0 $\mu$ Sv/h
3/13	P.M. 4:20	正門	Front Gate	4.336 $\mu$ Sv/h
3/13	P.M. 4:20	MP - 1 付	around MP-1	150 $\mu$ Sv/h
3/13	P.M. 4:20	MP - 4 付	around MP-4	57.6 $\mu$ Sv/h
3/13	P.M. 4:30	正門	Front Gate	4.277 $\mu$ Sv/h
3/13	P.M. 4:30	MP - 1 付	around MP-1	46 $\mu$ Sv/h
3/13	P.M. 4:30	MP - 4 付	around MP-4	71.5 $\mu$ Sv/h
3/13	P.M. 4:40	正門	Front Gate	4.235 $\mu$ Sv/h
3/13	P.M. 4:40	MP - 1 付	around MP-1	60 $\mu$ Sv/h
3/13	P.M. 4:40	MP - 4 付	around MP-4	57.2 $\mu$ Sv/h
3/13	P.M. 4:50	正門	Front Gate	4.224 $\mu$ Sv/h
3/13	P.M. 4:50	MP - 1 付	around MP-1	30 $\mu$ Sv/h
3/13	P.M. 4:50	MP - 4 付	around MP-4	100.1 $\mu$ Sv/h
3/13	P.M. 5:00	正門	Front Gate	4.301 $\mu$ Sv/h
3/13	P.M. 5:00	MP - 1 付	around MP-1	120 $\mu$ Sv/h
3/13	P.M. 5:00	MP - 4 付	around MP-4	79.4 $\mu$ Sv/h
3/13	P.M. 5:10	正門	Front Gate	4.213 $\mu$ Sv/h
3/13	P.M. 5:10	MP - 1 付	around MP-1	62 $\mu$ Sv/h
3/13	P.M. 5:10	MP - 4 付	around MP-4	60.8 $\mu$ Sv/h



3/13	P.M. 5:20	正門	Front Gate	4.640μSv/h
3/13	P.M. 5:20	MP - 1 付	around MP-1	45μSv/h
3/13	P.M. 5:20	MP - 4 付	around MP-4	57.0μSv/h
3/13	P.M. 5:30	正門	Front Gate	5.171μSv/h
3/13	P.M. 5:30	MP - 1 付	around MP-1	36μSv/h
3/13	P.M. 5:30	MP - 4 付	around MP-4	52.3μSv/h
3/13	P.M. 5:40	正門	Front Gate	5.898μSv/h
3/13	P.M. 5:40	MP - 1 付	around MP-1	40μSv/h
3/13	P.M. 5:40	MP - 4 付	around MP-4	56.8μSv/h
3/13	P.M. 5:50	正門	Front Gate	5.953μSv/h
3/13	P.M. 5:50	MP - 1 付	around MP-1	35μSv/h
3/13	P.M. 5:50	MP - 4 付	around MP-4	52.3μSv/h
3/13	P.M. 6:00	正門	Front Gate	5.382μSv/h
3/13	P.M. 6:00	MP - 1 付	around MP-1	35μSv/h
3/13	P.M. 6:00	MP - 4 付	around MP-4	50.1μSv/h
3/13	P.M. 6:10	正門	Front Gate	5.168μSv/h
3/13	P.M. 6:10	MP - 1 付	around MP-1	30μSv/h
3/13	P.M. 6:10	MP - 4 付	around MP-4	49.4μSv/h
3/13	P.M. 6:20	正門	Front Gate	5.250μSv/h
3/13	P.M. 6:20	MP - 1 付	around MP-1	27μSv/h
3/13	P.M. 6:20	MP - 4 付	around MP-4	48.6μSv/h
3/13	P.M. 6:30	正門	Front Gate	4.883μSv/h
3/13	P.M. 6:30	MP - 1 付	around MP-1	26μSv/h
3/13	P.M. 6:30	MP - 4 付	around MP-4	47.9μSv/h
3/13	P.M. 6:40	正門	Front Gate	4.980μSv/h
3/13	P.M. 6:40	MP - 1 付	around MP-1	25μSv/h
3/13	P.M. 6:40	MP - 4 付	around MP-4	47.3μSv/h
3/13	P.M. 6:50	正門	Front Gate	4.831μSv/h
3/13	P.M. 6:50	MP - 1 付	around MP-1	25μSv/h
3/13	P.M. 6:50	MP - 4 付	around MP-4	46.7μSv/h
3/13	P.M. 7:00	正門	Front Gate	5.224μSv/h
3/13	P.M. 7:00	MP - 1 付	around MP-1	25μSv/h
3/13	P.M. 7:00	MP - 4 付	around MP-4	46.1μSv/h
3/13	P.M. 7:10	正門	Front Gate	5.077μSv/h
3/13	P.M. 7:10	MP - 1 付	around MP-1	23μSv/h
3/13	P.M. 7:10	MP - 4 付	around MP-4	46.3μSv/h
3/13	P.M. 7:20	正門	Front Gate	4.709μSv/h
3/13	P.M. 7:20	MP - 1 付	around MP-1	22μSv/h
3/13	P.M. 7:23	MP - 4 付	around MP-4	44.8μSv/h
3/13	P.M. 7:30	正門	Front Gate	4.622μSv/h
3/13	P.M. 7:30	MP - 1 付	around MP-1	20μSv/h
3/13	P.M. 7:31	MP - 4 付	around MP-4	44.4μSv/h
3/13	P.M. 7:40	正門	Front Gate	4.844μSv/h
3/13	P.M. 7:40	MP - 1 付	around MP-1	26μSv/h
3/13	P.M. 7:41	MP - 4 付	around MP-4	44.0μSv/h
3/13	P.M. 7:50	正門	Front Gate	5.577μSv/h
3/13	P.M. 7:50	MP - 1 付	around MP-1	24μSv/h

3/13	P.M. 7:51	M P - 4 付	around MP-4	43.8 $\mu$ Sv/h
3/13	P.M. 8:00	正門	Front Gate	5.721 $\mu$ Sv/h
3/13	P.M. 8:00	M P - 1 付	around MP-1	24 $\mu$ Sv/h
3/13	P.M. 8:01	M P - 4 付	around MP-4	43.2 $\mu$ Sv/h
3/13	P.M. 8:10	正門	Front Gate	4.471 $\mu$ Sv/h
3/13	P.M. 8:10	M P - 2 付	around MP-1	450 $\mu$ Sv/h
3/13	P.M. 8:11	M P - 4 付	around MP-4	42.8 $\mu$ Sv/h
3/13	P.M. 8:20	正門	Front Gate	4.521 $\mu$ Sv/h
3/13	P.M. 8:20	M P - 2 付	around MP-1	450 $\mu$ Sv/h
3/13	P.M. 8:21	M P - 4 付	around MP-4	42.5 $\mu$ Sv/h
3/13	P.M. 8:30	正門	Front Gate	4.427 $\mu$ Sv/h
3/13	P.M. 8:30	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 8:31	M P - 4 付	around MP-4	42.6 $\mu$ Sv/h
3/13	P.M. 8:40	正門	Front Gate	4.454 $\mu$ Sv/h
3/13	P.M. 8:40	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 8:41	M P - 4 付	around MP-4	42.0 $\mu$ Sv/h
3/13	P.M. 8:50	正門	Front Gate	4.377 $\mu$ Sv/h
3/13	P.M. 8:50	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 8:51	M P - 4 付	around MP-4	41.7 $\mu$ Sv/h
3/13	P.M. 9:00	正門	Front Gate	4.371 $\mu$ Sv/h
3/13	P.M. 9:00	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 9:01	M P - 4 付	around MP-4	41.3 $\mu$ Sv/h
3/13	P.M. 9:10	正門	Front Gate	4.480 $\mu$ Sv/h
3/13	P.M. 9:10	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 9:11	M P - 4 付	around MP-4	41.0 $\mu$ Sv/h
3/13	P.M. 9:20	正門	Front Gate	4.463 $\mu$ Sv/h
3/13	P.M. 9:20	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 9:21	M P - 4 付	around MP-4	40.8 $\mu$ Sv/h
3/13	P.M. 9:30	正門	Front Gate	4.552 $\mu$ Sv/h
3/13	P.M. 9:30	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 9:31	M P - 4 付	around MP-4	40.6 $\mu$ Sv/h
3/13	P.M. 9:40	正門	Front Gate	4.785 $\mu$ Sv/h
3/13	P.M. 9:40	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 9:41	M P - 4 付	around MP-4	40.3 $\mu$ Sv/h
3/13	P.M. 9:50	正門	Front Gate	4.626 $\mu$ Sv/h
3/13	P.M. 9:50	M P - 2 付	around MP-2	440 $\mu$ Sv/h
3/13	P.M. 9:51	M P - 4 付	around MP-4	40.1 $\mu$ Sv/h
3/13	P.M. 10:00	正門	Front Gate	4.636 $\mu$ Sv/h
3/13	P.M. 10:00	M P - 2 付	around MP-2	430 $\mu$ Sv/h
3/13	P.M. 10:01	M P - 4 付	around MP-4	39.8 $\mu$ Sv/h
3/13	P.M. 10:10	正門	Front Gate	4.622 $\mu$ Sv/h
3/13	P.M. 10:10	M P - 2 付	around MP-2	430 $\mu$ Sv/h
3/13	P.M. 10:11	M P - 4 付	around MP-4	39.7 $\mu$ Sv/h
3/13	P.M. 10:20	正門	Front Gate	5.417 $\mu$ Sv/h
3/13	P.M. 10:20	M P - 2 付	around MP-2	430 $\mu$ Sv/h
3/13	P.M. 10:21	M P - 4 付	around MP-4	40.4 $\mu$ Sv/h
3/13	P.M. 10:30	正門	Front Gate	4.645 $\mu$ Sv/h

3/13	P.M. 10:30	MP - 2 付	around MP-2	430 $\mu$ Sv/h
3/13	P.M. 10:31	MP - 4 付	around MP-4	39.3 $\mu$ Sv/h
3/13	P.M. 10:40	正門	Front Gate	4.622 $\mu$ Sv/h
3/13	P.M. 10:40	MP - 2 付	around MP-2	430 $\mu$ Sv/h
3/13	P.M. 10:41	MP - 4 付	around MP-4	39.1 $\mu$ Sv/h
3/13	P.M. 10:50	正門	Front Gate	4.632 $\mu$ Sv/h
3/13	P.M. 10:50	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/13	P.M. 10:51	MP - 4 付	around MP-4	38.9 $\mu$ Sv/h
3/13	P.M. 11:00	正門	Front Gate	4.668 $\mu$ Sv/h
3/13	P.M. 11:00	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/13	P.M. 11:01	MP - 4 付	around MP-4	38.7 $\mu$ Sv/h
3/13	P.M. 11:10	正門	Front Gate	4.700 $\mu$ Sv/h
3/13	P.M. 11:10	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/13	P.M. 11:11	MP - 4 付	around MP-4	39.0 $\mu$ Sv/h
3/13	P.M. 11:20	正門	Front Gate	4.647 $\mu$ Sv/h
3/13	P.M. 11:20	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/13	P.M. 11:21	MP - 4 付	around MP-4	38.3 $\mu$ Sv/h
3/13	P.M. 11:30	正門	Front Gate	4.610 $\mu$ Sv/h
3/13	P.M. 11:30	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/13	P.M. 11:31	MP - 4 付	around MP-4	38.2 $\mu$ Sv/h
3/13	P.M. 11:40	正門	Front Gate	4.828 $\mu$ Sv/h
3/13	P.M. 11:40	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/13	P.M. 11:41	MP - 4 付	around MP-4	38.1 $\mu$ Sv/h
3/13	P.M. 11:50	正門	Front Gate	4.868 $\mu$ Sv/h
3/13	P.M. 11:50	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/13	P.M. 11:51	MP - 4 付	around MP-4	37.9 $\mu$ Sv/h
3/14	A.M. 0:00	正門	Front Gate	4.855 $\mu$ Sv/h
3/14	A.M.0:00	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.0:01	MP - 4 付	around MP-4	38.2 $\mu$ Sv/h
3/14	A.M. 0:10	正門	Front Gate	4.529 $\mu$ Sv/h
3/14	A.M.0:10	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.0:11	MP - 4 付	around MP-4	38.4 $\mu$ Sv/h
3/14	A.M. 0:20	正門	Front Gate	4.582 $\mu$ Sv/h
3/14	A.M.0:20	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.0:21	MP - 4 付	around MP-4	37.7 $\mu$ Sv/h
3/14	A.M. 0:30	正門	Front Gate	4.469 $\mu$ Sv/h
3/14	A.M.0:30	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.0:31	MP - 4 付	around MP-4	37.5 $\mu$ Sv/h
3/14	A.M. 0:40	正門	Front Gate	4.450 $\mu$ Sv/h
3/14	A.M.0:40	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.0:41	MP - 4 付	around MP-4	37.3 $\mu$ Sv/h
3/14	A.M. 0:50	正門	Front Gate	4.442 $\mu$ Sv/h
3/14	A.M.0:50	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.0:51	MP - 4 付	around MP-4	37.0 $\mu$ Sv/h
3/14	A.M. 1:00	正門	Front Gate	4.447 $\mu$ Sv/h
3/14	A.M.1:00	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.1:01	MP - 4 付	around MP-4	38.0 $\mu$ Sv/h

3/14	A.M. 1:10	正門	Front Gate	4.426 $\mu$ Sv/h
3/14	A.M.1:10	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.1:11	MP - 4 付	around MP-4	36.9 $\mu$ Sv/h
3/14	A.M. 1:20	正門	Front Gate	4.281 $\mu$ Sv/h
3/14	A.M.1:20	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.1:21	MP - 4 付	around MP-4	36.7 $\mu$ Sv/h
3/14	A.M. 1:30	正門	Front Gate	4.321 $\mu$ Sv/h
3/14	A.M.1:30	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.1:31	MP - 4 付	around MP-4	36.5 $\mu$ Sv/h
3/14	A.M. 1:40	正門	Front Gate	4.322 $\mu$ Sv/h
3/14	A.M.1:40	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.1:41	MP - 4 付	around MP-4	36.4 $\mu$ Sv/h
3/14	A.M. 1:50	正門	Front Gate	4.371 $\mu$ Sv/h
3/14	A.M.1:50	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.1:51	MP - 4 付	around MP-4	38.3 $\mu$ Sv/h
3/14	A.M. 2:00	正門	Front Gate	4.356 $\mu$ Sv/h
3/14	A.M.2:00	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.2:00	MP - 4 付	around MP-4	36.4 $\mu$ Sv/h
3/14	A.M. 2:10	正門	Front Gate	4.594 $\mu$ Sv/h
3/14	A.M.2:10	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.2:10	MP - 4 付	around MP-4	36.5 $\mu$ Sv/h
3/14	A.M. 2:20	正門	Front Gate	751.2 $\mu$ Sv/h
3/14	A.M.2:20	MP - 2 付	around MP-2	410 $\mu$ Sv/h
3/14	A.M.2:20	MP - 4 付	around MP-4	44.6 $\mu$ Sv/h
3/14	A.M. 2:30	正門	Front Gate	433.0 $\mu$ Sv/h
3/14	A.M.2:30	MP - 2 付	around MP-2	440 $\mu$ Sv/h
3/14	A.M.2:30	MP - 4 付	around MP-4	319.3 $\mu$ Sv/h
3/14	A.M. 2:40	正門	Front Gate	420.0 $\mu$ Sv/h
3/14	A.M.2:40	MP - 2 付	around MP-2	650 $\mu$ Sv/h
3/14	A.M.2:40	MP - 4 付	around MP-4	189.7 $\mu$ Sv/h
3/14	A.M. 2:50	正門	Front Gate	66.27 $\mu$ Sv/h
3/14	A.M.2:50	MP - 2 付	around MP-2	490 $\mu$ Sv/h
3/14	A.M.2:50	MP - 4 付	around MP-4	86.9 $\mu$ Sv/h
3/14	A.M. 3:00	正門	Front Gate	65.520 $\mu$ Sv/h
3/14	A.M.3:00	MP - 2 付	around MP-2	480 $\mu$ Sv/h
3/14	A.M.3:00	MP - 4 付	around MP-4	144.2 $\mu$ Sv/h
3/14	A.M. 3:10	正門	Front Gate	45.5 $\mu$ Sv/h
3/14	A.M.3:10	MP - 2 付	around MP-2	650 $\mu$ Sv/h
3/14	A.M.3:10	MP - 4 付	around MP-4	129.8 $\mu$ Sv/h
3/14	A.M. 3:20	正門	Front Gate	15.43 $\mu$ Sv/h
3/14	A.M.3:20	MP - 2 付	around MP-2	650 $\mu$ Sv/h
3/14	A.M.3:20	MP - 4 付	around MP-4	123.9 $\mu$ Sv/h
3/14	A.M. 3:30	正門	Front Gate	18.99 $\mu$ Sv/h
3/14	A.M.3:30	MP - 2 付	around MP-2	720 $\mu$ Sv/h
3/14	A.M.3:30	MP - 4 付	around MP-4	112.9 $\mu$ Sv/h
3/14	A.M. 3:40	正門	Front Gate	14.99 $\mu$ Sv/h
3/14	A.M.3:40	MP - 2 付	around MP-2	600 $\mu$ Sv/h

3/14	A.M.3:40	MP - 4 付	around MP-4	73.6 $\mu$ Sv/h
3/14	A.M. 3:50	正門	Front Gate	10.32 $\mu$ Sv/h
3/14	A.M.3:50	MP - 2 付	around MP-2	680 $\mu$ Sv/h
3/14	A.M.3:50	MP - 4 付	around MP-4	70.0 $\mu$ Sv/h
3/14	A.M. 4:00	正門	Front Gate	10.07 $\mu$ Sv/h
3/14	A.M.4:00	MP - 2 付	around MP-2	820 $\mu$ Sv/h
3/14	A.M.4:00	MP - 4 付	around MP-4	68.8 $\mu$ Sv/h
3/14	A.M. 4:10	正門	Front Gate	6.706 $\mu$ Sv/h
3/14	A.M.4:10	MP - 2 付	around MP-2	450 $\mu$ Sv/h
3/14	A.M.4:10	MP - 4 付	around MP-4	54.7 $\mu$ Sv/h
3/14	A.M. 4:20	正門	Front Gate	7.748 $\mu$ Sv/h
3/14	A.M.4:20	MP - 2 付	around MP-2	430 $\mu$ Sv/h
3/14	A.M.4:20	MP - 4 付	around MP-4	47.6 $\mu$ Sv/h
3/14	A.M. 4:30	正門	Front Gate	7.710 $\mu$ Sv/h
3/14	A.M.4:30	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/14	A.M.4:30	MP - 4 付	around MP-4	50.0 $\mu$ Sv/h
3/14	A.M. 4:40	正門	Front Gate	7.045 $\mu$ Sv/h
3/14	A.M.4:40	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/14	A.M.4:40	MP - 4 付	around MP-4	42.9 $\mu$ Sv/h
3/14	A.M. 4:50	正門	Front Gate	6.900 $\mu$ Sv/h
3/14	A.M.4:50	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/14	A.M.4:51	MP - 4 付	around MP-4	40.6 $\mu$ Sv/h
3/14	A.M. 5:00	正門	Front Gate	6.65 $\mu$ Sv/h
3/14	A.M.5:00	MP - 2 付	around MP-2	400 $\mu$ Sv/h
3/14	A.M.5:01	MP - 4 付	around MP-4	39.9 $\mu$ Sv/h
3/14	A.M. 5:10	正門	Front Gate	6.516 $\mu$ Sv/h
3/14	A.M.5:10	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/14	A.M.5:11	MP - 4 付	around MP-4	39.0 $\mu$ Sv/h
3/14	A.M. 5:20	正門	Front Gate	6.735 $\mu$ Sv/h
3/14	A.M.5:20	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/14	A.M.5:21	MP - 4 付	around MP-4	41.3 $\mu$ Sv/h
3/14	A.M. 5:29	MP - 4 付	Front Gate	41.3 $\mu$ Sv/h
3/14	A.M.5:30	正門	around MP-2	6.494 $\mu$ Sv/h
3/14	A.M.5:30	MP - 2 付	around MP-4	400 $\mu$ Sv/h
3/14	A.M. 5:40	正門	Front Gate	6.410 $\mu$ Sv/h
3/14	A.M.5:40	MP - 2 付	around MP-2	420 $\mu$ Sv/h
3/14	A.M.5:41	MP - 4 付	around MP-4	38.3 $\mu$ Sv/h
3/14	A.M. 5:50	正門	Front Gate	6.340 $\mu$ Sv/h
3/14	A.M.5:50	MP - 2 付	around MP-2	400 $\mu$ Sv/h
3/14	A.M.5:51	MP - 4 付	around MP-4	38.1 $\mu$ Sv/h
3/14	A.M. 6:00	正門	Front Gate	5.144 $\mu$ Sv/h
3/14	A.M.6:00	MP - 2 付	around MP-2	400 $\mu$ Sv/h
3/14	A.M.6:01	MP - 4 付	around MP-4	37.9 $\mu$ Sv/h
3/14	A.M. 6:10	正門	Front Gate	5.021 $\mu$ Sv/h
3/14	A.M.6:11	MP - 4 付	around MP-4	37.8 $\mu$ Sv/h
3/14	A.M. 6:20	正門	Front Gate	5.032 $\mu$ Sv/h
3/14	A.M.6:21	MP - 4 付	around MP-4	37.4 $\mu$ Sv/h

3/14	A.M. 6:30	正門	Front Gate	4.920 $\mu$ Sv/h
3/14	A.M.7:53	MP - 4 付	around MP-4	69 $\mu$ Sv/h
3/14	A.M.8:07	MP - 4 付	around MP-4	40 $\mu$ Sv/h
3/14	A.M.8:19	MP - 4 付	around MP-4	39 $\mu$ Sv/h
3/14	A.M.8:30	MP - 3 付	around MP-3	287.2 $\mu$ Sv/h
3/14	A.M.8:31	MP - 4 付	around MP-4	75 $\mu$ Sv/h
3/14	A.M.8:40	MP - 3 付	around MP-3	274 $\mu$ Sv/h
3/14	A.M.8:41	MP - 4 付	around MP-4	40 $\mu$ Sv/h
3/14	A.M.8:50	MP - 3 付	around MP-3	268 $\mu$ Sv/h
3/14	A.M.9:00	MP - 3 付	around MP-3	304.8 $\mu$ Sv/h
3/14	A.M.9:10	MP - 3 付	around MP-3	443.7 $\mu$ Sv/h
3/14	A.M.9:12	MP - 3 付	around MP-3	518.7 $\mu$ Sv/h
3/14	A.M.9:20	MP - 3 付	around MP-3	481.0 $\mu$ Sv/h
3/14	A.M.9:25	MP - 4 付	around MP-4	87.083 $\mu$ Sv/h
3/14	A.M.9:30	MP - 3 付	around MP-3	339.4 $\mu$ Sv/h
3/14	A.M.9:40	MP - 3 付	around MP-3	293.7 $\mu$ Sv/h
3/14	A.M.9:43	MP - 4 付	around MP-4	48.899 $\mu$ Sv/h
3/14	A.M.9:50	MP - 3 付	around MP-3	274.9 $\mu$ Sv/h
3/14	A.M.9:53	MP - 4 付	around MP-4	43.256 $\mu$ Sv/h
3/14	A.M.10:00	MP - 3 付	around MP-3	269.4 $\mu$ Sv/h
3/14	A.M.10:05	MP - 4 付	around MP-4	41.998 $\mu$ Sv/h
3/14	A.M.10:10	MP - 3 付	around MP-3	266.8 $\mu$ Sv/h
3/14	A.M.10:11	MP - 4 付	around MP-4	41.533 $\mu$ Sv/h
3/14	A.M.10:20	MP - 3 付	around MP-3	265.4 $\mu$ Sv/h
3/14	A.M.10:27	MP - 4 付	around MP-4	40.694 $\mu$ Sv/h
3/14	A.M.10:30	MP - 3 付	around MP-3	261.6 $\mu$ Sv/h
3/14	A.M.10:35	MP - 4 付	around MP-4	40.155 $\mu$ Sv/h
3/14	A.M.10:40	MP - 3 付	around MP-3	261.900 $\mu$ Sv/h
3/14	A.M.10:41	MP - 4 付	around MP-4	39.716 $\mu$ Sv/h
3/14	A.M.10:50	MP - 3 付	around MP-3	261.0 $\mu$ Sv/h
3/14	A.M.10:51	MP - 4 付	around MP-4	39.406 $\mu$ Sv/h
3/14	A.M. 11:37	正門	Front Gate	50.387 $\mu$ Sv/h
3/14	A.M. 11:44	正門	Front Gate	19.6 $\mu$ Sv/h
3/14	P.M. 0:06	正門	Front Gate	10.816 $\mu$ Sv/h
3/14	P.M. 0:21	正門	Front Gate	10.65 $\mu$ Sv/h
3/14	P.M. 0:34	MP - 6 付	around MP-6	4.226 $\mu$ Sv/h
3/14	P.M. 0:46	MP - 5 付	around MP-5	6.86 $\mu$ Sv/h
3/14	P.M. 0:52	MP - 4 付	around MP-4	31.53 $\mu$ Sv/h
3/14	P.M. 1:04	MP - 3 付	around MP-3	229.7 $\mu$ Sv/h
3/14	P.M. 1:10	正門	Front Gate	12.0 $\mu$ Sv/h
3/14	P.M. 1:12	MP - 4 付	around MP-4	34.2 $\mu$ Sv/h
3/14	P.M. 1:15	正門	Front Gate	13.0 $\mu$ Sv/h
3/14	P.M. 1:20	正門	Front Gate	15.0 $\mu$ Sv/h
3/14	P.M. 1:25	正門	Front Gate	14.0 $\mu$ Sv/h
3/14	P.M. 1:28	MP - 5 付	around MP-5	6.377 $\mu$ Sv/h
3/14	P.M. 1:30	正門	Front Gate	13.0 $\mu$ Sv/h
3/14	P.M. 1:35	正門	Front Gate	13.0 $\mu$ Sv/h

3/14	P.M. 1:40	正門	Front Gate	11.0 $\mu$ Sv/h
3/14	P.M. 1:40	MP - 6 付	around MP-6	3.65 $\mu$ Sv/h
3/14	P.M. 1:45	正門	Front Gate	12.0 $\mu$ Sv/h
3/14	P.M. 1:50	正門	Front Gate	13.0 $\mu$ Sv/h
3/14	P.M. 1:55	正門	Front Gate	15.0 $\mu$ Sv/h
3/14	P.M. 2:02	MP - 5 付	around MP-5	6.088 $\mu$ Sv/h
3/14	P.M. 2:14	MP - 4 付	around MP-4	29.8 $\mu$ Sv/h
3/14	P.M. 2:30	MP - 3 付	around MP-3	231.1 $\mu$ Sv/h
3/14	P.M. 2:46	MP - 4 付	around MP-4	31.3 $\mu$ Sv/h
3/14	P.M. 2:58	MP - 5 付	around MP-4	6.2 $\mu$ Sv/h
3/14	P.M. 3:09	MP - 6 付	around MP-4	3.9 $\mu$ Sv/h
3/14	P.M. 2:16	MP - 5 付	around MP-5	6.0 $\mu$ Sv/h
3/14	P.M. 3:23	MP - 4 付	around MP-4	29.6 $\mu$ Sv/h
3/14	P.M. 3:30	MP - 3 付	around MP-3	226.2 $\mu$ Sv/h
3/14	P.M. 3:38	MP - 4 付	around MP-4	30.4 $\mu$ Sv/h
3/14	P.M. 4:02	MP - 5 付	around MP-5	5.9 $\mu$ Sv/h
3/14	P.M. 4:10	MP - 6 付	around MP-6	3.7 $\mu$ Sv/h
3/14	P.M. 5:00	正門	Front Gate	8.1 $\mu$ Sv/h
3/14	P.M. 5:10	正門	Front Gate	8.1 $\mu$ Sv/h
3/14	P.M. 5:20	正門	Front Gate	7.275 $\mu$ Sv/h
3/14	P.M. 5:30	正門	Front Gate	7.605 $\mu$ Sv/h
3/14	P.M. 5:40	正門	Front Gate	7.620 $\mu$ Sv/h
3/14	P.M. 5:50	正門	Front Gate	8.044 $\mu$ Sv/h
3/14	P.M. 6:00	正門	Front Gate	7.637 $\mu$ Sv/h
3/14	P.M. 6:10	正門	Front Gate	7.037 $\mu$ Sv/h
3/14	P.M. 6:20	正門	Front Gate	7.177 $\mu$ Sv/h
3/14	P.M. 6:30	正門	Front Gate	8.047 $\mu$ Sv/h
3/14	P.M. 6:40	正門	Front Gate	10.4 $\mu$ Sv/h
3/14	P.M. 6:46	正門	Front Gate	10.1 $\mu$ Sv/h
3/14	P.M. 7:00	正門	Front Gate	7.7 $\mu$ Sv/h
3/14	P.M. 7:10	正門	Front Gate	7.8 $\mu$ Sv/h
3/14	P.M. 7:20	正門	Front Gate	7.7 $\mu$ Sv/h
3/14	P.M. 7:30	正門	Front Gate	8.9 $\mu$ Sv/h
3/14	P.M. 7:40	正門	Front Gate	7.6 $\mu$ Sv/h
3/14	P.M. 7:50	正門	Front Gate	5.5 $\mu$ Sv/h
3/14	P.M. 8:00	正門	Front Gate	5.4 $\mu$ Sv/h
3/14	P.M. 8:10	正門	Front Gate	5.4 $\mu$ Sv/h
3/14	P.M. 8:20	正門	Front Gate	5.4 $\mu$ Sv/h
3/14	P.M. 8:30	正門	Front Gate	5.4 $\mu$ Sv/h
3/14	P.M. 8:40	正門	Front Gate	5.4 $\mu$ Sv/h
3/14	P.M. 8:50	正門	Front Gate	5.8 $\mu$ Sv/h
3/14	P.M. 8:55	正門	Front Gate	5.0 $\mu$ Sv/h
3/14	P.M. 9:00	正門	Front Gate	5.8 $\mu$ Sv/h
3/14	P.M. 9:05	正門	Front Gate	5.8 $\mu$ Sv/h
3/14	P.M. 9:10	正門	Front Gate	6.0 $\mu$ Sv/h
3/14	P.M. 9:15	正門	Front Gate	5.8 $\mu$ Sv/h
3/14	P.M. 9:20	正門	Front Gate	6.0 $\mu$ Sv/h

3/14	P.M. 9:25	正門	Front Gate	6.8μSv/h
3/14	P.M. 9:30	正門	Front Gate	29.7μSv/h
3/14	P.M. 9:35	正門	Front Gate	760.0μSv/h
3/14	P.M. 9:37	正門	Front Gate	3130.0μSv/h
3/14	P.M. 10:15	正門	Front Gate	431.7μSv/h
3/14	P.M. 10:20	正門	Front Gate	336.6μSv/h
3/14	P.M. 10:25	正門	Front Gate	301.9μSv/h
3/14	P.M. 10:35	正門	Front Gate	326.2μSv/h
3/14	P.M. 10:40	正門	Front Gate	293.7μSv/h
3/14	P.M. 10:45	正門	Front Gate	271.7μSv/h
3/14	P.M. 10:50	正門	Front Gate	267.0μSv/h
3/14	P.M. 10:55	正門	Front Gate	263.0μSv/h
3/14	P.M. 11:00	正門	Front Gate	252.7μSv/h
3/14	P.M. 11:05	正門	Front Gate	242.8μSv/h
3/14	P.M. 11:10	正門	Front Gate	235.3μSv/h
3/14	P.M. 11:15	正門	Front Gate	231.5μSv/h
3/14	P.M. 11:20	正門	Front Gate	227.0μSv/h
3/14	P.M. 11:25	正門	Front Gate	216.0μSv/h
3/14	P.M. 11:30	正門	Front Gate	216.0μSv/h
3/14	P.M. 11:35	正門	Front Gate	211.3μSv/h
3/14	P.M. 11:40	正門	Front Gate	205.6μSv/h
3/14	P.M. 11:45	正門	Front Gate	201.7μSv/h
3/14	P.M. 11:50	正門	Front Gate	196.2μSv/h
3/14	P.M. 11:55	正門	Front Gate	192.3μSv/h
3/15	A.M. 0:00	正門	Front Gate	188.9μSv/h
3/15	A.M. 0:05	正門	Front Gate	185.0μSv/h
3/15	A.M. 0:10	正門	Front Gate	181.0μSv/h
3/15	A.M. 0:15	正門	Front Gate	177.3μSv/h
3/15	A.M. 0:20	正門	Front Gate	175.8μSv/h
3/15	A.M. 0:25	正門	Front Gate	173.3μSv/h
3/15	A.M. 0:30	正門	Front Gate	168.0μSv/h
3/15	A.M. 0:35	正門	Front Gate	164.9μSv/h
3/15	A.M. 0:40	正門	Front Gate	164.4μSv/h
3/15	A.M. 0:45	正門	Front Gate	167.6μSv/h
3/15	A.M. 0:50	正門	Front Gate	164.3μSv/h
3/15	A.M. 0:55	正門	Front Gate	151.7μSv/h
3/15	A.M. 1:00	正門	Front Gate	150.3μSv/h
3/15	A.M. 1:05	正門	Front Gate	147.1μSv/h
3/15	A.M. 1:20	正門	Front Gate	137.8μSv/h
3/15	A.M. 1:30	正門	Front Gate	135.5μSv/h
3/15	A.M. 1:40	正門	Front Gate	130.4μSv/h
3/15	A.M. 1:50	正門	Front Gate	123.3μSv/h
3/15	A.M. 2:00	正門	Front Gate	120.2μSv/h
3/15	A.M. 2:10	正門	Front Gate	114.1μSv/h
3/15	A.M. 2:20	正門	Front Gate	111.4μSv/h
3/15	A.M. 2:30	正門	Front Gate	109.6μSv/h
3/15	A.M. 2:40	正門	Front Gate	105.4μSv/h



3/15	A.M. 3:10	正門	Front Gate	94.3 $\mu$ Sv/h
3/15	A.M. 3:20	正門	Front Gate	92.8 $\mu$ Sv/h
3/15	A.M. 3:40	正門	Front Gate	87.0 $\mu$ Sv/h
3/15	A.M. 4:00	正門	Front Gate	81.9 $\mu$ Sv/h
3/15	A.M. 4:20	正門	Front Gate	77.6 $\mu$ Sv/h
3/15	A.M. 4:40	正門	Front Gate	73.6 $\mu$ Sv/h
3/15	A.M. 5:00	正門	Front Gate	70.0 $\mu$ Sv/h
3/15	A.M. 5:20	正門	Front Gate	67.4 $\mu$ Sv/h
3/15	A.M. 5:40	正門	Front Gate	65.7 $\mu$ Sv/h
3/15	A.M. 6:00	正門	Front Gate	73.2 $\mu$ Sv/h
3/15	A.M. 8:20	正門	Front Gate	807.7 $\mu$ Sv/h
3/15	A.M. 8:31	正門	Front Gate	8217.0 $\mu$ Sv/h
3/15	A.M. 8:40	正門	Front Gate	1726.0 $\mu$ Sv/h
3/15	A.M. 8:50	正門	Front Gate	2208.0 $\mu$ Sv/h
3/15	A.M. 9:00	正門	Front Gate	11930.0 $\mu$ Sv/h
3/15	A.M. 9:15	MP - 4 付	around MP-4	58.0 $\mu$ Sv/h
3/15	A.M. 9:20	MP - 4 付	around MP-4	50.0 $\mu$ Sv/h
3/15	A.M. 9:35	正門	Front Gate	7241.0 $\mu$ Sv/h
3/15	A.M.10:15	正門	Front Gate	8837.0 $\mu$ Sv/h
3/15	A.M.11:40	西門	West Gate	253.8 $\mu$ Sv/h
3/15	A.M.11:45	西門	West Gate	162.4 $\mu$ Sv/h
3/15	P.M. 0:05	西門	West Gate	2431.0 $\mu$ Sv/h
3/15	P.M. 0:15	西門	West Gate	2434.0 $\mu$ Sv/h
3/15	P.M. 0:25	正門	Front Gate	1407.0 $\mu$ Sv/h
3/15	P.M. 0:35	正門	Front Gate	1325.0 $\mu$ Sv/h
3/15	P.M. 0:45	正門	Front Gate	1267.0 $\mu$ Sv/h
3/15	P.M. 0:55	正門	Front Gate	1216.0 $\mu$ Sv/h
3/15	P.M. 1:00	正門	Front Gate	1191.0 $\mu$ Sv/h
3/15	P.M. 1:10	正門	Front Gate	1148.0 $\mu$ Sv/h
3/15	P.M. 1:20	正門	Front Gate	1100.0 $\mu$ Sv/h
3/15	P.M. 1:30	正門	Front Gate	1068.0 $\mu$ Sv/h
3/15	P.M. 1:40	正門	Front Gate	1014.0 $\mu$ Sv/h
3/15	P.M. 1:50	正門	Front Gate	969.9 $\mu$ Sv/h
3/15	P.M. 2:00	正門	Front Gate	928.2 $\mu$ Sv/h
3/15	P.M. 2:10	正門	Front Gate	903.9 $\mu$ Sv/h
3/15	P.M. 2:20	正門	Front Gate	874.4 $\mu$ Sv/h
3/15	P.M. 2:30	正門	Front Gate	855.5 $\mu$ Sv/h
3/15	P.M. 2:40	正門	Front Gate	821.3 $\mu$ Sv/h
3/15	P.M. 2:50	正門	Front Gate	673.8 $\mu$ Sv/h
3/15	P.M. 3:00	正門	Front Gate	649.0 $\mu$ Sv/h
3/15	P.M. 3:10	正門	Front Gate	628.5 $\mu$ Sv/h
3/15	P.M. 3:20	正門	Front Gate	613.8 $\mu$ Sv/h
3/15	P.M. 3:30	正門	Front Gate	596.4 $\mu$ Sv/h
3/15	P.M. 3:40	正門	Front Gate	566.9 $\mu$ Sv/h
3/15	P.M. 3:50	正門	Front Gate	544.9 $\mu$ Sv/h
3/15	P.M. 4:00	正門	Front Gate	531.6 $\mu$ Sv/h
3/15	P.M. 4:10	正門	Front Gate	513.2 $\mu$ Sv/h

3/15	P.M. 4:20	正門	Front Gate	502.6μSv/h
3/15	P.M. 4:30	正門	Front Gate	489.8μSv/h
3/15	P.M. 4:40	正門	Front Gate	473.0μSv/h
3/15	P.M. 4:50	正門	Front Gate	460.3μSv/h
3/15	P.M. 5:00	正門	Front Gate	449.4μSv/h
3/15	P.M. 5:10	正門	Front Gate	437.5μSv/h
3/15	P.M. 5:30	正門	Front Gate	423.5μSv/h
3/15	P.M. 6:00	正門	Front Gate	401.7μSv/h
3/15	P.M. 6:30	正門	Front Gate	403.0μSv/h
3/15	P.M. 7:00	正門	Front Gate	353.8μSv/h
3/15	P.M. 7:30	正門	Front Gate	343.3μSv/h
3/15	P.M. 8:00	正門	Front Gate	347.0μSv/h
3/15	P.M. 8:30	正門	Front Gate	311.3μSv/h
3/15	P.M. 9:00	正門	Front Gate	298.8μSv/h
3/15	P.M. 9:30	正門	Front Gate	282.6μSv/h
3/15	P.M. 10:00	正門	Front Gate	313.2μSv/h
3/15	P.M. 10:30	正門	Front Gate	431.8μSv/h
3/15	P.M. 11:00	正門	Front Gate	4548.0μSv/h
3/15	P.M. 11:10	正門	Front Gate	6960.0μSv/h
3/15	P.M. 11:15	正門	Front Gate	2761.0μSv/h
3/15	P.M. 11:20	正門	Front Gate	3648.0μSv/h
3/15	P.M. 11:25	正門	Front Gate	4976.0μSv/h
3/15	P.M. 11:30	正門	Front Gate	8080.0μSv/h
3/15	P.M. 11:35	正門	Front Gate	6308.0μSv/h
3/15	P.M. 11:40	正門	Front Gate	6592.0μSv/h
3/15	P.M. 11:45	正門	Front Gate	6847.0μSv/h
3/15	P.M. 11:50	正門	Front Gate	6066.0μSv/h
3/15	P.M. 11:55	正門	Front Gate	7966.0μSv/h
3/16	A.M. 0:00	正門	Front Gate	4351.0μSv/h
3/16	A.M. 0:10	正門	Front Gate	3504.0μSv/h
3/16	A.M. 0:20	正門	Front Gate	3108.0μSv/h
3/16	A.M. 0:30	正門	Front Gate	2609.0μSv/h
3/16	A.M. 1:00	正門	Front Gate	2159.0μSv/h
3/16	A.M. 1:10	正門	Front Gate	2021.0μSv/h
3/16	A.M. 1:20	正門	Front Gate	1937.0μSv/h
3/16	A.M. 1:30	正門	Front Gate	1805.0μSv/h
3/16	A.M. 1:40	正門	Front Gate	1708.0μSv/h
3/16	A.M. 1:50	正門	Front Gate	1628.0μSv/h
3/16	A.M. 2:00	正門	Front Gate	1552.0μSv/h
3/16	A.M. 2:10	正門	Front Gate	1522.0μSv/h
3/16	A.M. 2:20	正門	Front Gate	1453.0μSv/h
3/16	A.M. 2:30	正門	Front Gate	1386.0μSv/h
3/16	A.M. 2:40	正門	Front Gate	1357.0μSv/h
3/16	A.M. 2:50	正門	Front Gate	1316.0μSv/h
3/16	A.M. 3:00	正門	Front Gate	1267.0μSv/h
3/16	A.M. 3:30	正門	Front Gate	1159.0μSv/h
3/16	A.M. 4:00	正門	Front Gate	1047.0μSv/h

3/16	A.M. 4:30	正門	Front Gate	975.3μSv/h
3/16	A.M. 5:00	正門	Front Gate	918.2μSv/h
3/16	A.M. 5:30	正門	Front Gate	868.0μSv/h
3/16	A.M. 6:00	正門	Front Gate	884.0μSv/h
3/16	A.M. 6:30	正門	Front Gate	848.4μSv/h
3/16	A.M. 6:40	正門	Front Gate	837.0μSv/h
3/16	A.M. 6:50	正門	Front Gate	815.9μSv/h
3/16	A.M. 7:00	正門	Front Gate	808.8μSv/h
3/16	A.M. 7:10	正門	Front Gate	670.3μSv/h
3/16	A.M. 7:20	正門	Front Gate	661.8μSv/h
3/16	A.M. 7:30	正門	Front Gate	651.1μSv/h
3/16	A.M. 7:40	正門	Front Gate	644.0μSv/h
3/16	A.M. 7:50	正門	Front Gate	636.8μSv/h
3/16	A.M. 8:00	正門	Front Gate	627.5μSv/h
3/16	A.M. 8:10	正門	Front Gate	620.6μSv/h
3/16	A.M. 8:20	正門	Front Gate	613.9μSv/h
3/16	A.M. 8:30	正門	Front Gate	606.6μSv/h
3/16	A.M. 8:40	正門	Front Gate	600.4μSv/h
3/16	A.M. 8:50	正門	Front Gate	593.4μSv/h
3/16	A.M. 9:00	正門	Front Gate	587.6μSv/h
3/16	A.M. 9:10	正門	Front Gate	582.2μSv/h
3/16	A.M. 9:20	正門	Front Gate	582.4μSv/h
3/16	A.M. 9:30	正門	Front Gate	582.3μSv/h
3/16	A.M. 9:40	正門	Front Gate	641.8μSv/h
3/16	A.M. 9:50	正門	Front Gate	700.6μSv/h
3/16	A.M.10:00	正門	Front Gate	810.3μSv/h
3/16	A.M.10:10	正門	Front Gate	908.5μSv/h
3/16	A.M.10:20	正門	Front Gate	2399.0μSv/h
3/16	A.M.10:30	正門	Front Gate	1361.0μSv/h
3/16	A.M.10:45	正門	Front Gate	6400.0μSv/h
3/16	A.M.10:54	正門	Front Gate	2300.0μSv/h
3/16	A.M.10:55	正門	Front Gate	2900.0μSv/h
3/16	A.M.11:00	正門	Front Gate	3391.0μSv/h
3/16	A.M.11:10	正門	Front Gate	2720.0μSv/h
3/16	A.M.11:20	正門	Front Gate	1900.0μSv/h
3/16	A.M.11:30	正門	Front Gate	5350.0μSv/h
3/16	A.M.11:40	正門	Front Gate	2633.0μSv/h
3/16	A.M.11:50	正門	Front Gate	2578.0μSv/h
3/16	A.M. 0:00	正門	Front Gate	4418.0μSv/h
3/16	P.M. 0:10	正門	Front Gate	3138.0μSv/h
3/16	P.M. 0:20	正門	Front Gate	3261.0μSv/h
3/16	P.M. 0:30	正門	Front Gate	10850.0μSv/h
3/16	P.M. 0:40	正門	Front Gate	8234.0μSv/h
3/16	P.M. 0:50	正門	Front Gate	2851.0μSv/h
3/16	P.M. 1:00	正門	Front Gate	2672.0μSv/h
3/16	P.M. 1:10	正門	Front Gate	2538.0μSv/h
3/16	P.M. 1:20	正門	Front Gate	2430.0μSv/h

3/16	P.M. 1:30	正門	Front Gate	2331.0μSv/h
3/16	P.M. 1:40	正門	Front Gate	2257.0μSv/h
3/16	P.M. 1:50	正門	Front Gate	2182.0μSv/h
3/16	P.M. 2:00	正門	Front Gate	2122.0μSv/h
3/16	P.M. 2:10	正門	Front Gate	2059.0μSv/h
3/16	P.M. 2:20	正門	Front Gate	2002.0μSv/h
3/16	P.M. 2:30	正門	Front Gate	1937.0μSv/h
3/16	P.M. 2:40	正門	Front Gate	1888.0μSv/h
3/16	P.M. 2:50	正門	Front Gate	1835.0μSv/h
3/16	P.M. 3:00	正門	Front Gate	1788.0μSv/h
3/16	P.M. 3:10	正門	Front Gate	1752.0μSv/h
3/16	P.M. 3:20	正門	Front Gate	1697.0μSv/h
3/16	P.M. 3:30	正門	Front Gate	1664.0μSv/h
3/16	P.M. 3:40	正門	Front Gate	1629.0μSv/h
3/16	P.M. 3:50	正門	Front Gate	1591.0μSv/h
3/17	A.M. 0:30	西門	West Gate	351.4 μSv/h
3/17	A.M. 0:50	西門	West Gate	350.1 μSv/h
3/17	A.M. 1:00	西門	West Gate	350.0 μSv/h
3/17	A.M. 1:30	西門	West Gate	348.2 μSv/h
3/17	A.M. 2:00	西門	West Gate	345.9 μSv/h
3/17	A.M. 2:30	西門	West Gate	344.8 μSv/h
3/17	A.M. 3:00	西門	West Gate	344.6 μSv/h
3/17	A.M. 3:30	西門	West Gate	341.7 μSv/h
3/17	A.M. 4:00	西門	West Gate	340.8 μSv/h
3/17	A.M. 4:30	西門	West Gate	339.4 μSv/h
3/17	A.M. 5:00	西門	West Gate	338.3 μSv/h
3/17	A.M. 5:30	西門	West Gate	336.1 μSv/h
3/17	A.M. 6:00	西門	West Gate	334.7 μSv/h
3/17	A.M. 6:30	西門	West Gate	333.8 μSv/h
3/17	A.M. 7:30	西門	West Gate	314.5 μSv/h
3/17	A.M. 7:30	西門	West Gate	313.5 μSv/h
3/17	A.M. 7:50	體育館脇	a side of Gym	381.3 μSv/h
3/17	A.M. 8:00	體育館脇	a side of Gym	379.0 μSv/h
3/17	A.M. 8:30	體育館脇	a side of Gym	373.0 μSv/h
3/17	A.M. 8:40	體育館脇	a side of Gym	372.5 μSv/h
3/17	A.M. 8:50	體育館脇	a side of Gym	372.7 μSv/h
3/17	A.M. 9:00	體育館脇	a side of Gym	373.7 μSv/h
3/17	A.M. 9:10	體育館脇	a side of Gym	371.9 μSv/h
3/17	A.M. 9:30	事務本館北	North of Main Admin. Bldg.	3786.0 μSv/h
3/17	A.M. 9:40	事務本館北	North of Main Admin. Bldg.	3782.0 μSv/h
3/17	A.M. 9:50	事務本館北	North of Main Adnmin. Bldg.	3763.0 μSv/h
3/17	A.M. 10:00	事務本館北	North of Main Adnmin. Bldg.	3759.0 μSv/h
3/17	A.M. 10:10	事務本館北	North of Main Adnmin. Bldg.	3755.0 μSv/h
3/17	A.M. 10:20	事務本館北	North of Main Adnmin. Bldg.	3754.0 μSv/h
3/17	A.M. 10:30	事務本館北	North of Main Adnmin. Bldg.	3750.0 μSv/h
3/17	A.M. 10:40	事務本館北	North of Main Adnmin. Bldg.	3753.0 μSv/h
3/17	A.M. 10:50	事務本館北	North of Main Adnmin. Bldg.	3743.0 μSv/h
3/17	A.M. 11:00	正門	Front Gate	647.3 μSv/h

3/17	A.M. 11:10	正門	Front Gate	646.2 $\mu$ Sv/h
3/17	A.M. 11:15	西門	West Gate	313.1 $\mu$ Sv/h
3/17	A.M. 11:20	西門	west Gate	312.5 $\mu$ Sv/h
3/17	A.M. 11:30	西門	West Gate	312.3 $\mu$ Sv/h
3/17	P.M. 0:00	西門	West Gate	311.0 $\mu$ Sv/h
3/17	P.M. 0:30	西門	West Gate	310.7 $\mu$ Sv/h
3/17	P.M. 1:00	西門	West Gate	309.7 $\mu$ Sv/h
3/17	P.M. 1:10	西門	West Gate	309.3 $\mu$ Sv/h
3/17	P.M. 1:20	西門	West Gate	309.1 $\mu$ Sv/h
3/17	P.M. 1:30	事務本館北	North of Main Admin. Bldg.	4175.0 $\mu$ Sv/h
3/17	P.M. 1:40	事務本館北	North of Main Adnmin. Bldg.	4165.0 $\mu$ Sv/h
3/17	P.M. 2:00	事務本館北	North of Main Adnmin. Bldg.	3810.0 $\mu$ Sv/h
3/17	P.M. 2:10	西門	West Gate	311.1 $\mu$ Sv/h
3/17	P.M. 2:30	西門	West Gate	310.3 $\mu$ Sv/h
3/17	P.M. 3:00	西門	West Gate	309.1 $\mu$ Sv/h
3/17	P.M. 3:30	西門	West Gate	309.7 $\mu$ Sv/h
3/17	P.M. 3:50	事務本館北	North of Main Admin. Bldg.	3700.0 $\mu$ Sv/h
3/17	P.M. 4:00	事務本館北	North of Main Adnmin. Bldg.	3698.0 $\mu$ Sv/h
3/17	P.M. 4:10	事務本館北	North of Main Adnmin. Bldg.	3695.0 $\mu$ Sv/h
3/17	P.M. 4:15	事務本館北	North of Main Adnmin. Bldg.	3691.0 $\mu$ Sv/h
3/17	P.M. 5:00	事務本館北	North of Main Adnmin. Bldg.	3676.0 $\mu$ Sv/h
3/17	P.M. 5:10	事務本館北	North of Main Adnmin. Bldg.	3675.0 $\mu$ Sv/h
3/17	P.M. 5:20	事務本館北	North of Main Adnmin. Bldg.	3672.0 $\mu$ Sv/h
3/17	P.M. 5:30	事務本館北	North of Main Adnmin. Bldg.	3667.0 $\mu$ Sv/h
3/17	P.M. 5:40	事務本館北	North of Main Adnmin. Bldg.	3639.0 $\mu$ Sv/h
3/17	P.M. 5:50	事務本館北	North of Main Adnmin. Bldg.	3650.0 $\mu$ Sv/h
3/17	P.M. 6:00	事務本館北	North of Main Adnmin. Bldg.	3649.0 $\mu$ Sv/h
3/17	P.M. 6:10	事務本館北	North of Main Adnmin. Bldg.	3641.0 $\mu$ Sv/h
3/17	P.M. 6:20	事務本館北	North of Main Adnmin. Bldg.	3645.0 $\mu$ Sv/h
3/17	P.M. 6:30	事務本館北	North of Main Adnmin. Bldg.	3643.0 $\mu$ Sv/h
3/17	P.M. 6:40	事務本館北	North of Main Adnmin. Bldg.	3638.0 $\mu$ Sv/h
3/17	P.M. 5:50	事務本館北	North of Main Adnmin. Bldg.	3638.0 $\mu$ Sv/h
3/17	P.M. 7:00	事務本館北	North of Main Adnmin. Bldg.	3630.0 $\mu$ Sv/h
3/17	P.M. 7:10	事務本館北	North of Main Adnmin. Bldg.	3626.0 $\mu$ Sv/h
3/17	P.M. 8:40	西門	West Gate	292.2 $\mu$ Sv/h
3/17	P.M. 9:00	西門	West Gate	291.9 $\mu$ Sv/h
3/17	P.M. 9:10	西門	West Gate	291.7 $\mu$ Sv/h
3/17	P.M. 9:20	西門	West Gate	291.3 $\mu$ Sv/h
3/17	P.M. 9:30	西門	West Gate	291.2 $\mu$ Sv/h
3/17	P.M. 9:40	西門	West Gate	291.1 $\mu$ Sv/h
3/17	P.M. 9:50	西門	West Gate	290.9 $\mu$ Sv/h
3/17	P.M. 10:00	西門	West Gate	290.4 $\mu$ Sv/h
3/17	P.M. 10:10	西門	West Gate	290.4 $\mu$ Sv/h
3/17	P.M. 10:20	西門	West Gate	289.9 $\mu$ Sv/h
3/17	P.M. 10:30	西門	West Gate	289.7 $\mu$ Sv/h
3/17	P.M. 10:40	西門	West Gate	289.6 $\mu$ Sv/h
3/17	P.M. 10:50	西門	West Gate	289.5 $\mu$ Sv/h
3/17	P.M. 11:00	西門	West Gate	289.0 $\mu$ Sv/h

3/17	P.M. 11:10	西門	West Gate	289.0 $\mu$ Sv/h
3/17	P.M. 11:20	西門	West Gate	288.8 $\mu$ Sv/h
3/17	P.M. 11:30	西門	West Gate	288.7 $\mu$ Sv/h
3/17	P.M. 11:40	西門	West Gate	287.8 $\mu$ Sv/h
3/17	P.M. 11:50	西門	West Gate	288.9 $\mu$ Sv/h
3/18	A.M. 0:00	西門	West Gate	287.0 $\mu$ Sv/h
3/18	A.M. 0:10	西門	West Gate	287.3 $\mu$ Sv/h
3/18	A.M. 0:20	西門	West Gate	286.6 $\mu$ Sv/h
3/18	A.M. 0:30	西門	West Gate	286.4 $\mu$ Sv/h
3/18	A.M. 0:40	西門	West Gate	286.3 $\mu$ Sv/h
3/18	A.M. 0:50	西門	West Gate	286.0 $\mu$ Sv/h
3/18	A.M. 1:00	西門	West Gate	285.6 $\mu$ Sv/h
3/18	A.M. 1:10	西門	West Gate	285.5 $\mu$ Sv/h
3/18	A.M. 1:20	西門	West Gate	285.2 $\mu$ Sv/h
3/18	A.M. 1:30	西門	West Gate	284.9 $\mu$ Sv/h
3/18	A.M. 1:40	西門	West Gate	284.6 $\mu$ Sv/h
3/18	A.M. 1:50	西門	West Gate	284.4 $\mu$ Sv/h
3/18	A.M. 2:00	西門	West Gate	284.0 $\mu$ Sv/h
3/18	A.M. 2:10	西門	West Gate	283.7 $\mu$ Sv/h
3/18	A.M. 2:20	西門	West Gate	283.7 $\mu$ Sv/h
3/18	A.M. 2:30	西門	West Gate	283.5 $\mu$ Sv/h
3/18	A.M. 2:40	西門	West Gate	283.0 $\mu$ Sv/h
3/18	A.M. 2:50	西門	West Gate	282.9 $\mu$ Sv/h
3/18	A.M. 3:00	西門	West Gate	282.6 $\mu$ Sv/h
3/18	A.M. 3:10	西門	West Gate	282.0 $\mu$ Sv/h
3/18	A.M. 3:20	西門	West Gate	282.0 $\mu$ Sv/h
3/18	A.M. 3:30	西門	West Gate	281.6 $\mu$ Sv/h
3/18	A.M. 3:40	西門	West Gate	281.5 $\mu$ Sv/h
3/18	A.M. 3:50	西門	West Gate	281.2 $\mu$ Sv/h
3/18	A.M. 4:00	西門	West Gate	281.1 $\mu$ Sv/h
3/18	A.M. 4:10	西門	West Gate	280.9 $\mu$ Sv/h
3/18	A.M. 4:20	西門	West Gate	280.7 $\mu$ Sv/h
3/18	A.M. 4:30	西門	West Gate	280.2 $\mu$ Sv/h
3/18	A.M. 4:40	西門	West Gate	280.0 $\mu$ Sv/h
3/18	A.M. 4:50	西門	West Gate	279.8 $\mu$ Sv/h
3/18	A.M. 5:00	西門	West Gate	279.4 $\mu$ Sv/h
3/18	A.M. 5:10	西門	West Gate	279.3 $\mu$ Sv/h
3/18	A.M. 5:20	西門	West Gate	279.0 $\mu$ Sv/h
3/18	A.M. 5:30	西門	West Gate	278.9 $\mu$ Sv/h
3/18	A.M. 5:40	西門	West Gate	278.9 $\mu$ Sv/h
3/18	A.M. 5:50	西門	West Gate	277.1 $\mu$ Sv/h
3/18	A.M. 6:00	西門	West Gate	274.0 $\mu$ Sv/h
3/18	A.M. 6:10	西門	West Gate	274.0 $\mu$ Sv/h
3/18	A.M. 6:20	西門	West Gate	273.8 $\mu$ Sv/h
3/18	A.M. 6:30	西門	West Gate	274.1 $\mu$ Sv/h
3/18	A.M. 6:40	西門	West Gate	272.7 $\mu$ Sv/h
3/18	A.M. 6:50	西門	West Gate	273.4 $\mu$ Sv/h
3/18	A.M. 7:00	西門	West Gate	272.4 $\mu$ Sv/h

3/18	A.M. 7:10	西門	West Gate	271.7 $\mu$ Sv/h
3/18	A.M. 7:20	西門	West Gate	271.6 $\mu$ Sv/h
3/18	A.M. 7:30	西門	West Gate	271.4 $\mu$ Sv/h
3/18	A.M. 7:40	西門	West Gate	271.1 $\mu$ Sv/h
3/18	A.M. 7:50	西門	West Gate	271.2 $\mu$ Sv/h
3/18	A.M. 8:00	西門	West Gate	270.5 $\mu$ Sv/h
3/18	A.M. 8:10	西門	West Gate	270.3 $\mu$ Sv/h
3/18	A.M. 8:20	西門	West Gate	269.9 $\mu$ Sv/h
3/18	A.M. 8:30	西門	West Gate	269.9 $\mu$ Sv/h
3/18	A.M. 8:40	西門	West Gate	269.8 $\mu$ Sv/h
3/18	A.M. 8:50	西門	West Gate	269.2 $\mu$ Sv/h
3/18	A.M. 9:00	西門	West Gate	268.7 $\mu$ Sv/h
3/18	A.M. 9:10	西門	West Gate	267.6 $\mu$ Sv/h
3/18	A.M. 9:20	西門	West Gate	268.9 $\mu$ Sv/h
3/18	A.M. 9:30	西門	West Gate	267.5 $\mu$ Sv/h
3/18	A.M. 9:40	西門	West Gate	267.0 $\mu$ Sv/h
3/18	A.M. 9:50	西門	West Gate	266.9 $\mu$ Sv/h
3/18	A.M. 10:00	西門	West Gate	266.7 $\mu$ Sv/h
3/18	A.M. 10:10	西門	West Gate	266.4 $\mu$ Sv/h
3/18	A.M. 10:20	西門	West Gate	266.1 $\mu$ Sv/h
3/18	A.M. 10:30	西門	West Gate	265.7 $\mu$ Sv/h
3/18	A.M. 10:40	西門	West Gate	265.4 $\mu$ Sv/h
3/18	A.M. 10:50	西門	West Gate	264.8 $\mu$ Sv/h
3/18	A.M. 11:00	西門	West Gate	265.0 $\mu$ Sv/h
3/18	A.M. 11:10	西門	West Gate	264.4 $\mu$ Sv/h
3/18	A.M. 11:20	西門	West Gate	264.5 $\mu$ Sv/h
3/18	A.M. 11:30	西門	West Gate	264.1 $\mu$ Sv/h
3/18	A.M. 11:40	西門	West Gate	264.4 $\mu$ Sv/h
3/18	A.M. 11:50	西門	West Gate	263.4 $\mu$ Sv/h
3/18	P.M. 0:00	西門	West Gate	263.5 $\mu$ Sv/h
3/18	P.M. 0:10	西門	West Gate	263.1 $\mu$ Sv/h
3/18	P.M. 0:20	西門	West Gate	262.9 $\mu$ Sv/h
3/18	P.M. 0:30	西門	West Gate	263.3 $\mu$ Sv/h
3/18	A.M. 0:40	西門	West Gate	264.3 $\mu$ Sv/h
3/18	P.M. 0:50	西門	West Gate	261.3 $\mu$ Sv/h
3/18	P.M. 1:00	西門	West Gate	262.0 $\mu$ Sv/h
3/18	P.M. 1:10	西門	West Gate	261.9 $\mu$ Sv/h
3/18	P.M. 1:20	西門	West Gate	262.7 $\mu$ Sv/h
3/18	P.M. 1:30	西門	West Gate	264.1 $\mu$ Sv/h
3/18	P.M. 1:50	事務本館北	North of Main Admin. Bldg.	3484.0 $\mu$ Sv/h
3/18	P.M. 2:00	事務本館北	North of Main Admin. Bldg.	3414.0 $\mu$ Sv/h
3/18	P.M. 2:10	事務本館北	North of Main Admin. Bldg.	3382.0 $\mu$ Sv/h
3/18	P.M. 2:15	事務本館北	North of Main Admin. Bldg.	3371 $\mu$ Sv/h
3/18	P.M. 2:20	事務本館北	North of Main Admin. Bldg.	3362 $\mu$ Sv/h
3/18	P.M. 2:25	事務本館北	North of Main Admin. Bldg.	3357 $\mu$ Sv/h
3/18	P.M. 2:30	事務本館北	North of Main Admin. Bldg.	3352 $\mu$ Sv/h
3/18	P.M. 2:35	事務本館北	North of Main Admin. Bldg.	3342 $\mu$ Sv/h
3/18	P.M. 2:40	事務本館北	North of Main Admin. Bldg.	3348 $\mu$ Sv/h

3/18	P.M. 2:45	事務本館北	North of Main Admin. Bldg.	3357 $\mu$ Sv/h
3/18	P.M. 2:50	事務本館北	North of Main Admin. Bldg.	3339 $\mu$ Sv/h
3/18	P.M. 2:55	事務本館北	North of Main Admin. Bldg.	3346 $\mu$ Sv/h
3/18	P.M. 3:00	事務本館北	North of Main Admin. Bldg.	3345 $\mu$ Sv/h
3/18	P.M. 3:10	事務本館北	North of Main Admin. Bldg.	3368 $\mu$ Sv/h
3/18	P.M. 3:20	事務本館北	North of Main Admin. Bldg.	3582 $\mu$ Sv/h
3/18	P.M. 3:30	事務本館北	North of Main Admin. Bldg.	4075 $\mu$ Sv/h
3/18	P.M. 3:40	事務本館北	North of Main Admin. Bldg.	3823 $\mu$ Sv/h
3/18	P.M. 3:50	事務本館北	North of Main Admin. Bldg.	4396 $\mu$ Sv/h
3/18	P.M. 4:00	事務本館北	North of Main Admin. Bldg.	4485 $\mu$ Sv/h
3/18	P.M. 4:10	事務本館北	North of Main Admin. Bldg.	4352 $\mu$ Sv/h
3/18	P.M. 4:20	事務本館北	North of Main Admin. Bldg.	4535 $\mu$ Sv/h
3/18	P.M. 4:30	事務本館北	North of Main Admin. Bldg.	4419 $\mu$ Sv/h
3/18	P.M. 4:40	事務本館北	North of Main Admin. Bldg.	4277 $\mu$ Sv/h
3/18	P.M. 4:50	事務本館北	North of Main Admin. Bldg.	4735 $\mu$ Sv/h
3/18	P.M. 5:00	事務本館北	North of Main Admin. Bldg.	5055 $\mu$ Sv/h
3/18	P.M. 5:10	事務本館北	North of Main Admin. Bldg.	5033 $\mu$ Sv/h
3/18	P.M. 5:20	事務本館北	North of Main Admin. Bldg.	4952 $\mu$ Sv/h
3/18	P.M. 5:30	事務本館北	North of Main Admin. Bldg.	4251 $\mu$ Sv/h
3/18	P.M. 5:40	事務本館北	North of Main Admin. Bldg.	4182 $\mu$ Sv/h
3/18	P.M. 5:50	事務本館北	North of Main Admin. Bldg.	4090 $\mu$ Sv/h
3/18	P.M. 6:00	事務本館北	North of Main Admin. Bldg.	4084 $\mu$ Sv/h
3/18	P.M. 6:10	事務本館北	North of Main Admin. Bldg.	4069 $\mu$ Sv/h
3/18	P.M. 6:20	事務本館北	North of Main Admin. Bldg.	4069 $\mu$ Sv/h
3/18	P.M. 6:30	事務本館北	North of Main Admin. Bldg.	3922 $\mu$ Sv/h
3/18	P.M. 6:40	事務本館北	North of Main Admin. Bldg.	3885 $\mu$ Sv/h
3/18	P.M. 6:50	事務本館北	North of Main Admin. Bldg.	3832 $\mu$ Sv/h
3/18	P.M. 7:00	事務本館北	North of Main Admin. Bldg.	3788 $\mu$ Sv/h
3/18	P.M. 7:10	事務本館北	North of Main Admin. Bldg.	3745 $\mu$ Sv/h
3/18	P.M. 7:20	事務本館北	North of Main Admin. Bldg.	3728 $\mu$ Sv/h
3/18	P.M. 7:30	事務本館北	North of Main Admin. Bldg.	3699 $\mu$ Sv/h
3/18	P.M. 7:40	事務本館北	North of Main Admin. Bldg.	3669 $\mu$ Sv/h
3/18	P.M. 7:50	事務本館北	North of Main Admin. Bldg.	3634 $\mu$ Sv/h
3/18	P.M. 8:00	事務本館北	North of Main Admin. Bldg.	3611 $\mu$ Sv/h
3/18	P.M. 8:10	西門	West Gate	447.6 $\mu$ Sv/h
3/18	P.M. 8:20	西門	West Gate	441.2 $\mu$ Sv/h
3/18	P.M. 8:30	西門	West Gate	434.5 $\mu$ Sv/h
3/18	P.M. 8:40	西門	West Gate	429.2 $\mu$ Sv/h
3/18	P.M. 8:50	西門	West Gate	423.9 $\mu$ Sv/h
3/18	P.M. 9:00	西門	West Gate	419.1 $\mu$ Sv/h
3/18	P.M. 9:10	西門	West Gate	414.2 $\mu$ Sv/h
3/18	P.M. 9:20	西門	West Gate	409.4 $\mu$ Sv/h
3/18	P.M. 9:30	西門	West Gate	405.2 $\mu$ Sv/h
3/18	P.M. 9:40	西門	West Gate	401.6 $\mu$ Sv/h
3/18	P.M. 9:50	西門	West Gate	397.8 $\mu$ Sv/h
3/18	P.M. 10:00	西門	West Gate	393.9 $\mu$ Sv/h
3/18	P.M. 10:10	西門	West Gate	389.2 $\mu$ Sv/h
3/18	P.M. 10:20	西門	West Gate	385.9 $\mu$ Sv/h



3/18	P.M. 10:30	西門	West Gate	382.9μSv/h
3/18	P.M. 10:40	西門	West Gate	379.6μSv/h
3/18	P.M. 10:50	西門	West Gate	375.9μSv/h
3/18	P.M. 11:00	西門	West Gate	373.6μSv/h
3/18	P.M. 11:10	西門	West Gate	371.2μSv/h
3/18	P.M. 11:20	西門	West Gate	368.9μSv/h
3/18	P.M. 11:30	事務本館北	North of Main Admin. Bldg.	3254μSv/h
3/18	P.M. 11:40	事務本館北	North of Main Admin. Bldg.	3256μSv/h
3/18	P.M. 11:50	事務本館北	North of Main Admin. Bldg.	3244μSv/h
3/19	A.M. 0:00	事務本館北	North of Main Admin. Bldg.	3229μSv/h
3/19	A.M. 0:10	事務本館北	North of Main Admin. Bldg.	3224μSv/h
3/19	A.M. 0:20	事務本館北	North of Main Admin. Bldg.	3219μSv/h
3/19	A.M. 0:30	事務本館北	North of Main Admin. Bldg.	3231μSv/h
3/19	A.M. 0:40	事務本館北	North of Main Admin. Bldg.	3342μSv/h
3/19	A.M. 0:50	事務本館北	North of Main Admin. Bldg.	3284μSv/h
3/19	A.M. 1:00	事務本館北	North of Main Admin. Bldg.	3248μSv/h
3/19	A.M. 1:10	事務本館北	North of Main Admin. Bldg.	3279μSv/h
3/19	A.M. 1:20	事務本館北	North of Main Admin. Bldg.	3247μSv/h
3/19	A.M. 1:30	事務本館北	North of Main Admin. Bldg.	3195μSv/h
3/19	A.M. 1:40	事務本館北	North of Main Admin. Bldg.	3188μSv/h
3/19	A.M. 1:50	事務本館北	North of Main Admin. Bldg.	3181μSv/h
3/19	A.M. 2:00	西門	West Gate	313.7μSv/h
3/19	A.M. 2:10	西門	West Gate	312.2μSv/h
3/19	A.M. 2:20	西門	West Gate	311.1μSv/h
3/19	A.M. 2:30	西門	West Gate	310μSv/h
3/19	A.M. 2:40	西門	West Gate	309.1μSv/h
3/19	A.M. 2:50	西門	West Gate	308.6μSv/h
3/19	A.M. 3:00	西門	West Gate	306.9μSv/h
3/19	A.M. 3:10	西門	West Gate	306μSv/h
3/19	A.M. 3:20	西門	West Gate	305.1μSv/h
3/19	A.M. 3:30	西門	West Gate	304.3μSv/h
3/19	A.M. 3:40	西門	West Gate	303.6μSv/h
3/19	A.M. 3:50	西門	West Gate	303.1μSv/h
3/19	A.M. 4:00	西門	West Gate	301.7μSv/h
3/19	A.M. 4:10	西門	West Gate	301.3μSv/h
3/19	A.M. 4:20	西門	West Gate	300.5μSv/h
3/19	A.M. 4:30	西門	West Gate	299.2μSv/h
3/19	A.M. 4:40	西門	West Gate	299.2μSv/h
3/19	A.M. 4:50	西門	West Gate	298.5μSv/h
3/19	A.M. 5:00	西門	West Gate	297.5μSv/h
3/19	A.M. 5:10	西門	West Gate	296.4μSv/h
3/19	A.M. 5:20	西門	West Gate	295.8μSv/h
3/19	A.M. 5:30	西門	West Gate	295.1μSv/h
3/19	A.M. 5:40	西門	West Gate	295.4μSv/h
3/19	A.M. 5:50	西門	West Gate	294.3μSv/h
3/19	A.M. 6:00	西門	West Gate	293.8μSv/h
3/19	A.M. 6:10	西門	West Gate	293.6μSv/h
3/19	A.M. 6:20	西門	West Gate	292.6μSv/h

3/19	A.M. 6:30	西門	West Gate	292.3μSv/h
3/19	A.M. 6:40	西門	West Gate	291.5μSv/h
3/19	A.M. 6:50	西門	West Gate	290.9μSv/h
3/19	A.M. 7:00	西門	West Gate	290.6μSv/h
3/19	A.M. 7:10	西門	West Gate	289.8μSv/h
3/19	A.M. 7:20	西門	West Gate	289.1μSv/h
3/19	A.M. 7:30	西門	West Gate	288.9μSv/h
3/19	A.M. 7:40	西門	West Gate	288.6μSv/h
3/19	A.M. 7:50	西門	West Gate	287.2μSv/h
3/19	A.M. 8:00	西門	West Gate	399μSv/h
3/19	A.M. 8:10	西門	West Gate	830.8μSv/h
3/19	A.M. 8:20	西門	West Gate	670.6μSv/h
3/19	A.M. 8:30	西門	West Gate	431.9μSv/h
3/19	A.M. 8:40	西門	West Gate	390.5μSv/h
3/19	A.M. 8:50	西門	West Gate	522.5μSv/h
3/19	A.M. 9:00	西門	West Gate	364.5μSv/h
3/19	A.M. 9:10	西門	West Gate	336.5μSv/h
3/19	A.M. 9:20	西門	West Gate	323.8μSv/h
3/19	A.M. 9:30	西門	West Gate	425.2μSv/h
3/19	A.M. 9:40	西門	West Gate	657.3μSv/h
3/19	A.M. 9:50	西門	West Gate	358.3μSv/h
3/19	A.M. 10:00	西門	West Gate	346.1μSv/h
3/19	A.M. 10:10	西門	West Gate	341.2μSv/h
3/19	A.M. 10:20	西門	West Gate	338.4μSv/h
3/19	A.M. 10:30	西門	West Gate	334.3μSv/h
3/19	A.M. 10:40	西門	West Gate	330.2μSv/h
3/19	A.M. 10:50	西門	West Gate	327.1μSv/h
3/19	A.M. 11:00	西門	West Gate	322.6μSv/h
3/19	A.M. 11:10	西門	West Gate	319.8μSv/h
3/19	A.M. 11:20	西門	West Gate	315.1μSv/h
3/19	A.M. 11:30	西門	West Gate	313.1μSv/h
3/19	A.M. 11:40	事務本館北	North of Main Admin. Bldg.	3954μSv/h
3/19	A.M. 11:50	事務本館北	North of Main Admin. Bldg.	3901μSv/h
3/19	P.M. 0:00	事務本館北	North of Main Admin. Bldg.	3882μSv/h
3/19	P.M. 0:10	事務本館北	North of Main Admin. Bldg.	3828μSv/h
3/19	P.M. 0:20	事務本館北	North of Main Admin. Bldg.	3802μSv/h
3/19	P.M. 0:30	事務本館北	North of Main Admin. Bldg.	3749μSv/h
3/19	A.M. 0:40	事務本館北	North of Main Admin. Bldg.	3704μSv/h
3/19	P.M. 0:50	事務本館北	North of Main Admin. Bldg.	3655μSv/h
3/19	P.M. 1:00	事務本館北	North of Main Admin. Bldg.	3629μSv/h
3/19	P.M. 1:10	事務本館北	North of Main Admin. Bldg.	3594μSv/h
3/19	P.M. 1:20	事務本館北	North of Main Admin. Bldg.	3565μSv/h
3/19	P.M. 1:30	事務本館北	North of Main Admin. Bldg.	3529μSv/h
3/19	P.M. 1:50	事務本館北	North of Main Admin. Bldg.	3491μSv/h
3/19	P.M. 2:00	事務本館北	North of Main Admin. Bldg.	3473μSv/h
3/19	P.M. 2:10	事務本館北	North of Main Admin. Bldg.	3443μSv/h
3/19	P.M. 2:15	事務本館北	North of Main Admin. Bldg.	3417μSv/h
3/19	P.M. 2:20	事務本館北	North of Main Admin. Bldg.	3396μSv/h



3/19	P.M. 10:30	事務本館北	North of Main Admin. Bldg.	2854 $\mu$ Sv/h
3/19	P.M. 10:40	事務本館北	North of Main Admin. Bldg.	2847 $\mu$ Sv/h
3/19	P.M. 10:50	事務本館北	North of Main Admin. Bldg.	2844 $\mu$ Sv/h
3/19	P.M. 11:00	事務本館北	North of Main Admin. Bldg.	2841 $\mu$ Sv/h
3/19	P.M. 11:10	事務本館北	North of Main Admin. Bldg.	2836 $\mu$ Sv/h
3/19	P.M. 11:20	事務本館北	North of Main Admin. Bldg.	2828 $\mu$ Sv/h
3/19	P.M. 11:30	事務本館北	North of Main Admin. Bldg.	2828 $\mu$ Sv/h
3/20	A.M. 0:00	事務本館北	North of Main Admin. Bldg.	2821.0 $\mu$ Sv/h
3/20	A.M. 0:10	事務本館北	North of Main Admin. Bldg.	2814.0 $\mu$ Sv/h
3/20	A.M. 0:20	事務本館北	North of Main Admin. Bldg.	2808.0 $\mu$ Sv/h
3/20	A.M. 0:30	事務本館北	North of Main Admin. Bldg.	2805.0 $\mu$ Sv/h
3/20	A.M. 0:40	事務本館北	North of Main Admin. Bldg.	2803.0 $\mu$ Sv/h
3/20	A.M. 0:50	事務本館北	North of Main Admin. Bldg.	2791.0 $\mu$ Sv/h
3/20	A.M. 1:00	事務本館北	North of Main Admin. Bldg.	2797.0 $\mu$ Sv/h
3/20	A.M. 1:10	事務本館北	North of Main Admin. Bldg.	2794.0 $\mu$ Sv/h
3/20	A.M. 1:20	事務本館北	North of Main Admin. Bldg.	2793.0 $\mu$ Sv/h
3/20	A.M. 1:30	事務本館北	North of Main Admin. Bldg.	2788.0 $\mu$ Sv/h
3/20	A.M. 1:40	事務本館北	North of Main Admin. Bldg.	2785.0 $\mu$ Sv/h
3/20	A.M. 1:50	事務本館北	North of Main Admin. Bldg.	2781.0 $\mu$ Sv/h
3/20	A.M. 2:00	事務本館北	North of Main Admin. Bldg.	2778.0 $\mu$ Sv/h
3/20	A.M. 2:10	事務本館北	North of Main Admin. Bldg.	2773.0 $\mu$ Sv/h
3/20	A.M. 2:20	事務本館北	North of Main Admin. Bldg.	2771.0 $\mu$ Sv/h
3/20	A.M. 2:30	事務本館北	North of Main Admin. Bldg.	2767.0 $\mu$ Sv/h
3/20	A.M. 2:40	事務本館北	North of Main Admin. Bldg.	2764.0 $\mu$ Sv/h
3/20	A.M. 2:50	事務本館北	North of Main Admin. Bldg.	2761.0 $\mu$ Sv/h
3/20	A.M. 3:00	事務本館北	North of Main Admin. Bldg.	2759.0 $\mu$ Sv/h
3/20	A.M. 3:10	事務本館北	North of Main Admin. Bldg.	2745.0 $\mu$ Sv/h
3/20	A.M. 3:20	事務本館北	North of Main Admin. Bldg.	2745.0 $\mu$ Sv/h
3/20	A.M. 3:30	事務本館北	North of Main Admin. Bldg.	2741.0 $\mu$ Sv/h
3/20	A.M. 3:40	事務本館北	North of Main Admin. Bldg.	2758.0 $\mu$ Sv/h
3/20	A.M. 3:50	事務本館北	North of Main Admin. Bldg.	3185.0 $\mu$ Sv/h
3/20	A.M. 4:00	事務本館北	North of Main Admin. Bldg.	2939.0 $\mu$ Sv/h
3/20	A.M. 4:10	事務本館北	North of Main Admin. Bldg.	2771.0 $\mu$ Sv/h
3/20	A.M. 4:20	事務本館北	North of Main Admin. Bldg.	2743.0 $\mu$ Sv/h
3/20	A.M. 4:30	事務本館北	North of Main Admin. Bldg.	2739.0 $\mu$ Sv/h
3/20	A.M. 4:40	西門	West Gate	273.2 $\mu$ Sv/h
3/20	A.M. 4:50	西門	West Gate	271.8 $\mu$ Sv/h
3/20	A.M. 5:00	西門	West Gate	271.2 $\mu$ Sv/h
3/20	A.M. 5:10	西門	West Gate	270.9 $\mu$ Sv/h
3/20	A.M. 5:20	西門	West Gate	270.4 $\mu$ Sv/h
3/20	A.M. 5:30	西門	West Gate	269.8 $\mu$ Sv/h
3/20	A.M. 5:40	西門	West Gate	269.5 $\mu$ Sv/h
3/20	A.M. 5:50	事務本館北	North of Main Admin. Bldg.	2683.0 $\mu$ Sv/h
3/20	A.M. 6:00	事務本館北	North of Main Admin. Bldg.	2679.0 $\mu$ Sv/h
3/20	A.M. 6:10	事務本館北	North of Main Admin. Bldg.	2679.0 $\mu$ Sv/h
3/20	A.M. 6:20	事務本館北	North of Main Admin. Bldg.	2677.0 $\mu$ Sv/h
3/20	A.M. 6:30	事務本館北	North of Main Admin. Bldg.	2670.0 $\mu$ Sv/h
3/20	A.M. 6:40	事務本館北	North of Main Admin. Bldg.	2654.0 $\mu$ Sv/h

3/20	A.M. 6:50	事務本館北	North of Main Admin. Bldg.	2664.0 $\mu$ Sv/h
3/20	A.M. 7:00	事務本館北	North of Main Admin. Bldg.	2661.0 $\mu$ Sv/h
3/20	A.M. 7:10	事務本館北	North of Main Admin. Bldg.	2661.0 $\mu$ Sv/h
3/20	A.M. 7:20	事務本館北	North of Main Admin. Bldg.	2659.0 $\mu$ Sv/h
3/20	A.M. 7:30	事務本館北	North of Main Admin. Bldg.	2652.0 $\mu$ Sv/h
3/20	A.M. 7:40	事務本館北	North of Main Admin. Bldg.	2653.0 $\mu$ Sv/h
3/20	A.M. 7:50	事務本館北	North of Main Admin. Bldg.	2637.0 $\mu$ Sv/h
3/20	A.M. 8:00	事務本館北	North of Main Admin. Bldg.	2630.0 $\mu$ Sv/h
3/20	A.M. 8:10	事務本館北	North of Main Admin. Bldg.	2629.0 $\mu$ Sv/h
3/20	A.M. 8:20	事務本館北	North of Main Admin. Bldg.	2627.0 $\mu$ Sv/h
3/20	A.M. 8:30	事務本館北	North of Main Admin. Bldg.	2625.0 $\mu$ Sv/h
3/20	A.M. 8:40	事務本館北	North of Main Admin. Bldg.	2619.0 $\mu$ Sv/h
3/20	A.M. 8:50	事務本館北	North of Main Admin. Bldg.	2617.0 $\mu$ Sv/h
3/20	A.M. 9:00	事務本館北	North of Main Admin. Bldg.	2614.0 $\mu$ Sv/h
3/20	A.M. 9:10	事務本館北	North of Main Admin. Bldg.	2614.0 $\mu$ Sv/h
3/20	A.M. 9:20	事務本館北	North of Main Admin. Bldg.	2608.0 $\mu$ Sv/h
3/20	A.M. 9:30	事務本館北	North of Main Admin. Bldg.	2623.0 $\mu$ Sv/h
3/20	A.M. 9:40	事務本館北	North of Main Admin. Bldg.	2661.0 $\mu$ Sv/h
3/20	A.M. 9:50	事務本館北	North of Main Admin. Bldg.	2742.0 $\mu$ Sv/h
3/20	A.M. 10:00	事務本館北	North of Main Admin. Bldg.	2726.0 $\mu$ Sv/h
3/20	A.M. 10:10	事務本館北	North of Main Admin. Bldg.	2608.8 $\mu$ Sv/h
3/20	A.M. 10:20	事務本館北	North of Main Admin. Bldg.	2605.0 $\mu$ Sv/h
3/20	A.M. 10:30	事務本館北	North of Main Admin. Bldg.	2596.0 $\mu$ Sv/h
3/20	A.M. 10:40	事務本館北	North of Main Admin. Bldg.	2589.0 $\mu$ Sv/h
3/20	A.M. 10:50	事務本館北	North of Main Admin. Bldg.	2583.0 $\mu$ Sv/h
3/20	A.M. 11:00	事務本館北	North of Main Admin. Bldg.	2579.0 $\mu$ Sv/h
3/20	A.M. 11:10	事務本館北	North of Main Admin. Bldg.	2578.0 $\mu$ Sv/h
3/20	A.M. 11:20	事務本館北	North of Main Admin. Bldg.	2569.0 $\mu$ Sv/h
3/20	A.M. 11:30	事務本館北	North of Main Admin. Bldg.	2571.0 $\mu$ Sv/h
3/20	A.M. 11:40	事務本館北	North of Main Admin. Bldg.	2562.0 $\mu$ Sv/h
3/20	A.M. 11:50	事務本館北	North of Main Admin. Bldg.	2564.0 $\mu$ Sv/h
3/20	P.M. 0:00	事務本館北	North of Main Admin. Bldg.	2559.0 $\mu$ Sv/h
3/20	P.M. 0:10	事務本館北	North of Main Admin. Bldg.	2558.0 $\mu$ Sv/h
3/20	P.M. 0:20	事務本館北	North of Main Admin. Bldg.	2552.0 $\mu$ Sv/h
3/20	P.M. 0:30	事務本館北	North of Main Admin. Bldg.	2551.0 $\mu$ Sv/h
3/20	A.M. 0:40	事務本館北	North of Main Admin. Bldg.	2551.0 $\mu$ Sv/h
3/20	P.M. 0:50	事務本館北	North of Main Admin. Bldg.	2550.0 $\mu$ Sv/h
3/20	P.M. 1:00	事務本館北	North of Main Admin. Bldg.	2567.0 $\mu$ Sv/h
3/20	P.M. 1:10	事務本館北	North of Main Admin. Bldg.	2588.0 $\mu$ Sv/h
3/20	P.M. 1:20	事務本館北	North of Main Admin. Bldg.	2660.0 $\mu$ Sv/h
3/20	P.M. 1:30	事務本館北	North of Main Admin. Bldg.	2593.0 $\mu$ Sv/h
3/20	P.M. 1:40	事務本館北	North of Main Admin. Bldg.	2654.0 $\mu$ Sv/h
3/20	P.M. 1:50	事務本館北	North of Main Admin. Bldg.	2741.0 $\mu$ Sv/h
3/20	P.M. 2:00	事務本館北	North of Main Admin. Bldg.	2768.0 $\mu$ Sv/h
3/20	P.M. 2:10	事務本館北	North of Main Admin. Bldg.	2999.0 $\mu$ Sv/h
3/20	P.M. 2:20	事務本館北	North of Main Admin. Bldg.	2923.0 $\mu$ Sv/h
3/20	P.M. 2:30	事務本館北	North of Main Admin. Bldg.	3056.0 $\mu$ Sv/h
3/20	P.M. 2:40	事務本館北	North of Main Admin. Bldg.	3202.0 $\mu$ Sv/h

3/20	P.M. 2:50	事務本館北	North of Main Admin. Bldg.	3346.0 $\mu$ Sv/h
3/20	P.M. 3:00	事務本館北	North of Main Admin. Bldg.	3054.0 $\mu$ Sv/h
3/20	P.M. 3:10	事務本館北	North of Main Admin. Bldg.	3071.0 $\mu$ Sv/h
3/20	P.M. 3:20	事務本館北	North of Main Admin. Bldg.	3342.0 $\mu$ Sv/h
3/20	P.M. 3:30	事務本館北	North of Main Admin. Bldg.	3337.0 $\mu$ Sv/h
3/20	P.M. 3:40	事務本館北	North of Main Admin. Bldg.	3003.0 $\mu$ Sv/h
3/20	P.M. 3:50	事務本館北	North of Main Admin. Bldg.	3046.0 $\mu$ Sv/h
3/20	P.M. 4:00	事務本館北	North of Main Admin. Bldg.	3171.0 $\mu$ Sv/h
3/20	P.M. 4:10	事務本館北	North of Main Admin. Bldg.	2940.0 $\mu$ Sv/h
3/20	P.M. 4:20	事務本館北	North of Main Admin. Bldg.	2851.0 $\mu$ Sv/h
3/20	P.M. 4:30	事務本館北	North of Main Admin. Bldg.	2830.0 $\mu$ Sv/h
3/20	P.M. 4:40	事務本館北	North of Main Admin. Bldg.	2960.0 $\mu$ Sv/h
3/20	P.M. 4:50	事務本館北	North of Main Admin. Bldg.	2839.0 $\mu$ Sv/h
3/20	P.M. 5:00	事務本館北	North of Main Admin. Bldg.	2773.0 $\mu$ Sv/h
3/20	P.M. 5:10	事務本館北	North of Main Admin. Bldg.	2763.0 $\mu$ Sv/h
3/20	P.M. 5:20	事務本館北	North of Main Admin. Bldg.	2758.0 $\mu$ Sv/h
3/20	P.M. 5:30	事務本館北	North of Main Admin. Bldg.	2729.0 $\mu$ Sv/h
3/20	P.M. 5:40	事務本館北	North of Main Admin. Bldg.	2715.0 $\mu$ Sv/h
3/20	P.M. 5:50	事務本館北	North of Main Admin. Bldg.	2707.0 $\mu$ Sv/h
3/20	P.M. 6:00	事務本館北	North of Main Admin. Bldg.	2693.0 $\mu$ Sv/h
3/20	P.M. 6:10	事務本館北	North of Main Admin. Bldg.	2680.0 $\mu$ Sv/h
3/20	P.M. 6:20	事務本館北	North of Main Admin. Bldg.	2673.0 $\mu$ Sv/h
3/20	P.M. 6:30	事務本館北	North of Main Admin. Bldg.	2658.0 $\mu$ Sv/h
3/20	P.M. 6:40	事務本館北	North of Main Admin. Bldg.	2651.0 $\mu$ Sv/h
3/20	P.M. 6:50	事務本館北	North of Main Admin. Bldg.	2658.0 $\mu$ Sv/h
3/20	P.M. 7:00	事務本館北	North of Main Admin. Bldg.	2623.0 $\mu$ Sv/h
3/20	P.M. 7:10	事務本館北	North of Main Admin. Bldg.	2683.0 $\mu$ Sv/h
3/20	P.M. 7:20	事務本館北	North of Main Admin. Bldg.	2614.0 $\mu$ Sv/h
3/20	P.M. 7:30	事務本館北	North of Main Admin. Bldg.	2602.0 $\mu$ Sv/h
3/20	P.M. 7:40	事務本館北	North of Main Admin. Bldg.	2595.0 $\mu$ Sv/h
3/20	P.M. 7:50	事務本館北	North of Main Admin. Bldg.	2632.0 $\mu$ Sv/h
3/20	P.M. 8:00	事務本館北	North of Main Admin. Bldg.	2828.0 $\mu$ Sv/h
3/20	P.M. 8:10	事務本館北	North of Main Admin. Bldg.	2704.0 $\mu$ Sv/h
3/20	P.M. 8:20	事務本館北	North of Main Admin. Bldg.	2682.0 $\mu$ Sv/h
3/20	P.M. 8:30	事務本館北	North of Main Admin. Bldg.	2586.0 $\mu$ Sv/h
3/20	P.M. 8:40	事務本館北	North of Main Admin. Bldg.	2552.0 $\mu$ Sv/h
3/20	P.M. 8:50	事務本館北	North of Main Admin. Bldg.	2550.0 $\mu$ Sv/h
3/20	P.M. 9:00	事務本館北	North of Main Admin. Bldg.	2542.0 $\mu$ Sv/h
3/20	P.M. 9:10	事務本館北	North of Main Admin. Bldg.	2537.0 $\mu$ Sv/h
3/20	P.M. 9:20	事務本館北	North of Main Admin. Bldg.	2532.0 $\mu$ Sv/h
3/20	P.M. 9:30	事務本館北	North of Main Admin. Bldg.	2518.0 $\mu$ Sv/h
3/20	P.M. 9:40	事務本館北	North of Main Admin. Bldg.	2517.0 $\mu$ Sv/h
3/20	P.M. 9:50	事務本館北	North of Main Admin. Bldg.	2510.0 $\mu$ Sv/h
3/20	P.M. 10:00	事務本館北	North of Main Admin. Bldg.	2506.0 $\mu$ Sv/h
3/20	P.M. 10:10	事務本館北	North of Main Admin. Bldg.	2503.0 $\mu$ Sv/h
3/20	P.M. 10:20	事務本館北	North of Main Admin. Bldg.	2492.0 $\mu$ Sv/h
3/20	P.M. 10:30	事務本館北	North of Main Admin. Bldg.	2487.0 $\mu$ Sv/h
3/20	P.M. 10:40	事務本館北	North of Main Admin. Bldg.	2485.0 $\mu$ Sv/h

3/20	P.M. 10:50	事務本館北	North of Main Admin. Bldg.	2483.0 $\mu$ Sv/h
3/20	P.M. 11:00	事務本館北	North of Main Admin. Bldg.	2475.0 $\mu$ Sv/h
3/20	P.M. 11:10	事務本館北	North of Main Admin. Bldg.	2469.0 $\mu$ Sv/h
3/20	P.M. 11:20	事務本館北	North of Main Admin. Bldg.	2462.0 $\mu$ Sv/h
3/20	P.M. 11:30	事務本館北	North of Main Admin. Bldg.	2455.0 $\mu$ Sv/h
3/20	P.M. 11:40	事務本館北	North of Main Admin. Bldg.	2457.0 $\mu$ Sv/h
3/20	P.M. 11:50	事務本館北	North of Main Admin. Bldg.	2453.0 $\mu$ Sv/h
3/21	A.M. 0:00	事務本館北	North of Main Admin. Bldg.	2452.0 $\mu$ Sv/h
3/21	A.M. 0:10	事務本館北	North of Main Admin. Bldg.	2449.0 $\mu$ Sv/h
3/21	A.M. 0:20	事務本館北	North of Main Admin. Bldg.	2444.0 $\mu$ Sv/h
3/21	A.M. 0:30	事務本館北	North of Main Admin. Bldg.	2439.0 $\mu$ Sv/h
3/21	A.M. 0:40	事務本館北	North of Main Admin. Bldg.	2438.0 $\mu$ Sv/h
3/21	A.M. 0:50	事務本館北	North of Main Admin. Bldg.	2433.0 $\mu$ Sv/h
3/21	A.M. 1:00	事務本館北	North of Main Admin. Bldg.	2396.0 $\mu$ Sv/h
3/21	A.M. 1:10	事務本館北	North of Main Admin. Bldg.	2392.0 $\mu$ Sv/h
3/21	A.M. 1:20	事務本館北	North of Main Admin. Bldg.	2389.0 $\mu$ Sv/h
3/21	A.M. 1:30	事務本館北	North of Main Admin. Bldg.	2385.0 $\mu$ Sv/h
3/21	A.M. 1:40	事務本館北	North of Main Admin. Bldg.	2383.0 $\mu$ Sv/h
3/21	A.M. 1:50	事務本館北	North of Main Admin. Bldg.	2380.0 $\mu$ Sv/h
3/21	A.M. 2:00	事務本館北	North of Main Admin. Bldg.	2396.0 $\mu$ Sv/h
3/21	A.M. 2:10	事務本館北	North of Main Admin. Bldg.	2392.0 $\mu$ Sv/h
3/21	A.M. 2:20	事務本館北	North of Main Admin. Bldg.	2389.0 $\mu$ Sv/h
3/21	A.M. 2:30	事務本館北	North of Main Admin. Bldg.	2385.0 $\mu$ Sv/h
3/21	A.M. 2:40	事務本館北	North of Main Admin. Bldg.	2383.0 $\mu$ Sv/h
3/21	A.M. 2:50	事務本館北	North of Main Admin. Bldg.	2380.0 $\mu$ Sv/h
3/21	A.M. 3:00	事務本館北	North of Main Admin. Bldg.	2378.0 $\mu$ Sv/h
3/21	A.M. 3:10	事務本館北	North of Main Admin. Bldg.	2375.0 $\mu$ Sv/h
3/21	A.M. 3:20	事務本館北	North of Main Admin. Bldg.	2372.0 $\mu$ Sv/h
3/21	A.M. 3:30	事務本館北	North of Main Admin. Bldg.	2370.0 $\mu$ Sv/h
3/21	A.M. 3:40	事務本館北	North of Main Admin. Bldg.	2366.0 $\mu$ Sv/h
3/21	A.M. 3:50	事務本館北	North of Main Admin. Bldg.	2364.0 $\mu$ Sv/h
3/21	A.M. 4:00	事務本館北	North of Main Admin. Bldg.	2362.0 $\mu$ Sv/h
3/21	A.M. 4:10	事務本館北	North of Main Admin. Bldg.	2356.0 $\mu$ Sv/h
3/21	A.M. 4:20	事務本館北	North of Main Admin. Bldg.	2351.0 $\mu$ Sv/h
3/21	A.M. 4:30	事務本館北	North of Main Admin. Bldg.	2350.0 $\mu$ Sv/h
3/21	A.M. 4:40	事務本館北	North of Main Admin. Bldg.	2347.0 $\mu$ Sv/h
3/21	A.M. 4:50	正門	Front Gate	2345.0 $\mu$ Sv/h
3/21	A.M. 5:00	正門	Front Gate	2343.0 $\mu$ Sv/h
3/21	A.M. 5:10	M P - 7 付	around MP-7	2341.0 $\mu$ Sv/h
3/21	A.M. 5:20	正門	Front Gate	2339.0 $\mu$ Sv/h
3/21	A.M. 5:30	正門	Front Gate	2336.0 $\mu$ Sv/h
3/21	A.M. 5:40	正門	Front Gate	2333.0 $\mu$ Sv/h
3/21	A.M. 5:50	正門	Front Gate	2330.0 $\mu$ Sv/h
3/21	A.M. 6:00	正門	Front Gate	2324.0 $\mu$ Sv/h
3/21	A.M. 6:10	正門	Front Gate	2326.0 $\mu$ Sv/h
3/21	A.M. 6:20	正門	Front Gate	2325.0 $\mu$ Sv/h
3/21	A.M. 6:30	正門	Front Gate	2319.0 $\mu$ Sv/h
3/21	A.M. 6:40	正門	Front Gate	2312.0 $\mu$ Sv/h

3/21	A.M. 6:50	正門	Front Gate	2293.0 μSv/h
3/21	A.M. 7:00	正門	Front Gate	2283.0 μSv/h
3/21	A.M. 7:10	正門	Front Gate	2271.0 μSv/h
3/21	A.M. 7:20	正門	Front Gate	2251.0 μSv/h
3/21	A.M. 7:30	正門	Front Gate	2232.0 μSv/h
3/21	A.M. 7:40	正門	Front Gate	2215.0 μSv/h
3/21	A.M. 7:50	正門	Front Gate	2200.0 μSv/h
3/21	A.M. 8:00	正門	Front Gate	2168.0μSv/h
3/21	A.M. 8:10	正門	Front Gate	2161.0μSv/h
3/21	A.M. 8:20	正門	Front Gate	2147.0 μSv/h
3/21	A.M. 8:30	正門	Front Gate	2140.0 μSv/h
3/21	A.M. 8:40	正門	Front Gate	2128.0 μSv/h
3/21	A.M. 8:50	正門	Front Gate	2126.0 μSv/h
3/21	A.M. 9:00	正門	Front Gate	2122.0 μSv/h
3/21	A.M. 9:10	正門	Front Gate	2120.0 μSv/h
3/21	A.M. 9:20	正門	Front Gate	2127.0 μSv/h
3/21	A.M. 9:30	正門	Front Gate	2114.0 μSv/h
3/21	A.M. 9:40	正門	Front Gate	2111.0 μSv/h
3/21	A.M. 9:50	正門	Front Gate	2108.0 μSv/h
3/21	A.M. 10:00	正門	Front Gate	2098.0 μSv/h
3/21	A.M. 10:10	正門	Front Gate	2100.0 μSv/h
3/21	A.M. 10:20	正門	Front Gate	2100.0 μSv/h
3/21	A.M. 10:30	正門	Front Gate	2100.0 μSv/h
3/21	A.M. 10:40	正門	Front Gate	2102.0 μSv/h
3/21	A.M. 10:50	正門	Front Gate	2105.0 μSv/h
3/21	A.M. 11:00	正門	Front Gate	2107.0μSv/h
3/21	A.M. 11:10	正門	Front Gate	2107.0 μSv/h
3/21	A.M. 11:20	正門	Front Gate	2108.0 μSv/h
3/21	A.M. 11:30	正門	Front Gate	2110.0 μSv/h
3/21	A.M. 11:40	正門	Front Gate	2112.0 μSv/h
3/21	A.M. 11:50	正門	Front Gate	2113.0 μSv/h
3/21	P.M. 0:00	正門	Front Gate	2108.0 μSv/h
3/21	P.M. 0:10	正門	Front Gate	2112.0 μSv/h
3/21	P.M. 0:20	正門	Front Gate	2107.0 μSv/h
3/21	P.M. 0:30	正門	Front Gate	2111.0 μSv/h
3/21	A.M. 0:40	正門	Front Gate	2112.0 μSv/h
3/21	P.M. 0:50	正門	Front Gate	2110.0 μSv/h
3/21	P.M. 1:00	正門	Front Gate	2105.0 μSv/h
3/21	P.M. 1:10	正門	Front Gate	2103.0 μSv/h
3/21	P.M. 1:20	正門	Front Gate	2098.0 μSv/h
3/21	P.M. 1:30	正門	Front Gate	2092.0 μSv/h
3/21	P.M. 1:40	正門	Front Gate	2089.0 μSv/h
3/21	P.M. 1:50	正門	Front Gate	2068.0 μSv/h
3/21	P.M. 2:00	正門	Front Gate	2064.0 μSv/h
3/21	P.M. 2:10	正門	Front Gate	2053.0 μSv/h
3/21	P.M. 2:20	正門	Front Gate	2043.0 μSv/h
3/21	P.M. 2:30	正門	Front Gate	2039.0 μSv/h
3/21	P.M. 2:40	正門	Front Gate	2035.0 μSv/h



3/21	P.M. 2:50	正門	Front Gate	2029.0 $\mu$ Sv/h
3/21	P.M. 3:00	正門	Front Gate	2019.0 $\mu$ Sv/h
3/21	P.M. 3:10	正門	Front Gate	2019.0 $\mu$ Sv/h
3/21	P.M. 3:20	正門	Front Gate	2013.0 $\mu$ Sv/h
3/21	P.M. 3:30	正門	Front Gate	2013.0 $\mu$ Sv/h
3/21	P.M. 3:40	正門	Front Gate	2012.0 $\mu$ Sv/h
3/21	P.M. 3:50	正門	Front Gate	2013.0 $\mu$ Sv/h
3/21	P.M. 4:00	正門	Front Gate	2016.0 $\mu$ Sv/h
3/21	P.M. 4:10	正門	Front Gate	2013.0 $\mu$ Sv/h
3/21	P.M. 4:20	正門	Front Gate	2011.0 $\mu$ Sv/h
3/21	P.M. 4:30	正門	Front Gate	2015.0 $\mu$ Sv/h
3/21	P.M. 4:42	正門	Front Gate	1140.0 $\mu$ Sv/h
3/21	P.M. 4:50	正門	Front Gate	508.0 $\mu$ Sv/h
3/21	P.M. 5:06	正門	Front Gate	1292.0 $\mu$ Sv/h
3/21	P.M. 5:30	正門	Front Gate	729.0 $\mu$ Sv/h
3/21	P.M. 5:40	正門	Front Gate	494.3 $\mu$ Sv/h
3/21	P.M. 5:50	正門	Front Gate	1383.0 $\mu$ Sv/h
3/21	P.M. 6:00	正門	Front Gate	1757.0 $\mu$ Sv/h
3/21	P.M. 6:10	正門	Front Gate	1256.0 $\mu$ Sv/h
3/21	P.M. 6:20	正門	Front Gate	1428.0 $\mu$ Sv/h
3/21	P.M. 6:30	正門	Front Gate	1932.0 $\mu$ Sv/h
3/21	P.M. 6:40	正門	Front Gate	1499.0 $\mu$ Sv/h
3/21	P.M. 6:50	正門	Front Gate	1105.0 $\mu$ Sv/h
3/21	P.M. 7:00	正門	Front Gate	1201.0 $\mu$ Sv/h
3/21	P.M. 7:10	正門	Front Gate	823.6 $\mu$ Sv/h
3/21	P.M. 7:20	正門	Front Gate	700.1 $\mu$ Sv/h
3/21	P.M. 7:30	正門	Front Gate	587.3 $\mu$ Sv/h
3/21	P.M. 7:40	正門	Front Gate	503.9 $\mu$ Sv/h
3/21	P.M. 7:50	正門	Front Gate	496.2 $\mu$ Sv/h
3/21	P.M. 8:00	正門	Front Gate	493.5 $\mu$ Sv/h
3/21	P.M. 8:10	正門	Front Gate	529.3 $\mu$ Sv/h
3/21	P.M. 8:20	正門	Front Gate	471.2 $\mu$ Sv/h
3/21	P.M. 8:30	正門	Front Gate	442.2 $\mu$ Sv/h
3/21	P.M. 8:40	正門	Front Gate	432.4 $\mu$ Sv/h
3/21	P.M. 8:50	正門	Front Gate	424.5 $\mu$ Sv/h
3/21	P.M. 9:00	正門	Front Gate	417.1 $\mu$ Sv/h
3/21	P.M. 9:10	正門	Front Gate	410.4 $\mu$ Sv/h
3/21	P.M. 9:20	正門	Front Gate	403.8 $\mu$ Sv/h
3/21	P.M. 9:30	正門	Front Gate	398.0 $\mu$ Sv/h
3/21	P.M. 9:40	正門	Front Gate	390.6 $\mu$ Sv/h
3/21	P.M. 9:50	正門	Front Gate	384.9 $\mu$ Sv/h
3/21	P.M. 10:00	正門	Front Gate	380.0 $\mu$ Sv/h
3/21	P.M. 10:10	正門	Front Gate	374.5 $\mu$ Sv/h
3/21	P.M. 10:20	正門	Front Gate	369.6 $\mu$ Sv/h
3/21	P.M. 10:30	正門	Front Gate	365.0 $\mu$ Sv/h
3/21	P.M. 10:40	正門	Front Gate	360.9 $\mu$ Sv/h
3/21	P.M. 10:50	正門	Front Gate	356.0 $\mu$ Sv/h
3/21	P.M. 11:00	正門	Front Gate	352.7 $\mu$ Sv/h

3/21	P.M. 11:10	正門	Front Gate	348.5 $\mu$ Sv/h
3/21	P.M. 11:20	正門	Front Gate	344.6 $\mu$ Sv/h
3/21	P.M. 11:30	正門	Front Gate	341.5 $\mu$ Sv/h
3/21	P.M. 11:40	正門	Front Gate	338.5 $\mu$ Sv/h
3/21	P.M. 11:50	正門	Front Gate	334.1 $\mu$ Sv/h
3/22	A.M. 0:00	正門	Front Gate	331.8 $\mu$ Sv/h
3/22	A.M. 0:10	正門	Front Gate	329.3 $\mu$ Sv/h
3/22	A.M. 0:20	正門	Front Gate	327.5 $\mu$ Sv/h
3/22	A.M. 0:30	正門	Front Gate	325.8 $\mu$ Sv/h
3/22	A.M. 0:40	正門	Front Gate	323.9 $\mu$ Sv/h
3/22	A.M. 0:50	正門	Front Gate	320.8 $\mu$ Sv/h
3/22	A.M. 1:00	正門	Front Gate	314.8 $\mu$ Sv/h
3/22	A.M. 1:10	正門	Front Gate	313.0 $\mu$ Sv/h
3/22	A.M. 1:20	正門	Front Gate	311.3 $\mu$ Sv/h
3/22	A.M. 1:30	正門	Front Gate	308.9 $\mu$ Sv/h
3/22	A.M. 1:40	正門	Front Gate	308.4 $\mu$ Sv/h
3/22	A.M. 1:50	正門	Front Gate	305.9 $\mu$ Sv/h
3/22	A.M. 2:00	正門	Front Gate	304.5 $\mu$ Sv/h
3/22	A.M. 2:10	正門	Front Gate	303.2 $\mu$ Sv/h
3/22	A.M. 2:20	正門	Front Gate	301.3 $\mu$ Sv/h
3/22	A.M. 2:30	正門	Front Gate	299.7 $\mu$ Sv/h
3/22	A.M. 2:40	正門	Front Gate	298.0 $\mu$ Sv/h
3/22	A.M. 2:50	正門	Front Gate	296.2 $\mu$ Sv/h
3/22	A.M. 3:00	正門	Front Gate	294.9 $\mu$ Sv/h
3/22	A.M. 3:10	正門	Front Gate	293.8 $\mu$ Sv/h
3/22	A.M. 3:20	正門	Front Gate	293.6 $\mu$ Sv/h
3/22	A.M. 3:30	正門	Front Gate	291.6 $\mu$ Sv/h
3/22	A.M. 3:40	正門	Front Gate	291.1 $\mu$ Sv/h
3/22	A.M. 3:50	正門	Front Gate	290.0 $\mu$ Sv/h
3/22	A.M. 4:00	正門	Front Gate	288.9 $\mu$ Sv/h
3/22	A.M. 4:10	正門	Front Gate	288.1 $\mu$ Sv/h
3/22	A.M. 4:20	正門	Front Gate	287.0 $\mu$ Sv/h
3/22	A.M. 4:30	正門	Front Gate	286.0 $\mu$ Sv/h
3/22	A.M. 4:40	正門	Front Gate	283.6 $\mu$ Sv/h
3/22	A.M. 4:50	正門	Front Gate	280.1 $\mu$ Sv/h
3/22	A.M. 5:00	正門	Front Gate	273.9 $\mu$ Sv/h
3/22	A.M. 5:10	正門	Front Gate	271.0 $\mu$ Sv/h
3/22	A.M. 5:20	正門	Front Gate	268.0 $\mu$ Sv/h
3/22	A.M. 5:30	正門	Front Gate	267.4 $\mu$ Sv/h
3/22	A.M. 5:40	正門	Front Gate	265.8 $\mu$ Sv/h
3/22	A.M. 5:50	正門	Front Gate	265.3 $\mu$ Sv/h
3/22	A.M. 6:00	正門	Front Gate	264.6 $\mu$ Sv/h
3/22	A.M. 6:10	正門	Front Gate	264.3 $\mu$ Sv/h
3/22	A.M. 6:20	正門	Front Gate	265.5 $\mu$ Sv/h
3/22	A.M. 6:30	正門	Front Gate	263.7 $\mu$ Sv/h
3/22	A.M. 6:40	正門	Front Gate	262.6 $\mu$ Sv/h
3/22	A.M. 6:50	正門	Front Gate	262.1 $\mu$ Sv/h
3/22	A.M. 7:00	正門	Front Gate	261.9 $\mu$ Sv/h

3/22	A.M. 7:10	正門	Front Gate	261.8 $\mu$ Sv/h
3/22	A.M. 7:20	正門	Front Gate	261.7 $\mu$ Sv/h
3/22	A.M. 7:30	正門	Front Gate	261.6 $\mu$ Sv/h
3/22	A.M. 7:40	正門	Front Gate	261.2 $\mu$ Sv/h
3/22	A.M. 7:50	正門	Front Gate	261.0 $\mu$ Sv/h
3/22	A.M. 8:00	正門	Front Gate	260.9 $\mu$ Sv/h
3/22	A.M. 8:10	正門	Front Gate	260.8 $\mu$ Sv/h
3/22	A.M. 8:20	正門	Front Gate	260.5 $\mu$ Sv/h
3/22	A.M. 8:30	正門	Front Gate	260.3 $\mu$ Sv/h
3/22	A.M. 8:40	正門	Front Gate	260.4 $\mu$ Sv/h
3/22	A.M. 8:50	正門	Front Gate	260.2 $\mu$ Sv/h
3/22	A.M. 9:00	正門	Front Gate	260.2 $\mu$ Sv/h
3/22	A.M. 9:10	正門	Front Gate	260.1 $\mu$ Sv/h
3/22	A.M. 9:20	正門	Front Gate	260.0 $\mu$ Sv/h
3/22	A.M. 9:30	正門	Front Gate	259.9 $\mu$ Sv/h
3/22	A.M. 9:40	正門	Front Gate	259.4 $\mu$ Sv/h
3/22	A.M. 9:50	正門	Front Gate	259.5 $\mu$ Sv/h
3/22	A.M. 10:00	正門	Front Gate	260.2 $\mu$ Sv/h
3/22	A.M. 10:10	正門	Front Gate	259.4 $\mu$ Sv/h
3/22	A.M. 10:20	正門	Front Gate	258.9 $\mu$ Sv/h
3/22	A.M. 10:30	正門	Front Gate	258.7 $\mu$ Sv/h
3/22	A.M. 10:40	正門	Front Gate	258.4 $\mu$ Sv/h
3/22	A.M. 10:50	正門	Front Gate	257.3 $\mu$ Sv/h
3/22	A.M. 11:00	正門	Front Gate	257.5 $\mu$ Sv/h
3/22	A.M. 11:10	正門	Front Gate	257.1 $\mu$ Sv/h
3/22	A.M. 11:20	正門	Front Gate	256.9 $\mu$ Sv/h
3/22	A.M. 11:30	正門	Front Gate	256.5 $\mu$ Sv/h
3/22	A.M. 11:40	正門	Front Gate	256.5 $\mu$ Sv/h
3/22	A.M. 11:50	正門	Front Gate	256.4 $\mu$ Sv/h
3/22	P.M. 0:00	正門	Front Gate	256.3 $\mu$ Sv/h
3/22	P.M. 0:10	正門	Front Gate	256.0 $\mu$ Sv/h
3/22	P.M. 0:20	正門	Front Gate	256.1 $\mu$ Sv/h
3/22	P.M. 0:30	正門	Front Gate	256.3 $\mu$ Sv/h
3/22	A.M. 0:40	正門	Front Gate	255.6 $\mu$ Sv/h
3/22	P.M. 0:50	正門	Front Gate	255.8 $\mu$ Sv/h
3/22	P.M. 1:00	正門	Front Gate	255.6 $\mu$ Sv/h
3/22	P.M. 1:10	正門	Front Gate	255.7 $\mu$ Sv/h
3/22	P.M. 1:20	正門	Front Gate	255.2 $\mu$ Sv/h
3/22	P.M. 1:30	正門	Front Gate	254.8 $\mu$ Sv/h
3/22	P.M. 1:40	正門	Front Gate	254.8 $\mu$ Sv/h
3/22	P.M. 1:50	正門	Front Gate	254.5 $\mu$ Sv/h
3/22	P.M. 2:00	正門	Front Gate	254.6 $\mu$ Sv/h
3/22	P.M. 2:10	正門	Front Gate	254.3 $\mu$ Sv/h
3/22	P.M. 2:20	正門	Front Gate	254.4 $\mu$ Sv/h
3/22	P.M. 2:30	正門	Front Gate	254.3 $\mu$ Sv/h
3/22	P.M. 2:40	正門	Front Gate	244.3 $\mu$ Sv/h
3/22	P.M. 2:50	正門	Front Gate	254.4 $\mu$ Sv/h
3/22	P.M. 3:00	正門	Front Gate	254.1 $\mu$ Sv/h

3/22	P.M. 3:10	正門	Front Gate	255.3 $\mu$ Sv/h
3/22	P.M. 3:20	正門	Front Gate	265.7 $\mu$ Sv/h
3/22	P.M. 3:30	正門	Front Gate	277.5 $\mu$ Sv/h
3/22	P.M. 3:40	正門	Front Gate	265.2 $\mu$ Sv/h
3/22	P.M. 3:50	正門	Front Gate	258.8 $\mu$ Sv/h
3/22	P.M. 4:00	正門	Front Gate	274.0 $\mu$ Sv/h
3/22	P.M. 4:10	正門	Front Gate	280.6 $\mu$ Sv/h
3/22	P.M. 4:20	正門	Front Gate	330.6 $\mu$ Sv/h
3/22	P.M. 4:30	正門	Front Gate	352.3 $\mu$ Sv/h
3/22	P.M. 4:42	正門	Front Gate	384.2 $\mu$ Sv/h
3/22	P.M. 4:50	正門	Front Gate	294.0 $\mu$ Sv/h
3/22	P.M. 5:00	正門	Front Gate	330.8 $\mu$ Sv/h
3/22	P.M. 5:30	正門	Front Gate	351.6 $\mu$ Sv/h
3/22	P.M. 5:40	正門	Front Gate	278.9 $\mu$ Sv/h
3/22	P.M. 5:50	正門	Front Gate	275.2 $\mu$ Sv/h
3/22	P.M. 6:00	正門	Front Gate	265.5 $\mu$ Sv/h
3/22	P.M. 6:10	正門	Front Gate	264.1 $\mu$ Sv/h
3/22	P.M. 6:20	正門	Front Gate	261.5 $\mu$ Sv/h
3/22	P.M. 6:30	正門	Front Gate	324.6 $\mu$ Sv/h
3/22	P.M. 6:40	正門	Front Gate	322.8 $\mu$ Sv/h
3/22	P.M. 6:50	正門	Front Gate	303.8 $\mu$ Sv/h
3/22	P.M. 7:00	正門	Front Gate	367.9 $\mu$ Sv/h
3/22	P.M. 7:10	正門	Front Gate	363.1 $\mu$ Sv/h
3/22	P.M. 7:20	正門	Front Gate	320.9 $\mu$ Sv/h
3/22	P.M. 7:30	正門	Front Gate	472.7 $\mu$ Sv/h
3/22	P.M. 7:40	正門	Front Gate	340.7 $\mu$ Sv/h
3/22	P.M. 7:50	正門	Front Gate	258.0 $\mu$ Sv/h
3/22	P.M. 8:00	正門	Front Gate	254.1 $\mu$ Sv/h
3/22	P.M. 8:10	正門	Front Gate	253.4 $\mu$ Sv/h
3/22	P.M. 8:20	正門	Front Gate	252.5 $\mu$ Sv/h
3/22	P.M. 8:30	正門	Front Gate	251.5 $\mu$ Sv/h
3/22	P.M. 8:40	正門	Front Gate	250.5 $\mu$ Sv/h
3/22	P.M. 8:50	正門	Front Gate	249.1 $\mu$ Sv/h
3/22	P.M. 9:00	正門	Front Gate	246.1 $\mu$ Sv/h
3/22	P.M. 9:10	正門	Front Gate	244.4 $\mu$ Sv/h
3/22	P.M. 9:20	正門	Front Gate	242.8 $\mu$ Sv/h
3/22	P.M. 9:30	正門	Front Gate	241.0 $\mu$ Sv/h
3/22	P.M. 9:40	正門	Front Gate	240.6 $\mu$ Sv/h
3/22	P.M. 9:50	正門	Front Gate	239.5 $\mu$ Sv/h
3/22	P.M. 10:00	正門	Front Gate	239.3 $\mu$ Sv/h
3/22	P.M. 10:10	正門	Front Gate	237.0 $\mu$ Sv/h
3/22	P.M. 10:20	正門	Front Gate	237.4 $\mu$ Sv/h
3/22	P.M. 10:30	正門	Front Gate	236.2 $\mu$ Sv/h
3/22	P.M. 10:40	正門	Front Gate	235.7 $\mu$ Sv/h
3/22	P.M. 10:50	正門	Front Gate	235.8 $\mu$ Sv/h
3/22	P.M. 11:00	正門	Front Gate	235.9 $\mu$ Sv/h
3/23	A.M. 0:00	正門	Front Gate	233.4 $\mu$ Sv/h
3/23	A.M. 0:10	正門	Front Gate	233.3 $\mu$ Sv/h

3/23	A.M. 0:20	正門	Front Gate	232.3 $\mu$ Sv/h
3/23	A.M. 0:30	正門	Front Gate	231.6 $\mu$ Sv/h
3/23	A.M. 0:40	正門	Front Gate	230.1 $\mu$ Sv/h
3/23	A.M. 0:50	正門	Front Gate	229.4 $\mu$ Sv/h
3/23	A.M. 1:00	正門	Front Gate	227.5 $\mu$ Sv/h
3/23	A.M. 1:10	正門	Front Gate	227.4 $\mu$ Sv/h
3/23	A.M. 1:20	正門	Front Gate	227.2 $\mu$ Sv/h
3/23	A.M. 1:30	正門	Front Gate	226.2 $\mu$ Sv/h
3/23	A.M. 1:40	正門	Front Gate	226.8 $\mu$ Sv/h
3/23	A.M. 1:50	正門	Front Gate	226.7 $\mu$ Sv/h
3/23	A.M. 2:00	正門	Front Gate	226.7 $\mu$ Sv/h
3/23	A.M. 2:10	正門	Front Gate	226.9 $\mu$ Sv/h
3/23	A.M. 2:20	正門	Front Gate	227.1 $\mu$ Sv/h
3/23	A.M. 2:30	正門	Front Gate	227.1 $\mu$ Sv/h
3/23	A.M. 2:40	正門	Front Gate	227.2 $\mu$ Sv/h
3/23	A.M. 2:50	正門	Front Gate	227.3 $\mu$ Sv/h
3/23	A.M. 3:00	正門	Front Gate	227.6 $\mu$ Sv/h
3/23	A.M. 3:10	正門	Front Gate	228.5 $\mu$ Sv/h
3/23	A.M. 3:20	正門	Front Gate	228.7 $\mu$ Sv/h
3/23	A.M. 3:30	正門	Front Gate	228.8 $\mu$ Sv/h
3/23	A.M. 3:40	正門	Front Gate	228.8 $\mu$ Sv/h
3/23	A.M. 3:50	正門	Front Gate	229.0 $\mu$ Sv/h
3/23	A.M. 4:00	正門	Front Gate	229.1 $\mu$ Sv/h
3/23	A.M. 4:10	正門	Front Gate	229.1 $\mu$ Sv/h
3/23	A.M. 4:20	正門	Front Gate	229.4 $\mu$ Sv/h
3/23	A.M. 4:30	正門	Front Gate	229.3 $\mu$ Sv/h
3/23	A.M. 4:40	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 4:50	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 5:00	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 5:10	正門	Front Gate	229.3 $\mu$ Sv/h
3/23	A.M. 5:20	正門	Front Gate	229.6 $\mu$ Sv/h
3/23	A.M. 5:30	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 5:40	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 5:50	正門	Front Gate	229.7 $\mu$ Sv/h
3/23	A.M. 6:00	正門	Front Gate	229.6 $\mu$ Sv/h
3/23	A.M. 6:10	正門	Front Gate	229.6 $\mu$ Sv/h
3/23	A.M. 6:20	正門	Front Gate	229.4 $\mu$ Sv/h
3/23	A.M. 6:30	正門	Front Gate	229.6 $\mu$ Sv/h
3/23	A.M. 6:40	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 6:50	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 7:00	正門	Front Gate	229.3 $\mu$ Sv/h
3/23	A.M. 7:10	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 7:20	正門	Front Gate	229.3 $\mu$ Sv/h
3/23	A.M. 7:30	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	A.M. 7:40	正門	Front Gate	229.0 $\mu$ Sv/h
3/23	A.M. 7:50	正門	Front Gate	229.3 $\mu$ Sv/h
3/23	A.M. 8:00	正門	Front Gate	229.4 $\mu$ Sv/h
3/23	A.M. 8:10	正門	Front Gate	229.5 $\mu$ Sv/h

3/23	A.M. 8:20	正門	Front Gate	229.2 $\mu$ Sv/h
3/23	A.M. 8:30	正門	Front Gate	229.4 $\mu$ Sv/h
3/23	A.M. 8:40	正門	Front Gate	229.1 $\mu$ Sv/h
3/23	A.M. 8:50	正門	Front Gate	229.1 $\mu$ Sv/h
3/23	A.M. 9:00	正門	Front Gate	229.1 $\mu$ Sv/h
3/23	A.M. 9:10	正門	Front Gate	228.7 $\mu$ Sv/h
3/23	A.M. 9:20	正門	Front Gate	227.6 $\mu$ Sv/h
3/23	A.M. 9:30	正門	Front Gate	226.9 $\mu$ Sv/h
3/23	A.M. 9:40	正門	Front Gate	228.6 $\mu$ Sv/h
3/23	A.M. 9:50	正門	Front Gate	227.6 $\mu$ Sv/h
3/23	A.M. 10:00	正門	Front Gate	211.4 $\mu$ Sv/h
3/23	A.M. 10:10	正門	Front Gate	227.7 $\mu$ Sv/h
3/23	A.M. 10:20	正門	Front Gate	227.2 $\mu$ Sv/h
3/23	A.M. 10:30	正門	Front Gate	227.3 $\mu$ Sv/h
3/23	A.M. 10:40	正門	Front Gate	227.1 $\mu$ Sv/h
3/23	A.M. 10:50	正門	Front Gate	227.2 $\mu$ Sv/h
3/23	A.M. 11:00	正門	Front Gate	227.0 $\mu$ Sv/h
3/23	A.M. 11:10	正門	Front Gate	226.8 $\mu$ Sv/h
3/23	A.M. 11:20	正門	Front Gate	226.8 $\mu$ Sv/h
3/23	A.M. 11:30	正門	Front Gate	226.3 $\mu$ Sv/h
3/23	A.M. 11:40	正門	Front Gate	225.7 $\mu$ Sv/h
3/23	A.M. 11:50	正門	Front Gate	226.3 $\mu$ Sv/h
3/23	P.M. 0:00	正門	Front Gate	225.2 $\mu$ Sv/h
3/23	P.M. 0:10	正門	Front Gate	226.0 $\mu$ Sv/h
3/23	P.M. 0:20	正門	Front Gate	224.8 $\mu$ Sv/h
3/23	P.M. 0:30	正門	Front Gate	224.9 $\mu$ Sv/h
3/23	A.M. 0:40	正門	Front Gate	224.7 $\mu$ Sv/h
3/23	P.M. 0:50	正門	Front Gate	224.8 $\mu$ Sv/h
3/23	P.M. 1:00	正門	Front Gate	225.4 $\mu$ Sv/h
3/23	P.M. 1:10	正門	Front Gate	224.8 $\mu$ Sv/h
3/23	P.M. 1:20	正門	Front Gate	225.7 $\mu$ Sv/h
3/23	P.M. 1:30	正門	Front Gate	224.1 $\mu$ Sv/h
3/23	P.M. 1:40	正門	Front Gate	223.7 $\mu$ Sv/h
3/23	P.M. 1:50	正門	Front Gate	222.7 $\mu$ Sv/h
3/23	P.M. 2:00	正門	Front Gate	222.4 $\mu$ Sv/h
3/23	P.M. 2:10	正門	Front Gate	231.1 $\mu$ Sv/h
3/23	P.M. 2:20	正門	Front Gate	435.0 $\mu$ Sv/h
3/23	P.M. 2:30	正門	Front Gate	288.7 $\mu$ Sv/h
3/23	P.M. 2:40	正門	Front Gate	309.7 $\mu$ Sv/h
3/23	P.M. 2:50	正門	Front Gate	267.8 $\mu$ Sv/h
3/23	P.M. 3:00	正門	Front Gate	265.4 $\mu$ Sv/h
3/23	P.M. 3:10	正門	Front Gate	396.0 $\mu$ Sv/h
3/23	P.M. 3:20	正門	Front Gate	415.6 $\mu$ Sv/h
3/23	P.M. 3:30	正門	Front Gate	414.7 $\mu$ Sv/h
3/23	P.M. 3:40	正門	Front Gate	401.6 $\mu$ Sv/h
3/23	P.M. 3:50	正門	Front Gate	318.4 $\mu$ Sv/h
3/23	P.M. 4:00	正門	Front Gate	331.5 $\mu$ Sv/h
3/23	P.M. 4:10	正門	Front Gate	313.4 $\mu$ Sv/h

3/23	P.M. 4:20	正門	Front Gate	280.9 $\mu$ Sv/h
3/23	P.M. 4:30	正門	Front Gate	283.7 $\mu$ Sv/h
3/23	P.M. 4:40	正門	Front Gate	274.4 $\mu$ Sv/h
3/23	P.M. 4:50	正門	Front Gate	269.3 $\mu$ Sv/h
3/23	P.M. 5:00	正門	Front Gate	265.1 $\mu$ Sv/h
3/23	P.M. 5:10	正門	Front Gate	262.1 $\mu$ Sv/h
3/23	P.M. 5:20	正門	Front Gate	259.5 $\mu$ Sv/h
3/23	P.M. 5:30	正門	Front Gate	257.0 $\mu$ Sv/h
3/23	P.M. 5:40	正門	Front Gate	255.8 $\mu$ Sv/h
3/23	P.M. 5:50	正門	Front Gate	254.2 $\mu$ Sv/h
3/23	P.M. 6:00	正門	Front Gate	253.0 $\mu$ Sv/h
3/23	P.M. 6:10	正門	Front Gate	251.3 $\mu$ Sv/h
3/23	P.M. 6:20	正門	Front Gate	241.2 $\mu$ Sv/h
3/23	P.M. 6:30	正門	Front Gate	249.0 $\mu$ Sv/h
3/23	P.M. 6:40	正門	Front Gate	246.9 $\mu$ Sv/h
3/23	P.M. 6:50	正門	Front Gate	245.8 $\mu$ Sv/h
3/23	P.M. 7:00	正門	Front Gate	244.6 $\mu$ Sv/h
3/23	P.M. 7:10	正門	Front Gate	243.5 $\mu$ Sv/h
3/23	P.M. 7:20	正門	Front Gate	242.1 $\mu$ Sv/h
3/23	P.M. 7:30	正門	Front Gate	241.0 $\mu$ Sv/h
3/23	P.M. 7:40	正門	Front Gate	240.2 $\mu$ Sv/h
3/23	P.M. 7:50	正門	Front Gate	237.6 $\mu$ Sv/h
3/23	P.M. 8:00	正門	Front Gate	236.5 $\mu$ Sv/h
3/23	P.M. 8:10	正門	Front Gate	235.8 $\mu$ Sv/h
3/23	P.M. 8:20	正門	Front Gate	235.3 $\mu$ Sv/h
3/23	P.M. 8:30	正門	Front Gate	234.3 $\mu$ Sv/h
3/23	P.M. 8:40	正門	Front Gate	233.2 $\mu$ Sv/h
3/23	P.M. 8:50	正門	Front Gate	232.8 $\mu$ Sv/h
3/23	P.M. 9:00	正門	Front Gate	232.3 $\mu$ Sv/h
3/23	P.M. 9:10	正門	Front Gate	231.5 $\mu$ Sv/h
3/23	P.M. 9:20	正門	Front Gate	230.6 $\mu$ Sv/h
3/23	P.M. 9:30	正門	Front Gate	230.2 $\mu$ Sv/h
3/23	P.M. 9:40	正門	Front Gate	229.5 $\mu$ Sv/h
3/23	P.M. 9:50	正門	Front Gate	228.8 $\mu$ Sv/h
3/23	P.M. 10:00	正門	Front Gate	228.3 $\mu$ Sv/h
3/23	P.M. 10:10	正門	Front Gate	227.3 $\mu$ Sv/h
3/23	P.M. 10:20	正門	Front Gate	226.8 $\mu$ Sv/h
3/23	P.M. 10:30	正門	Front Gate	226.5 $\mu$ Sv/h
3/23	P.M. 10:40	正門	Front Gate	225.8 $\mu$ Sv/h
3/23	P.M. 10:50	正門	Front Gate	225.4 $\mu$ Sv/h
3/23	P.M. 11:00	正門	Front Gate	224.9 $\mu$ Sv/h
3/23	P.M. 11:10	正門	Front Gate	224.7 $\mu$ Sv/h
3/23	P.M. 11:20	正門	Front Gate	224.3 $\mu$ Sv/h
3/23	P.M. 11:30	正門	Front Gate	224.0 $\mu$ Sv/h
3/23	P.M. 11:40	正門	Front Gate	223.0 $\mu$ Sv/h
3/23	P.M. 11:50	正門	Front Gate	223.0 $\mu$ Sv/h
3/24	A.M. 0:00	正門	Front Gate	222.3 $\mu$ Sv/h
3/24	A.M. 0:10	正門	Front Gate	222.0 $\mu$ Sv/h

3/24	A.M. 0:20	正門	Front Gate	221.8 $\mu$ Sv/h
3/24	A.M. 0:30	正門	Front Gate	221.5 $\mu$ Sv/h
3/24	A.M. 0:40	正門	Front Gate	221.7 $\mu$ Sv/h
3/24	A.M. 0:50	正門	Front Gate	221.0 $\mu$ Sv/h
3/24	A.M. 1:00	正門	Front Gate	220.6 $\mu$ Sv/h
3/24	A.M. 1:10	正門	Front Gate	220.4 $\mu$ Sv/h
3/24	A.M. 1:20	正門	Front Gate	220.0 $\mu$ Sv/h
3/24	A.M. 1:30	正門	Front Gate	219.7 $\mu$ Sv/h
3/24	A.M. 1:40	正門	Front Gate	219.2 $\mu$ Sv/h
3/24	A.M. 1:50	正門	Front Gate	219.2 $\mu$ Sv/h
3/24	A.M. 2:00	正門	Front Gate	218.9 $\mu$ Sv/h
3/24	A.M. 2:10	正門	Front Gate	218.7 $\mu$ Sv/h
3/24	A.M. 2:20	正門	Front Gate	217.5 $\mu$ Sv/h
3/24	A.M. 2:30	正門	Front Gate	217.2 $\mu$ Sv/h
3/24	A.M. 2:40	正門	Front Gate	216.8 $\mu$ Sv/h
3/24	A.M. 2:50	正門	Front Gate	216.6 $\mu$ Sv/h
3/24	A.M. 3:00	正門	Front Gate	216.6 $\mu$ Sv/h
3/24	A.M. 3:10	正門	Front Gate	216.5 $\mu$ Sv/h
3/24	A.M. 3:20	正門	Front Gate	216.2 $\mu$ Sv/h
3/24	A.M. 3:30	正門	Front Gate	215.5 $\mu$ Sv/h
3/24	A.M. 3:40	正門	Front Gate	215.7 $\mu$ Sv/h
3/24	A.M. 3:50	正門	Front Gate	215.4 $\mu$ Sv/h
3/24	A.M. 4:00	正門	Front Gate	215.1 $\mu$ Sv/h
3/24	A.M. 4:10	正門	Front Gate	215.0 $\mu$ Sv/h
3/24	A.M. 4:20	正門	Front Gate	214.7 $\mu$ Sv/h
3/24	A.M. 4:30	正門	Front Gate	214.5 $\mu$ Sv/h
3/24	A.M. 4:40	正門	Front Gate	214.7 $\mu$ Sv/h
3/24	A.M. 4:50	正門	Front Gate	214.3 $\mu$ Sv/h
3/24	A.M. 5:00	正門	Front Gate	214.4 $\mu$ Sv/h
3/24	A.M. 5:10	正門	Front Gate	214.0 $\mu$ Sv/h
3/24	A.M. 5:20	正門	Front Gate	213.6 $\mu$ Sv/h
3/24	A.M. 5:30	正門	Front Gate	213.8 $\mu$ Sv/h
3/24	A.M. 5:40	正門	Front Gate	216.2 $\mu$ Sv/h
3/24	A.M. 5:50	正門	Front Gate	213.6 $\mu$ Sv/h
3/24	A.M. 6:00	正門	Front Gate	212.8 $\mu$ Sv/h
3/24	A.M. 6:10	正門	Front Gate	212.8 $\mu$ Sv/h
3/24	A.M. 6:20	正門	Front Gate	214.7 $\mu$ Sv/h
3/24	A.M. 6:30	正門	Front Gate	230.9 $\mu$ Sv/h
3/24	A.M. 6:40	正門	Front Gate	213.7 $\mu$ Sv/h
3/24	A.M. 6:50	正門	Front Gate	212.3 $\mu$ Sv/h
3/24	A.M. 7:00	正門	Front Gate	212.2 $\mu$ Sv/h
3/24	A.M. 7:10	正門	Front Gate	212.0 $\mu$ Sv/h
3/24	A.M. 7:20	正門	Front Gate	211.8 $\mu$ Sv/h
3/24	A.M. 7:30	正門	Front Gate	211.9 $\mu$ Sv/h
3/24	A.M. 7:40	正門	Front Gate	211.9 $\mu$ Sv/h
3/24	A.M. 7:50	正門	Front Gate	211.7 $\mu$ Sv/h
3/24	A.M. 8:00	正門	Front Gate	211.6 $\mu$ Sv/h
3/24	A.M. 8:10	正門	Front Gate	211.6 $\mu$ Sv/h



3/24	A.M. 8:20	正門	Front Gate	21.6 $\mu$ Sv/h
3/24	A.M. 8:30	正門	Front Gate	211.2 $\mu$ Sv/h
3/24	A.M. 8:40	正門	Front Gate	211.5 $\mu$ Sv/h
3/24	A.M. 8:50	正門	Front Gate	211.1 $\mu$ Sv/h
3/24	A.M. 9:00	正門	Front Gate	210.1 $\mu$ Sv/h
3/24	A.M. 9:10	正門	Front Gate	210.8 $\mu$ Sv/h
3/24	A.M. 9:20	正門	Front Gate	210.8 $\mu$ Sv/h
3/24	A.M. 9:30	正門	Front Gate	210.7 $\mu$ Sv/h
3/24	A.M. 9:40	正門	Front Gate	210.6 $\mu$ Sv/h
3/24	A.M. 9:50	正門	Front Gate	210.5 $\mu$ Sv/h
3/24	A.M. 10:00	正門	Front Gate	210.1 $\mu$ Sv/h
3/24	A.M. 10:10	正門	Front Gate	210.0 $\mu$ Sv/h
3/24	A.M. 10:20	正門	Front Gate	209.7 $\mu$ Sv/h
3/24	A.M. 10:30	正門	Front Gate	209.7 $\mu$ Sv/h
3/24	A.M. 10:40	正門	Front Gate	209.5 $\mu$ Sv/h
3/24	A.M. 10:50	正門	Front Gate	209.6 $\mu$ Sv/h
3/24	A.M. 11:00	正門	Front Gate	209.3 $\mu$ Sv/h
3/24	A.M. 11:10	正門	Front Gate	209.2 $\mu$ Sv/h
3/24	A.M. 11:20	正門	Front Gate	209.5 $\mu$ Sv/h
3/24	A.M. 11:30	正門	Front Gate	209.5 $\mu$ Sv/h
3/24	A.M. 11:40	正門	Front Gate	209.6 $\mu$ Sv/h
3/24	A.M. 11:50	正門	Front Gate	209.1 $\mu$ Sv/h
3/24	P.M. 0:00	正門	Front Gate	209.4 $\mu$ Sv/h
3/24	P.M. 0:10	正門	Front Gate	209.4 $\mu$ Sv/h
3/24	P.M. 0:20	正門	Front Gate	209.2 $\mu$ Sv/h
3/24	P.M. 0:30	正門	Front Gate	201.1 $\mu$ Sv/h
3/24	A.M. 0:40	正門	Front Gate	208.8 $\mu$ Sv/h
3/24	P.M. 0:50	正門	Front Gate	208.7 $\mu$ Sv/h
3/24	P.M. 1:00	正門	Front Gate	208.1 $\mu$ Sv/h
3/24	P.M. 1:10	正門	Front Gate	207.9 $\mu$ Sv/h
3/24	P.M. 1:20	正門	Front Gate	207.5 $\mu$ Sv/h
3/24	P.M. 1:30	正門	Front Gate	207.5 $\mu$ Sv/h
3/24	P.M. 1:40	正門	Front Gate	207.2 $\mu$ Sv/h
3/24	P.M. 1:50	正門	Front Gate	209.3 $\mu$ Sv/h
3/24	P.M. 2:00	正門	Front Gate	209.0 $\mu$ Sv/h
3/24	P.M. 2:10	正門	Front Gate	208.5 $\mu$ Sv/h
3/24	P.M. 2:20	免震棟前	Seismic-isolated Building	429.5 $\mu$ Sv/h
3/24	P.M. 2:30	免震棟前	Seismic-isolated Building	427.0 $\mu$ Sv/h
3/24	P.M. 2:50	正門	Front Gate	210.0 $\mu$ Sv/h
3/24	P.M. 3:00	正門	Front Gate	209.8 $\mu$ Sv/h
3/24	P.M. 3:10	正門	Front Gate	209.4 $\mu$ Sv/h
3/24	P.M. 3:20	正門	Front Gate	209.2 $\mu$ Sv/h
3/24	P.M. 3:30	正門	Front Gate	208.8 $\mu$ Sv/h
3/24	P.M. 3:40	正門	Front Gate	208.0 $\mu$ Sv/h
3/24	P.M. 3:50	正門	Front Gate	207.6 $\mu$ Sv/h
3/24	P.M. 4:00	正門	Front Gate	207.4 $\mu$ Sv/h
3/24	P.M. 4:10	正門	Front Gate	207.3 $\mu$ Sv/h
3/24	P.M. 4:20	正門	Front Gate	207.1 $\mu$ Sv/h

3/24	P.M. 4:30	正門	Front Gate	207.0 $\mu$ Sv/h
3/24	P.M. 4:40	正門	Front Gate	206.9 $\mu$ Sv/h
3/24	P.M. 4:50	正門	Front Gate	206.5 $\mu$ Sv/h
3/24	P.M. 5:00	正門	Front Gate	206.4 $\mu$ Sv/h
3/24	P.M. 5:10	正門	Front Gate	206.3 $\mu$ Sv/h
3/24	P.M. 5:20	正門	Front Gate	206.1 $\mu$ Sv/h
3/24	P.M. 5:30	正門	Front Gate	206.0 $\mu$ Sv/h
3/24	P.M. 5:40	正門	Front Gate	205.6 $\mu$ Sv/h
3/24	P.M. 5:50	正門	Front Gate	205.3 $\mu$ Sv/h
3/24	P.M. 6:00	正門	Front Gate	204.6 $\mu$ Sv/h
3/24	P.M. 6:10	正門	Front Gate	204.9 $\mu$ Sv/h
3/24	P.M. 6:20	正門	Front Gate	204.7 $\mu$ Sv/h
3/24	P.M. 6:30	正門	Front Gate	204.5 $\mu$ Sv/h
3/24	P.M. 6:40	正門	Front Gate	204.4 $\mu$ Sv/h
3/24	P.M. 6:50	正門	Front Gate	204.4 $\mu$ Sv/h
3/24	P.M. 7:00	正門	Front Gate	204.3 $\mu$ Sv/h
3/24	P.M. 7:10	正門	Front Gate	204.2 $\mu$ Sv/h
3/24	P.M. 7:20	正門	Front Gate	203.9 $\mu$ Sv/h
3/24	P.M. 7:30	正門	Front Gate	203.5 $\mu$ Sv/h
3/24	P.M. 7:40	正門	Front Gate	203.0 $\mu$ Sv/h
3/24	P.M. 7:50	正門	Front Gate	202.9 $\mu$ Sv/h
3/24	P.M. 8:00	正門	Front Gate	202.9 $\mu$ Sv/h
3/24	P.M. 8:10	正門	Front Gate	202.6 $\mu$ Sv/h
3/24	P.M. 8:20	正門	Front Gate	202.5 $\mu$ Sv/h
3/24	P.M. 8:30	正門	Front Gate	202.4 $\mu$ Sv/h
3/24	P.M. 8:40	正門	Front Gate	202.4 $\mu$ Sv/h
3/24	P.M. 8:50	正門	Front Gate	202.2 $\mu$ Sv/h
3/24	P.M. 9:00	正門	Front Gate	202.0 $\mu$ Sv/h
3/24	P.M. 9:10	正門	Front Gate	202.0 $\mu$ Sv/h
3/24	P.M. 9:20	正門	Front Gate	201.7 $\mu$ Sv/h
3/24	P.M. 9:30	正門	Front Gate	201.4 $\mu$ Sv/h
3/24	P.M. 9:40	正門	Front Gate	201.3 $\mu$ Sv/h
3/24	P.M. 9:50	正門	Front Gate	201.3 $\mu$ Sv/h
3/24	P.M. 10:00	正門	Front Gate	201.2 $\mu$ Sv/h
3/24	P.M. 10:10	正門	Front Gate	201.1 $\mu$ Sv/h
3/24	P.M. 10:20	正門	Front Gate	201.2 $\mu$ Sv/h
3/24	P.M. 10:30	正門	Front Gate	200.5 $\mu$ Sv/h
3/24	P.M. 10:40	正門	Front Gate	200.6 $\mu$ Sv/h
3/24	P.M. 10:50	正門	Front Gate	200.4 $\mu$ Sv/h
3/24	P.M. 11:00	正門	Front Gate	200.2 $\mu$ Sv/h
3/24	P.M. 11:10	正門	Front Gate	199.9 $\mu$ Sv/h
3/24	P.M. 11:20	正門	Front Gate	200.0 $\mu$ Sv/h
3/24	P.M. 11:30	正門	Front Gate	199.8 $\mu$ Sv/h
3/24	P.M. 11:40	正門	Front Gate	199.8 $\mu$ Sv/h
3/24	P.M. 11:50	正門	Front Gate	199.6 $\mu$ Sv/h
3/25	A.M. 0:00	正門	Front Gate	199.5 $\mu$ Sv/h
3/25	A.M. 0:10	正門	Front Gate	199.3 $\mu$ Sv/h
3/25	A.M. 0:20	正門	Front Gate	199.0 $\mu$ Sv/h

3/25	A.M. 0:30	正門	Front Gate	199.0 $\mu$ Sv/h
3/25	A.M. 0:40	正門	Front Gate	198.9 $\mu$ Sv/h
3/25	A.M. 0:50	正門	Front Gate	198.8 $\mu$ Sv/h
3/25	A.M. 1:00	正門	Front Gate	198.6 $\mu$ Sv/h
3/25	A.M. 1:10	正門	Front Gate	197.7 $\mu$ Sv/h
3/25	A.M. 1:20	正門	Front Gate	197.0 $\mu$ Sv/h
3/25	A.M. 1:30	正門	Front Gate	196.9 $\mu$ Sv/h
3/25	A.M. 1:40	正門	Front Gate	196.5 $\mu$ Sv/h
3/25	A.M. 1:50	正門	Front Gate	196.5 $\mu$ Sv/h
3/25	A.M. 2:00	正門	Front Gate	196.5 $\mu$ Sv/h
3/25	A.M. 2:10	正門	Front Gate	196.4 $\mu$ Sv/h
3/25	A.M. 2:20	正門	Front Gate	196.3 $\mu$ Sv/h
3/25	A.M. 2:30	正門	Front Gate	196.1 $\mu$ Sv/h
3/25	A.M. 2:40	正門	Front Gate	195.9 $\mu$ Sv/h
3/25	A.M. 2:50	正門	Front Gate	195.8 $\mu$ Sv/h
3/25	A.M. 3:00	正門	Front Gate	195.7 $\mu$ Sv/h
3/25	A.M. 3:10	正門	Front Gate	195.7 $\mu$ Sv/h
3/25	A.M. 3:20	正門	Front Gate	195.6 $\mu$ Sv/h
3/25	A.M. 3:30	正門	Front Gate	195.6 $\mu$ Sv/h
3/25	A.M. 3:40	正門	Front Gate	195.5 $\mu$ Sv/h
3/25	A.M. 3:50	正門	Front Gate	195.1 $\mu$ Sv/h
3/25	A.M. 4:00	正門	Front Gate	195.1 $\mu$ Sv/h
3/25	A.M. 4:10	正門	Front Gate	195.0 $\mu$ Sv/h
3/25	A.M. 4:20	正門	Front Gate	195.0 $\mu$ Sv/h
3/25	A.M. 4:30	正門	Front Gate	195.0 $\mu$ Sv/h
3/25	A.M. 4:40	正門	Front Gate	194.5 $\mu$ Sv/h
3/25	A.M. 4:50	正門	Front Gate	194.5 $\mu$ Sv/h
3/25	A.M. 5:00	正門	Front Gate	194.4 $\mu$ Sv/h
3/25	A.M. 5:10	正門	Front Gate	194.4 $\mu$ Sv/h
3/25	A.M. 5:20	正門	Front Gate	194.3 $\mu$ Sv/h
3/25	A.M. 5:30	正門	Front Gate	194.2 $\mu$ Sv/h
3/25	A.M. 5:40	正門	Front Gate	194.1 $\mu$ Sv/h
3/25	A.M. 5:50	正門	Front Gate	193.8 $\mu$ Sv/h
3/25	A.M. 6:00	正門	Front Gate	193.8 $\mu$ Sv/h

Neutron ray	Wind direction	Wind direction	Wind speed (m/s)
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
< 0.001μSv/h	北東	NE	0.4
< 0.001μSv/h	北西	NW	0.5
< 0.001μSv/h	東北東	ENE	0.4
< 0.001μSv/h	北	N	0.4
< 0.001μSv/h	東北東	ENE	0.6
< 0.001μSv/h	北東	NE	0.5
< 0.001μSv/h	北北西	NNW	0.5
< 0.001μSv/h	北	N	0.6
< 0.001μSv/h	西	W	0.7
< 0.001μSv/h	北	N	0.8
< 0.001μSv/h	西北西	WNW	0.4
< 0.001μSv/h	北	N	0.3
< 0.001μSv/h	北	N	0.4
< 0.001μSv/h	北北東	NNE	0.4
< 0.001μSv/h	南東	SE	0.5
< 0.001μSv/h	北東	NE	2.0
< 0.001μSv/h	北東		1.8
< 0.001μSv/h	東北東	ENE	0.9
< 0.001μSv/h	東北東	ENE	1.1
< 0.001μSv/h	北北西	NNW	0.6
< 0.001μSv/h	西南西	WSW	0.8
< 0.001μSv/h	南西	SW	0.7
< 0.001μSv/h	西南西	WSW	0.7
< 0.001μSv/h	北西	NW	1.0
< 0.001μSv/h	北北西	NNW	0.9
< 0.001μSv/h	北北西	NNW	1.4
< 0.001μSv/h	北北西	NNW	2.0

< 0.001μSv/h	北西	NW	1.7
< 0.001μSv/h	西	W	0.9
< 0.001μSv/h	西	W	1.0
< 0.001μSv/h	西	W	0.6
< 0.001μSv/h	西南西	WSW	0.5
< 0.001μSv/h	北北西	NNW	0.4
< 0.001μSv/h	北東	NE	0.5
—	—	—	—
—	—	—	—
—	—	—	—
< 0.001μSv/h	西	W	0.5
—	—	—	—
< 0.001μSv/h	西南西	WSW	0.2
—	—	—	—
< 0.001μSv/h	西北西	WNW	0.7
—	—	—	—
—	—	—	—
—	—	—	—
< 0.001μSv/h	南	S	1.1
—	—	—	—
—	—	—	—
—	—	—	—
< 0.001μSv/h	南東	SE	0.9
—	—	—	—
< 0.001μSv/h	南西	SW	0.9
—	—	—	—
< 0.001μSv/h	南	S	1.2
—	—	—	—
—	—	—	—
—	—	—	—
< 0.001μSv/h	南	S	2.0
—	—	—	—
—	—	—	—
< 0.001μSv/h	南	S	1.6
—	—	—	—
—	—	—	—
—	—	—	—
< 0.001μSv/h	南東	SE	2.5
—	—	—	—
—	—	—	—
—	—	—	—
< 0.001μSv/h	南南東	SSW	2.8
—	—	—	—
—	—	—	—

< 0.001μSv/h	南	S	1.9
—	—	—	—
—	—	—	—
< 0.001μSv/h	南東	SE	2.2
—	—	—	—
—	—	—	—
< 0.001μSv/h	南東	SE	2.0
—	—	—	—
—	—	—	—
< 0.001μSv/h	北	N	1.8
—	—	—	—
—	—	—	—
< 0.001μSv/h	北	N	2.0
—	—	—	—
< 0.001μSv/h	北	N	1.7
—	—	—	—
< 0.001μSv/h	南西	SW	1.6
—	—	—	—
< 0.001μSv/h	南西	SW	2.7
—	—	—	—
< 0.001μSv/h	北東	NE	2.2
—	—	—	—
< 0.001μSv/h	東	E	1.6
—	—	—	—
< 0.001μSv/h	南西	SW	2.0
—	—	—	—
< 0.001μSv/h	北西	NW	2.7
—	—	—	—
< 0.001μSv/h	北	N	2.3
—	—	—	—
—	—	—	—
< 0.001μSv/h	西	W	1.9
—	—	—	—
—	—	—	—
< 0.001μSv/h	北西	NE	2.2
—	—	—	—
—	—	—	—
< 0.001μSv/h	南東	SE	1.8
—	—	—	—
< 0.001μSv/h	南	S	2.0
—	—	—	—
< 0.001μSv/h	南東	SE	1.7
—	—	—	—
< 0.001μSv/h	東	E	1.7
—	—	—	—
< 0.001μSv/h	南	S	2.6
—	—	—	—

< 0.001μSv/h	東	E	2.6
—	—	—	—
< 0.001μSv/h	南東	SE	3.5
—	—	—	—
—	—	—	—
< 0.001μSv/h	東	E	2.9
—	—	—	—
< 0.001μSv/h	南南東	SSE	3.3
—	—	—	—
< 0.001μSv/h	南南東	SSE	3.3
—	—	—	—
< 0.001μSv/h	南南東	SSE	3.3
—	—	—	—
< 0.001μSv/h	南	S	2.7
—	—	—	—
< 0.001μSv/h	南	S	2.7
—	—	—	—
< 0.001μSv/h	南	S	3.4
—	—	—	—
< 0.001μSv/h	南南西	SSW	2.7
—	—	—	—
< 0.001μSv/h	南	S	2.5
—	—	—	—
< 0.001μSv/h	南南西	SSW	3.2
—	—	—	—
< 0.001μSv/h	南	S	2.5
—	—	—	—
< 0.001μSv/h	南	S	3.0
—	—	—	—
< 0.001μSv/h	南	S	2.6
—	—	—	—
< 0.001μSv/h	南南東	SSE	2.3
—	—	—	—
< 0.001μSv/h	南南東	SSE	2.4
—	—	—	—
< 0.001μSv/h	南南東	SSE	2.4
—	—	—	—
< 0.001μSv/h	南	S	2.2
—	—	—	—
< 0.001μSv/h	南南西	SSW	2.4
—	—	—	—
< 0.001μSv/h	南南西	SSW	1.9
—	—	—	—
—	—	—	—
< 0.001μSv/h	西	W	0.5
< 0.001μSv/h	北西	SW	0.4
—	—	—	—

< 0.001μSv/h	西	W	0.3
—	—		—
< 0.001μSv/h	西	S	0.5
—	—		—
< 0.001μSv/h	南西	SW	0.6
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
—	—		—
< 0.001μSv/h	南西	SW	0.5
—	—		—
< 0.001μSv/h	北西	NW	0.4
—	—		—
< 0.001μSv/h	南西	SW	0.4
< 0.001μSv/h	西	W	0.4
< 0.001μSv/h	西	W	0.4
—	—		—
—	—		—
< 0.001μSv/h	西	W	0.3
—	—		—
< 0.001μSv/h	南	S	0.4
—	—		—
< 0.001μSv/h	北	NW	0.4
—	—		—
< 0.001μSv/h	北西	NW	0.4
< 0.001μSv/h	西	W	0.4
< 0.001μSv/h	西	W	0.5
—	—		—
< 0.001μSv/h	西	W	0.4
< 0.001μSv/h	北西	NW	0.5
< 0.001μSv/h	北東	NE	0.3
—	—		—
< 0.001μSv/h	北北西	NNW	0.4
—	—		—
< 0.001μSv/h	西	W	0.4
—	—		—
< 0.001μSv/h	南	S	0.4
—	—		—
< 0.001μSv/h	西北西	WNW	0.6
—	—		—
< 0.001μSv/h	北西	NW	0.6
—	—		—
< 0.001μSv/h	南東	SE	0.5
—	—		—



< 0.001μSv/h	北西	NW	0.4
—	—	—	—
< 0.001μSv/h	西	W	0.4
—	—	—	—
< 0.001μSv/h	北東	NE	0.6
—	—	—	—
< 0.001μSv/h	北東	NE	0.5
—	—	—	—
< 0.001μSv/h	西	W	0.5
—	—	—	—
< 0.001μSv/h	西	W	0.5
—	—	—	—
< 0.001μSv/h	西北西	WNW	0.4
—	—	—	—
< 0.001μSv/h	南東	SE	0.5
—	—	—	—
< 0.001μSv/h	南	S	0.6
—	—	—	—
< 0.001μSv/h	南西	SW	0.7
—	—	—	—
< 0.001μSv/h	南	S	0.7
—	—	—	—
< 0.001μSv/h	南	S	1.2
< 0.001μSv/h	南東	SE	1.5
< 0.001μSv/h	南南東	SSE	2.0
< 0.001μSv/h	南	S	1.6
< 0.001μSv/h	南西	SW	1.2
—	—	—	—
< 0.001μSv/h	南	S	0.8
—	—	—	—
< 0.001μSv/h	南西	SW	1.2
—	—	—	—
< 0.001μSv/h	南	S	1.3
—	—	—	—
< 0.001μSv/h	南南西	SSW	1.3
—	—	—	—
< 0.001μSv/h	南	S	0.6
—	—	—	—
< 0.001μSv/h	西	W	1.2
—	—	—	—
< 0.001μSv/h	北北東	NNE	0.7
—	—	—	—
< 0.001μSv/h	北	N	0.8
—	—	—	—
< 0.001μSv/h	北	N	0.7
—	—	—	—
< 0.001μSv/h	西	W	0.3

—	—	—	—
0.002	北西	NW	0.6
—	—	—	—
0.002	西	W	0.6
—	—	—	—
0.001	南東	SE	0.5
—	—	—	—
< 0.001μSv/h	南	S	0.6
—	—	—	—
< 0.001μSv/h	南	S	0.9
—	—	—	—
< 0.001μSv/h	南	S	1.1
—	—	—	—
0.002	南南西	SSW	0.9
—	—	—	—
0.001	西	W	0.8
—	—	—	—
< 0.001μSv/h	南南西	SSW	1.3
—	—	—	—
< 0.001μSv/h	西北西	WNW	1.6
—	—	—	—
0.001	北	N	0.9
—	—	—	—
< 0.001μSv/h	北	N	0.9
—	—	—	—
< 0.001μSv/h	北西	NW	0.9
—	—	—	—
0.001	北西	NW	0.9
< 0.001μSv/h	北西	NW	0.4
0.001	南	S	0.4
< 0.001μSv/h	東	E	0.5
—	—	—	—
< 0.001μSv/h	東	E	0.5
—	—	—	—
< 0.001μSv/h	南南東	SSE	1.6
—	—	—	—
< 0.001μSv/h	南東	SE	1.4
—	—	—	—
< 0.001μSv/h	南東		2.0
—	—	—	—
< 0.001μSv/h	南南東	SSE	2.4
—	—	—	—
—	東北東	ENE	0.5
< 0.001μSv/h	東	E	1.5
—	—	—	—
—	西北西	WNW	0.8
< 0.001μSv/h	南南西	SSE	1.4

—	—	—	—
—	西北西	WNW	1.8
0.001	北	N	1.5
—	—	—	—
—	北西	NW	1.8
—	—	—	—
—	北西	NW	2.3
—	—	—	—
—	北西	NW	2.7
< 0.001μSv/h	北西	NW	3.1
—	—	—	—
—	北西	NW	2.6
< 0.001μSv/h	北西	NW	3.2
—	—	—	—
—	北西	NW	2.9
< 0.001μSv/h	北北西	NNW	4.2
—	—	—	—
—	北西	NW	2.3
< 0.001μSv/h	北	N	2.8
—	—	—	—
—	北西	NW	2.4
< 0.001μSv/h	北	N	3.3
—	—	—	—
—	北西	NW	2.8
0.002	北北西	NNW	3.3
—	—	—	—
—	北西	NW	2.7
< 0.001μSv/h	南東	SE	3.3
—	—	—	—
—	北西	NW	2.2
< 0.001μSv/h	南	S	2.4
—	—	—	—
—	北北西	NNW	2.3
< 0.001μSv/h	北西	NW	2.8
—	—	—	—
—	北西	NW	2.5
< 0.001μSv/h	北西	NW	2.7
—	—	—	—
—	北西	NW	2.1
< 0.001μSv/h	西	WNW	2.7
—	—	—	—
—	西北西	WNW	3.1
< 0.001μSv/h	北北西	NNW	2.5
—	—	—	—
—	北西	NW	2.4
< 0.001μSv/h	東	E	2.4
—	—	—	—

—	北西	NW	1.6
< 0.001μSv/h	西	W	2.2
—	—	—	—
—	北西	NW	1.3
< 0.001μSv/h	南	S	2.1
—	—	—	—
—	北西	NW	2.9
< 0.001μSv/h	北	N	2.0
—	—	—	—
—	北西	NW	2.3
< 0.001μSv/h	南南西		2.1
—	—	—	—
—	北西	NW	2.8
< 0.001μSv/h	西		2.1
—	—	—	—
—	北北西	NNW	1.9
< 0.001μSv/h	北西	NW	2.1
—	—	—	—
—	北北西	NNW	2.3
< 0.001μSv/h	南南西	SSW	2.6
—	—	—	—
—	西北西	WNW	2.6
< 0.001μSv/h	南	S	2.7
—	—	—	—
—	西北西	WNW	2.5
< 0.001μSv/h	南西	SW	1.6
—	—	—	—
—	西北西	WNW	1.7
< 0.001μSv/h	北北西	NNW	2.2
—	—	—	—
—	北西	NW	1.6
< 0.001μSv/h	南東	SE	1.7
—	—	—	—
—	東北東	ENE	1.5
< 0.001μSv/h	南	S	2.6
—	—	—	—
—	南	S	0.6
< 0.001μSv/h	南南東	SSE	2.1
—	—	—	—
—	東南東	ESE	0.7
< 0.001μSv/h	南南東	SSE	2.5
—	—	—	—
—	南	S	0.6
< 0.001μSv/h	南南東	SSE	2.2
—	—	—	—
—	南南東	SSE	0.5
< 0.001μSv/h	南東	SE	1.6

—	—		—
—	南南東	SSE	0.7
< 0.001μSv/h	南南東	SSE	2.0
—	—		—
—	—		—
< 0.001μSv/h	南西	SW	1.3
—	—		—
—	南南東	SSE	0.8
< 0.001μSv/h	南南東	SSE	1.6
—	—		—
—	西北西		2.3
< 0.001μSv/h	南南東		1.6
—	—		—
—	西北西	WNW	1.1
< 0.001μSv/h	北西	NW	2.0
—	—		—
—	東北東	ENE	2.1
< 0.001μSv/h	西北西	WNW	1.5
—	—		—
—	東北東	ENE	1.1
< 0.001μSv/h	南東	SE	2.3
—	—		—
—	南南東	SSE	0.7
< 0.001μSv/h	南東	SE	2.2
—	—		—
—	南	S	0.7
< 0.001μSv/h	南	S	1.8
—	—		—
—	南	S	0.4
< 0.001μSv/h	南	S	1.8
—	—		—
—	南南東	SSE	0.4
< 0.001μSv/h	南東	SE	1.1
—	—		—
—	南南東	SSE	0.5
< 0.001μSv/h	南	S	1.0
—	—		—
—	南南西	SSW	0.4
< 0.001μSv/h	南	S	1.0
—	—		—
—	南東	SE	0.5
< 0.001μSv/h	南南西	SSW	1.5
—	—		—
—	南西	SW	0.4
< 0.001μSv/h	南	S	1.8
—	—		—
—	南西	SW	0.4

< 0.001μSv/h	南南東	SSE	0.6
—	—		—
—	西南西	WSW	0.5
< 0.001μSv/h	北北西	NNW	0.5
—	—		—
—	南東	SE	0.4
< 0.001μSv/h	西	W	0.6
—	—		—
—	北北西	NNW	0.5
< 0.001μSv/h	西	W	0.5
—	—		—
—	北北西	NNW	0.4
< 0.001μSv/h	北西	NW	0.6
—	—		—
—	北西		0.6
< 0.001μSv/h	北西	NW	0.8
—	—		—
—	北北西	NNW	0.6
< 0.001μSv/h	北西	NW	0.9
—	—		—
—	北北東	NNE	0.3
< 0.001μSv/h	北西	NW	1.1
—	—		—
—	北北西	NNW	0.3
< 0.001μSv/h	北西	NW	1.3
—	—		—
—	北	N	0.3
< 0.001μSv/h	北北西	NNW	1.2
—	—		—
—	北西	NW	0.6
0.001μSv/h未滿	北西	NW	1.0
—	—		—
—	北北西	NNW	0.5
< 0.001μSv/h	西	W	0.8
—	—		—
—	北西	NW	0.3
< 0.001μSv/h	北西	NW	0.8
—	—		—
—	北西	NW	0.4
< 0.001μSv/h	南西	SW	0.8
—	—		—
—	西北西	WNW	0.4
< 0.001μSv/h	西	W	0.6
—	—		—
—	北	N	0.3
< 0.001μSv/h	西	W	0.5
—	—		—

—	北北西	NNW	0.5
< 0.001μSv/h	北西	NW	0.6
—	—	—	—
—	北西	NW	0.5
< 0.001μSv/h	南西	SW	0.3
—	—	—	—
—	北西	NW	0.6
< 0.001μSv/h	北西	NW	0.2
—	—	—	—
—	北北東	NNE	0.3
< 0.001μSv/h	西	W	0.5
—	—	—	—
—	西北西	WNW	0.4
< 0.001μSv/h	西北西	WNW	0.7
—	—	—	—
—	北	N	0.4
< 0.001μSv/h	西北西	WMW	0.6
—	—	—	—
—	北北東	NNE	0.3
< 0.001μSv/h	北西	NW	0.8
—	—	—	—
—	北	N	0.4
< 0.001μSv/h	北	N	0.5
—	—	—	—
—	北	N	0.4
< 0.001μSv/h	北	N	0.5
—	—	—	—
—	北北西	NNW	0.4
< 0.001μSv/h	西	W	0.5
—	—	—	—
—	北北西	NNW	0.3
< 0.001μSv/h	南	S	0.3
—	—	—	—
—	北西	NW	0.4
< 0.001μSv/h	北西	NW	0.3
—	—	—	—
—	北	N	0.3
< 0.001μSv/h	北	N	0.3
—	—	—	—
—	北北東	NNE	0.3
< 0.001μSv/h	西	W	0.5
—	—	—	—
—	北北西	NNW	0.3
< 0.001μSv/h	北	N	0.3
—	—	—	—
—	北北西	NNE	0.5
< 0.001μSv/h	西北西	WNW	0.4

—	—	—	—
—	東南東	ESE	0.3
< 0.001 $\mu$ Sv/h	北東	NE	0.5
—	—	—	—
—	北北西	NNW	0.4
< 0.001 $\mu$ Sv/h	北西	NW	0.4
—	—	—	—
—	北	N	0.5
< 0.001 $\mu$ Sv/h	北	N	0.5
—	—	—	—
—	北北西	NNW	0.3
< 0.001 $\mu$ Sv/h	北	N	0.7
—	—	—	—
—	北北西	NNW	0.3
< 0.001 $\mu$ Sv/h	北	N	0.3
—	—	—	—
—	北北西	NNW	0.4
< 0.001 $\mu$ Sv/h	西南西	WSW	0.6
—	—	—	—
—	東北東	ENE	0.4
< 0.001 $\mu$ Sv/h	西	W	0.4
—	—	—	—
—	北北西	NNW	0.3
< 0.001 $\mu$ Sv/h	西	E	0.5
—	—	—	—
—	北北西	NNW	0.3
< 0.001 $\mu$ Sv/h	西	W	0.5
—	—	—	—
—	北西	NW	0.3
< 0.001 $\mu$ Sv/h	西	W	0.5
—	—	—	—
—	北西	NW	0.3
< 0.001 $\mu$ Sv/h	西	W	0.4
—	—	—	—
—	北	N	0.3
< 0.001 $\mu$ Sv/h	北	N	0.4
—	—	—	—
—	北北西	NNW	0.3
< 0.001 $\mu$ Sv/h	西	W	0.4
—	—	—	—
—	北	N	0.5
0.001 $\mu$ Sv/h未滿	南	S	0.5
—	—	—	—
—	南西	SW	0.3
< 0.001 $\mu$ Sv/h	南	S	0.5
—	—	—	—
—	北北西	NNW	0.3



< 0.001μSv/h	北西	NW	0.4
—	—	—	—
—	北北東	NNE	0.3
< 0.001μSv/h	南	S	0.3
—	—	—	—
—	南東	SE	0.3
< 0.001μSv/h	西北西	WNW	0.6
—	—	—	—
—	北西	NW	0.3
< 0.001μSv/h	西北西	WNW	0.6
—	—	—	—
—	北西	NW	0.6
< 0.001μSv/h	西北西	WNW	0.7
—	—	—	—
—	北北東	NNE	0.5
< 0.001μSv/h	南東	SE	0.7
—	—	—	—
—	東	E	0.4
< 0.001μSv/h	北東	NE	0.7
—	—	—	—
—	東南東	ESE	0.4
< 0.001μSv/h	北西	NE	0.5
—	—	—	—
—	北北西	NNW	0.4
< 0.001μSv/h	南	S	0.4
—	—	—	—
—	北北西	NNW	0.4
< 0.001μSv/h	南西	SW	0.5
—	—	—	—
—	北北西	NNW	0.3
< 0.001μSv/h	東北東	ENE	0.7
—	—	—	—
—	北	N	0.2
< 0.001μSv/h	西	W	0.5
—	—	—	—
—	北	N	0.4
< 0.001μSv/h	西	W	0.5
—	—	—	—
—	西北西	WNW	0.3
< 0.001μSv/h	西	W	0.5
—	—	—	—
—	北北東	NNE	0.4
< 0.001μSv/h	南東	SE	0.4
—	—	—	—
—	西北西	WNW	0.3
< 0.001μSv/h	南	S	0.4
—	—	—	—

—	西	W	0.5
< 0.001μSv/h	南	S	0.2
—	—	—	—
—	北西	NW	0.3
< 0.001μSv/h	北	N	0.3
—	—	—	—
—	北北東	NNE	0.4
< 0.001μSv/h	西北西	WNW	0.6
—	—	—	—
—	北北西	NNW	0.5
< 0.001μSv/h	北	N	0.9
—	—	—	—
—	北西	NW	0.5
< 0.001μSv/h	東南東	ESE	0.6
—	—	—	—
—	—	—	—
< 0.001μSv/h	北北西	NNW	0.7
—	—	—	—
—	北北西	NNW	0.4
< 0.001μSv/h	北	N	0.8
—	—	—	—
—	北北西	NNW	0.6
< 0.001μSv/h	南西	SW	0.5
—	—	—	—
—	北北西	NNW	0.5
< 0.001μSv/h	西	W	0.4
—	—	—	—
—	北西	NW	0.3
< 0.001μSv/h	南東	SE	0.5
—	—	—	—
—	東北東	ENE	0.3
< 0.001μSv/h	西北西	WNW	0.4
—	西南西	WSW	0.4
—	—	—	—
< 0.001μSv/h	西	W	0.4
—	—	—	—
—	西北西	WNW	0.5
< 0.001μSv/h	北西	NW	0.3
—	—	—	—
—	北	N	0.5
< 0.001μSv/h	西北西	WNW	0.5
—	—	—	—
—	北	N	0.6
< 0.001μSv/h	西	W	0.5
—	北北西	NNW	0.3
< 0.001μSv/h	南西	SW	0.4
—	西南西	WSW	0.6

< 0.001 $\mu$ Sv/h	北西	NW	0.4
—	西	W	0.5
—	西北西	WNW	1.3
—	西北西	WNW	1.0
—	西	W	1.3
—	西	W	0.8
—	西	W	0.7
—	西	W	0.8
0 $\mu$ Sv/h	南南西	SSE	0.8
0 $\mu$ Sv/h	南南西	SSE	1.2
0 $\mu$ Sv/h	西北西	WNW	1.1
0 $\mu$ Sv/h	南東	SE	1.1
0 $\mu$ Sv/h	南	S	0.8
—	南南西	SSW	0.5
0 $\mu$ Sv/h	南	S	1.0
0 $\mu$ Sv/h	南	S	1.0
—	南西	SW	0.8
0 $\mu$ Sv/h	南南西	SSW	1.2
—	西北西	WSW	1.1
0 $\mu$ Sv/h	南西	SW	1.3
—	北西	NW	1.8
0 $\mu$ Sv/h	南西	SW	1.3
—	北北西	NNW	2.1
0 $\mu$ Sv/h	南西	SW	1.2
—	北西	NW	2.5
0 $\mu$ Sv/h	西	W	1.2
—	北西	NW	3.7
0 $\mu$ Sv/h	西	W	1.1
—	北西	NW	3.0
0 $\mu$ Sv/h	南南西	SSW	0.8
—	北北西	NNW	2.9
0 $\mu$ Sv/h	—		—
0 $\mu$ Sv/h	—		—
0 $\mu$ Sv/h	北北東	NNE	1.9
0 $\mu$ Sv/h	西北西	WNW	0.9
0 $\mu$ Sv/h	北西	NW	3.1
0 $\mu$ Sv/h	北		2.3
0 $\mu$ Sv/h	西南西	WSW	3.2
0 $\mu$ Sv/h	南東	SE	3.1
—	—		—
0 $\mu$ Sv/h	南西	SW	2.4
—	—		—
—	—		—
—	—		—
0 $\mu$ Sv/h	北	N	2.7
—	—		—
—	—		—

—	—	—	—
0μSv/h	北北西	NNW	1.0
—	—	—	—
—	—	—	—
—	—	—	—
0μSv/h	北	N	2.3
0μSv/h	北西	NW	2.6
0μSv/h	北西	NW	2.6
0μSv/h	北	N	2.2
0μSv/h	北	N	3.6
0μSv/h	北	N	2.2
0μSv/h	北北東	NNE	2.6
0μSv/h	西北西	WNW	3.2
0μSv/h	北北西	NNW	3.8
0μSv/h	西北西	WNW	3.6
0μSv/h	西北西	WNW	3.2
0μSv/h	北北東	NNE	2.1
0μSv/h	西北西	WNW	2.5
0μSv/h	北西	NW	3.1
< 0.001μSv/h	西北西	WNW	2.7
< 0.001μSv/h	西	W	2.8
< 0.001μSv/h	南西	SW	1.7
< 0.001μSv/h	西	W	1.9
< 0.001μSv/h	西	W	1.2
< 0.001μSv/h	南	S	1.3
< 0.001μSv/h	北西	NW	1.1
< 0.001μSv/h	南南東	SSE	1.2
< 0.001μSv/h	東	E	0.8
< 0.001μSv/h	南	S	1.3
< 0.001μSv/h	南東	SE	0.7
< 0.001μSv/h	南東	SE	0.8
< 0.001μSv/h	南	S	0.6
< 0.001μSv/h	北	N	0.6
< 0.001μSv/h	西	W	0.7
< 0.001μSv/h	東	E	0.8
< 0.001μSv/h	北	N	0.7
< 0.001μSv/h	北西	NW	0.8
< 0.001μSv/h	西北西	WNW	1.0
< 0.001μSv/h	北西	NW	—
< 0.001μSv/h	西北西	WNW	—
< 0.001μSv/h	西	W	0.9
< 0.001μSv/h	北東	NE	0.9
< 0.001μSv/h	北	N	0.9
< 0.001μSv/h	南西	SW	1.0
< 0.001μSv/h	南西	SW	1.0
< 0.001μSv/h	北	N	0.9
< 0.001μSv/h	北西	NW	0.7

< 0.001μSv/h	南西	SW	0.9
< 0.001μSv/h	南東	SE	1.0
< 0.001μSv/h	南東	SE	1.6
< 0.001μSv/h	南	S	1.7
< 0.001μSv/h	北	N	1.2
< 0.001μSv/h	北	N	1.2
< 0.001μSv/h	南西	SW	4.6
< 0.001μSv/h	北東	NE	4.2
—	北北東	NNE	4.4
—	北北東	NNE	4.4
—	北北東	NNE	4.4
—	北北東	NNE	4.4
—	北北東	NNE	4.8
—	北東	NE	2.2
—	北東	NE	2.1
—	北	N	2.2
—	北	N	2.2
—	北北西	NNW	1.8
—	北北西	NNW	1.8
—	北北東	NNE	1.8
—	北北西	NNW	1.1
—	北西	NW	1.0
—	西北西	WNW	0.9
—	西	W	0.8
—	西北西	WNW	0.7
—	西北西	WNW	0.7
—	北北東	NNE	0.6
—	北東	NE	0.6
—	北東	NE	0.5
—	北	N	0.5
—	北	N	0.6
—	北	N	0.7
—	北北東	NNE	0.8
—	東北東	ENE	0.8
—	北	N	0.6
—	北西	NW	0.5
—	北北西	NNW	0.5
—	北北東	NNE	0.7
< 0.01μSv/h	北北西	NNW	1.3
0.02μSv/h	北北東	NNE	1.1
0.01μSv/h	北	N	1.0
< 0.01μSv/h	北東	NE	2.8
< 0.01μSv/h	北北東	NNE	3.4
< 0.01μSv/h	北北東	NNE	3.2
< 0.01μSv/h	北	N	3.6
< 0.01μSv/h	北東	NE	3.6
< 0.01μSv/h	北北東	NNE	3.4

< 0.01μSv/h	北	N	3.4
< 0.01μSv/h	北東	NE	4.2
< 0.01μSv/h	北北西	NNW	2.0
< 0.01μSv/h	北	N	2.1
< 0.01μSv/h	北東	NE	1.0
< 0.01μSv/h	北	N	0.8
< 0.01μSv/h	北東	NE	0.9
< 0.01μSv/h	北北西	NNW	0.7
< 0.01μSv/h	北	N	0.7
< 0.01μSv/h	北	N	0.8
< 0.01μSv/h	北東	NE	1.5
< 0.01μSv/h	北東	NE	1.5
< 0.01μSv/h	北	N	1.6
< 0.01μSv/h	北	N	1.8
< 0.01μSv/h	北北東	NNE	1.5
< 0.01μSv/h	—		—
< 0.01μSv/h	—		—
< 0.01μSv/h	北東	NE	5.3
< 0.01μSv/h	—		—
< 0.01μSv/h	—		—
< 0.01μSv/h	—		—
< 0.01μSv/h	南東	SE	1.2
< 0.01μSv/h	東	E	1.3
< 0.01μSv/h	東南東	ESE	3.4
< 0.01μSv/h	南東	SE	1.3
< 0.01μSv/h	南	S	1.4
< 0.01μSv/h	南	S	1.8
< 0.01μSv/h	南	S	1.3
< 0.01μSv/h	南	S	1.3
< 0.01μSv/h	南南東	SSE	1.4
< 0.01μSv/h	南	S	1.0
< 0.01μSv/h	南南東	SSE	1.5
< 0.01μSv/h	南	S	1.9
< 0.01μSv/h	南	S	1.6
< 0.01μSv/h	南	S	1.5
< 0.01μSv/h	東南東	ESE	1.4
< 0.01μSv/h	南	S	1.2
< 0.01μSv/h	南南東	SSE	1.2
< 0.01μSv/h	東	E	1.2
< 0.01μSv/h	南東	SE	1.2
< 0.01μSv/h	南	S	1.0
< 0.01μSv/h	南東	SE	1.1
< 0.01μSv/h	南	S	1.1
< 0.01μSv/h	南東	SE	1.1
< 0.01μSv/h	南南東	SSE	1.3
< 0.01μSv/h	南	S	1.0
< 0.01μSv/h	南南東		1.4

< 0.01μSv/h	南	S	1.1
< 0.01μSv/h	南南東	SSE	1.1
< 0.01μSv/h	南南東	SSE	1.3
< 0.01μSv/h	南	S	1.3
< 0.01μSv/h	南	S	1.6
< 0.01μSv/h	南東	SE	1.5
< 0.01μSv/h	南	S	1.1
< 0.01μSv/h	南東	SE	1.2
< 0.01μSv/h	南	S	1.1
< 0.01μSv/h	南	S	1.0
< 0.01μSv/h	南	S	1.1
< 0.01μSv/h	南	S	1.0
< 0.01μSv/h	南南東	SSE	1.3
< 0.01μSv/h	東	S	1.4
< 0.01μSv/h	南南東	SSE	1.8
< 0.01μSv/h	南東	SE	1.6
< 0.01μSv/h	南東	SE	1.6
< 0.01μSv/h	西	W	0.7
< 0.01μSv/h	北	N	0.7
< 0.01μSv/h	南	S	0.9
< 0.01μSv/h	東	E	0.9
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	3.7
< 0.01μSv/h	東	E	5.6
< 0.01μSv/h	北北東	NNE	4.0
< 0.01μSv/h	北北東	NNE	4.0
< 0.01μSv/h	東	E	2.2
< 0.01μSv/h	北東	NE	1.7
< 0.01μSv/h	北北東	NNE	2.5
< 0.01μSv/h	北西	NW	2.1
< 0.01μSv/h	北	N	2.4
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	0.6
< 0.01μSv/h	北西	NW	0.6
< 0.01μSv/h	北東	NE	3.8
< 0.01μSv/h	北	N	1.1
< 0.01μSv/h	北西	NW	2.2
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	0.9
< 0.01μSv/h	北北西	NNE	0.9
< 0.01μSv/h	北西	NW	1.1
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	1.0
< 0.01μSv/h	北西	NW	5.0
< 0.01μSv/h	北	N	4.2

< 0.01μSv/h	北北西	NNW	3.1
< 0.01μSv/h	北西	NW	2.9
< 0.01μSv/h	北北西	NNW	2.6
< 0.01μSv/h	北西	NW	2.0
< 0.01μSv/h	西	W	1.4
< 0.01μSv/h	西北西	WNW	1.4
< 0.01μSv/h	西北西	WNW	1.4
< 0.01μSv/h	北西	NW	1.4
< 0.01μSv/h	北西	NW	1.4
< 0.01μSv/h	北西	NW	1.2
< 0.01μSv/h	北西	NW	1.3
< 0.01μSv/h	西	W	1.2
< 0.01μSv/h	西	W	1.2
< 0.01μSv/h	北北西	NNW	1.2
< 0.01μSv/h	西北西	WNW	1.3
< 0.01μSv/h	北北西	NNW	1.4
< 0.01μSv/h	北北西	NNW	1.4
< 0.01μSv/h	北	N	1.7
< 0.01μSv/h	北北西	NNW	2.2
< 0.01μSv/h	北西	NW	1.7
< 0.01μSv/h	北	N	2.3
< 0.01μSv/h	北西	NW	1.8
< 0.01μSv/h	北西	NW	1.9
< 0.01μSv/h	西	W	1.6
< 0.01μSv/h	北北西	NNW	1.5
< 0.01μSv/h	東北東	ENE	1.8
< 0.01μSv/h	北東	NE	1.5
< 0.01μSv/h	東北東	ENE	1.4
< 0.01μSv/h	東	E	
< 0.01μSv/h	東北東	ENE	4.9
< 0.01μSv/h	北東	NE	—
< 0.01μSv/h	—		—
< 0.01μSv/h	北東	NE	2.0
< 0.01μSv/h	北北東	NNE	1.9
< 0.01μSv/h	東北東	ENE	2.3
< 0.01μSv/h	北東	NE	1.6
< 0.01μSv/h	東	E	1.8
< 0.01μSv/h	北	N	1.8
< 0.01μSv/h	東南東	ESE	1.6
< 0.01μSv/h	東	E	0.9
< 0.01μSv/h	北	N	1.8
< 0.01μSv/h	東北東	ENE	1.4
< 0.01μSv/h	西	W	1.4
< 0.01μSv/h	北西	NW	4.1
< 0.01μSv/h	西南西	WSW	3.0
< 0.01μSv/h	西南西	WSW	1.0
< 0.01μSv/h	西南西	WSW	1.2



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**From:** HOO Hoc  
**Sent:** Monday, April 11, 2011 7:41 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Official notice (11/04/2011) Documents of the briefing  
**Attachments:** document 1-5.tif; document 6.pdf; document 7-11.tif; image001.jpg

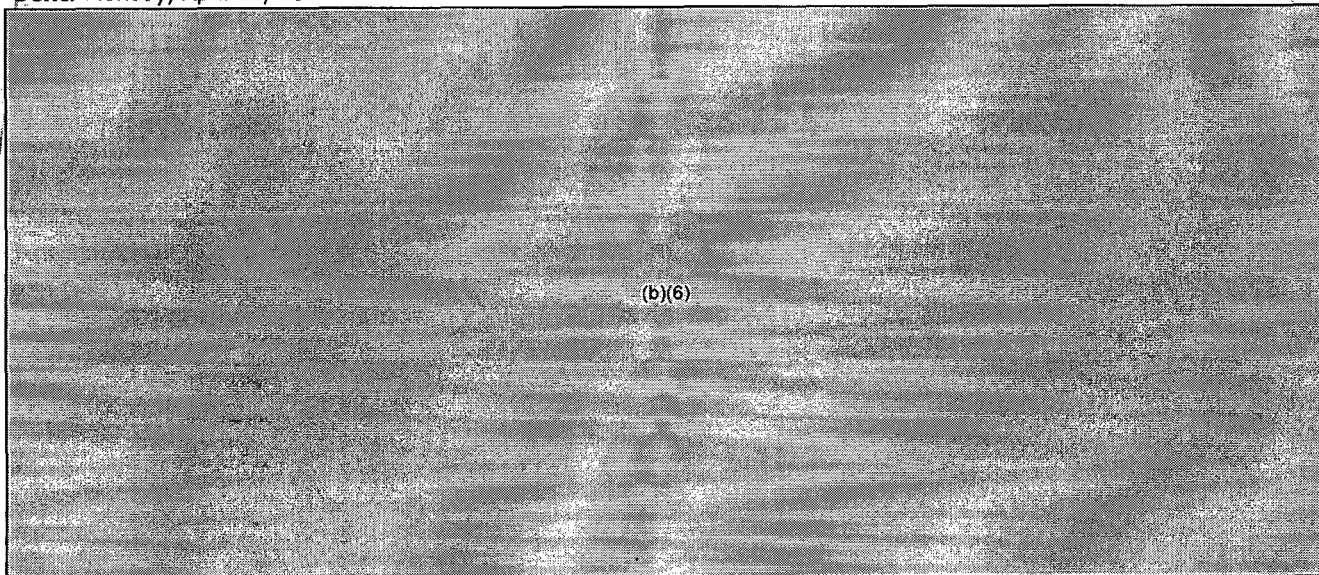
Japan Briefing for your use.

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



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**From:** Hinds, Lynda J [<mailto:HindsLJ@state.gov>] **On Behalf Of** Tokyo Staff Assistant  
**Sent:** Monday, April 11, 2011 7:12 AM



**Subject:** FW: Official notice (11/04/2011) Documents of the briefing

Lynda Hinds  
Staff Assistant  
(03) 3224- 5370

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**From:** PROTOCOLOFFICE-EM [<mailto:protocoloffice-em@mofa.go.jp>]  
**Sent:** Monday, April 11, 2011 8:02 PM

To: PROTOCOLOFFICE-EM

Subject: Official notice (11/04/2011) Documents of the briefing

—Urgent—

Official Notice

(11 April 2011)

To All Missions (Embassies, Consular posts and International Organizations in Japan)

The Ministry of Foreign Affairs has the honour to send for the perusal of Missions, documents which were distributed at the briefing on 11<sup>th</sup> April, 2011 at 16:00 for your reference. The tentative English translation of the announcement of Mr. Yukio Edano, chief cabinet secretary, will be sent later.

List of attachments

1. List of briefers from Ministries other than the MOFA (11<sup>th</sup> April)
2. The 2011 off the Pacific coast of Tohoku Earthquake and Tsunami Portal (Japan Meteorological Agency)
3. Levels of radioactive contaminants in foods (data reported on 10 April 2011) (Ministry of Health, Labour and Welfare)
4. Current situation for water supply works (11<sup>th</sup> April 2011) and Press release on Detection of radioactive materials in tap water (31<sup>st</sup> announcement) (Ministry of Health, Labour and Welfare)
5. ~~Results of the inspection on radioactive materials in fisheries products (Ministry of Agriculture, Forestry and Fisheries)~~
6. Readings at Monitoring Post out of 20km Zone of Fukushima Dai-ichi NPP (Ministry of Education, Culture, Sports, Science and Technology)
7. Press Release (Evaluation of Environment Radiation Monitoring Results (16:45 April 10, 2011)) (Nuclear Safety Commission, Cabinet Office)
8. 【Japanese Document】福島第一 物揚場前および2号機、4号機スクリーン海水核種分析結果 (The results of nuclide analyses of seawater of Dai-ichi Nuclear Power Station) (MOFA)
9. ~~News Release (Information of the Situation Caused by the Earthquake Off the Coast of Miyagi Prefecture (the 6<sup>th</sup> Release)) (Nuclear and Industrial Safety Agency)~~
10. ~~News Release (Seismic Damage Information (the 85<sup>th</sup> and the 86<sup>th</sup> Release)) (Nuclear and Industrial Safety Agency)~~
11. ~~Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 1-6 (Nuclear and Industrial Safety Agency) ※ The handouts of Unit 5&6 were not distributed at the briefing.~~

※Regarding the each country's import restriction on products of Japan, please visit the following URL

~~[http://www.mofa.go.jp/mofai/saigai/index.html#link\\_7](http://www.mofa.go.jp/mofai/saigai/index.html#link_7) (only in Japanese)~~

Regarding the long-term evaluation by the Headquarters for Earthquake Research Promotion, please visit the following URL, and click "Evaluation" (green icon on the left)

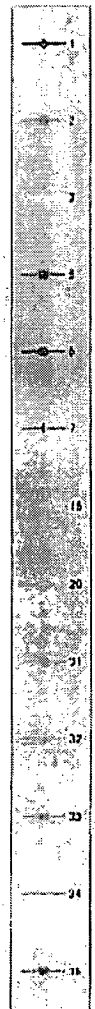
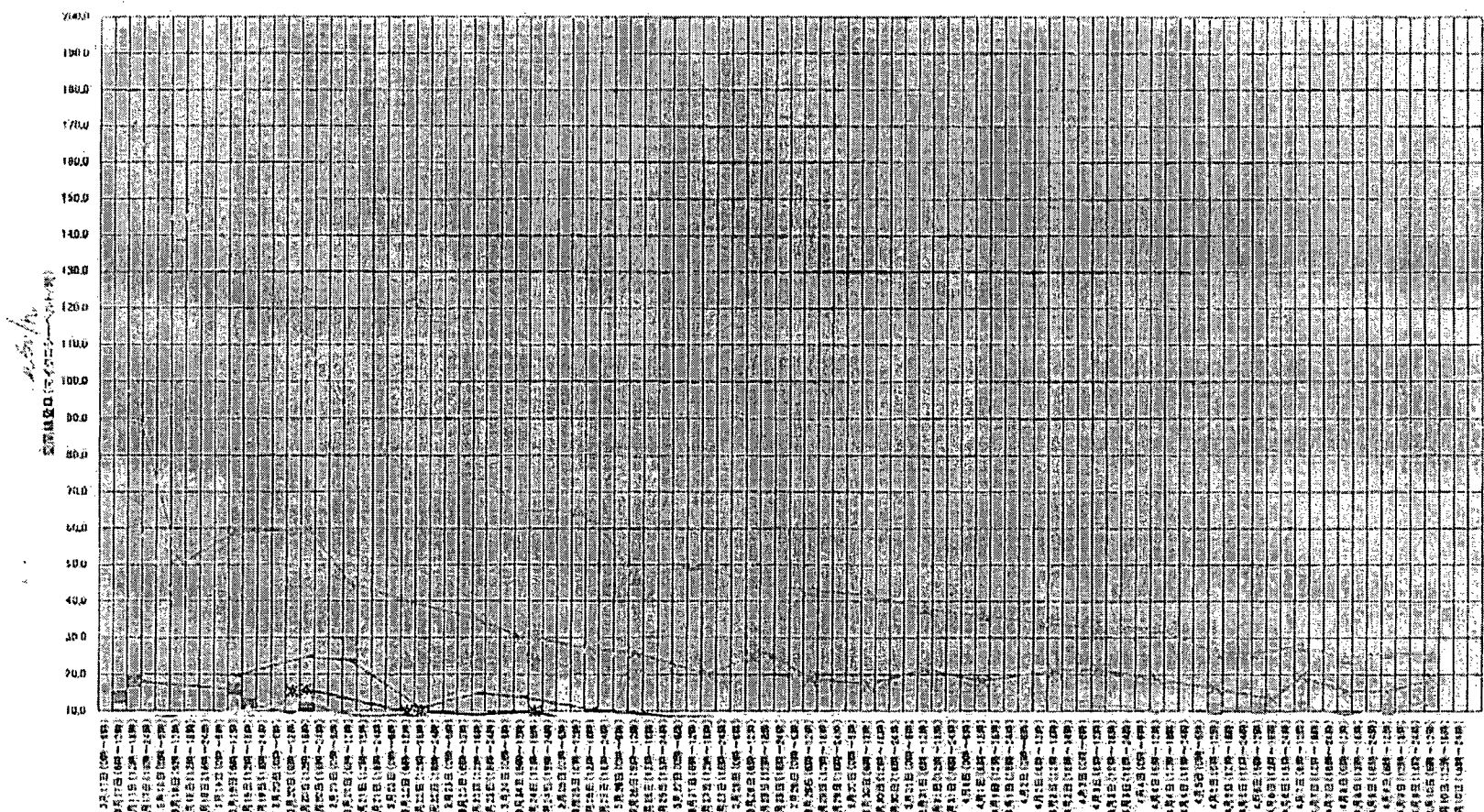
~~<http://www.jishin.go.jp/main/index-e.html> (Only in Japanese)~~

(END)

Readings of Monitoring Post out of 20km Zone of Fukushima Dai-ichi NPP

福島第一原子力発電所の20km以遠のモニタリング結果の推移

6-1



注) 測定値が1月が区別された4時間中に複数ある場合は、最大値をプロットしている。  
注) このグラフでは、10マイクロシーベルト/時以上のデータのみ表示している。

測定日付(日時)

注) 文部科学省、日本原子力研究開発機構、原子力安全技術センターによる測定結果を記載

1

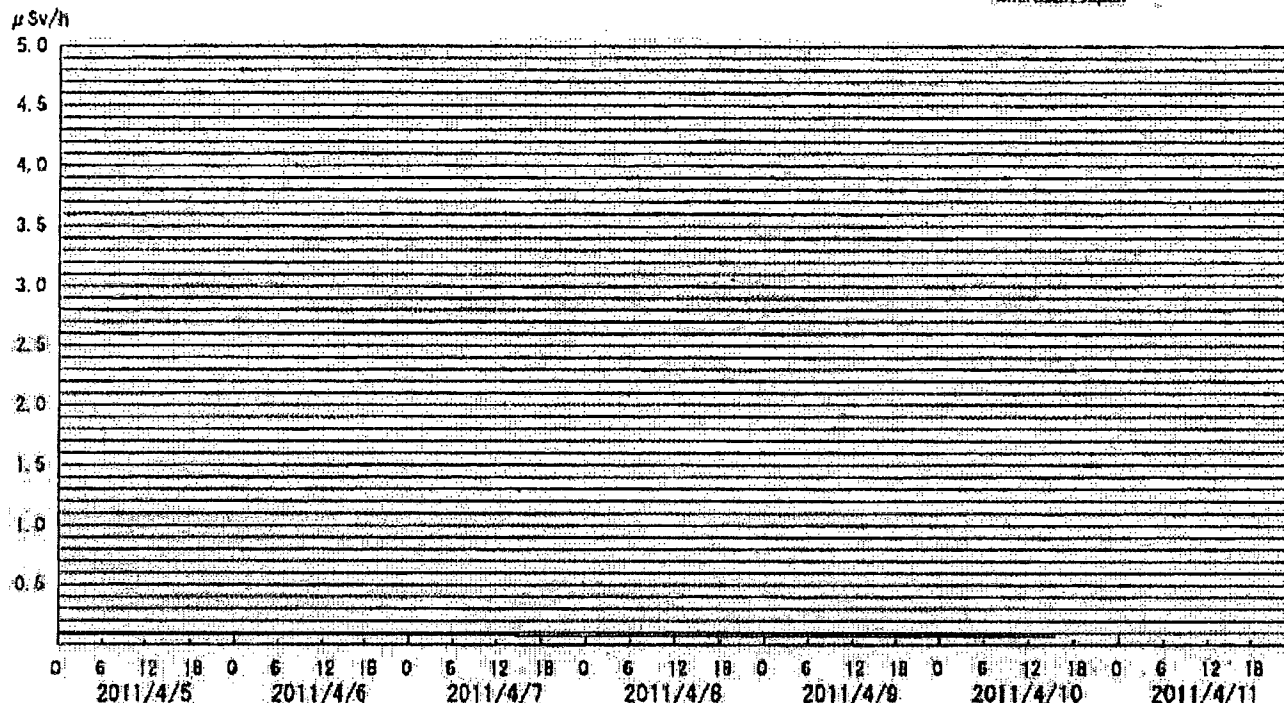
2011/04/11 0:15 Updated

### Tokyo (Shinjuku)

This site is operated by  
Ministry of Education  
through the support of  
Microsoft Japan



6-2



Range of past usual figures: 0.028 ~ 0.079

5μSv is the figure that a Nuclear Emergency Preparedness Manager should notify the competent minister, etc.  
based on Act on Special Measures Concerning Nuclear Emergency Preparedness.

These figures are estimated as 1μGy/h=1μSv/h

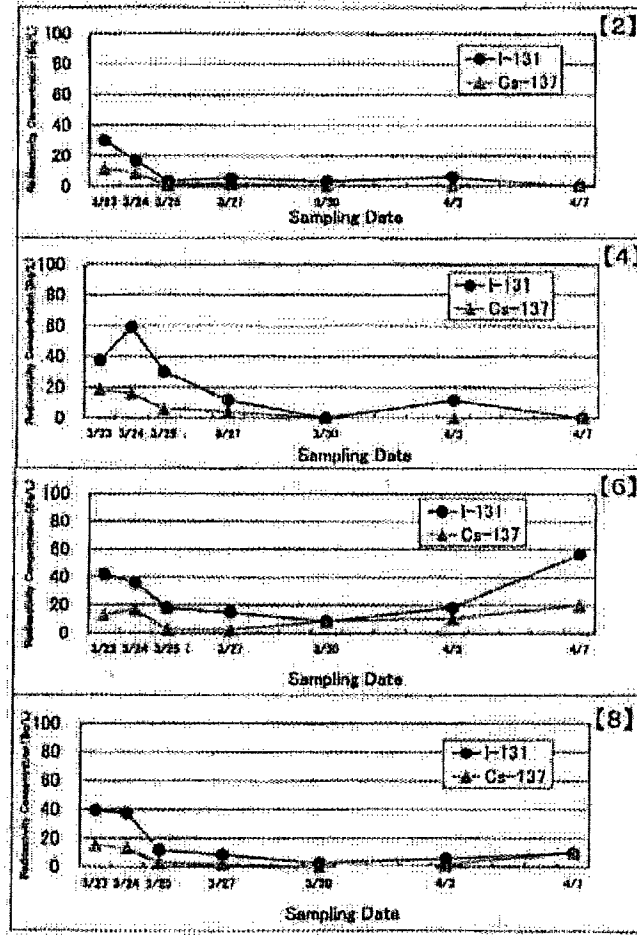
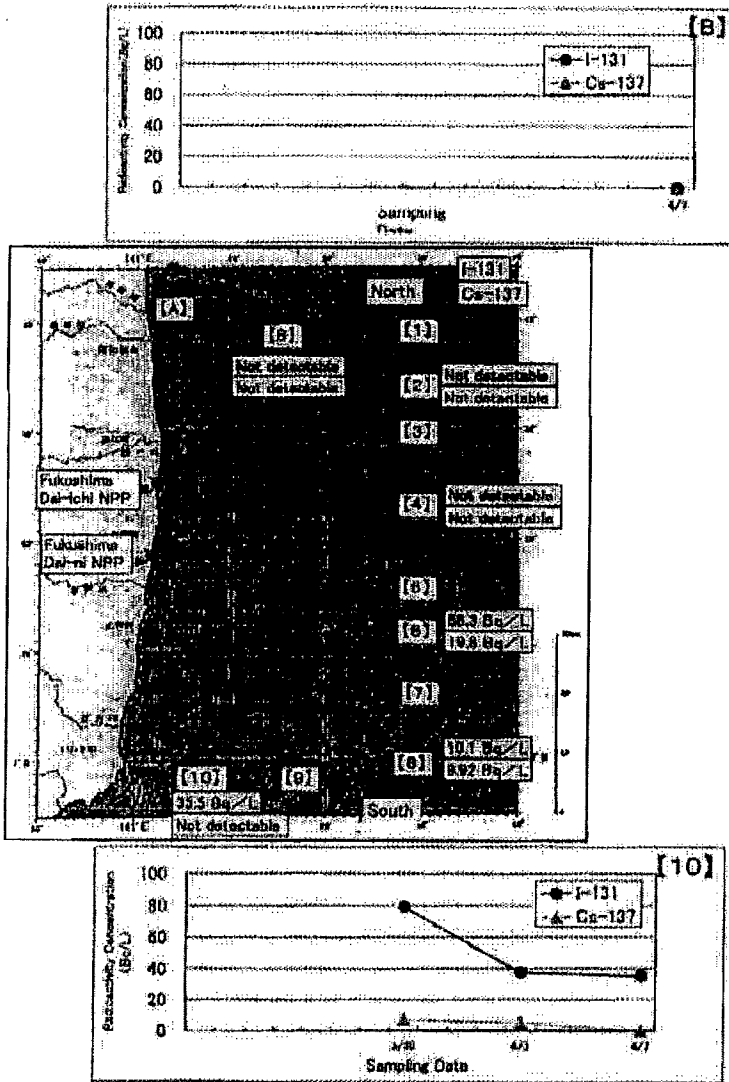
Based on "Reading of environmental radioactivity level by prefecture" collected by NEXT

Recent Data :

Reading of radioactivity level in drinking water by prefecture.

Readings of Sea Area Monitoring at Post Out of Fukushima Dai-ichi NPP  
 Result of Radioactivity Concentration in the Sea (outer layer) Sampling Date: 2011/4/7

6-3  
 5775

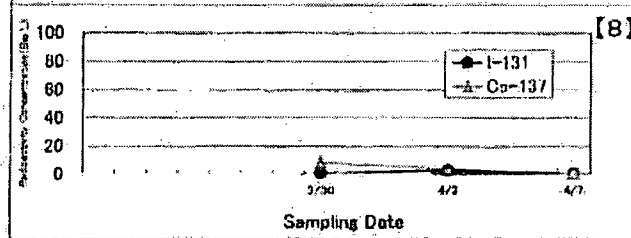
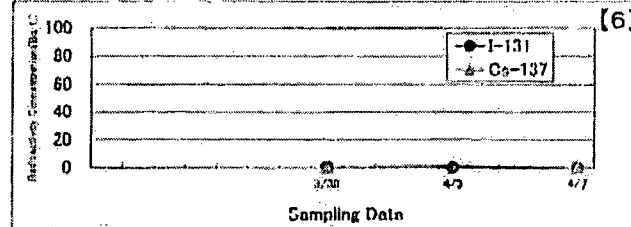
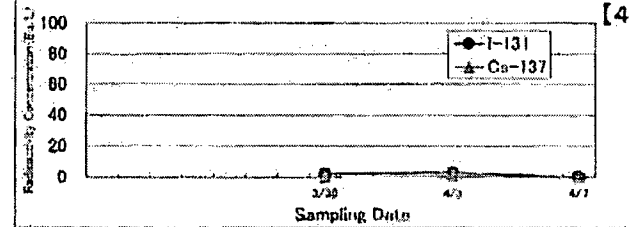
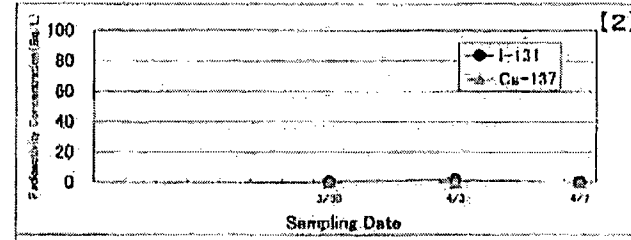
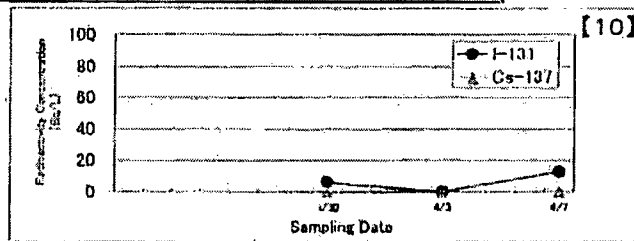
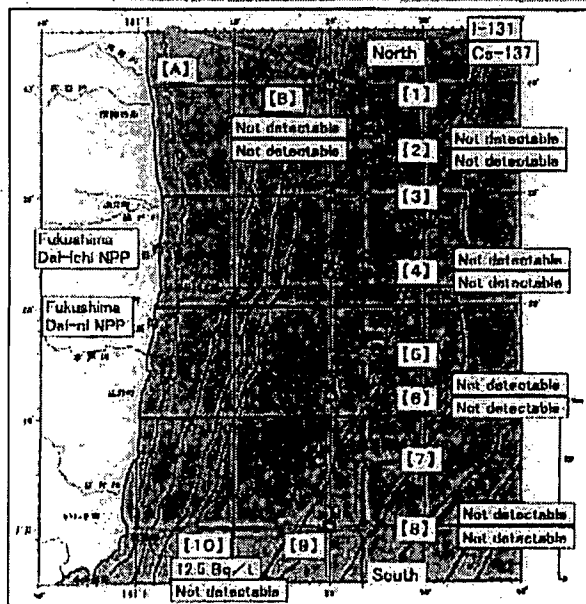
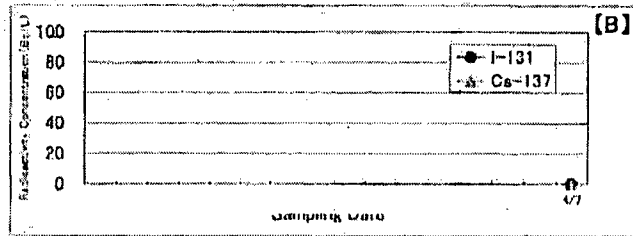


Note: "Not Detectable" is illustrated as 0Bq/L

ω

Readings of Sea Area Monitoring at Post Out of Fukushima Dai-ichi NPP  
 Result of Radioactivity Concentration in the Sea (lower layer) Sampling Date: 2011/4/7

7-9  
 546



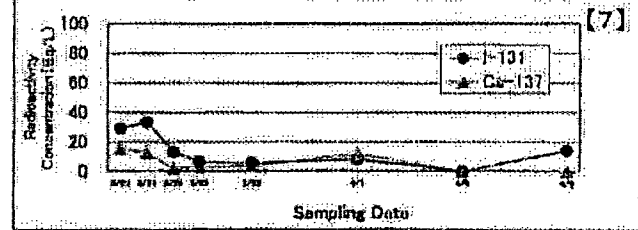
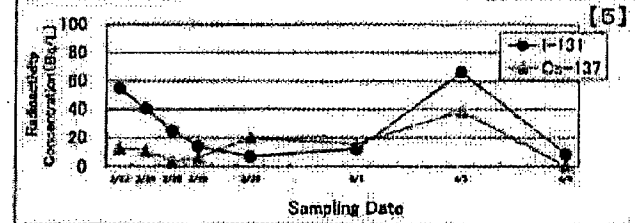
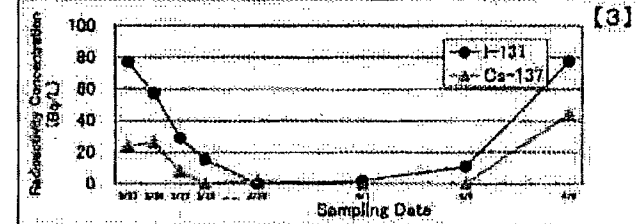
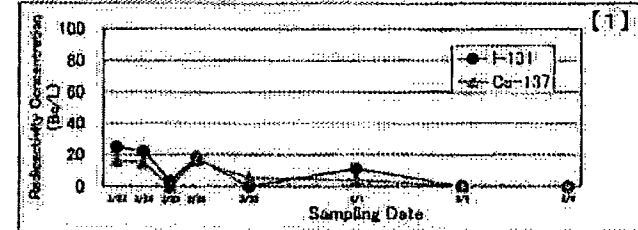
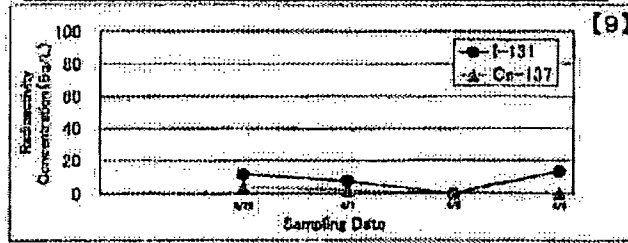
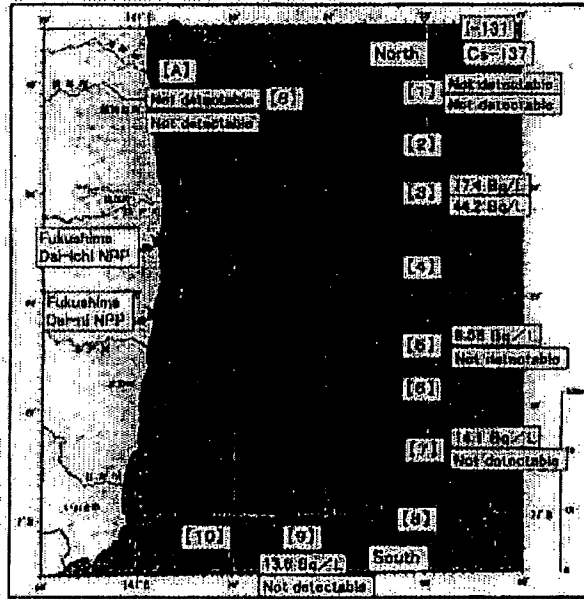
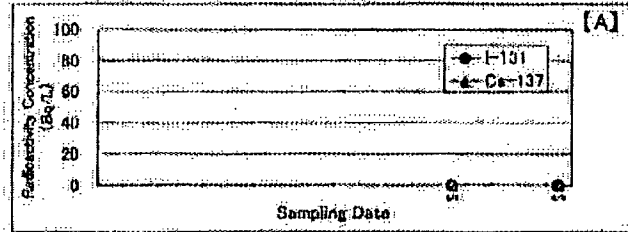
Note: "Not Detectable" is illustrated as 0Bq/L

Readings of Sea Area Monitoring at Post Out of Fukushima Dai-ichi NPP  
 Result of Radioactivity Concentration in the Sea (outer layer)

Sampling Date 2011/4/19

6-9

945

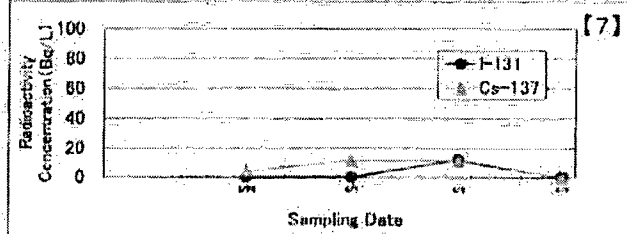
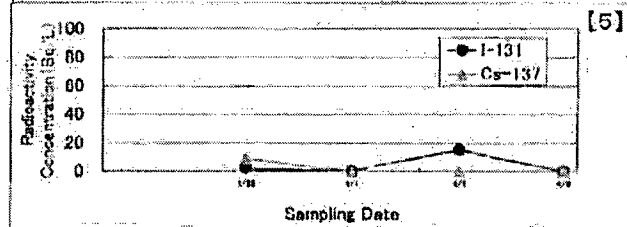
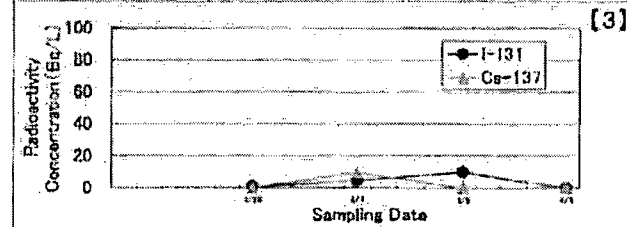
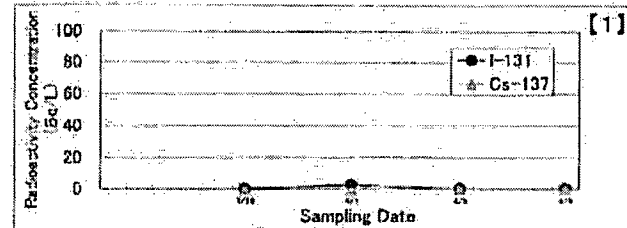
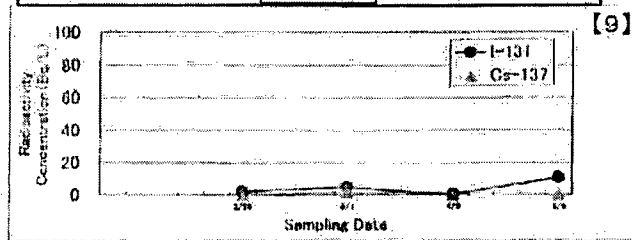
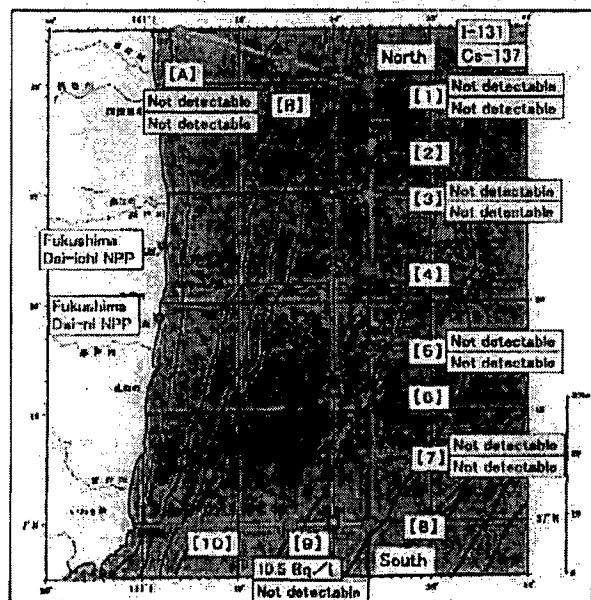
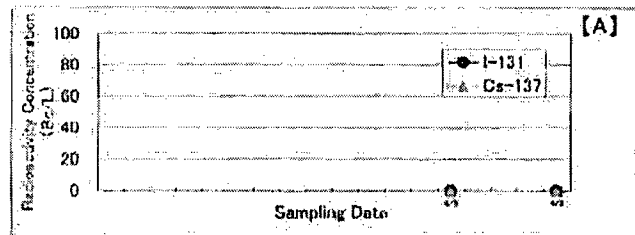


※ Note: "Not Detectable" is illustrated as 0Bq/L.

5

Readings of Sea Area Monitoring at Post Out of Fukushima Dai-ichi NPP  
 Result of Radioactivity Concentration In the Sea (lower layer) Sampling Date 2011/4/9

9-9



※ Note: "Not Detectable" is illustrated as 0Bq/L

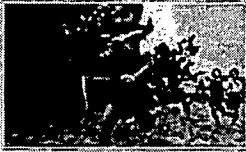




SEARCH

Download Pamphlet ↘

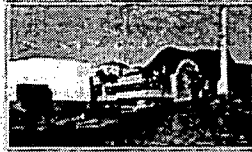
EDUCATION



Education, foundation, for better society and life.

Elementary & Secondary  
Higher Education  
Lifetime Learning Policy

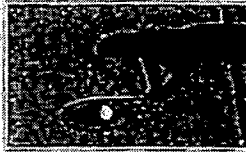
SCIENCE & TECHNOLOGY



Further Development of Japan's Scientific Potential

Science & Technology  
Research Promotion  
Research & Development

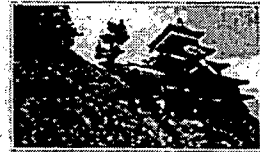
SPORTS



Striving to promote sports and a healthy mind and body, and a wholesome upbringing

Sports & Youth

CULTURE



"Power of Culture" is power of country! We aim to be a nation based on culture and the arts.

Cultural Affairs  
International Affairs

ABOUT MEXT

- Organization
- Budget
- Statistics
- White Paper
- Press Releases

→ UPDATES

- Mar. 2011  
Reading of environmental radioactivity level by prefecture. Time-series data (Graphs) (English version)
- Mar. 2011  
Reading of environmental radioactivity level (English version)
- Mar. 2011  
Reading of environmental radioactivity level (Chinese version) (環境放射線レベル調査)
- Mar. 2011  
Reading of environmental radioactivity level (Korean version) (환경 방사능 수준 조사 현황)
- Mar. 2011  
Tohoku district -off the Pacific Ocean Earthquake

TOPICS

- Message from Prime Minister Naoto Kan and the Minister of MEXT To all Elementary School Students
- Message from Prime Minister Naoto Kan and the Minister of MEXT To all Junior High and High School Students
- Message from the Minister of MEXT To all Educators and Related Staff Members

MAIN ORGANS UNDER MEXT'S JURISDICTION

Agency for Cultural Affairs

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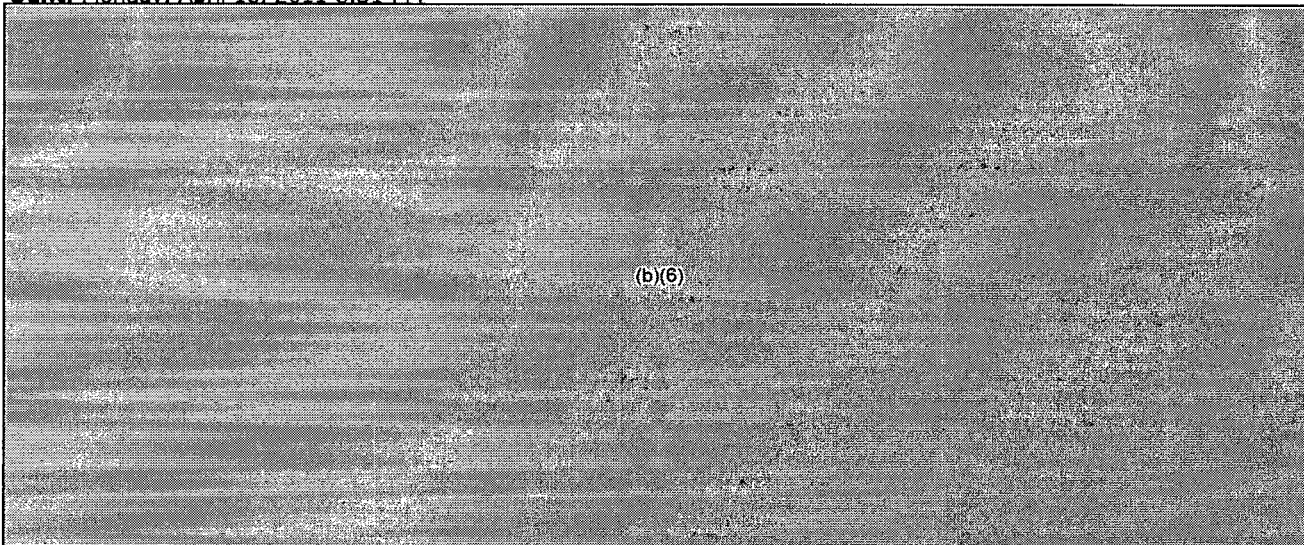
**From:** OST01 HOC  
**Sent:** Monday, April 18, 2011 8:39 PM  
**To:** RST01 Hoc; Hoc, PMT12; Boger, Bruce  
**Subject:** FW: URGENT!:transferring high-level radioactive water(Attachments added)  
**Attachments:** 0419-1-1initiation of transfer of water with high level radioactivity \_set\_.pdf; 0419-1-2NISAreport1.pdf; 0419-1-3NISAreport2.pdf

---

**From:** HOO Hoc  
**Sent:** Monday, April 18, 2011 8:38 PM  
**To:** LIA07 Hoc; LIA08 Hoc; OST01 HOC  
**Subject:** FW: URGENT!:transferring high-level radioactive water(Attachments added)

---

**From:** Hinds, Lynda J [mailto:HindsLJ@state.gov] **On Behalf Of** Tokyo Staff Assistant  
**Sent:** Monday, April 18, 2011 8:31 PM



**Subject:** FW: URGENT!:transferring high-level radioactive water(Attachments added)

Lynda Hinds  
Staff Assistant  
(03) 3224- 5370

This email is UNCLASSIFIED.

---

**From:** PROTOCOLOFFICE-EM [mailto:protocoloffice-em@mofa.go.jp]  
**Sent:** Tuesday, April 19, 2011 9:26 AM

**To:** PROTOCOLOFFICE-EM

**Subject:** URGENT!:transferring high-level radioactive water(Attachments added)

**Please find the final version of attachments.**

**Also, please disregard the previous attachments on this matter.**

## URGENT (09:00) Tuesday 19 April 2011

To All Missions (Embassies, Consular posts and International Organizations in Japan)

With regard to the accident at Fukushima Dai-ichi Nuclear Power Station, Tokyo Electric Power Company (TEPCO) will start transferring high-level radioactive water in the basement floor of the turbine building of Unit 2 and the trench connected to it to the Radioactive Waste Treatment Facilities around 10:00 am today (19 April)

The estimated total volume of the high-level radioactive water to be transferred is approximately 10,000 m<sup>3</sup> (480 m<sup>3</sup> to be transferred per day).

The public announcement on this issue will be made by TEPCO around 9:30 am.

Please find attached the draft press release by the Nuclear and Industrial Safety Agency (NISA) on this matter, which will be issued around 10 am following the announcement by TEPCO.

Details will be provided at today's daily briefing.

Please also find attached the report by NISA at the 23rd Meeting of the Nuclear Safety Commission (NSC) yesterday (18 April) regarding the internal state of the reactors of Units 1, 2 and 3 at Fukushima Dai-ichi Nuclear Power Station. The report will be uploaded on the NSC website in due course.

Contact: International Nuclear Energy Cooperation Division, Tel 03-5501-8227

Regarding the initiation of the transfer of the waste water with high-level radioactivity to the Radioactive Waste Treatment Facilities (Notification)

April 19th, 2011

Nuclear and Industrial Safety Agency

As waste water with high-level radioactivity is stagnated on the basement floor of the turbine building of Unit 2, Fukushima Dai-ichi Nuclear Power Station, Tokyo Electric Power Co. Inc. (TEPCO) is planning to transfer it to the Main Building of Radioactive Waste Treatment Facilities to reduce the risk of this stagnant waste water being discharged to the environment.

Nuclear and Industrial Safety Agency (NISA) not only has required TEPCO to report on this plan in order to confirm the necessity and safety, etc., but also has been confirming the inspection of the Main Building of Radioactive Waste Treatment facilities, and the confinement work for the penetrated part, etc., which TEPCO has carried out prior to the transfer, in the presence of Nuclear Safety Inspectors.

Last night, as the preparation work finished, TEPCO issued the report. NISA, confirming the content of this report, not only judged the TEPCO's plan as an emergency measure necessary to prevent the radiation hazard in accordance with paragraph 1 of the Article 64 of the Nuclear Regulation Act but also directed the measure preventing leakage and monitoring etc. in implementing the transfer. Hereafter, NISA confirms the situation of implementation of transfer through Nuclear Safety Inspectors.

Internal State of the reactors of Units 1, 2 and 3, Fukushima Dai-ichi Nuclear Power Station

April 18th, 2011

Nuclear and Industrial Safety Agency

1. An Introduction

The Nuclear Reactors were automatically shut down at 14:46 due to the occurrence of the Great East Japan Earthquake on 11 March, 2011 and the core cooling using the Emergency Diesel Generators had been taking place. The Emergency Diesel Generators had stopped at 15:41 and the situation that the cooling functions of Nuclear Reactors are insufficient has continued since then.

2. The clarification of the concepts regarding the Reactor Core Damage

(1) "Core Damage Ratio"

The ratio of the fuel rods (fuel cladding) damaged by the temperature increase, etc. out of all the fuel rods (fuel cladding)

(2) "Reactor Core Damage"

The situation that a considerable amount of fuel cladding is damaged, led by the increase of the reactor core temperature (fuel temperature) through the continuation of the state that the core cooling is insufficient or the unusual power rise in the core.

At this time, noble gas and iodine are released which were contained in the fuel cladding.

It does not mean that the fuel pellets are melting in this case.

(3) "Melt of the Fuel Pellets"

The term applies to the situation leading to the fuel melting, led by the increase of the reactor core temperature (fuel temperature) through the continuation of the state that the cooling of the core composed of the fuel assemblies is insufficient or the unusual power rise in the core.

In this case, the fuel assemblies as well as the fuel pellets are melting and the form of the fuel assembly is not maintained.

(4) "Melt Down"

The term applies to the situation that the fuel assemblies become unable to sustain their form and the molten materials fall down to the lower part of the core of the nuclear reactor due to gravity in case of the melt of the fuel assemblies. Regarding the scale of the Melt Down, the reaction to the Reactor Pressure Vessel (RPV) and Primary Containment Vessel (PCV) differs from small quantity to large quantity. In case of the large quantity, it is possible that the RPV, etc. are pierced through.

3. Estimation of the Core Damage Ratio

Tokyo Electric Power Co. Inc. announced the Core Damage Ratio on 15 March as follows:

Unit 1 Around 70%

Unit 2 Around 30%

Unit 3 Around 25%

As the reactor water level of the reactor lowers and fuel claddings are damaged through the exposure of fuel, noble gas and iodine that were contained are released. It is an estimation of the Core Damage Ratio worked out by measuring the amount of gamma rays released from noble gas and iodine, and using the estimated curve prepared in advance.

While such estimation method has rationality to a certain level at the beginning period of the occurrence of event, it is merely a rough estimate at the current situation.

4. Estimation of the Melt of the Fuel Pellets

For the cores of Units 1, 2 and 3, it is presumed that the fuel pellets are melting.

Yet the degree of the Melt of the Fuel Pellets is presumed not to be confirmed until the fuel is actually being taken out.

**[The reason for the melt of the fuel pellets of Units 2 and 3]**

In Unit 2, high concentration of Tc99m (Half life of around 6 hours,  $9 \times 10^4$  Bq/cm<sup>3</sup>), La140 (Half life of around 2 days,  $1.9 \times 10^5$  Bq/cm<sup>3</sup>) and Ba140



(Half life of around 13 days,  $4.9 \times 10^5$  Bq/cm<sup>3</sup>) were detected, which were only released in case of the melt of the fuel pellets. Furthermore, several percent of the concentration in Unit 2 was detected in Unit 3 as well.

**[The reason for the melt of the fuel pellets of Unit 1]**

Short half life nuclide has not been observed from the stagnant water on the basement floor of the turbine building of Unit 1. However, as the fuel was exposed, sufficient cooling was not carried out, and the hydrogen explosion was presumed to be led, in the same way as Units 2 and 3, the Melt of the Fuel Pellets of Unit 1 is presumed to be occurring as well.

#### **5. Concern about Re-Criticality**

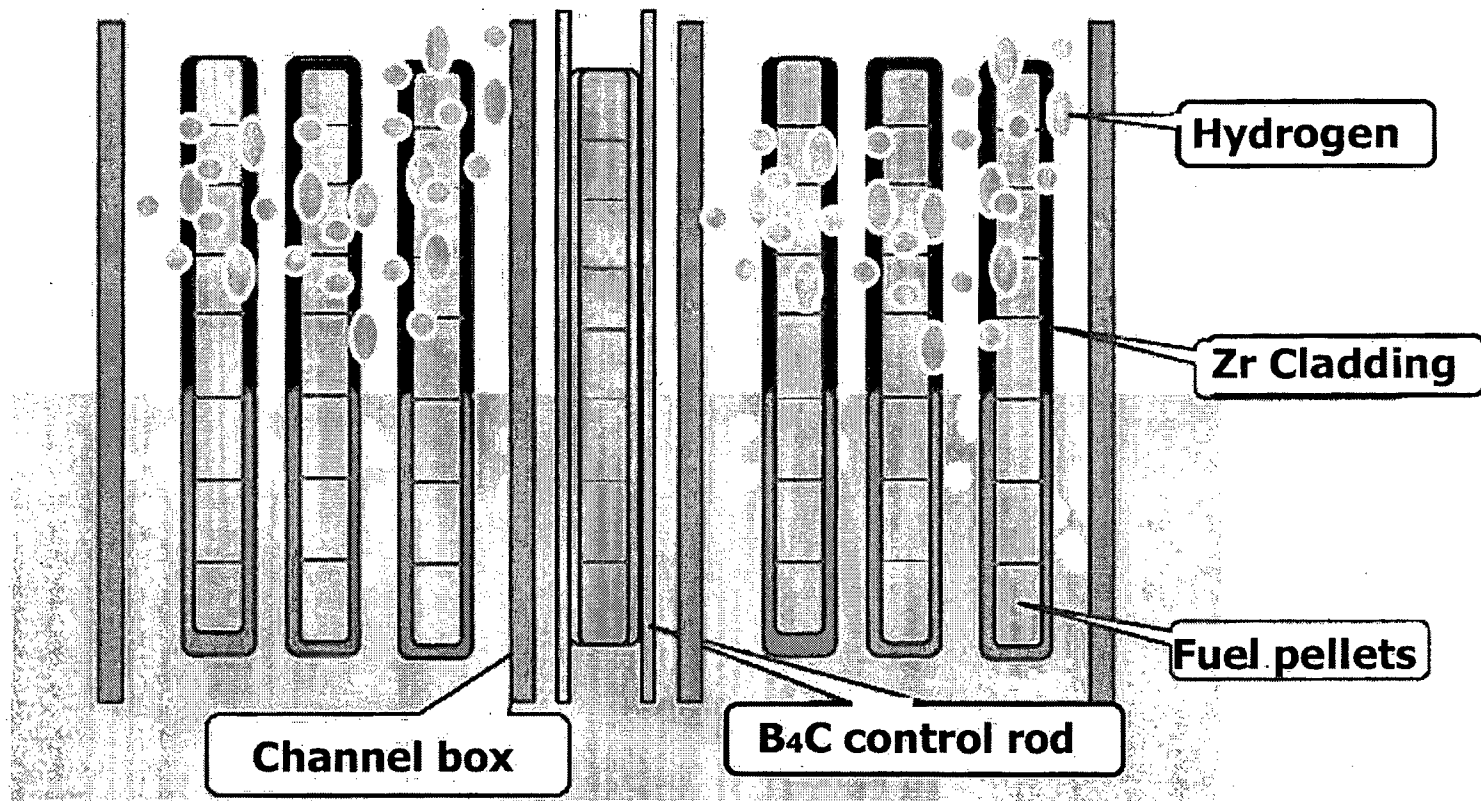
As for re-criticality, considering the injection of boric acid to cooling water as well as incorporation of the boron that was contained in the molten control rod, it is presumed that the possibility of re-criticality is extremely low.

From the viewpoint of preventing re-criticality, hereafter, the adequate injection of boric acid is considered to be needed.

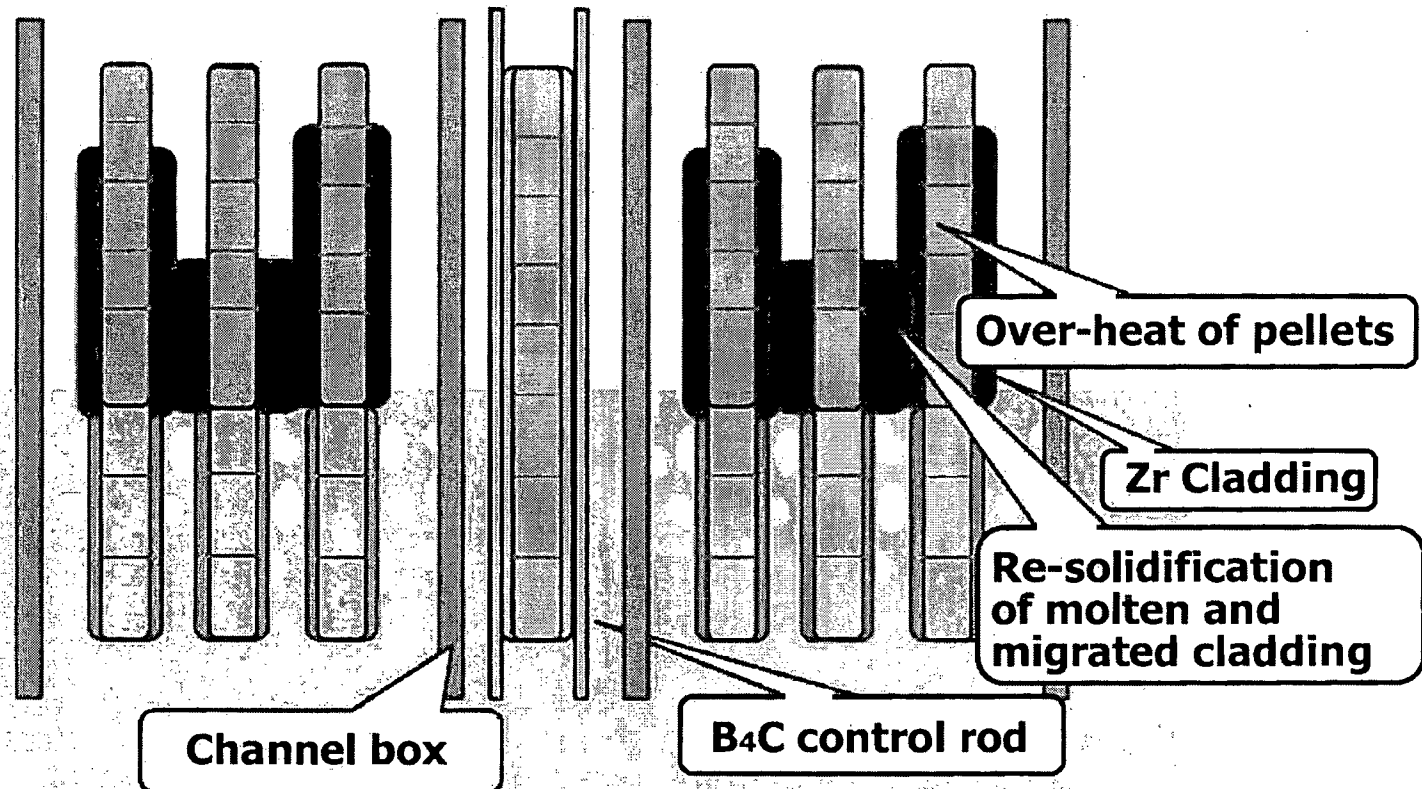
## **Development of Core Damage (Melting and Migration of Core Components)**

- (1) Oxidization of fuel cladding due to lowered water level**
  - **Generation of hydrogen by  $Zr+H_2O$  reaction**
  - **Rapid increase on fuel rod's temperature by reaction heat**
  - **Release of volatile FPs such as noble gases, iodine, etc. due to damage of cladding**
- (2) Melting and migration of fuel cladding**
  - **Melting of Zr and  $Zr(O)$**
  - **Re-solidification in the neighborhood of water surface**
- (3) Melting and migration of fuel pellets**
  - **Melting of  $UO_2-Zr(O)$  eutectic**
  - **Re-solidification in the neighborhood of water surface and generation of crusts**

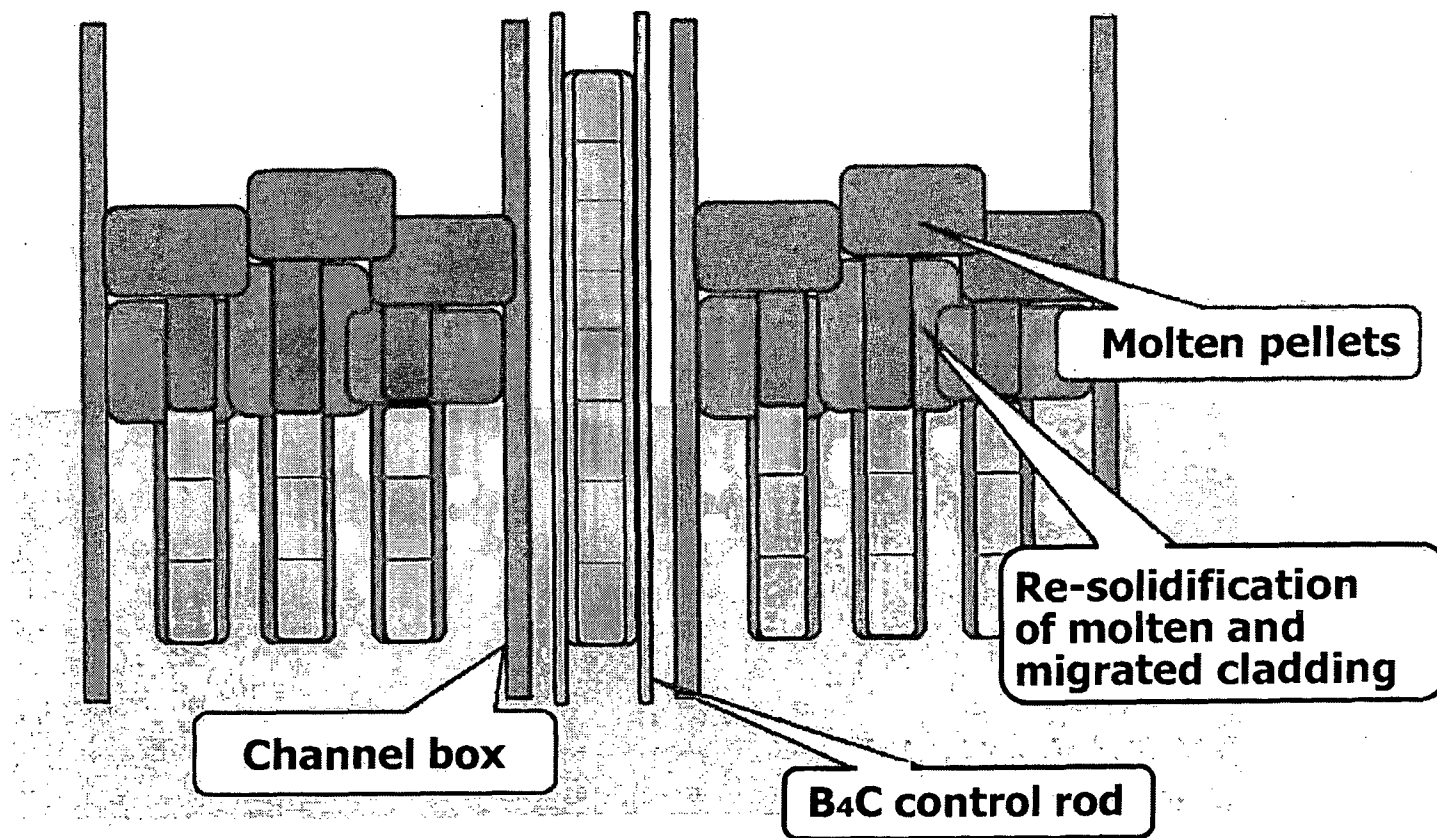
# (1) Oxidization of fuel cladding due to lowered water level



## (2) Melting and migration of fuel cladding



### (3) Melting and migration of fuel pellets



## Landau, Mindy

---

\*  
**From:** Landau, Mindy  
**Sent:** Friday, March 18, 2011 9:03 AM  
**To:** Nelson, Robert  
**Cc:** Brown, Frederick; Markley, Michael; Meighan, Sean; Nguyen, Quynh; Howe, Allen; King, Mark; Rihm, Roger; Ellmers, Glenn; Muessle, Mary; Andersen, James  
**Subject:** Re: Recommendation: USNRC Earthquake-Tsunami Update.031811.0600EDT

Absolutely - I'm out of town this weekend but we'll take a look at it on Monday and suggest a better approach.

Sent from my NRC Blackberry

Mindy Landau

(b)(6)

[Mindy.Landau@nrc.gov](mailto:Mindy.Landau@nrc.gov)

---

**From:** Nelson, Robert  
**To:** Landau, Mindy  
**Cc:** Brown, Frederick; Markley, Michael; Meighan, Sean; Nguyen, Quynh; Howe, Allen; King, Mark  
**Sent:** Fri Mar 18 08:10:30 2011  
**Subject:** Recommendation: USNRC Earthquake-Tsunami Update.031811.0600EDT

We recommend that the attached SitRep be made available to the NRC staff via the internal web site. These are distributed daily by the Ops Center. Many staff are already receiving either directly from the Ops Center or by secondary distribution. We need a more consistent approach for agency wide dissemination. Can you look into this?

*Robert A. Nelson*

Robert A. Nelson  
Deputy Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation



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

**From:** LIA07 Hoc  
**Sent:** Friday, March 18, 2011 6:14 AM  
**To:** LIA07 Hoc  
**Subject:** USNRC Earthquake-Tsunami Update.031811.0600EDT

Attached, please find a 0600 EDT from March 18 situation report from the US Nuclear Regulatory Commission's Emergency Operations Center regarding the impacts of the earthquake/tsunami on March 11, 2011.

Please note that this information is "Official Use Only" and is only being shared within the federal family.

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

Thank you,

Rebecca Clinton  
EBT Coordinator

## Landau, Mindy

---

**From:** Landau, Mindy  
**Sent:** Friday, March 18, 2011 9:04 AM  
**To:** Markley, Michael  
**Cc:** Rihm, Roger  
**Subject:** Re: Senator Boxer's press release on a letter sent to the Chairman

Of course!

Sent from my NRC Blackberry  
Mindy Landau  
(b)(6)  
[Mindy.Landau@nrc.gov](mailto:Mindy.Landau@nrc.gov)

---

**From:** Markley, Michael  
**To:** Landau, Mindy; Nelson, Robert  
**Cc:** Meighan, Sean; Rihm, Roger; Hay, Michael  
**Sent:** Fri Mar 18 08:30:36 2011  
**Subject:** RE: Senator Boxer's press release on a letter sent to the Chairman

Mindy,

Will do. Can you keep us informed of the inquiries that you receive and put me on copy for your draft/final responses. We want to be sure we are providing consistent messages on those that are being developed in NRR and in coordination with the Regions.

Mike

---

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

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

Mindy

---

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

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

NELSON



---

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

Folks,

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

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

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

Your thoughts?

Mike

---

**From:** Wiggins, Jim  
**Sent:** Tuesday, April 12, 2011 2:02 AM  
**To:** OST01 HOC  
**Subject:** RE: Urgent:Circular from MOFA (12 April 2011)  
**Attachments:** image001.jpg

Not at this point

---

**From:** OST01 HOC  
**Sent:** Tuesday, April 12, 2011 2:01 AM  
**To:** Wiggins, Jim  
**Subject:** FW: Urgent:Circular from MOFA (12 April 2011)

I have changed the One-Pager to note that NISA has raised the level (no longer just reported by NHK).

Would you like any other information added?

-Rebecca

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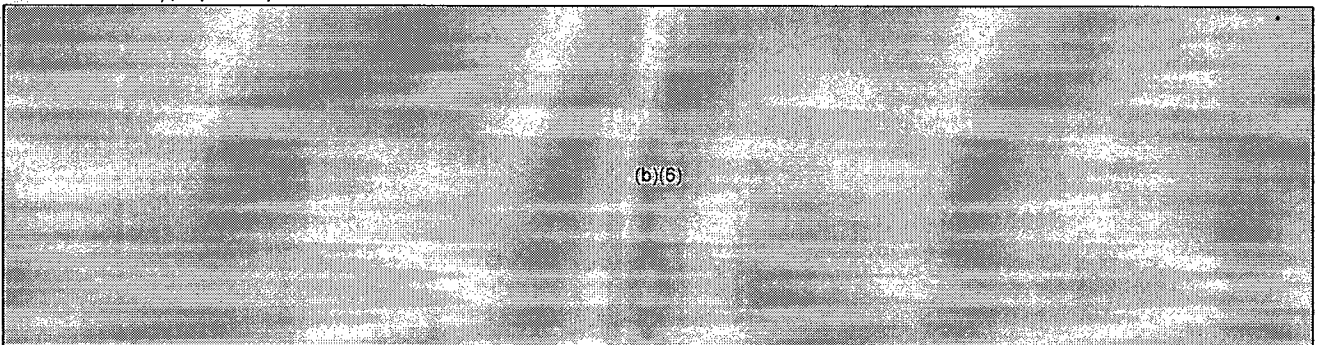
**From:** HOO Hoc  
**Sent:** Tuesday, April 12, 2011 1:56 AM  
**To:** LIA07 Hoc; LIA08 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Urgent:Circular from MOFA (12 April 2011)

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



---

**From:** Hinds, Lynda J [mailto:HindsLJ@state.gov] **On Behalf Of** Tokyo Staff Assistant  
**Sent:** Tuesday, April 12, 2011 1:47 AM



CCCC/46

(b)(6)

**Subject:** FW: Urgent: Circular from MOFA (12 April 2011)

Lynda Hinds  
Staff Assistant  
(03) 3224- 5370

**From:** PROTOCOLOFFICE-EM [mailto:protocoloffice-em@mofa.go.jp]  
**Sent:** Tuesday, April 12, 2011 10:15 AM  
**To:** PROTOCOLOFFICE-EM  
**Subject:** Urgent: Circular from MOFA (12 April 2011)

## URGENT (10:10) Tuesday 12 April 2011

To All Missions (Embassies, Consular posts and International Organizations in Japan)

With regard to the accident at Fukushima Dai-ichi Nuclear Power Plant, the Nuclear and Industrial Safety Agency (NISA) has decided to raise nuclear accident severity level (provisional), according to the INES standard, to the highest level 7 (same as the accident at Chernobyl) from current level 5, based on the latest information gained.

The estimated total amount of radioactive material discharged into the air, however, is approximately 10 % of that of the accident at Chernobyl.

The press release will be issued around 11:00 am today, and details will be provided in today's daily briefing.

Contact: International Nuclear Energy Cooperation Division, Tel 03-5501-8227

---

**From:** Casto, Greg  
**Sent:** Tuesday, April 26, 2011 1:59 AM  
**To:** OST01 HOC  
**Subject:** FW: OUO-Travel to Japan

---

**From:** Bahadur, Sher  
**Sent:** Thursday, April 21, 2011 5:06 PM  
**To:** Bailey, Stewart; Dennig, Robert; Casto, Greg; Mendiola, Anthony; Ulses, Anthony  
**Subject:** FW: OUO-Travel to Japan

Just for your information.

---

**SHER BAHADUR; DIRECTOR (ACTING)**  
**NRR; DIVISION OF SAFETY SYSTEMS**  
301-415-3283  
[sher.bahadur@nrc.gov](mailto:sher.bahadur@nrc.gov)

---

**From:** Givvines, Mary  
**Sent:** Thursday, April 21, 2011 5:05 PM  
**To:** Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Galloway, Melanie; Glitter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; McGinty, Tim; Nelson, Robert; Ruland, William; Skeen, David; Westreich, Barry  
**Cc:** Ruland, William; Boger, Bruce  
**Subject:** FW: OUO-Travel to Japan

Here are the names that made it!

---

**From:** Holahan, Patricia  
**Sent:** Thursday, April 21, 2011 4:05 PM  
**To:** Leeds, Eric; Ruland, William; Givvines, Mary; Tracy, Glenn; Hudson, Jody; Satorius, Mark; Pederson, Cynthia; McCree, Victor; Abrams, Charlotte; Mamish, Nader; Haney, Catherine; Kokajko, Lawrence; Doane, Margaret  
**Cc:** Mitchell, Matthew; Plasse, Richard; Freeman, Scott; Lynch, James; Miller, Mark; Peterson, Hironori; Temps, Robert; Masse, Todd; Stapleton, Bernard; Young, Francis; Bloom, Steven; Schwartzman, Jennifer; Reynolds, Steven; Casto, Chuck; Evans, Michele; Virgilio, Martin; Matheson, Mary; Mitchell, Reggie; Marshall, Jane  
**Subject:** OUO-Travel to Japan

Office directors,

Thank you very much for your nominees to support Japan. I have tried not to impact any one office too much but I think these folks will be a great support for Chuck and Steve in Japan.

Francis (Skip) Young  
Hironori Peterson  
Mark Miller  
Robert Temps  
Richard Plasse  
Scott Freeman  
Jim Lynch  
Matthew Mitchell

Either Steve Bloom or Jen Schwartzman in OIP will be in touch with the travelers. We're planning on them leaving around the 28<sup>th</sup> or 29<sup>th</sup> of April.

Thanks again,

Trish

Patricia K. Holahan  
Director, Division of Security Operations  
Office of Nuclear Security and Incident Response  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

(301) 415-6828 (work)

(b)(6)

(cell)

[patricia.holahan@nrc.gov](mailto:patricia.holahan@nrc.gov)

---

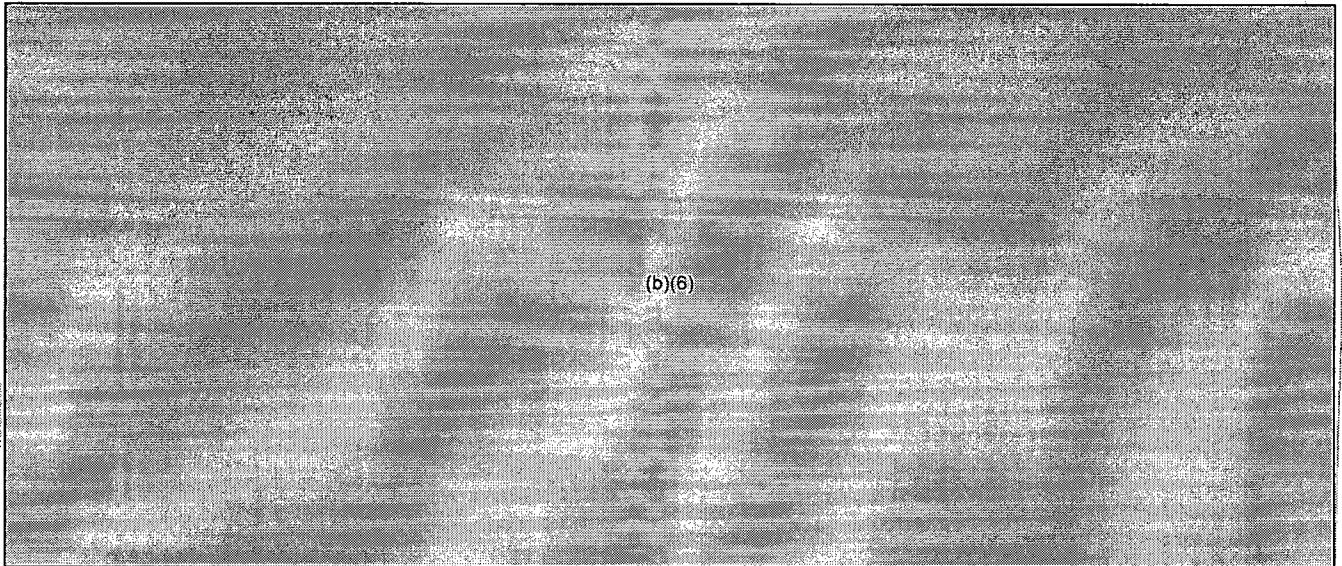
**From:** OST01 HOC  
**Sent:** Tuesday, March 29, 2011 2:52 AM  
**To:** ET07 Hoc  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: 3 US-Japan Nuclear Working Groups  
**Attachments:** image001.jpg

**From:** HOO Hoc  
**Sent:** Tuesday, March 29, 2011 2:48 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: 3 US-Japan Nuclear Working Groups

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



**From:** Daschbach, Michael A [mailto:DaschbachMA@state.gov]  
**Sent:** Tuesday, March 29, 2011 2:44 AM  
**To:** Dresser, Heather L (EAP/J)



**Subject:** 3 US-Japan Nuclear Working Groups

Hi Heather,

Based on the info from the most recent sit rep, I believe there are three US-Japan nuclear working groups. Nuclear Team- please let me know if I'm mistaken.

From the sitrep:

- a. Shielding. Discussion is underway on aerial spraying of a substance that would prevent diffusion of radioactive materials. A concrete pumping system or the use of UAV to spray were under consideration and Japan wanted to make a decision on March 29. Placement of a temporary shield, such as a balloon or tent, over the facility to prevent further emissions was also under discussion. Japan has narrowed its options but before making a final decision would need to determine if the plant building were strong enough to hold up under additional pressure. Japan asked for NRC expertise.
- b. Spent fuel handling and removal. Japan has found a hold through which it could, theoretically, dangle a camera/instrument in order to collect water samples from the spent fuel pool or suspend a camera to photograph the fuel and water level. Japan has begun to study the transport of damaged fuel in casks, and general contractors are working on this. Hosono emphasized that such a large amount of spent fuel could not be kept at the site.
- c. Remote/robotics. Experts have discussed items that Japan has decided to accept (monitoring robots; radiation-hardened camera; other construction equipment) but Japan wants to discuss further the timeline for delivery, training, and other terms. The U.S. said DOE continued to work on the timing of equipment transfer.

Michael Daschbach  
Economic Officer  
U.S. Embassy Tokyo  
Office: 81-3-3224-5694  
[DaschbachMA@state.gov](mailto:DaschbachMA@state.gov)

This email is UNCLASSIFIED.

---

**From:** HOO Hoc  
**Sent:** Thursday, April 14, 2011 2:20 PM  
**To:** LIA07 Hoc; LIA08 Hoc; OST01 HOC  
**Subject:** FW: Update of forecast wind conditions for Fukushima Daiichi 1  
**Attachments:** WRF\_Fukushima\_NPP\_Forecast\_2011-04-14\_12Z (5km).xlsx

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

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

From: Simpson, Matthew D. [mailto:[simpson35@llnl.gov](mailto:simpson35@llnl.gov)]  
Sent: Thursday, April 14, 2011 2:13 PM  
To: HOO Hoc; PMT02 Hoc; PMT01 Hoc; CMHT@nnsa.doe.gov; nitops@nnsa.doe.gov; alan.remick@nnsa.doe.gov; 'McMichael, Lukas C CIV SEA 08 NR'; na30ecc@nr.doe.gov; (b)(6)  
Cc: [narac@llnl.gov](mailto:narac@llnl.gov)  
Subject: Update of forecast wind conditions for Fukushima Daiichi 1

A spreadsheet is attached containing the latest forecast wind conditions at the Fukushima Power Plant.

The forecast time series is derived from the latest NARAC WRF simulation with 5 km horizontal grid spacing.

NOTE: Onshore winds and precipitation during forecast period

Fukushima Power Plant Forecast Summary:

14 April 18:00 Z to 14 April 23:00 Z:	Southwest winds at 3 m/s.
14 April 23:00 Z to 15 April 07:00 Z:	Southeast (onshore) winds at 3 - 7 m/s.
15 April 07:00 Z to 16 April 04:00 Z:	Southerly to Southwesterly winds around 3 to 6 m/s. Period of moderate rainfall is predicted.
16 April 04:00 Z to end of forecast period:	Northwesterly to Northerly winds at 5 - 10 m/s.

Matthew Simpson  
NARAC Atmospheric Scientist



=====

Forecast Model: WRF

Horizontal Grid Spacing: 5 km

Vertical Levels: 44

Forecast Location: Fukushima NPP, Japan

Data Produced by Matthew Simpson (NARAC, 925 / 422-7627)

YEAR	MO	DY	HR	WSP	WDR	CLASS	Temp (2m)	RAIN
----	--	--	(UTC)	(m/s)	---	----	(C)	(in/hr)
2011	4	14	18	3.8	257	F	9	0
2011	4	14	19	3.4	245	F	9	0
2011	4	14	20	2.8	222	F	10	0
2011	4	14	21	4	229	E	8	0
2011	4	14	22	3.3	228	D	11	0
2011	4	14	23	1.7	167	C	14	0
2011	4	15	0	2.8	157	C	14	0
2011	4	15	1	4.5	157	C	16	0
2011	4	15	2	5.9	154	C	16	0
2011	4	15	3	7.2	160	C	17	0
2011	4	15	4	7.2	162	C	19	0
2011	4	15	5	7.2	172	C	20	0
2011	4	15	6	7.4	170	C	19	0
2011	4	15	7	7.8	185	D	19	0
2011	4	15	8	5.5	183	D	17	0
2011	4	15	9	5.8	209	D	14	0
2011	4	15	10	4.8	215	D	14	0
2011	4	15	11	4	214	E	14	0
2011	4	15	12	4.7	235	D	14	0
2011	4	15	13	5.2	240	D	14	0
2011	4	15	14	8.7	227	D	14	0
2011	4	15	15	4.7	187	D	12	0.03
2011	4	15	16	4.7	205	D	12	0.14
2011	4	15	17	3	189	D	12	0.27
2011	4	15	18	2.3	178	D	11	0.12
2011	4	15	19	2.6	205	D	12	0.05
2011	4	15	20	1.9	232	F	12	0
2011	4	15	21	1.1	134	F	12	0
2011	4	15	22	3.2	195	C	15	0
2011	4	15	23	5.3	226	C	16	0
2011	4	16	0	5.8	231	C	17	0
2011	4	16	1	6.4	234	C	18	0
2011	4	16	2	5.4	236	C	19	0
2011	4	16	3	5.6	243	C	20	0
2011	4	16	4	8.8	277	C	18	0
2011	4	16	5	12.4	286	D	13	0.07
2011	4	16	6	10	299	C	14	0
2011	4	16	7	6.8	346	C	13	0

2011	4	16	8	7.9	10	D	10	0
2011	4	16	9	4.9	356	D	8	0
2011	4	16	10	5.6	328	D	6	0
2011	4	16	11	7.2	322	D	5	0
2011	4	16	12	7.6	322	D	4	0

---

**From:** OST01 HOC  
**Sent:** Tuesday, April 19, 2011 10:33 AM  
**To:** RST01 Hoc  
**Subject:** RE: DOE Sit-rep contact - Tracy Mustin - (b)(6)

Action no: 4895 in WebEoc

---

**From:** RST01 Hoc  
**Sent:** Tuesday, April 19, 2011 10:26 AM  
**To:** Zimmerman, Roy; OST01 HOC  
**Subject:** DOE Sit-rep contact - Tracy Mustin - (b)(6)

Roy,

The DOE sit-rep is prepared by NNSA (nuclear weapons). I've been given a contact: Tracy Mustin - (b)(6)

I'll follow through with Tracy after the 1100 phone call. I'll make a RST log entry later in the day with Tracy's contact information and any progress I've made.

Neither me nor Tim is here tomorrow and there are three shift turnovers between our watch and tomorrow's dayshift. I can ensure this information gets in the Log and that it is discussed at this afternoon's turnover, but things like this have been getting lost in the three shift turnover, especially when a shift is changing out completely (as me and Tim are tomorrow).

Larry

---

**From:** Versluis, Rob [mailto:ROB.VERSLUIS@nuclear.energy.gov]  
**Sent:** Tuesday, April 19, 2011 10:01 AM  
**To:** RST01 Hoc  
**Cc:** Mustin, Tracy; Kelly, John E (NE); Caponiti, Alice; Golub, Sal; Larzelere, Alex; Peko, Damian; Shields, Martha; Versluis, Rob  
**Subject:** RE: USNRC Emergency Operations Center Status Update

I suggest that RST follow up directly with Tracy Mustin on organizing collaboration on Fukushima issues. Tracy's tel: (b)(6)  
(b)(6)

Robert Versluis, PhD - tel: 301-903-1890 mob: (b)(6)  
\*\*\*\*\*

---

**From:** Versluis, Rob  
**Sent:** Monday, April 18, 2011 10:08 AM  
**To:** Mustin, Tracy  
**Cc:** Kelly, John E (NE); Caponiti, Alice; Versluis, Rob; Golub, Sal; Larzelere, Alex  
**Subject:** FW: USNRC Emergency Operations Center Status Update

Tracy, we have received a request from the NRC Incident Response Center Reactor Safety Team to combine the RST and NNSA SITREPs. As John Kelly points out below, this request would be better addressed to NNSA as the lead DOE element for the SITREP. Could we ask you to make contact with the RST ([RST01.hoc@nrc.gov](mailto:RST01.hoc@nrc.gov)) for further discussion? I have not received the NRC sit reps on a routine basis since April 7 but I have included that one for your information.

CCCC/50

Robert Versluis, PhD - tel: 301-903-1890 mob: (b)(6)  
\*\*\*\*\*

---

**From:** Kelly, John E (NE)  
**Sent:** Monday, April 18, 2011 8:44 AM  
**To:** Caponiti, Alice; Larzelere, Alex  
**Cc:** Golub, Sal; Versluis, Rob  
**Subject:** RE: USNRC Emergency Operations Center Status Update

NE is not the lead DOE org for the SIT REP, it is NNSA. Could one of you contact Tracy Mustin with this request? Also, as we transition, we will need to meet with NRC to explore the best way to organize the domestic support.  
thx  
John

---

**From:** Versluis, Rob  
**Sent:** Sunday, April 17, 2011 11:02 PM  
**To:** 'rst01.hoc@nrc.gov'  
**Cc:** Caponiti, Alice; Golub, Sal; Kelly, John E (NE); Versluis, Rob  
**Subject:** Re: USNRC Emergency Operations Center Status Update

I am hereby putting NE management on notice regarding yor request.

Rob Versluis +1-301-903-1890(o) + (b)(6) (m)

---

**From:** RST01 Hoc <RST01.Hoc@nrc.gov>  
**To:** Versluis, Rob; Caponiti, Alice  
**Sent:** Sun Apr 17 13:07:38 2011  
**Subject:** FW: USNRC Emergency Operations Center Status Update

Rob/Alice,

Attached is the NRC's daily situation report for today (4/17).

I was asked by the Executive Team leader in our response center to contact the DOE regarding combining our sit rep with yours. I believe his plan would be for us to send you the NRC input regarding NRC activities and NRC driven consortium activities.

Whom at DOE should I contact regarding the above suggestion?

Thanks,  
Larry Criscione  
NRC Reactor Safety Team

---

**From:** LIA08 Hoc  
**Sent:** Sunday, April 17, 2011 12:25 PM  
**Subject:** USNRC Emergency Operations Center Status Update

Liaison Team Coordinator  
US Nuclear Regulatory Commission  
email: [lia08.hoc@nrc.gov](mailto:lia08.hoc@nrc.gov)

Desk Ph: 301-816-5185

---

**From:** OST01 HOC  
**Sent:** Tuesday, April 19, 2011 10:30 AM  
**To:** RST01 Hoc; Zimmerman, Roy  
**Subject:** RE: DOE Sit-rep contact - Tracy Mustin - (b)(6)

I'll put it in as a tasker in WebEoc so the subsequent shifts will know it's out there. If it gets lost in the RST turnover, it will always be there.

**From:** RST01 Hoc  
**Sent:** Tuesday, April 19, 2011 10:26 AM  
**To:** Zimmerman, Roy; OST01 HOC  
**Subject:** DOE Sit-rep contact - Tracy Mustin - (b)(6)

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Larry

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**To:** RST01 Hoc  
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(b)(6)

Robert Versluis, PhD - tel: 301-903-1890 mob: (b)(6)  
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Robert Versluis, PhD - tel: 301-903-1890 mob: (b)(6)  
\*\*\*\*\*

**From:** Kelly, John E (NE)  
**Sent:** Monday, April 18, 2011 8:44 AM  
**To:** Caponiti, Alice; Larzelere, Alex  
**Cc:** Golub, Sal; Versluis, Rob  
**Subject:** RE: USNRC Emergency Operations Center Status Update

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**To:** 'rst01.hoc@nrc.gov'  
**Cc:** Caponiti, Alice; Golub, Sal; Kelly, John E (NE); Versluis, Rob  
**Subject:** Re: USNRC Emergency Operations Center Status Update

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Rob Versluis +1-301-903-1890(o) (b)(6) m)

---

**From:** RST01 Hoc <RST01.Hoc@nrc.gov>  
**To:** Versluis, Rob; Caponiti, Alice  
**Sent:** Sun Apr 17 13:07:38 2011  
**Subject:** FW: USNRC Emergency Operations Center Status Update

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Thanks,  
Larry Criscione  
NRC Reactor Safety Team

**From:** LIA08 Hoc  
**Sent:** Sunday, April 17, 2011 12:25 PM  
**Subject:** USNRC Emergency Operations Center Status Update

Liaison Team Coordinator  
US Nuclear Regulatory Commission



- email: [lia08.hoc@nrc.gov](mailto:lia08.hoc@nrc.gov)  
Desk Ph: 301-816-5185

**From:** [Hayden, Elizabeth](#)  
**To:** [Harrington, Holly](#)  
**Cc:** [Brenner, Eliot](#); [McIntyre, David](#); [Burnell, Scott](#)  
**Subject:** FW: Reuters : NRC and the UCS  
**Date:** Tuesday, April 05, 2011 5:38:00 PM

---

Tomorrow, we might want to kick around the idea of a blog post that identifies some of the recent exploitation of NRC by the news media via UCS and FOIAs. It would have to be written carefully, but it could have merit.

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

**From:** McIntyre, David  
**Sent:** Tuesday, April 05, 2011 4:05 PM  
**To:** Burnell, Scott; Harrington, Holly; Hayden, Elizabeth  
**Subject:** Fw: Reuters : NRC and the UCS

Maybe this is a chance to paint UCS as profiting from this tragedy with their daily assaults on us, hyping their 15 minutes in the limelight.

David McIntyre  
NRC Office of Public Affairs  
(b)(6) (mobile)  
301-415-8200 (office)  
Sent from my BlackBerry, which is wholly responsible for all typos.

---

**From:** [Ross.Kerber@thomsonreuters.com](mailto:Ross.Kerber@thomsonreuters.com) <[Ross.Kerber@thomsonreuters.com](mailto:Ross.Kerber@thomsonreuters.com)>  
**To:** Burnell, Scott; Brenner, Eliot  
**Cc:** McIntyre, David  
**Sent:** Tue Apr 05 15:23:59 2011  
**Subject:** RE: Reuters : NRC and the UCS

Got this, thanks & rgds

**Ross Kerber**  
Correspondent  
Reuters News  
tel (617) 856 4341  
mbf (b)(6)  
[ross.kerber@thomsonreuters.com](mailto:ross.kerber@thomsonreuters.com)  
[www.thomsonreuters.com](http://www.thomsonreuters.com)

CCCC/52

**From:** Burnell, Scott [mailto:Scott.Burnell@nrc.gov]  
**Sent:** Tuesday, April 05, 2011 3:21 PM  
**To:** Kerber, Ross (M Edit Ops); Brenner, Eliot  
**Cc:** McIntyre, David  
**Subject:** RE: Reuters : NRC and the UCS

Hi Ross;

All of Chairman Jaczko's public appearances, as well as Commission meetings, etc, related to Japan are up on our Japan page:

<http://www.nrc.gov/japan/japan-info.html>

Chairman Jaczko also appeared on C-SPAN, I believe on March 20.

The NRC always takes very seriously its responsibility to protect public health and safety. In cases where quick verification of information is difficult we must be mindful that speculation, well-intentioned or not, can sometimes work against public health and safety. Our reviews take into account the relevant information and any other factors necessary to reach technically and legally defensible decisions that fulfill our responsibility.

Please let me know if you need anything else.

Scott

---

**From:** Ross.Kerber@thomsonreuters.com [mailto:Ross.Kerber@thomsonreuters.com]  
**Sent:** Tuesday, April 05, 2011 3:01 PM  
**To:** Brenner, Eliot; Burnell, Scott  
**Cc:** McIntyre, David  
**Subject:** Reuters : NRC and the UCS

Eliot, Scott – with David out today, can you guys handle this?  
Best – Ross

---

Hello David – Ross Kerber here from Reuters, thanks for past help. I never wound up writing about the risk-based regulation topics we talked about last week; will let you know if that will change.

Next: I may write about the flood of attention the Union of Concerned Scientists has gotten amid the Fukushima Crisis – their daily briefing calls with reporters drew as many as 125 participants, for instance, and obviously they've made, many TV appearances.

They think they have gotten all attention partly because they've been more

interpretive than then NRC, and more available for comments, interviews, etc.

Figure I better run this by you. Other than the testimony that Greg Jaczko gave on March 17 the House Energy & Commerce Committee, has he done other testimony to Congress? Can you sent me dates and/or links? Has he done interviews you could point out? Speeches?

Maybe other commissioners have been more vocal? (I suppose I could call them individually, but figure I'll start with you, keep it simple)

Also: UCS says the NRC has not weighed risks enough in overseeing nuclear power. I don't know how detailed I'll get in this story, but we should talk or email about this if you'd like to respond (and/or if you could point to any general responses NRC has given to date).

Make sense? Hopefully we can knock this down by end of today? (Won't likely run story till tomorrow I expect)

Best – Ross

**Ross Kerber**

Correspondent

Reuters News

tel (617) 856 4341

mbl (b)(6)

ross.kerber@thomsonreuters.com

[www.thomsonreuters.com](http://www.thomsonreuters.com)

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## Landau, Mindy

---

**From:** Landau, Mindy  
**Sent:** Friday, March 18, 2011 3:50 PM  
**To:** Andersen, James; Rihm, Roger  
**Subject:** Fw: Governor office

Sent from my NRC Blackberry  
Mindy Landau  
(b)(6)  
[Mindy.Landau@nrc.gov](mailto:Mindy.Landau@nrc.gov)

---

**From:** Lew, David  
**To:** Landau, Mindy  
**Sent:** Fri Mar 18 15:48:15 2011  
**Subject:** FW: Governor office

Mindy, FYI. Dave

---

**From:** Lew, David  
**Sent:** Friday, March 18, 2011 3:45 PM  
**To:** Muessle, Mary  
**Cc:** Dean, Bill; Leeds, Eric  
**Subject:** FW: Governor office

Mary,

I lost track of who is covering for Jim Trapp while he is in Japan. I wanted you to be aware that NYS (Andrew Feeney) informed me that the Governor Cuomo was unhappy that the NRC has not yet responded to his request for a meeting, and that the Governor was considering a call to Bill Daley in Office of the President. I shared this information with Anna Bradford for her awareness and possible frustration that she may encounter if she should engage the Governor's office. I understand that the Governor's office response to the Chairman's offer for a conference call was that they would rather have a meeting with a NRC senior staffer. Let me know if you have any questions.

Dave

---

**From:** Bradford, Anna  
**Sent:** Friday, March 18, 2011 1:24 PM  
**To:** McNamara, Nancy  
**Subject:** Governor office

Hi Nancy,

I talked to the Chairman just now and he decided he would try to schedule a phone call (rather than trying to schedule a meeting) with the Lt Governor. We will set that up through our office, but I just wanted to close the loop with you.

Thanks!

Anna Bradford

Policy Advisor for Nuclear Materials  
Office of Chairman Jaczko  
U.S. Nuclear Regulatory Commission  
301-415-1827

**Landau, Mindy**

---

**From:** Landau, Mindy  
**Sent:** Saturday, March 19, 2011 8:45 AM  
**To:** Rihm, Roger  
**Subject:** Re: For Consideration for Use at the Commission Meeting Monday Morning

Jim's handling it I believe

Sent from my NRC Blackberry  
Mindy Landau  
(b)(6)  
[Mindy.Landau@nrc.gov](mailto:Mindy.Landau@nrc.gov)

---

**From:** Rihm, Roger  
**To:** Landau, Mindy; Ellmers, Glenn  
**Sent:** Fri Mar 18 22:17:35 2011  
**Subject:** Fw: For Consideration for Use at the Commission Meeting Monday Morning

Are we preparing anything for monday?

Sent from an NRC BlackBerry  
Roger S. Rihm  
(b)(6)

---

**From:** Barkley, Richard  
**To:** Sheehan, Neil; Harrington, Holly; Rihm, Roger; Dean, Bill  
**Sent:** Fri Mar 18 17:23:47 2011  
**Subject:** For Consideration for Use at the Commission Meeting Monday Morning

The EDO used my attached slide show during his All Hands meeting today, and added two additional slides.

The photo I just attached were just loaded on Flickr – It gives the best aerial view of the site as it currently stands:

Unit 1 – Secondary containment upper walls blown off and apparently the roof collapsed onto the refuel floor

Unit 3 – Showing extensive structure damage to the reactor building upper level and the secondary containment from its hydrogen explosion

Unit 4 – Showing the effect of fires which burned through the roof membrane, but left the roof support structure intact

The lower left corner shows what appear to be several fire trucks at the waterfront.

Richard S. Barkley, PE  
Nuclear & Environmental Engineer  
(610) 337-5065 Work

(b)(6)

Cell



**Taylor, Renee**

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**From:** Borchardt, Bill  
**Sent:** Saturday, March 19, 2011 1:02 PM  
**To:** Dyer, Jim  
**Subject:** RE: Here's an issue paper we're headed over to discuss with you. jim

Jim. Haven't had ny discussions with the Chairman on this topic.

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**From:** Dyer, Jim  
**Sent:** Saturday, March 19, 2011 11:44 AM  
**To:** Borchardt, Bill  
**Subject:** FW: Here's an issue paper we're headed over to discuss with you. jim

Bill, any insights on this issue from you travels with the Chairman? It concerns who is paying for the IRC/Japan team. I'm in my office. Jim

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**From:** Dyer, Jim  
**Sent:** Saturday, March 19, 2011 11:42 AM  
**To:** Batkin, Joshua  
**Subject:** RE: Here's an issue paper we're headed over to discuss with you. jim

I'm in my office (301-415-7321) or available on cell (b)(6). Jim

---

**From:** Batkin, Joshua  
**Sent:** Saturday, March 19, 2011 12:40 AM  
**To:** Dyer, Jim  
**Cc:** Burns, Stephen  
**Subject:** Re: Here's an issue paper we're headed over to discuss with you. jim

Ok, thanks. I'll reach out to you tomorrow as soon as I get a chance to take a look. Thanks

Joshua C. Batkin  
Chief of Staff  
Chairman Gregory B. Jaczko  
(301) 415-1820

---

**From:** Dyer, Jim  
**To:** Batkin, Joshua  
**Cc:** Burns, Stephen  
**Sent:** Fri Mar 18 19:05:35 2011  
**Subject:** RE: Here's an issue paper we're headed over to discuss with you. jim

Josh,

I'm leaving the office now, but will be available by phone (b)(6) if you want to discuss. I also plan on coming in Saturday AM to clear out some things in the office. The NRC USAID desk called to say that the Deputy Administrator had called to discuss with someone the issue of NRC Japan Team Funding. I told them that I would call back after I had discussed with you and explained the apparent differing views between NRC and USAID regarding funding. I had gotten an earlier e-mail that USAID was arranging for Dan Dorman's travel tomorrow, but would not provide support for the additional travelers next week until this issue is resolved.

Jim

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**From:** Dyer, Jim  
**Sent:** Friday, March 18, 2011 5:17 PM  
**To:** Batkin, Joshua  
**Subject:** Fw: Here's an issue paper we're headed over to discuss with you. jim

Josh

Steve and I are ready to discuss the attached options with you. Jim

---

**From:** Dyer, Jim  
**To:** Burns, Stephen  
**Sent:** Fri Mar 18 16:45:16 2011  
**Subject:** Here's an issue paper we're headed over to discuss with you. jim

## Andersen, James

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**From:** Andersen, James  
**Sent:** Sunday, March 20, 2011 9:50 AM  
**To:** Grobe, Jack  
**Subject:** Re: Materials for March 21st Commission Briefing on Japan Event

Yes, I have also forwarded the info to SECY. Thanks.

Sent from an NRC Blackberry  
James Andersen

(b)(6)

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**From:** Grobe, Jack  
**To:** Andersen, James; Muessle, Mary; Landau, Mindy; Leeds, Eric; Howe, Allen  
**Sent:** Sun Mar 20 08:42:03 2011  
**Subject:** Re: Materials for March 21st Commission Briefing on Japan Event

Jim

Did the email late friday night fill your needs?  
Jack Grobe, Deputy Director, NRR

---

**From:** Andersen, James  
**To:** Borchardt, Bill; Virgilio, Martin; Weber, Michael; Ash, Darren; Muessle, Mary; Landau, Mindy; Leeds, Eric; Grobe, Jack; Howe, Allen; Gratton, Christopher; Boska, John  
**Sent:** Fri Mar 18 16:56:42 2011  
**Subject:** FW: Materials for March 21st Commission Briefing on Japan Event

FYI.

Allen, once you are finished identifying the technical staff who will be available to answer specific technical questions, can you please forward the list to me. I need to provide it to SECY so they know who to hold seats for. I assume the seats in the well will be for Darren, Marty, NRR, NRO, RES, NSIR, OIP, CFO. Anyone else?

---

**From:** Laufer, Richard  
**Sent:** Friday, March 18, 2011 4:46 PM  
**To:** Baval, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger, John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffry; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth  
**Cc:** Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Andersen, James; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly; Hayden, Elizabeth; Brenner, Eliot; Powell, Amy; Schmidt, Rebecca  
**Subject:** Materials for March 21st Commission Briefing on Japan Event

Attached is the final scheduling note for the March 21st Commission briefing on the Japan Event. Staff slides should be emailed later today by Jim Andersen (OEDO).

Note that Commissioner Magwood goes first with questions.

Below are a few meeting logistics for your information:

- Bill Borchardt will be the only NRC staff member at the table.
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Once the available public seats are filled, members of the public will be directed around the back of the building where they will enter the TWFN Auditorium to view the Commission meeting.

Thanks,  
Rich

**Andersen, James**

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**From:** Andersen, James  
**Sent:** Sunday, March 20, 2011 7:45 PM  
**To:** Franovich, Mike  
**Subject:** Re: Materials for March 21st Commission Briefing on Japan Event (Staff Slides)

No, I have not seen the list. Sorry.

Sent from an NRC Blackberry  
James Andersen

(b)(6)

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**From:** Franovich, Mike  
**To:** Andersen, James  
**Sent:** Sun Mar 20 18:53:12 2011  
**Subject:** RE: Materials for March 21st Commission Briefing on Japan Event (Staff Slides)

Thx Jim,

Do you know who are the members of the relief team under Dan Dorman?

Mike

**From:** Andersen, James  
**Sent:** Sunday, March 20, 2011 6:04 PM  
**To:** Laufer, Richard; Baval, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger, John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffrey; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth  
**Cc:** Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly; Hayden, Elizabeth; Brenner, Eliot; Powell, Amy; Schmidt, Rebecca; Borchardt, Bill; Weber, Michael; Ash, Darren; Virgilio, Martin; Muessle, Mary; Landau, Mindy; Leeds, Eric; Howe, Allen; Gratton, Christopher; Boska, John; Grobe, Jack  
**Subject:** Materials for March 21st Commission Briefing on Japan Event (Staff Slides)

Attached are the staff slides for the Commission Meeting on March 21, 2011, "Briefing on NRC Response to Recent Nuclear Events in Japan." I am sending this information out via two e-mail list, I apologize if you are getting it twice.

Jim Andersen  
Deputy AO, TBPM, OEDO  
415-1725.

---

**From:** Laufer, Richard  
**Sent:** Friday, March 18, 2011 4:46 PM  
**To:** Baval, Rochelle; Svinicki, Kristine; Montes, David; Adler, James; Bates, Andrew; Batkin, Joshua; Bubar, Patrice; Bupp, Margaret; Chairman Temp; Clark, Lisa; Coggins, Angela; Davis, Roger; Dhir, Neha; Hart, Ken; Loyd, Susan; Monninger,

John; Nieh, Ho; Pearson, Laura; Reddick, Darani; Rothschild, Trip; Joosten, Sandy; Sharkey, Jeffrey; Shea, Pamela; Sosa, Belkys; Burns, Stephen; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Baggett, Steven; Bradford, Anna; Castleman, Patrick; Kock, Andrea; Tadesse, Rebecca; Thoma, John; Franovich, Mike; Hipschman, Thomas; Batkin, Joshua; Marshall, Michael; Orders, William; Snodderly, Michael; Warnick, Greg; Lisann, Elizabeth  
**Cc:** Dudley, Richard; Ruland, William; Tregoning, Robert; Wittick, Brian; Andersen, James; Blake, Kathleen; Bozin, Sunny; Cianci, Sandra; Crawford, Carrie; Gibbs, Catina; Harves, Carolyn; Hasan, Nasreen; Jimenez, Patricia; KLS Temp; Landau, Mindy; Lepre, Janet; Lewis, Antoinette; Herr, Linda; Muessle, Mary; Pace, Patti; Pulley, Deborah; Savoy, Carmel; Speiser, Herald; Taylor, Renee; Temp, GEA; Temp, WCO; Temp, WDM; Wright, Darlene; Wittick, Susan; Sargent, Kimberly; Hayden, Elizabeth; Brenner, Eliot; Powell, Amy; Schmidt, Rebecca  
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Thanks,  
Rich

**Rihm, Roger**

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**From:** Rihm, Roger  
**Sent:** Tuesday, March 22, 2011 2:54 PM  
**To:** Wittick, Brian  
**Subject:** RE: Today's Meeting w/NY delegation

Thanks. I can't even think about this for a few days, so if I have questions when I get there, I'll call!

---

**From:** Wittick, Brian  
**Sent:** Tuesday, March 22, 2011 2:49 PM  
**To:** Rihm, Roger  
**Subject:** FW: Today's Meeting w/NY delegation

Roger,

Does this help?

Brian Wittick  
Executive Technical Assistant for Reactors  
Office of the Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
301-415-2496 (w); (b)(6); (c)

---

**From:** Hayden, Elizabeth  
**Sent:** Tuesday, March 22, 2011 1:48 PM  
**To:** 'Slomax@bloomberg.net'; 'david.savino@nhkny.com'; 'Regina Bediako'; 'cynthia.maldonado@nyone.com'; 'dave.b.evans@abc.com'  
**Subject:** Today's Meeting w/NY delegation

An 8-member New York state delegation, led by Lt. Governor Robert Duffy, met this morning with U.S. Nuclear Regulatory Commission officials –Eric Leeds, office director of nuclear reactor regulation and Brian Sheron, office director of Nuclear Regulatory Research –and staff to gain a better understanding of the seismic implications from the Japan event with regard to the Indian Point nuclear power plant and the ongoing NRC review of the plant license renewal application.

Discussions touched on differences between the Japan plants and U.S. plants, how data from a recent Seismic Study (Sept. 2010) shows seismic risk of U.S. nuclear plants and how the NRC will undertake a systematic and methodical review of the safety of our own domestic nuclear facilities, in light of the natural disaster and the resulting nuclear emergency in Japan.

We noted all US nuclear plants are built to withstand environmental hazards, including earthquakes and tsunamis. Even those nuclear plants that are located within areas with low and moderate 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 even rare and extreme seismic and tsunami events. In addition to the design of the plants, significant effort goes into emergency response planning and accident management. This approach is called defense-in-depth.

The Japanese facilities are similar in design to some US facilities. However, the NRC has required modifications to the plants since they were built, including design changes to control hydrogen and pressure in the containment. The NRC has also required plants to have additional equipment and measures to mitigate damage stemming from large fires and explosions from a beyond-design-basis event. The measures include providing core and spent fuel pool cooling and an additional means to power other equipment on site.

- We continue to believe that the robust design of U.S. plants makes it highly unlikely that a similar event could occur in the United States.

The initial screening of the 2008 seismic data (basis of the 2010 report) indicated slightly higher seismic risk for the Indian Point reactor (and some others) but was still within safety margins. In followup to this report, NRC will look to see if there may be any safety enhancements needed for a number of plants, including Indian Point.

There was agreement that NY state inspectors could join NRC in its seismic inspections at Indian Point and that the NRC would share its non-proprietary data from the Seismic Study.

Several technical reps from the NY delegation stayed behind for a quick tour of the NRC's Operations Center.

The NY Governor's office indicated they may have a statement for the press later today. David Doyle is the contact at 518-474-8418 or [David.Doyle@exec.ny.gov](mailto:David.Doyle@exec.ny.gov).

*Beth Hayden*  
*Senior Advisor*  
*Office of Public Affairs*  
*U.S. Nuclear Regulatory Commission*  
*--- Protecting People and the Environment*  
301-415-8202  
[elizabeth.hayden@nrc.gov](mailto:elizabeth.hayden@nrc.gov)



**Andersen, James**

---

**From:** Andersen, James  
**Sent:** Tuesday, March 22, 2011 3:39 PM  
**To:** Borchardt, Bill  
**Cc:** Sanfilippo, Nathan  
**Subject:** FW: DRAFT SRM - COMGBJ-11-0002 (NRC Actions Following the Events in Japan)

**Importance:** High

Bill, I do not know what the NRO comment is, not sure we want to get in the middle of the Commission voting on this.

Will keep you in the loop.

Jim A.

---

**From:** Williams, Donna  
**To:** Sanfilippo, Nathan  
**Sent:** Tue Mar 22 15:24:19 2011  
**Subject:** RE: DRAFT SRM - COMGBJ-11-0002 (NRC Actions Following the Events in Japan)

Nathan

NRO will likely have a comment on the draft SRM. Working on it now with Mike/Gary.

---

**From:** Sanfilippo, Nathan  
**Sent:** Tuesday, March 22, 2011 2:03 PM  
**To:** Williams, Donna  
**Subject:** Fw: DRAFT SRM - COMGBJ-11-0002 (NRC Actions Following the Events in Japan)  
**Importance:** High

Fyi

Sent from my NRC BlackBerry

Nathan Sanfilippo  
Executive Technical Assistant

(b)(6)

---

**From:** RidsEdoDraftSrmVote Resource  
**To:** Ash, Darren; Borchardt, Bill; Boyd, Lena; Buckley, Patricia; Clarke, Deanna; Cohen, Miriam; EDO\_Staff\_Assistants; Flory, Shirley; Fry, Jeannie; Garland, Stephanie; Johnson, Michael; Mamish, Nader; Matakas, Gina; Miles, Patricia; Miller, Charles; Owen, Lucy; Riddick, Nicole; RidsAdmMailCenter Resource; RidsCsoMailCenter Resource; RidsFsmeOd Resource; RidsHrMailCenter Resource; RidsNmssOd Resource; RidsNroMailCenter Resource; RidsNrrOd Resource; RidsNsirMailCenter Resource; RidsOeMailCenter Resource; RidsOiMailCenter Resource; RidsOIS Resource; RidsResOd Resource; RidsRgn1MailCenter Resource; RidsRgn2MailCenter Resource; RidsRgn3MailCenter Resource; RidsRgn4MailCenter Resource; RidsSbcrMailCenter Resource; Thomas, Loretta; Virgilio, Martin; Walker, Dwight; Weber, Michael  
**Sent:** Tue Mar 22 13:57:54 2011  
**Subject:** FW: DRAFT SRM - COMGBJ-11-0002 (NRC Actions Following the Events in Japan)

**From:** Wright, Darlene

**Sent:** Tuesday, March 22, 2011 1:19 PM

**To:** Baggett, Steven; Bates, Andrew; Batkin, Joshua; Baval, Rochelle; Blake, Kathleen; Bozin, Sunny; Bradford, Anna; Bubar, Patrice; Bupp, Margaret; Burns, Stephen; Chairman Temp; Clark, Lisa; Coggins, Angela; Cordes, John; Crawford, Carrie; Davis, Roger; Fopma, Melody; Franovich, Mike; Gibbs, Catina; Hackett, Edwin; Hart, Ken; Harves, Carolyn; Henderson, Karen; Herr, Linda; Hipschman, Thomas; Hudson, Sharon; Joosten, Sandy; KLS Temp; Kock, Andrea; Laufer, Richard; Lepre, Janet; Loyd, Susan; Mamish, Nader; Marshall, Michael; Monninger, John; Moore, Scott; Orders, William; Pace, Patti; Poole, Brooke; Reddick, Darani; RidsEdoDraftSrmVote Resource; Rothschild, Trip; Savoy, Carmel; Sharkey, Jeffrey; Shea, Pamela; Snodderly, Michael; Sosa, Belkys; Speiser, Herald; Svinicki, Kristine; Temp, GEA; Temp, WCO; Temp, WDM; Thoma, John; Vietti-Cook, Annette; Warren, Roberta; Zorn, Jason; Tadesse, Rebecca; Joosten, Sandy; Castleman, Patrick; Montes, David; Dhir, Neha; Adler, James; Jimenez, Patricia; Muessle, Mary; Nieh, Ho; Ostendorff, William; Warnick, Greg; Apostolakis, George; Pearson, Laura; Lui, Christiana; Lisann, Elizabeth

**Cc:** Lewis, Antoinette

**Subject:** DRAFT SRM - COMGBJ-11-0002 (NRC Actions Following the Events in Japan)

**Importance:** High

The attached file contains a draft SRM which is being circulated for Commission review. Your response is requested as soon as practical today. As provided in the Internal Commission Procedures, the staff is "...afforded an opportunity to review the SRM to ensure that the Commission decision is clear and understandable and that resource, schedular, and legal constraints are properly considered." Please provide any responses to Ken Hart (KRH), Richard Laufer (RJL), Rochelle Baval (RCB5), and Pam Shea (PWS).

**Andersen, James**

---

**From:** Borchardt, Bill  
**Sent:** Tuesday, March 22, 2011 3:50 PM  
**To:** Andersen, James  
**Cc:** Sanfilippo, Nathan  
**Subject:** RE: DRAFT SRM - COMGBJ-11-0002 (NRC Actions Following the Events in Japan)

We should stay out at this point.

---

**From:** Andersen, James  
**Sent:** Tuesday, March 22, 2011 3:39 PM  
**To:** Borchardt, Bill  
**Cc:** Sanfilippo, Nathan  
**Subject:** FW: DRAFT SRM - COMGBJ-11-0002 (NRC Actions Following the Events in Japan)  
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**Importance:** High

Fyi

Sent from my NRC BlackBerry

Nathan Sanfilippo  
Executive Technical Assistant

(b)(6)

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CCCC/60

RidsHrMailCenter Resource; RidsNmssOd Resource; RidsNroMailCenter Resource; RidsNrrOd Resource; RidsNsrMailCenter Resource; RidsOeMailCenter Resource; RidsOiMailCenter Resource; RidsOIS Resource; RidsResOd Resource; RidsRgn1MailCenter Resource; RidsRgn2MailCenter Resource; RidsRgn3MailCenter Resource; RidsRgn4MailCenter Resource; RidsSbcrMailCenter Resource; Thomas, Loretta; Virgilio, Martin; Walker, Dwight; Weber, Michael

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---

**From:** HOO Hoc  
**Sent:** Thursday, April 14, 2011 8:21 PM  
**To:** LIA07 Hoc; LIA08 Hoc; OST01 HOC  
**Subject:** FW: CANCELLED: Consortium Call for Wednesday April 13th

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

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

From: Southern, Glenn A CIV SEA 08 NR [mailto: (b)(6)]  
Sent: Thursday, April 14, 2011 8:10 PM  
To: LIA01 Hoc; Aaron Leong; Al Hochevar; Aleshia Duncan; Alice Caponiti; (b)(6) Blake Crowe; Blamey, Alan; Blount, Tom; Boger, Bruce; Bruce Howard; Casto, Chuck; Christensen, Harold; Christopher Green; Claire Berger; Craig Gaddis; Daniel Piccuta; Piccuta, Daniel W SES PACOM J005; Daniel Russel; DORLCAL Resource; Dorman, Dan; DprNrrCal Resource; Emche, Danielle; ET05 Hoc; ET07 Hoc; FOIA Response.hoc Resource; Geoffrey Wiggin; Gitter, Joseph; Heather Dresser; Holahan, Vincent; HOO Hoc; INPO; INPO; INPO; INPO; INPO; INPO; INPO; INPO; James White; James Zumwalt; (b)(6); Jay Tilden; Jeffrey Bader; Jeffrey Miller; Jeremy Mears; John Peters; Joseph Donovan; Joseph Young; (b)(6); Justin Cooper; Kenneth Spurlock; (b)(6) LCDR Daryn Moorman (USN); Lee A Gard, (INPO); LIA06 Hoc; LIA08 Hoc; LIA11 Hoc; Lt Trevor Conger (USN); Mark Wall; McDermott, Brian; McGinty, Tim; Michael Schiffer; Miller, Chris; Monninger, John; Morris, Scott; NRC Liaison at USAID; OST02 HOC; PACOM.J91.ALL; Pentagon Japan Crisis Team J-4 Desk; Peter Lyons; Hoc, PMT12; Raymond Greene; Riaz (b)(6); Rick Nielsen; Robert Gambone; Robert Luke; Robert Mercer; Ron Cherry, DOE-Japan Embassy; Ross-Lee, MaryJane; RST01 Hoc; RST01B Hoc; Russell Morales; Rust Deming; Sal Golub; Sal Golub; Samuel Young; Simon Schuchat; Stahl, Eric; Stephen Gabri; Stephen Town; Steve Aoki; Suzanne Basalla; Tim Cipullo; Vavoso, Thomas G CIV NAVSEA, 08; (b)(6) Virgilio, Martin; Weber, Michael; Wiggins, Jim; William Berger; William Webster; Wittick, Brian; Zimmerman, Roy; Cipullo, Timothy L  
Cc: Blamey, Alan; Wittick, Brian; OST01 HOC  
Subject: RE: CANCELLED: Consortium Call for Wednesday April 13th

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

From: LIA01 Hoc [mailto:LIA01.Hoc@nrc.gov]  
Sent: Wednesday, April 13, 2011 5:47 PM  
To: Aaron Leong; Al Hochevar; Aleshia Duncan; Alice Caponiti; (b)(6) Blake Crowe; Blamey, Alan; Blount, Tom; Boger, Bruce; Bruce Howard; Casto, Chuck; Christensen, Harold; Christopher Green; Claire Berger; Craig Gaddis; Daniel Piccuta; Piccuta, Daniel W SES PACOM J005; Daniel Russel; DORLCAL Resource; Dorman, Dan; DprNrrCal Resource; Emche, Danielle; ET05 Hoc; ET07 Hoc; FOIA Response.hoc

CCCC/61

Resource; Geoffrey Wiggin; Giitter, Joseph; Southern, Glenn A CIV SEA 08  
NR; Heather Dresser; Holahan, Vincent; HOO Hoc; INPO; INPO; INPO; INPO;  
INPO; INPO; INPO; INPO; James White; James Zumwalt;  
(b)(6) Jay Tilden; Jeffrey Bader; Jeffrey Miller;  
Jeremy Mears; John Peters; Joseph Donovan; Joseph Young;  
(b)(6) Justin Cooper; Kenneth Spurlock;  
(b)(6) LCDR Daryn Moorman (USN); Lee A Gard, (INPO);  
LIA01 Hoc; LIA06 Hoc; LIA08 Hoc; LIA11 Hoc; Lt Trevor Conger (USN); Mark  
Wall; McDermott, Brian; McGinty, Tim; Michael Schiffer; Miller, Chris;  
Monninger, John; Morris, Scott; NRC Liaison at USAID; OST02 HOC;  
PACOM.J91.ALL; Pentagon Japan Crisis Team J-4 Desk; Peter Lyons; Hoc,  
PMT12; Raymond Greene; Riaz Awan; (b)(6) Rick Nielsen;  
Robert Gambone; Robert Luke; Robert Mercer; Ron Cherry, DOE-Japan  
Embassy; Ross-Lee, MaryJane; RST01 Hoc; RST01B Hoc; Russell Morales;  
Rust Deming; Sal Golub; Sal Golub; Samuel Young; Simon Schuchat; Stahl,  
Eric; Stephen Gabri; Stephen Town; Steve Aoki; Suzanne Basalla; Tim  
Cipullo; Vavoso, Thomas G CIV NAVSEA, 08; (b)(6)  
Virgilio, Martin; Weber, Michael; Wiggins, Jim; William Berger; William  
Webster; Wittick, Brian; Zimmerman, Roy  
Cc: Blamey, Alan; Wittick, Brian; OST01 HOC  
Subject: CANCELLED: Consortium Call for Wednesday April 13th

The next Consortium Call will be held on THURSDAY April 14th at 2000hrs.  
to better align with the new schedule of Cabinet meetings in Japan.

Thank you

Lisa

Lisa Gibney Wright

Liaison Team Coordinator

US Nuclear Regulatory Commission

Email to: [LIA08.hoc@nrc.gov](mailto:LIA08.hoc@nrc.gov)

Desk Ph: 301-816-5185

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**From:** LIA07 Hoc  
**Sent:** Tuesday, April 12, 2011 11:12 AM  
**To:** OST01 HOC  
**Subject:** RE: Japan Earthquake 12 April 2011 0600 EDT Situation Report

Thanks,

Jim

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

**From:** OST01 HOC  
**Sent:** Tuesday, April 12, 2011 11:11 AM  
**To:** LIA07 Hoc  
**Subject:** FW: Japan Earthquake 12 April 2011 0600 EDT Situation Report

Jim,

This is what Jim Dyer sent me.

Annette

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

**From:** Dyer, Jim  
**Sent:** Tuesday, April 12, 2011 11:04 AM  
**To:** OST01 HOC  
**Subject:** RE: Japan Earthquake 12 April 2011 0600 EDT Situation Report

Is this getting sent to the Commissioner Assistants? Some said they didn't receive this report or the IAEA update. Jim

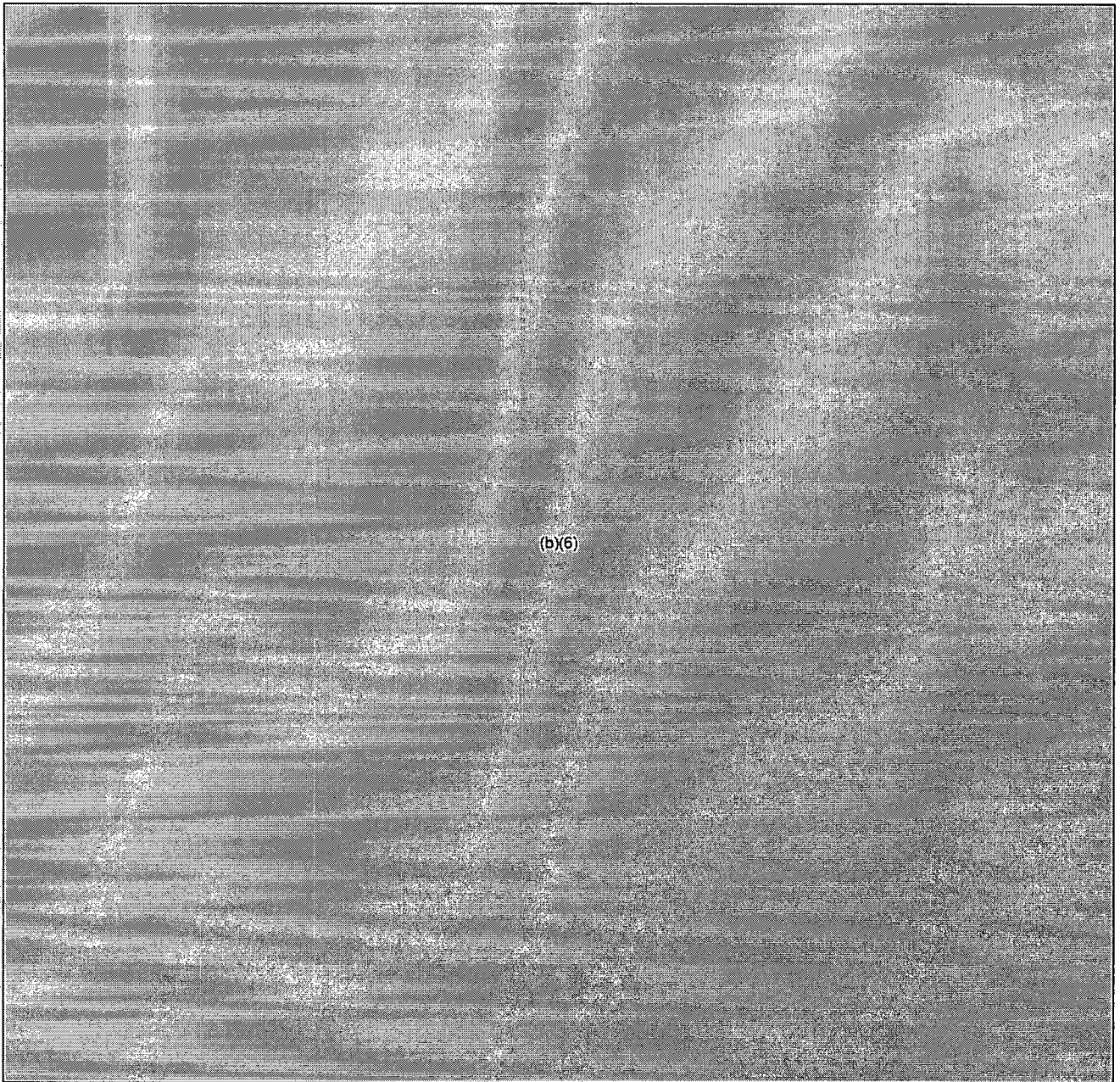
-----Original Message-----

**From:** OST01 HOC  
**Sent:** Tuesday, April 12, 2011 6:44 AM  
**To:** Wiggins, Jim; Dyer, Jim; RST01 Hoc; Hoc, PMT12; LIA08 Hoc  
**Subject:** FW: Japan Earthquake 12 April 2011 0600 EDT Situation Report

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

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Tuesday, April 12, 2011 6:39 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Japan Earthquake 12 April 2011 0600 EDT Situation Report

-----  
**From:** NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]  
**Sent:** Tuesday, April 12, 2011 6:38:39 AM



Subject: Japan Earthquake 12 April 2011 0600 EDT Situation Report Auto forwarded by a Rule

Please find attached the latest DOE SITREP regarding the ongoing earthquake and tsunami response in Japan.

This information is provided for your internal use and should be shared only with those who have a need to know.

Nuclear Incident Team (NIT)

Office of Emergency Response (NA-42)

National Nuclear Security Administration U.S. Department of Energy nitops@nnsa.doe.gov nit@doe.gov 202-586-8100



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**From:** OST01 HOC  
**Sent:** Sunday, April 10, 2011 2:27 AM  
**To:** PMT02 Hoc; PMT11 Hoc; Hoc, PMT12  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** (Japanese)20110410\_08.pdf; (official)(Japanese)20110410\_08with lat\_long.pdf; (Japanese)20110410\_09.pdf; (Japanese)20110410\_10.pdf; (Japanese)20110410\_11.pdf; (Japanese)20110410\_12.pdf; (Japanese)20110410\_03revised.pdf

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

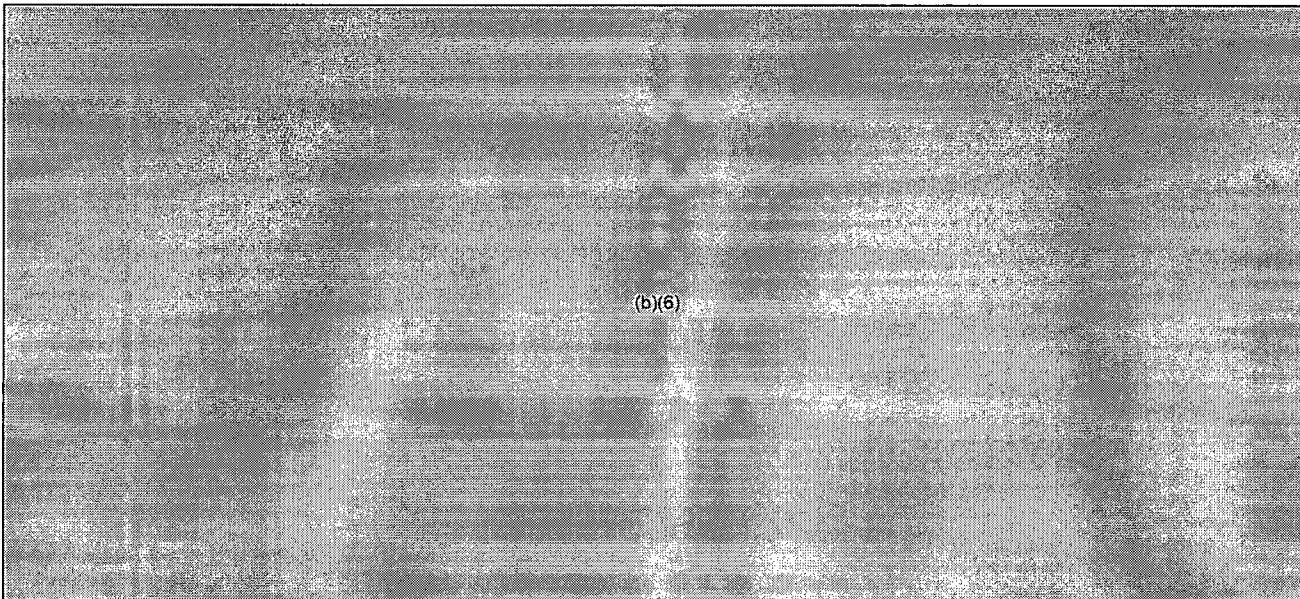
From: HOO Hoc  
Sent: Sunday, April 10, 2011 2:15 AM  
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC; Hoc, PMT12  
Subject: FW: Radiation data by MEXT

For your use.

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

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

From: [eda@mext.go.jp](mailto:eda@mext.go.jp) [mailto:[eda@mext.go.jp](mailto:eda@mext.go.jp)]  
Sent: Sunday, April 10, 2011 1:57 AM



(b)(6)

Subject: Radiation data by MEXT

Dear Sir,

Please see attached the document.

We have revised "(Japanese)20110410\_03" we sent you about 3 hours ago, since the data of April 4 was duplicated.

Sincerely yours,

Kei EDA

EOC, Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan

環境放射能水準調査結果(上水(蛇口))  
(4月9日採取)

H23.4.10 13:00

(Bq/kg)

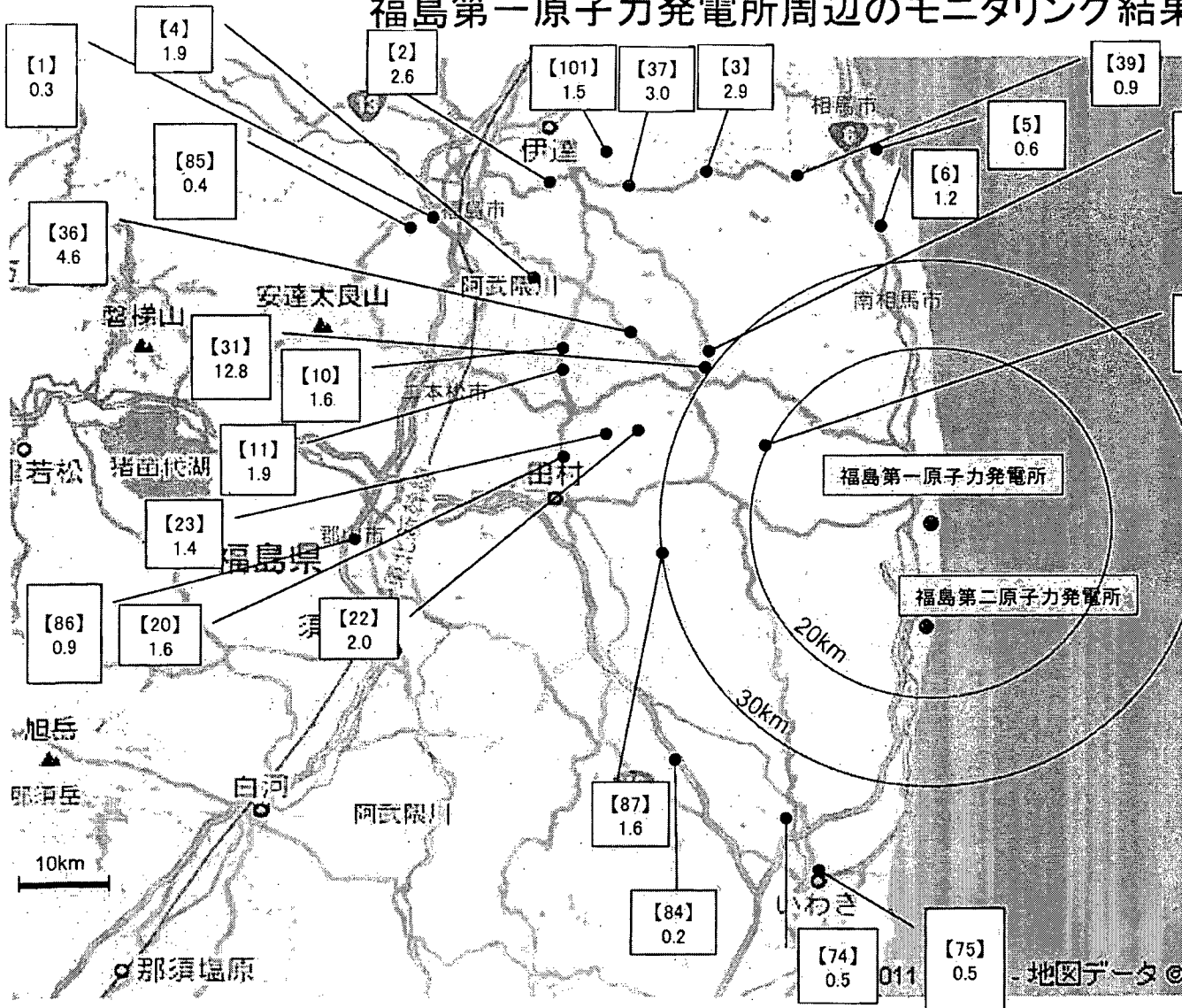
	都道府県名	上水(蛇口)		備考
		放射性ヨウ素 I-131	放射性セシウム (Cs-134, Cs-137)	
1	北海道(札幌市)	不検出	不検出	
2	青森県(青森市)	不検出	不検出	
3	岩手県(盛岡市)	不検出	不検出	
4	宮城県	-	-	県が独自に調査・公表している (宮城県原子力安全対策室HP の「水道水及び農畜産物の放射 能測定結果」を参照: <a href="http://www.pref.miyagi.jp/gentai/Press/PressH230315.html">http://www.pref.miyagi.jp/gentai/Press/PressH230315.html</a> )
5	秋田県(秋田市)	不検出	不検出	
6	山形県(山形市)	不検出	不検出	
7	福島県	-	-	県が独自に調査・公表している (福島県災害対策本部HPの「原 子力災害情報(県内各地方環境 放射能測定値(飲料水)につい て)」を参照: <a href="http://www.pref.fukushima.jp/iindex.htm">http://www.pref.fukushima.jp/iindex.htm</a> )
8	茨城県(ひたちなか市)	1.3 (指標を超えていない)	不検出	
9	栃木県(宇都宮市)	4.0 (指標を超えていない)	3.7 (指標を超えていない)	
10	群馬県(前橋市)	0.96 (指標を超えていない)	不検出	
11	埼玉県(さいたま市)	0.79 (指標を超えていない)	0.49 (指標を超えていない)	
12	千葉県(市原市)	不検出	0.18 (指標を超えていない)	
13	東京都(新宿区)	1.0 (指標を超えていない)	0.26 (指標を超えていない)	
14	神奈川県(茅ヶ崎市)	0.54 (指標を超えていない)	不検出	
15	新潟県(新潟市)	0.32 (指標を超えていない)	不検出	
16	富山県(射水市)	不検出	不検出	
17	石川県(金沢市)	不検出	不検出	
18	福井県(福井市)	不検出	不検出	
19	山梨県(甲府市)	不検出	不検出	
20	長野県(長野市)	不検出	不検出	
21	岐阜県(各務原市)	不検出	不検出	
22	静岡県(静岡市)	不検出	不検出	
23	愛知県(名古屋市)	不検出	不検出	
24	三重県(四日市市)	不検出	不検出	
25	滋賀県(大津市)	不検出	不検出	
26	京都府(京都市)	不検出	不検出	
27	大阪府(大阪市)	不検出	不検出	
28	兵庫県(神戸市)	不検出	不検出	
29	奈良県(奈良市)	不検出	不検出	
30	和歌山県(和歌山市)	不検出	不検出	
31	鳥取県(東伯郡)	不検出	不検出	
32	島根県(松江市)	不検出	不検出	
33	岡山県(岡山市)	不検出	不検出	
34	広島県(広島市)	不検出	不検出	
35	山口県(山口市)	不検出	不検出	
36	徳島県(徳島市)	不検出	不検出	
37	香川県(高松市)	不検出	不検出	
38	愛媛県(八幡浜市)	不検出	不検出	
39	高知県(高知市)	不検出	不検出	
40	福岡県(太宰府市)	不検出	不検出	
41	佐賀県(佐賀市)	不検出	不検出	
42	長崎県(大村市)	不検出	不検出	
43	熊本県(宇土市)	不検出	不検出	
44	大分県(大分市)	不検出	不検出	
45	宮崎県(宮崎市)	不検出	不検出	
46	鹿児島県(鹿児島市)	不検出	不検出	
47	沖縄県(那覇市)	不検出	不検出	

\*本データは、1Bq/Lを1Bq/kgとみなす

\*文部科学省が各都道府県等からの報告に基づき作成

\*「原子力施設等の防災対策について(原子力安全委員会)」飲食物の摂取制限に関する指標 (飲料水)  
放射性ヨウ素-131:300Bq/kg以上、放射性セシウム:200Bq/kg以上

# 福島第一原子力発電所周辺のモニタリング結果



測定日時  
4月10日  
6時00分～11時00分

●測定箇所

単位: マイクロシーベルト毎時

円は範囲の概略を示す

地図データ ©2

# 茨城県におけるモニタリング状況(1/1)

文部科学省

H23.4.10 13:00

μSv/h(マイクロシーベルト毎時)

日時	日本原子力研究開発機構 原子力科学研究所 (茨城県東海村)	日本原子力研究開発機構 核燃料サイクル工学研究所 (茨城県東海村)	東京大学弥生 (茨城県東海村)
4月9日			
0:00	1.14	0.64	1.01
1:00	1.14	0.64	1.06
2:00	1.15	0.64	0.94
3:00	1.14	0.64	1.05
4:00	1.14	0.64	0.86
5:00	1.14	0.64	1.00
6:00	1.14	0.64	0.90
7:00	1.14	0.64	0.99
8:00	1.14	0.64	0.97
9:00	1.13	0.63	0.95
10:00	1.13	0.63	0.91
11:00	1.13	0.63	0.95
12:00	1.13	0.63	0.98
13:00	1.12	0.63	0.96
14:00	1.13	0.63	0.97
15:00	1.13	0.63	0.92
16:00	1.12	0.63	0.93
17:00	1.12	0.62	0.94
18:00	1.12	0.62	0.99
19:00	1.11	0.62	1.03
20:00	1.11	0.62	0.92
21:00	1.11	0.62	0.94
22:00	1.11	0.62	0.92
23:00	1.13	0.61	1.01
4月10日			
0:00	1.11	0.61	0.99
1:00	1.11	0.61	0.91
2:00	1.11	0.62	1.04
3:00	1.11	0.62	0.95
4:00	1.11	0.61	0.97
5:00	1.11	0.62	0.92
6:00	1.11	0.62	0.98
7:00	1.12	0.62	0.90
8:00	1.11	0.62	0.93
9:00	1.12	0.62	1.00
10:00	1.11	0.62	
11:00	1.11	0.62	
12:00	1.11	0.61	

※このデータは、表記の3カ所における空間線量率を1時間毎に計測したものである。日本原子力研究開発機構原子力科学研究所及び日本原子力研究開発機構核燃料サイクル工学研究所のデータは、それぞれ以下のホームページでも掲載されている。

日本原子力研究開発機構原子力科学研究所

<http://erms.jaea.go.jp/Chart.htm>

日本原子力研究開発機構核燃料サイクル工学研究所

[http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl\\_10mStPo01.html](http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl_10mStPo01.html)

福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月10日 13時00分現在  
文 部 科 学 省

○文部科学省が集計した結果

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【1】(約60km北西)	4月10日8時30分	0.3 <sup>*2</sup>	N: 37' 44' 12.6" E: 140' 28' 02.9"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【2】(約55km北西)	4月10日8時53分	2.6 <sup>*2</sup>	N: 37' 41' 12.7" E: 140' 33' 29.3"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【3】(約45km北西)	4月10日9時47分	2.9 <sup>*2</sup>	N: 37' 45' 40.5" E: 140' 44' 19.9"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【4】(約50km北西)	4月10日9時14分	1.9 <sup>*2</sup>	N: 37' 39' 30.0" E: 140' 35' 54.0"	20110330 確認	降雨なし	文部科学省
測定エリア【5】(約45km北)	4月10日10時24分	0.6 <sup>*2</sup>	N: 37' 47' 17.4" E: 140' 55' 59.1"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【6】(約35km北)	4月10日10時49分	1.2 <sup>*2</sup>	N: 37' 42' 09.5" E: 140' 58' 04.6"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【10】(約40km北西)	4月10日9時27分	1.6 <sup>*2</sup>	N: 37' 36' 02.9" E: 140' 35' 07.3"	20110403 確認	降雨なし	文部科学省
測定エリア【11】(約40km北西)	4月10日9時35分	1.9 <sup>*2</sup>	N: 37' 34' 00.0" E: 140' 34' 48.0"	20110330 確認	降雨なし	文部科学省
測定エリア【20】(約45km北西)	4月10日9時58分	1.6 <sup>*2</sup>	N: 37' 29' 24.2" E: 140' 34' 54.2"	20110330 確認	降雨なし	文部科学省
測定エリア【21】(約30km西北西)	4月10日10時24分	5.9 <sup>*2</sup>	N: 37' 30' 28.7" E: 140' 42' 08.7"	20110330 確認	降雨なし	文部科学省
測定エリア【22】(約35km西北西)	4月10日10時12分	2.0 <sup>*2</sup>	N: 37' 30' 41.3" E: 140' 39' 28.8"	20110330 確認	降雨なし	文部科学省
測定エリア【23】(約35km西北西)	4月10日10時50分	1.4 <sup>*2</sup>	N: 37' 30' 18.9" E: 140' 34' 40.6"	20110330 確認	降雨なし	文部科学省
測定エリア【31】(約30km西北西)	4月10日10時00分	12.8 <sup>*2</sup>	N: 37' 33' 03.2" E: 140' 44' 25.0"	20110330 確認	降雨なし	文部科学省
測定エリア【32】(約30km北西)	4月10日10時38分	25.2 <sup>*2</sup>	N: 37' 33' 03.2" E: 140' 44' 25.0"	20110330 確認	降雨なし	文部科学省
測定エリア【36】(約40km北西)	4月10日9時38分	4.6 <sup>*2</sup>	N: 37' 36' 20.6" E: 140' 37' 58.9"	20110331 確認	降雨なし	文部科学省
測定エリア【37】(約50km北西)	4月10日9時40分	3.0 <sup>*2</sup>	N: 37' 45' 06.7" E: 140' 41' 29.2"	20110402 確認	降雨なし	日本原子力研究開発機構

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【39】 (約45km北)	4月10日10時10分	0.9 *2	N: 37° 45' 52.7" E: 140° 51' 47.1"	20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【74】 (約35km南)	4月10日10時55分	0.5 *2			降雨なし	日本原子力研究開発機構
測定エリア【75】 (約45km南)	4月10日10時33分	0.5 *2	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【84】 (約40km南西)	4月10日9時55分	0.2 *2	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【85】 (約60km北西)	4月10日6時00分	0.4 *2	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】 (約55km西)	4月10日6時00分	0.9 *2	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【87】 (約30km西南西)	4月10日6時00分	1.6 *2	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330 確認	降雨あり	防衛省
測定エリア【101】 (約55km北西)	4月10日9時19分	1.5 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構

福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月10日 13時00分現在  
文 部 科 学 省

○文部科学省が集計した結果

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【1】 (約60km北西)	4月10日8時30分	0.3 *2	降雨なし	日本原子力研究開発機構
測定エリア【2】 (約55km北西)	4月10日8時53分	2.6 *2	降雨なし	日本原子力研究開発機構
測定エリア【3】 (約45km北西)	4月10日9時47分	2.9 *2	降雨なし	日本原子力研究開発機構
測定エリア【4】 (約50km北西)	4月10日9時14分	1.9 *2	降雨なし	文部科学省
測定エリア【5】 (約45km北)	4月10日10時24分	0.6 *2	降雨なし	日本原子力研究開発機構
測定エリア【6】 (約35km北)	4月10日10時49分	1.2 *2	降雨なし	日本原子力研究開発機構
測定エリア【10】 (約40km北西)	4月10日9時27分	1.6 *2	降雨なし	文部科学省
測定エリア【11】 (約40km北西)	4月10日9時35分	1.9 *2	降雨なし	文部科学省
測定エリア【20】 (約45km北西)	4月10日9時58分	1.6 *2	降雨なし	文部科学省
測定エリア【21】 (約30km西北西)	4月10日10時24分	5.9 *2	降雨なし	文部科学省
測定エリア【22】 (約35km西北西)	4月10日10時12分	2.0 *2	降雨なし	文部科学省
測定エリア【23】 (約35km西北西)	4月10日10時50分	1.4 *2	降雨なし	文部科学省
測定エリア【31】 (約30km西北西)	4月10日10時00分	12.8 *2	降雨なし	文部科学省
測定エリア【32】 (約30km北西)	4月10日10時38分	25.2 *2	降雨なし	文部科学省



- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【36】 (約40km北西)	4月10日9時38分	4.6 *2	降雨なし	文部科学省
測定エリア【37】 (約50km北西)	4月10日9時40分	3.0 *2	降雨なし	日本原子力研究開発機構
測定エリア【39】 (約45km北)	4月10日10時10分	0.9 *2	降雨なし	日本原子力研究開発機構
測定エリア【74】 (約35km南)	4月10日10時55分	0.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【75】 (約45km南)	4月10日10時33分	0.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【84】 (約40km南西)	4月10日9時55分	0.2 *2	降雨なし	日本原子力研究開発機構
測定エリア【85】 (約60km北西)	4月10日6時00分	0.4 *2	降雨なし	防衛省
測定エリア【86】 (約55km西)	4月10日6時00分	0.9 *2	降雨なし	防衛省
測定エリア【87】 (約30km西南西)	4月10日6時00分	1.6 *2	降雨あり	防衛省
測定エリア【101】 (約55km北西)	4月10日9時19分	1.5 *2	降雨なし	日本原子力研究開発機構

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
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環境放射能水準調査結果

H23.4.10 13:00

( $\mu$  Sv/h(マイクロシーベルト毎時))

	都道府県名	4月9日																過去の平常値の範囲
		9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24		
1	北海道(札幌市)	0.029	0.029	0.028	0.029	0.028	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.02~0.105	
2	青森県(青森市)	0.027	0.027	0.029	0.035	0.034	0.031	0.028	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.017~0.102	
3	岩手県(盛岡市)	0.031	0.032	0.031	0.030	0.029	0.027	0.025	0.024	0.024	0.024	0.024	0.024	0.025	0.025	0.025	0.014~0.084	
4	宮城県(仙台市)	0.086	0.086	0.084	0.084	0.085	0.085	0.085	0.084	0.083	0.083	0.082	0.082	0.082	0.082	0.081	0.0178~0.0513	
5	秋田県(秋田市)	0.041	0.040	0.041	0.041	0.042	0.039	0.036	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.022~0.086	
6	山形県(山形市)	0.060	0.059	0.059	0.059	0.058	0.057	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.025~0.082	
7	福島県(福島市)	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	0.037~0.046	
8	茨城県(水戸市)	0.155	0.153	0.154	0.152	0.150	0.149	0.149	0.150	0.151	0.152	0.153	0.151	0.150	0.151	0.149	0.036~0.056	
9	栃木県(宇都宮市)	0.080	0.080	0.080	0.079	0.077	0.077	0.078	0.077	0.075	0.075	0.074	0.074	0.074	0.074	0.074	0.030~0.067	
10	群馬県(前橋市)	0.044	0.043	0.043	0.043	0.043	0.044	0.043	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.017~0.049	
11	埼玉県(さいたま市)	0.065	0.065	0.065	0.065	0.065	0.066	0.066	0.066	0.066	0.065	0.065	0.065	0.066	0.070	0.068	0.031~0.060	
12	千葉県(市原市)	0.058	0.058	0.059	0.058	0.058	0.058	0.057	0.059	0.058	0.057	0.057	0.058	0.059	0.058	0.058	0.022~0.044	
13	東京都(新宿区)	0.084	0.085	0.085	0.084	0.084	0.084	0.083	0.083	0.084	0.084	0.084	0.084	0.083	0.083	0.083	0.028~0.079	
14	神奈川県(茅ヶ崎市)	0.060	0.061	0.061	0.061	0.061	0.059	0.058	0.058	0.058	0.058	0.059	0.059	0.059	0.059	0.059	0.035~0.069	
15	新潟県(新潟市)	0.052	0.054	0.058	0.060	0.057	0.051	0.048	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.031~0.153	
16	富山県(射水市)	0.051	0.053	0.050	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.047	0.048	0.048	0.048	0.029~0.147	
17	石川県(金沢市)	0.053	0.051	0.048	0.049	0.048	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.0291~0.1275	
18	福井県(福井市)	0.052	0.050	0.047	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.046	0.046	0.046	0.032~0.097	
19	山梨県(甲府市)	0.045	0.044	0.044	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.044	0.044	0.044	0.044	0.040~0.066	
20	長野県(長野市)	0.045	0.044	0.043	0.045	0.048	0.048	0.043	0.042	0.042	0.042	0.043	0.043	0.043	0.042	0.043	0.0299~0.0974	
21	岐阜県(各務原市)	0.064	0.062	0.061	0.061	0.060	0.061	0.060	0.060	0.060	0.060	0.060	0.061	0.060	0.061	0.060	0.057~0.110	
22	静岡県(静岡市)	0.049	0.048	0.047	0.044	0.043	0.041	0.041	0.040	0.040	0.040	0.041	0.040	0.040	0.040	0.040	0.0281~0.0765	
23	愛知県(名古屋)	0.041	0.041	0.040	0.039	0.040	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.035~0.074	
24	三重県(四日市市)	0.047	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0418~0.0789	
25	滋賀県(大津市)	0.035	0.034	0.034	0.034	0.033	0.033	0.032	0.033	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.031~0.061	
26	京都府(京都市)	0.040	0.038	0.038	0.038	0.038	0.037	0.038	0.037	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.033~0.087	
27	大阪府(大阪市)	0.044	0.043	0.042	0.042	0.042	0.042	0.043	0.042	0.043	0.042	0.043	0.042	0.042	0.042	0.042	0.042~0.061	
28	兵庫県(神戸市)	0.038	0.040	0.039	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.035~0.078	
29	奈良県(奈良市)	0.054	0.050	0.048	0.048	0.047	0.048	0.048	0.047	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.046~0.080	
30	和歌山県(和歌山市)	0.031	0.032	0.032	0.032	0.032	0.031	0.031	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.031	0.031~0.056	
31	鳥取県(鳥取市)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.062	0.063	0.063	0.064	0.064	0.064	0.036~0.110	
32	島根県(松江市)	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.046	0.046	0.046	0.037~0.131	
33	岡山県(岡山市)	0.049	0.049	0.048	0.049	0.049	0.049	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.043~0.104	
34	広島県(広島市)	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.047	0.047	0.046	0.047	0.046	0.046	0.047	0.047	0.035~0.069	
35	山口県(山口市)	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.091	0.091	0.091	0.091	0.091	0.091	0.084~0.128	
36	徳島県(徳島市)	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.037~0.067	
37	香川県(高松市)	0.062	0.062	0.054	0.056	0.060	0.059	0.053	0.055	0.059	0.058	0.053	0.057	0.062	0.060	0.054	0.051~0.077	
38	愛媛県(松山市)	0.048	0.048	0.048	0.048	0.048	0.047	0.048	0.047	0.047	0.047	0.048	0.048	0.048	0.048	0.048	0.045~0.074	
39	高知県(高知市)	0.026	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.026	0.026	0.026	0.026	0.019~0.054	
40	福岡県(太宰府市)	0.036	0.038	0.036	0.036	0.038	0.038	0.038	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.034~0.079	
41	佐賀県(佐賀市)	0.040	0.040	0.040	0.040	0.040	0.039	0.039	0.039	0.039	0.040	0.040	0.040	0.040	0.040	0.040	0.037~0.086	
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.027~0.069	
43	熊本県(宇土市)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.021~0.067	
44	大分県(大分市)	0.049	0.050	0.050	0.048	0.049	0.049	0.050	0.049	0.049	0.049	0.049	0.049	0.049	0.050	0.050	0.048~0.085	
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.0243~0.0664	
46	鹿児島県(鹿児島市)	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.0306~0.0943	
47	沖縄県(うるま市)	0.021	0.021	0.021	0.020	0.020	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133~0.0575	

\*宮城県では、可搬型モニタリングポストによる測定。  
 また、過去の平常値の範囲については、仙台市に設置していた固定型モニタリングポストの値を記載。  
 \*福島県では、双葉郡のモニタリングポストが避難区域に入っており、測定が困難であるため、代替地として福島県紅葉山局モニタリングポストで測定。  
 \*島根県では、機器点検のため、4月4日17時から代替機器により測定。  
 \*本データは、 $1\mu\text{Gy/h}$ (マイクログレイ毎時) $=1\mu\text{Sv/h}$ (マイクロシーベルト毎時)と換算して算出。  
 \*文部科学省が各都道府県等からの報告に基づき作成。  
 \*過去の平常値の範囲は、震災発生前の観測値における上限値と下限値をしいたもの。  
 \*群馬県、山梨県、高知県の過去の平常値の範囲の値は4月9日19時発表分より訂正。

環境放射能水準調査結果

H23.4.10 13:00

( $\mu$  Sv/h(マイクロシーベルト毎時))

	都道府県名	4月10日									過去の平常値の範囲
		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	
1	北海道(札幌市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.02~0.105
2	青森県(青森市)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.017~0.102
3	岩手県(盛岡市)	0.025	0.025	0.024	0.025	0.025	0.026	0.026	0.026	0.025	0.014~0.084
4	宮城県(仙台市)	0.082	0.081	0.080	0.080	0.079	0.078	0.078	0.081	0.084	0.0178~0.0513
5	秋田県(秋田市)	0.035	0.035	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.022~0.086
6	山形県(山形市)	0.056	0.056	0.056	0.057	0.058	0.057	0.057	0.056	0.058	0.025~0.082
7	福島県(福島市)	2.200	2.200	2.200	2.100	2.100	2.200	2.200	2.200	2.200	0.037~0.046
8	茨城県(水戸市)	0.147	0.147	0.149	0.147	0.148	0.150	0.149	0.150	0.149	0.036~0.056
9	栃木県(宇都宮市)	0.074	0.074	0.074	0.074	0.074	0.074	0.074	0.075	0.075	0.030~0.067
10	群馬県(前橋市)	0.042	0.042	0.042	0.042	0.043	0.042	0.042	0.042	0.042	0.017~0.049
11	埼玉県(さいたま市)	0.066	0.065	0.065	0.065	0.064	0.064	0.064	0.065	0.064	0.031~0.060
12	千葉県(市原市)	0.057	0.057	0.057	0.059	0.058	0.058	0.058	0.057	0.057	0.022~0.044
13	東京都(新宿区)	0.083	0.083	0.083	0.083	0.083	0.083	0.082	0.083	0.083	0.028~0.079
14	神奈川県(茅ヶ崎市)	0.059	0.059	0.059	0.059	0.059	0.059	0.058	0.058	0.058	0.035~0.069
15	新潟県(新潟市)	0.047	0.048	0.048	0.048	0.048	0.048	0.047	0.046	0.047	0.031~0.153
16	富山県(射水市)	0.048	0.048	0.048	0.049	0.049	0.048	0.049	0.049	0.049	0.029~0.147
17	石川県(金沢市)	0.048	0.047	0.048	0.047	0.048	0.047	0.048	0.048	0.047	0.0291~0.1275
18	福井県(福井市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.032~0.097
19	山梨県(甲府市)	0.044	0.044	0.044	0.044	0.045	0.044	0.045	0.044	0.044	0.040~0.066
20	長野県(長野市)	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.0299~0.0974
21	岐阜県(各務原市)	0.061	0.060	0.061	0.061	0.061	0.062	0.061	0.062	0.062	0.057~0.110
22	静岡県(静岡市)	0.040	0.039	0.039	0.039	0.039	0.038	0.038	0.039	0.040	0.0281~0.0765
23	愛知県(名古屋市)	0.038	0.039	0.039	0.039	0.040	0.040	0.040	0.040	0.040	0.035~0.074
24	三重県(四日市市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0416~0.0789
25	滋賀県(大津市)	0.034	0.035	0.035	0.035	0.035	0.034	0.034	0.034	0.034	0.031~0.061
26	京都府(京都市)	0.038	0.038	0.038	0.038	0.038	0.038	0.039	0.039	0.039	0.033~0.067
27	大阪府(大阪市)	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.043	0.042	0.042~0.061
28	兵庫県(神戸市)	0.036	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.035~0.076
29	奈良県(奈良市)	0.048	0.048	0.048	0.048	0.048	0.049	0.049	0.048	0.048	0.046~0.080
30	和歌山県(和歌山市)	0.031	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.031~0.056
31	鳥取県(東伯郡)	0.063	0.063	0.064	0.064	0.063	0.063	0.063	0.063	0.063	0.036~0.110
32	島根県(松江市)	0.046	0.046	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.037~0.131
33	岡山県(岡山市)	0.049	0.049	0.050	0.050	0.051	0.051	0.051	0.051	0.050	0.043~0.104
34	広島県(広島市)	0.047	0.048	0.048	0.048	0.049	0.049	0.049	0.049	0.050	0.035~0.069
35	山口県(山口市)	0.092	0.093	0.093	0.094	0.094	0.094	0.094	0.095	0.095	0.084~0.128
36	徳島県(徳島市)	0.038	0.038	0.038	0.038	0.039	0.039	0.039	0.039	0.039	0.037~0.067
37	香川県(高松市)	0.058	0.063	0.062	0.055	0.061	0.068	0.065	0.056	0.059	0.051~0.077
38	愛媛県(松山市)	0.049	0.049	0.049	0.050	0.050	0.050	0.049	0.049	0.049	0.045~0.074
39	高知県(高知市)	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.018~0.054
40	福岡県(太宰府市)	0.037	0.037	0.037	0.036	0.037	0.037	0.037	0.037	0.037	0.034~0.079
41	佐賀県(佐賀市)	0.040	0.040	0.040	0.041	0.041	0.041	0.041	0.041	0.040	0.037~0.086
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.027~0.069
43	熊本県(宇土市)	0.027	0.027	0.028	0.028	0.028	0.029	0.029	0.029	0.029	0.021~0.067
44	大分県(大分市)	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.051	0.051	0.048~0.085
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.0243~0.0664
46	鹿児島県(鹿児島市)	0.035	0.035	0.035	0.035	0.035	0.036	0.036	0.036	0.035	0.0306~0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.022	0.021	0.021	0.021	0.021	0.021	0.0133~0.0575

\*宮城県では、可搬型モニタリングポストによる測定。

また、過去の平常値の範囲については、仙台市に設置していた固定型モニタリングポストの値を記載。

\*福島県では、双葉郡のモニタリングポストが避難区域に入っており、測定が困難であるため、代替地として福島市紅葉山局モニタリングポストで測定。

\*鳥根県では、機器点検のため、4月4日17時から代替機器により測定。

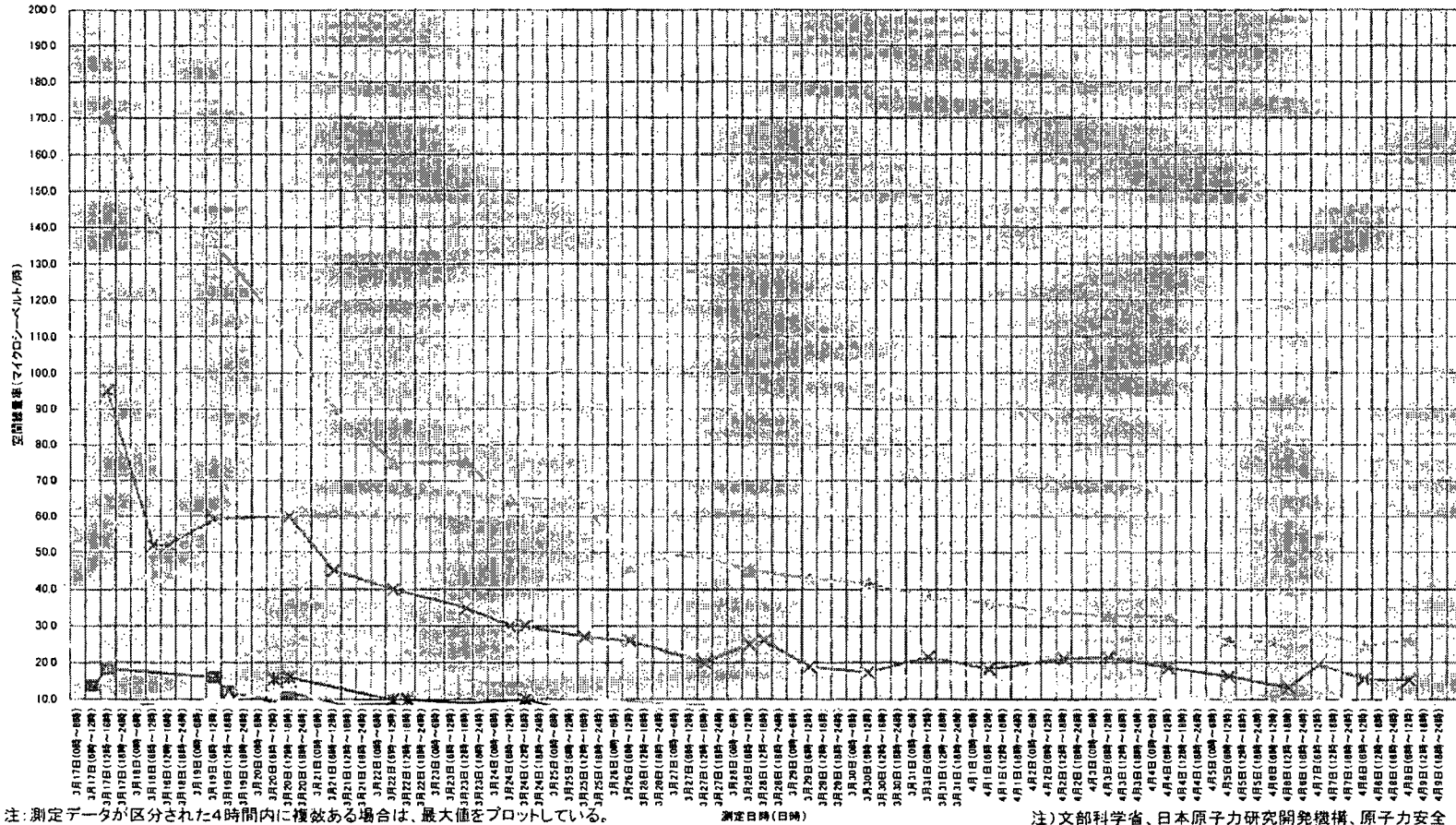
\*本データは、1 $\mu$ Gy/h(マイクログレイ毎時)=1 $\mu$ Sv/h(マイクロシーベルト毎時)と換算して算出。

\*文部科学省が各都道府県等からの報告に基づき作成。

\*過去の平常値の範囲は、震災発生前の観測値における上限値と下限値をしめしたもの。

\*群馬県、山梨県、高知県の過去の平常値の範囲の値は4月9日19時発表分より訂正。

# 福島第一原子力発電所の20km以遠のモニタリング結果の推移



注: 測定データが区分された4時間内に複数ある場合は、最大値をプロットしている。  
 注: 本グラフでは、10マイクロシーベルト/時以上のデータのみ表示している。

注) 文部科学省、日本原子力研究開発機構、原子力安全技術センターによる測定結果を記載

---

**From:** OST01 HOC  
**Sent:** Friday, March 25, 2011 7:54 AM  
**To:** RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** 20110325\_09.pdf

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

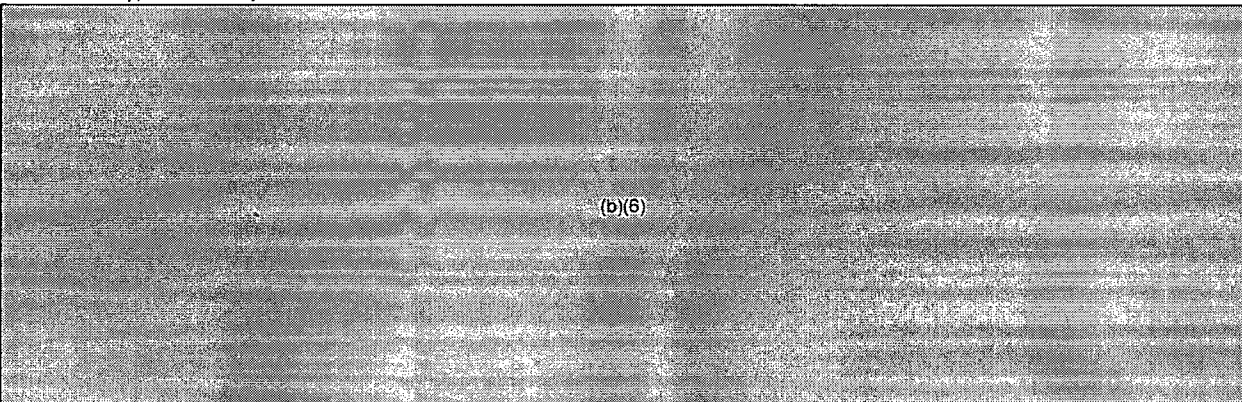
**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Friday, March 25, 2011 7:53 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

-----  
**From:** NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]  
**Sent:** Friday, March 25, 2011 7:52:54 AM  
**To:** CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc; Hoc, PMT12  
**Cc:** NITOPS  
**Subject:** FW: Radiation data by MEXT  
Auto forwarded by a Rule

Nuclear Incident Team (NIT)  
Office of Emergency Response (NA-42)  
National Nuclear Security Administration U.S. Department of Energy [nitops@nnsa.doe.gov](mailto:nitops@nnsa.doe.gov) [nit@doe.gov](mailto:nit@doe.gov) 202-586-8100

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

**From:** JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]  
**Sent:** Friday, March 25, 2011 12:57 AM



**Subject:** FW: Radiation data by MEXT

Jennifer Clever  
Japan Emergency Command Center  
U.S. Embassy, Tokyo

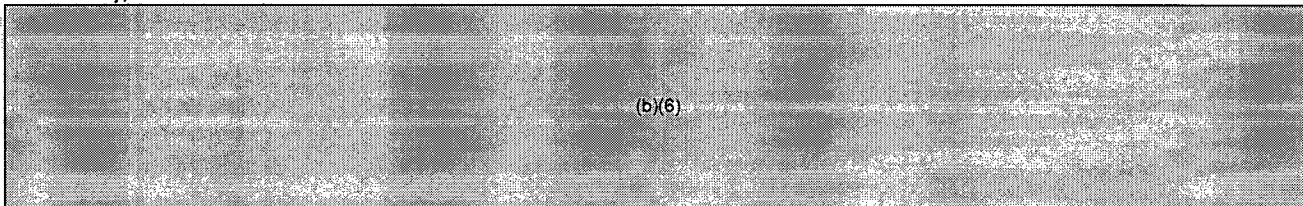
SBU

This email is UNCLASSIFIED-----Original Message-----

From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]

Sent: Friday, March 25, 2011 1:56 PM

To: Cherry, Ronald C



Subject: Radiation data by MEXT

Dear Sir,

Please see attached the document.

It shows the result of maritime monitoring.

Sincerely yours,  
Eiko SENAMI

Eiko SENAMI (Ms.)

Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology  
- Japan

福島第一原子力発電所周辺の海域モニタリング結果

平成23年3月25日  
文部科学省

1. 海水中の放射能濃度

測定試料採取点	採取日時	核種	放射能濃度(Bq/L)
第1海域 <sup>※1</sup> 測点1	3月24日8時07分	<sup>131</sup> I	22.3
		<sup>137</sup> Cs	15.1
第1海域測点2	3月24日9時09分	<sup>131</sup> I	16.9
		<sup>137</sup> Cs	8.32
第1海域測点3	3月24日10時00分	<sup>131</sup> I	57.4
		<sup>137</sup> Cs	26.1
第1海域測点4	3月24日11時00分	<sup>131</sup> I	59.1
		<sup>137</sup> Cs	16.0
第2海域 <sup>※2</sup> 測点1	3月24日11時48分	<sup>131</sup> I	40.5
		<sup>137</sup> Cs	11.1
第2海域測点2	3月24日12時35分	<sup>131</sup> I	36.2
		<sup>137</sup> Cs	16.9
第2海域測点3	3月24日13時24分	<sup>131</sup> I	33.4
		<sup>137</sup> Cs	12.3
第2海域測点4	3月24日14時18分	<sup>131</sup> I	37.5
		<sup>137</sup> Cs	13.4

※1 第1海域:福島第一原子力発電所沖合

※2 第2海域:福島第二原子力発電所沖合

2. 海上の空間線量率

場所	測定日時	数値(マイクロシーベルト毎時) <sup>※</sup> (記載のない限り屋外)	天候
第1海域測点1	3月24日8時07分	0.080	降雨無し
第1海域測点2	3月24日9時09分	0.080	降雨無し
第1海域測点3	3月24日10時00分	0.060	降雨無し
第1海域測点4	3月24日11時00分	0.046	降雨無し
第2海域測点1	3月24日11時48分	0.055	降雨無し
第2海域測点2	3月24日12時35分	0.080	降雨無し
第2海域測点3	3月24日13時24分	0.060	降雨無し
第2海域測点4	3月24日14時18分	0.059	降雨無し

※ 検出器型式 CsI(Tl)シンチレーション検出器(PDF-101、アロカ株式会社)

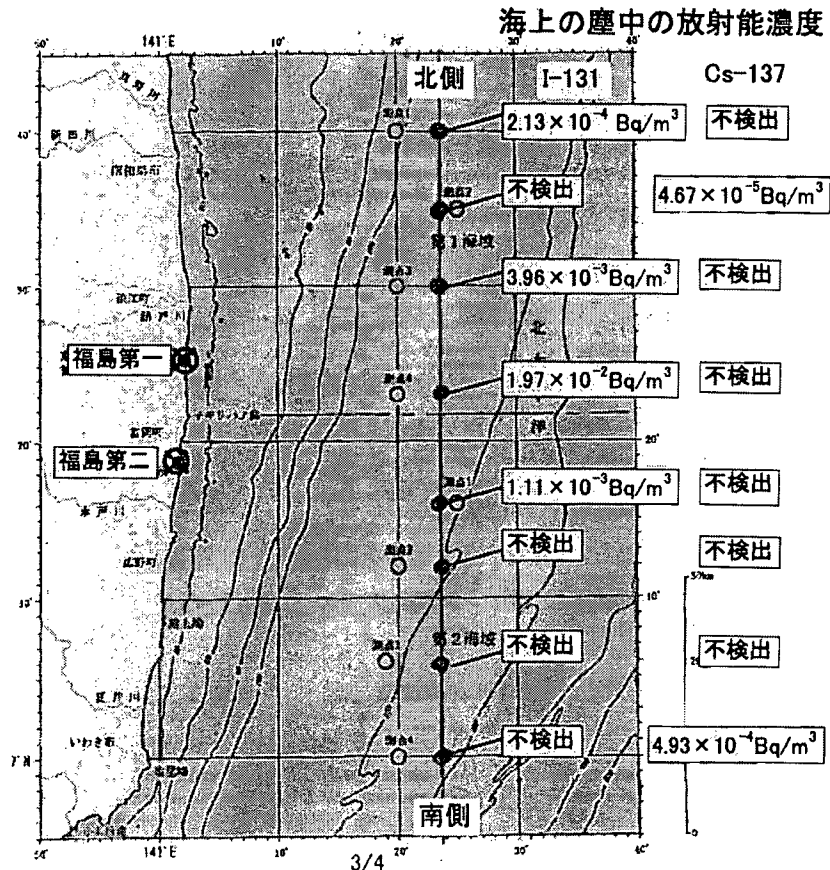
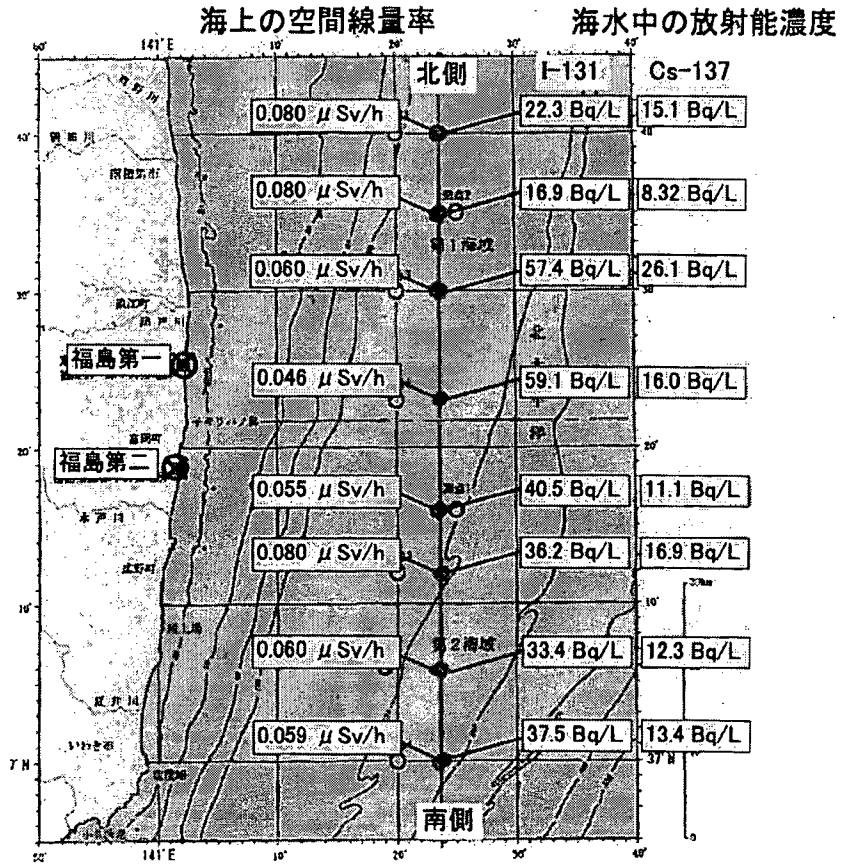


### 3. 海上の塵中の放射能濃度

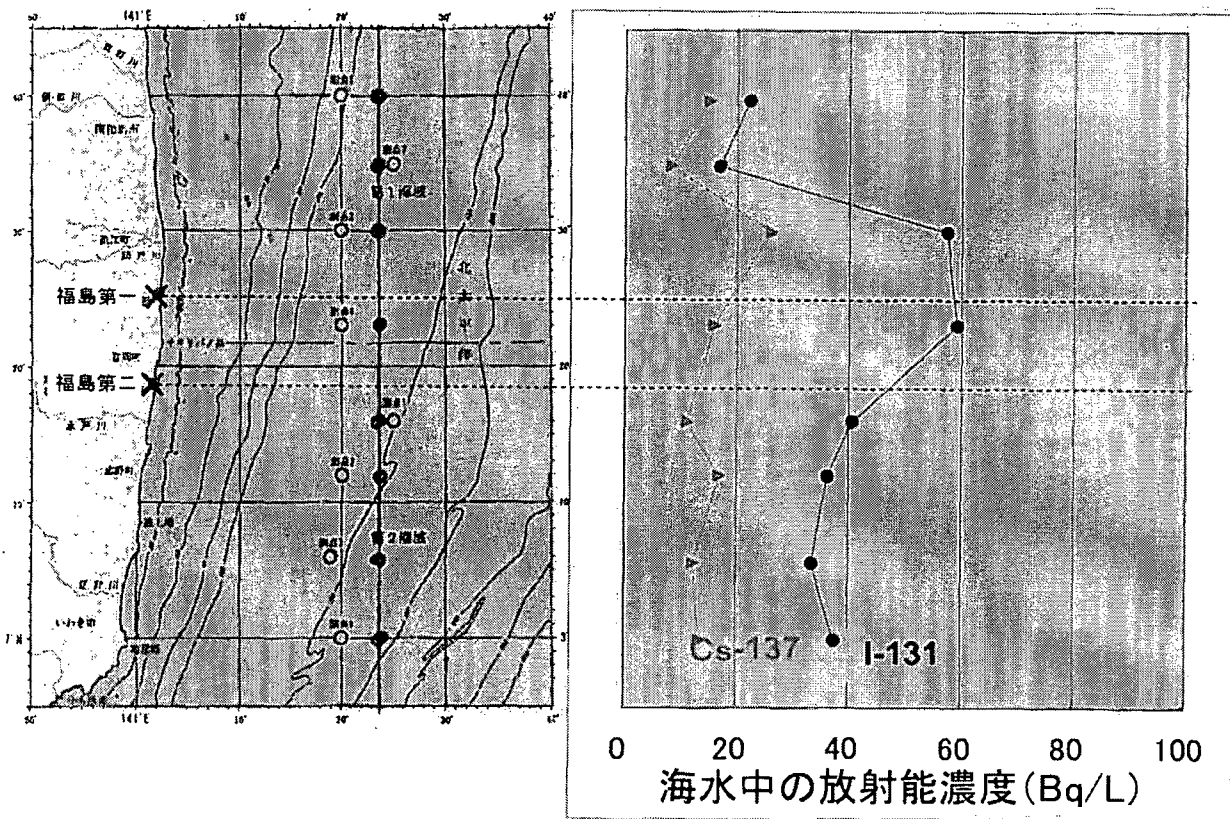
測定試料採取点	採取日時	核種	放射能濃度(Bq/m <sup>3</sup> )
第1海域測点1	3月24日8時07分	<sup>131</sup> I	0.000213
		<sup>137</sup> Cs	不検出
第1海域測点2	3月24日9時09分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	0.0000467
第1海域測点3	3月24日10時00分	<sup>131</sup> I	0.00396
		<sup>137</sup> Cs	不検出
第1海域測点4	3月24日11時00分	<sup>131</sup> I	0.0197
		<sup>137</sup> Cs	不検出
第2海域測点1	3月24日11時48分	<sup>131</sup> I	0.00111
		<sup>137</sup> Cs	不検出
第2海域測点2	3月24日12時35分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	不検出
第2海域測点3	3月24日13時24分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	不検出
第2海域測点4	3月24日14時18分	<sup>131</sup> I	不検出
		<sup>137</sup> Cs	0.000493

各測定点の位置は次のとおり

第1海域測点1	37° 39.8′ N, 141° 24.3′ E
第1海域測点2	37° 35.0′ N, 141° 23.9′ E
第1海域測点3	37° 30.1′ N, 141° 24.3′ E
第1海域測点4	37° 23.2′ N, 141° 24.1′ E
第2海域測点1	37° 16.1′ N, 141° 23.8′ E
第2海域測点2	37° 12.1′ N, 141° 23.9′ E
第2海域測点3	37° 05.7′ N, 141° 24.0′ E
第2海域測点4	36° 59.9′ N, 141° 23.8′ E



### 海域モニタリング結果(平成23年3月24日採取)



## Landau, Mindy

---

**From:** Landau, Mindy  
**Sent:** Tuesday, March 22, 2011 5:28 PM  
**To:** Wittick, Brian; Andersen, James  
**Cc:** Ellmers, Glenn; Rihm, Roger  
**Subject:** RE: Request from MA for RI to Meet w/Governor

Glenn prepared testimony for RIII for Congressional reps; I don't think this material would be necessary for the MA group – it might be more appropriate to provide them with whatever was provided to the NY contingent today.

Let's talk tomorrow so we can be consistent in the materials we are providing..

Mindy

---

**From:** Wittick, Brian  
**Sent:** Tuesday, March 22, 2011 5:17 PM  
**To:** Andersen, James  
**Cc:** Ellmers, Glenn; Landau, Mindy  
**Subject:** RE: Request from MA for RI to Meet w/Governor

The flood gates have opened.

Brian Wittick  
Executive Technical Assistant for Reactors  
Office of the Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
301-415-2496 (w); (b)(6) (c)

---

**From:** Andersen, James  
**Sent:** Tuesday, March 22, 2011 5:13 PM  
**To:** Wittick, Brian  
**Cc:** Ellmers, Glenn; Landau, Mindy  
**Subject:** Re: Request from MA for RI to Meet w/Governor

Glenn elmers did something for riii. Check with him

Sent from an NRC Blackberry  
James Andersen  
(b)(6)

---

**From:** OST05 Hoc  
**To:** Wittick, Brian; Andersen, James  
**Cc:** McNamara, Nancy; Sanfilippo, Nathan  
**Sent:** Tue Mar 22 16:56:04 2011  
**Subject:** FW: Request from MA for RI to Meet w/Governor

Brian,

Please see request below from Region I requesting assistance with coordination of a meeting with the Governor of Massachusetts.

Nathan suggested that in light of the NY meeting today Region I coordinate this through you.

Will you be able to assist Region I/ Nancy McNamara with this?

Thanks  
Michelle

Michelle Ryan  
State Liaison – Liaison Team  
Incident Response Center

---

**From:** McNamara, Nancy  
**Sent:** Tuesday, March 22, 2011 4:40 PM  
**To:** LIA04 Hoc; OST05 Hoc  
**Subject:** Request from MA for RI to Meet w/Governor  
**Importance:** High

This afternoon, the Governor of Massachusetts has requested a meeting with him and his staff and the NRC to discuss the event in Japan, seismic study (GI-199) and spent fuel pools. The Governor stated that the level of participation could be at the Regional level with experts to support the information sharing session.

The RI Regional Administrator is available to support such a meeting with assistance from subject matter experts from our HQ staff.

Would you like us to coordinate this request through the EDO's office or through the Liaison Team?

Nancy

## Andersen, James

---

**From:** Andersen, James  
**Sent:** Wednesday, March 23, 2011 8:53 AM  
**To:** Bavol, Rochelle  
**Subject:** FW: FYI - Draft Scheduling Note for Commission Meeting on Japanese Events  
**Attachments:** 1104xx Japan Rad Consequence Scheduling Noterev1.docx

**Importance:** High

Rochelle, here was the early draft. I have asked Greg to see if we can get the titles, spell out the acronyms, and see if we can get NSIR buy in. I asked him to provide whatever he can get done by 10:30am to us and we will go with that. We are also having the staff go first on this one, I think we need to give the big picture and then the other agencies fill in some more detail. Any major issues we need to resolve before 10:30am?

Jim A.

---

**From:** Bowman, Gregory  
**Sent:** Wednesday, March 23, 2011 7:41 AM  
**To:** Andersen, James  
**Subject:** FYI - Draft Scheduling Note for Commission Meeting on Japanese Events  
**Importance:** High

RES sent me the draft scheduling note for the April 14 Commission meeting last night. Note from Kathy's e-mail that she's working on getting buy-in from NSIR, since they'll be responsible for some of the presentation. If you can, it would be better to hold off sending it to SECY while I wait to hear back from Kathy. I'll give her a call shortly to check on status. In the meantime, if you have the time and want to give this a skim to see if it's on target, I can take care of incorporating any changes.

Greg

---

**From:** Gibson, Kathy  
**Sent:** Tuesday, March 22, 2011 5:26 PM  
**To:** Evans, Michele  
**Cc:** McDermott, Brian; Dudek, Michael; Bowman, Gregory; Elkins, Scott; Shaffer, Vered  
**Subject:** FW: Commission Meeting on Japanese Events  
**Importance:** High

Michele,

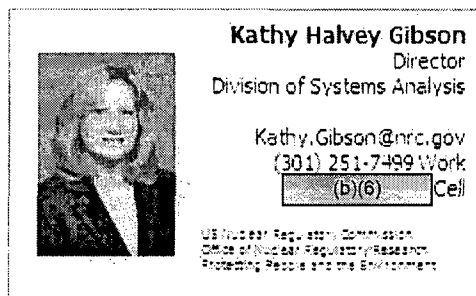
Below is the email chain related to the upcoming Commission meeting on radiological consequences and health effects of Japanese events. It will give you some background and the parameters that we are working toward. We were thinking that this briefing would give the staff the opportunity to showcase its event response capabilities and activities in assessing radiological consequences and minimizing health effects. The second panel would present other domestic assets used in Japan event response to assess consequences and minimize health effects.

Scott Elkins has the lead for us. We were thinking SLs as speakers but weigh in if you think they should be higher level. He has spoken to Trish Milligan. He did not hear back from Cindy Jones as she is in the Ops Center this week. Trish recommended speakers for DOE and EPA and said she would provide EPA and NR names.

The draft scheduling note is attached. We need your office's endorsement of the scheduling note before we send to EDO.

I understand that your cognizant staff are out of the office or on Operations Center duty. I believe we don't necessarily need names for the external speakers before we send the scheduling note to EDO, but can put TBDs and then provide the names later.

Thanks,  
Kathy



---

**From:** Bowman, Gregory  
**Sent:** Tuesday, March 22, 2011 12:48 PM  
**To:** Gibson, Kathy; Elkins, Scott  
**Cc:** Shaffer, Vered; Rini, Brett; Sheron, Brian; Uhle, Jennifer  
**Subject:** RE: Commission Meeting on Japanese Events

That sounds like a good plan.


If you know the names for the proposed external panelists, that would be great, but don't worry about it if you're not sure. We can work with SECY to figure that out over the next week.

---

**From:** Gibson, Kathy  
**Sent:** Tuesday, March 22, 2011 12:39 PM  
**To:** Bowman, Gregory; Elkins, Scott  
**Cc:** Shaffer, Vered; Rini, Brett; Sheron, Brian; Uhle, Jennifer  
**Subject:** RE: Commission Meeting on Japanese Events

I discussed with Brian and we were thinking along the lines of an SL panel, probably 3 – one to cover how we develop the source terms (RES – Charlie Tinkler), one to cover the tools and processes for dose projections (in the Ops Center)(NSIR – Cindy Jones), one to cover health effects and protective actions (NSIR – Trish Milligan). It will take coordination with a number of offices to develop slides and talking points.) (Haven't discussed with NSIR yet)

As to external panel, we were thinking DOE (multiple assets – AMS, NARAC, labs), EPA (PAGs), FDA (food interdiction), NR or DOD (military assets and response).



**Kathy Halvey Gibson**  
Director  
Division of Systems Analysis

Kathy.Gibson@nrc.gov  
(301) 251-7499 Work  
(b)(6) Cell

US Nuclear Regulatory Commission  
Office of Nuclear Regulatory Research  
Protecting People and the Environment

**From:** Bowman, Gregory  
**Sent:** Tuesday, March 22, 2011 12:23 PM  
**To:** Gibson, Kathy; Elkins, Scott  
**Cc:** Shaffer, Vered; Rini, Brett  
**Subject:** RE: Commission Meeting on Japanese Events

Here you go.


I would recommend keeping the internal panel to Bill (introductions and overview of the event) and a couple people to discuss radiological aspects. The attached draft includes NSIR and FSME, but I think they can be removed. Like I said in my e-mail below, the external panel is a little more up in the air. Between the Chairman's office and the EDO's office, I've heard the following suggestions: other Federal agencies (e.g., EPA, DOE); HPS; industry; and/or a representative from one of the labs. We'd need to make a proposal and SECY would take care of the invitations. Don't worry about polishing it too much – I think they have an agenda planning meeting on Thursday and we'll get more direction then, I'm sure.

Brett just called me about this a little while ago, and he might have already started working on the scheduling note.

**From:** Gibson, Kathy  
**Sent:** Tuesday, March 22, 2011 12:15 PM  
**To:** Bowman, Gregory; Elkins, Scott  
**Cc:** Shaffer, Vered  
**Subject:** RE: Commission Meeting on Japanese Events  
**Importance:** High

Thanks Greg. Could you please send us the draft scheduling note again. We will work on a proposed final version this afternoon.

Scott Elkins is our lead for the Commission meeting with staff support from Vered Shaffer.



**Kathy Halvey Gibson**  
Director  
Division of Systems Analysis

Kathy.Gibson@nrc.gov  
(301) 251-7499 Work  
(b)(6) Cell

US Nuclear Regulatory Commission  
Office of Nuclear Regulatory Research  
Protecting People and the Environment

**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 affects 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**)

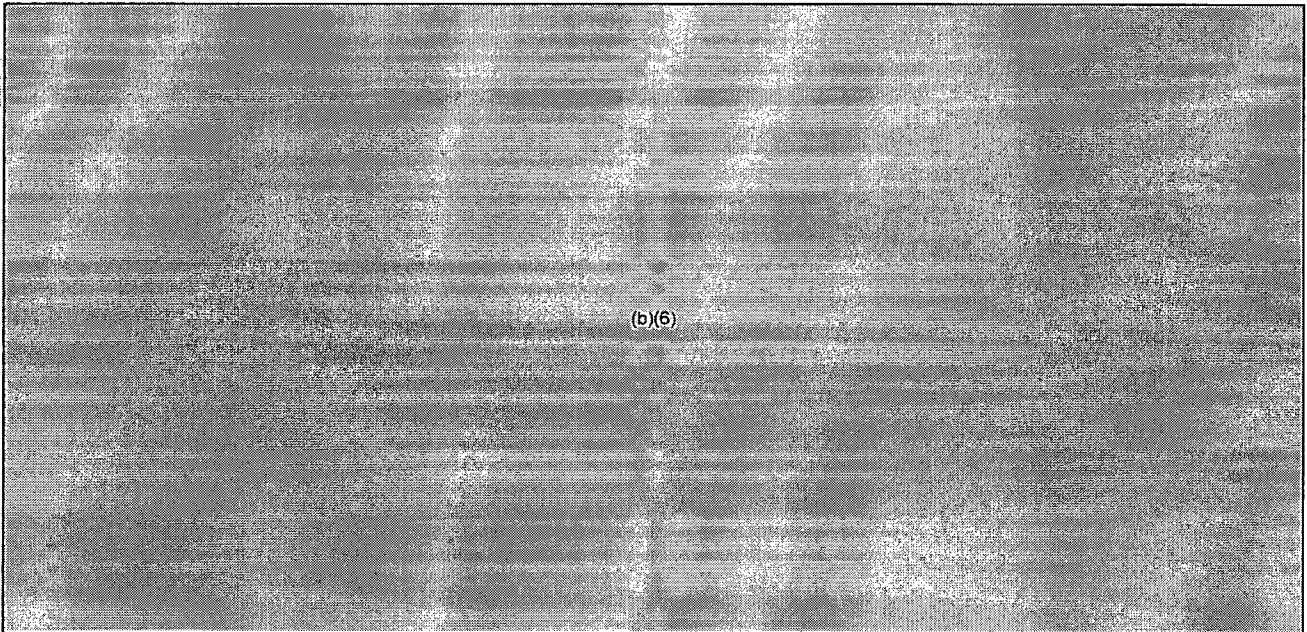
---

**From:** OST01 HOC  
**Sent:** Friday, April 01, 2011 6:23 AM  
**To:** RST01 Hoc; PMT02 Hoc; PMT11 Hoc; Hoc, PMT12  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** (English)20110401\_15.pdf; (English)20110401\_16.pdf; (English)20110401\_17.pdf

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

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Friday, April 01, 2011 6:23 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

-----  
**From:** JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]  
**Sent:** Friday, April 01, 2011 6:19:50 AM



**Subject:** FW: Radiation data by MEXT  
Auto forwarded by a Rule

fyi

on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

Lynda Hinds  
Staff Assistant to Ambassador John V. Roos U.S. Embassy  
1-10-5 Akasaka, Minato-ku

Tokyo 107-8420  
Tel. (03) 3224- 5370

Twitter.com/AmbassadorRoos

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

From: eda@mext.go.jp [mailto:eda@mext.go.jp]

Sent: Friday, April 01, 2011 6:54 PM

To: Cherry, Ronald C

Cc: JapanEmbassy, TaskForce; Carden, Terry L CWO4 USMC; (b)(6) cmht@nnsa.doe.gov; Guss,

Paul P. CTR; Peeke, Richard S MAJ USA; (b)(6) saigai03@mext.go.jp

Subject: Radiation data by MEXT

Dear Mr. Cherry,

Please see attached the document.

Please let me correct the data of file "20110331\_16pdf" which we send you  
3/31 regarding "Readings of Radioactivity Concentration of Nuclide in the air by aircraft of Ministry of Defense" as  
follows.

duration 2011/3/29 13:10~13:52

nuclide Cs-137

(incorrect) 0.0029 Bq/m<sup>3</sup>

(correct) 0.0027 Bq/m<sup>3</sup>

(reason) revision for conversion of parameter

Sincerely yours,  
Kei EDA

## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 16:00 April 1, 2011  
Ministry of Education, Culture, Sports, Science and  
Technology (MEXT)

○Monitoring Outputs by MEXT \***Boldface and underlined readings are new.**

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point [1] (About60KmNorthWest)	2011/4/1 8:48	2.7 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [2] (About55KmNorthWest)	2011/4/1 9:18	3.8 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [3] (About45KmNorthWest)	2011/4/1 10:14	3.3 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [5] (About45KmNorth)	2011/4/1 11:12	0.8 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [6] (About45KmNorth)	2011/4/1 11:34	1.0 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [7] (About45KmNorth)	2011/4/1 11:43	1.1 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [12] (About40KmWest)	2011/4/1 11:39	0.5 *2	No Rain	MEXT
Reading Point [13] (About40KmWest)	2011/4/1 11:53	0.5 *2	No Rain	MEXT
<b>Reading Point [14] (About35KmWest)</b>	<b>2011/4/1 12:06</b>	<b>0.2 *2</b>	<b>No Rain</b>	<b>MEXT</b>
<b>Reading Point [15] (About35KmWest)</b>	<b>2011/4/1 12:19</b>	<b>0.6 *2</b>	<b>No Rain</b>	<b>MEXT</b>
Reading Point [20] (About45KmNorthWest)	2011/4/1 10:37	0.6 *2	No Rain	MEXT
Reading Point [21] (About30KmWestNorthWest)	2011/4/1 11:09	2.3 *2	No Rain	MEXT
Reading Point [22] (About30KmWestNorthWest)	2011/4/1 11:00	0.6 *2	No Rain	MEXT
Reading Point [23] (About20KmWestNorthWest)	2011/4/1 10:48	0.6 *2	No Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h)	Weather	Reading by
Reading Point 【31】 (About30KmWestNorthWest)	2011/4/1 10:33	15.4 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【32】 (About30KmNorthWest)	2011/4/1 10:56	36.2 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【33】 (About30KmNorthWest)	2011/4/1 11:22	18.2 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【34】 (About30KmNorthWest)	2011/4/1 13:02	5.8 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【36】 (About40KmNorthWest)	2011/4/1 10:08	5.7 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【37】 (About50kmNorthWest)	2011/4/1 9:57	4.6 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【38】 (About35kmSouth)	2011/4/1 11:37	1.0 *2	No Rain	MEXT
Reading Point 【71】 (About25KmSouth)	2011/4/1 8:31	2.5 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【72】 (About30KmSouth)	2011/4/1 12:42	1.6 *2	No Rain	MEXT
Reading Point 【72】 (About30KmSouth)	2011/4/1 9:11	0.8 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【73】 (About35KmSouth)	2011/4/1 11:57	1.4 *2	No Rain	MEXT
Reading Point 【73】 (About35KmSouth)	2011/4/1 9:27	0.7 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (About35KmSouth)	2011/4/1 11:08	0.2 *2	No Rain	MEXT
Reading Point 【74】 (About35KmSouth)	2011/4/1 9:55	0.3 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【75】 (About45KmSouth)	2011/4/1 10:30	0.8 *2	No Rain	MEXT
Reading Point 【75】 (About45KmSouth)	2011/4/1 7:00	0.8 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【76】 (About25KmSouthWest)	2011/4/1 11:03	0.6 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【77】 (About25KmSouthWest)	2011/4/1 10:45	2.2 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【78】 (About45KmNorthWest)	2011/4/1 7:47	0.8 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【79】 (About30KmNorthWest)	2011/4/1 12:26	16.5 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【79】 (About30KmNorthWest)	2011/4/1 9:56	15.5 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【80】 (About25KmNorth)	2011/4/1 12:33	0.7 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【80】 (About25KmNorth)	2011/4/1 12:02	0.7 *2	No Rain	Police ( counter NBC operations unit )



- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【81】 (About30kmWestNorthWest)	2011/4/1 8:34	34.5 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【83】 (About20kmNorthWest)	2011/4/1 12:47	70.9 *2	No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【83】 (About20kmNorthWest)	2011/4/1 10:11	60.5 *2	No Rain	Police ( counter NBC operations unit )
Reading Point 【84】 (About40kmSouthWest)	2011/4/1 9:50	0.5 *2	No Rain	MEXT
Reading Point 【85】 (About60kmNorthWest)	2011/4/1 6:00	0.3 *2	No Rain	Ministry of Defense
Reading Point 【86】 (About55kmWest)	2011/4/1 6:00	1.3 *2	No Rain	Ministry of Defense
Reading Point 【87】 (About30kmWest.SouthWest)	2011/4/1 6:00	1.0 *2	No Rain	Ministry of Defense

## Readings of Radioactivity Concentration of Nuclide in the air by aircraft of Ministry of Defense

【Boldface and underlined readings are new.】

As of 16:00 April 1, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

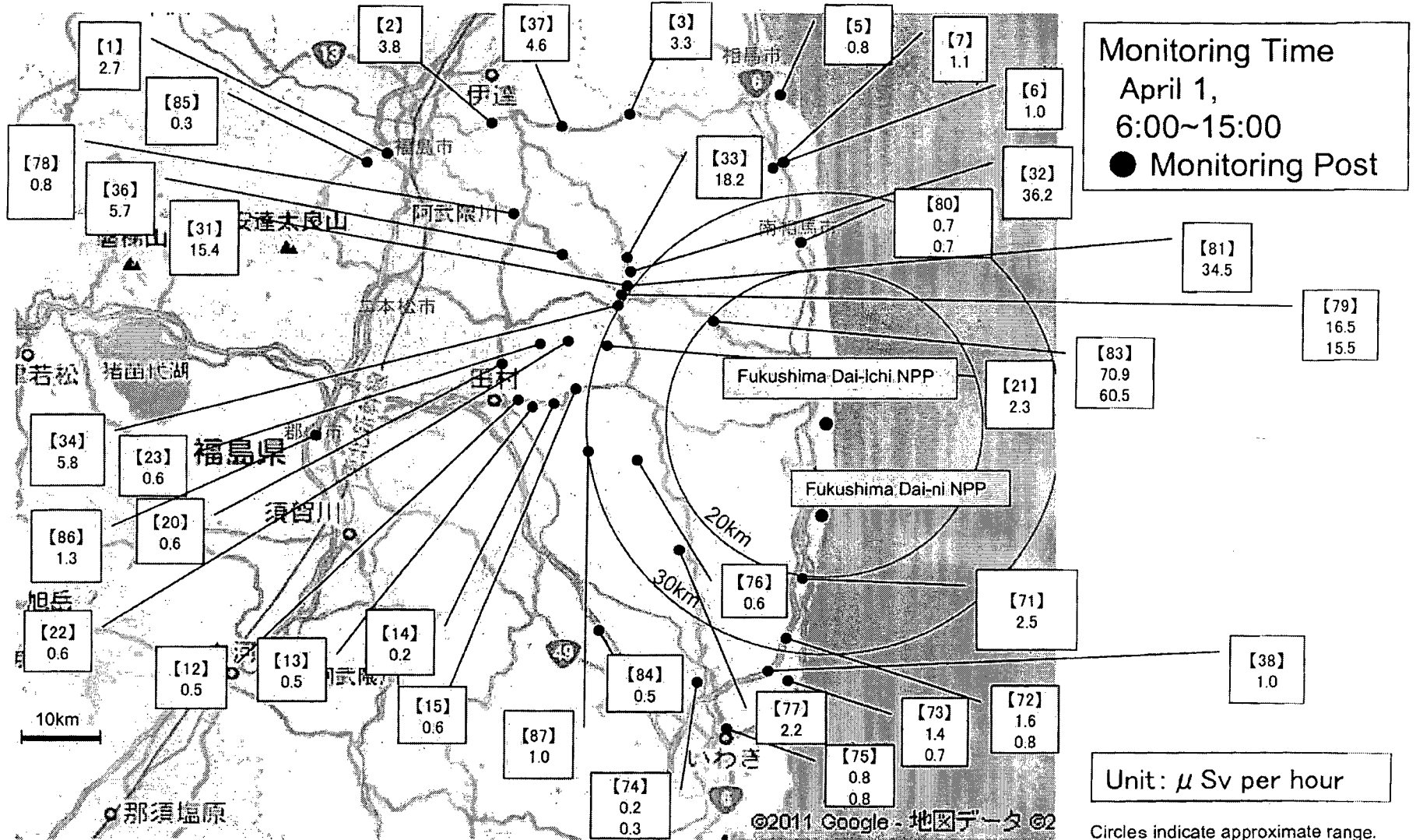
Monitoring Area	Altitude	Sampling Term	Nuclide (Bq/m <sup>3</sup> )	
			I-131	Cs-137
Hyakuri-Niigata <sup>※1</sup>	About 3000m (10000feet)	2011/3/24 11:12~ 11:40	<b>0.039</b>	0.0019
Hyakuri-Niigata <sup>※1</sup>	About 3000m (10000feet)	2011/3/25 9:28~ 9:59	0.019	0.0015
Hyakuri-Niigata <sup>※1</sup>	About 3200m~5600m (10500~18500feet)	2011/3/26 13:10~13:42	0.0283	0.0011
Hyakuri-Niigata <sup>※1</sup>	About 4400m~4700m (14500~15500feet)	2011/3/27 13:11~13:42	0.0069	0.0010
Hyakuri-Niigata <sup>※1</sup>	About 2300m (7500feet)	2011/3/28 9:29~10:14	0.0059	0.0012
Hyakuri-Niigata <sup>※1</sup>	About 2300m (7500feet)	2011/3/29 13:10 ~13:52	0.018	0.0027
offshore of Fukushima <sup>※1</sup>	About 1500~3000m (5000~10000feet)	2011/3/24 15:25~16:00	0.46	0.017
offshore of Fukushima <sup>※1</sup>	About 1500m (5000feet)	2011/3/25 9:30~10:07	0.20	0.011
offshore of Fukushima <sup>※1</sup>	About 1000m (3500feet)	2011/3/31 9:34 ~10:24	0.061	0.0138

※1 Analyzed by Japan Chemical Analysis Center

※2 Analyzed by Technical Research and Development Institute(Ministry of Defence)

※3 Analyzed by the Radioisotope Center, University of Tsukuba

# Readings at Monitoring Post out of Fukushima Dai-ichi NPP



## Landau, Mindy

---

**From:** Landau, Mindy  
**Sent:** Wednesday, March 23, 2011 1:41 PM  
**To:** Burnell, Scott  
**Subject:** Fw: NRC Reply - Market Watch NY

I assume we don't want to venture into this territory?

Sent from my NRC Blackberry  
Mindy Landau  
(b)(6)  
Mindy.Landau@nrc.gov

---

**From:** Gelsi, Steven <SGelsi@marketwatch.com>  
**To:** Landau, Mindy  
**Sent:** Wed Mar 23 13:26:47 2011  
**Subject:** RE: NRC Reply - Market Watch NY

Hello Mindy

Is it possible to look up any proposed nuclear plants that have received an investment from Tokyo Electric Power? They had planned to invest in a plant being built by NRG and I wanted to see if there were any other. Thanks.

Steve Gelsi  
Energy Reporter  
MarketWatch  
(b)(6)

---

**From:** Landau, Mindy [mailto:Mindy.Landau@nrc.gov]  
**Sent:** Wednesday, March 16, 2011 4:18 PM  
**To:** Gelsi, Steven  
**Subject:** RE: NRC Reply - Market Watch NY

Steve, we have no confirmation of that.

Mindy Landau (assisting Public Affairs)

---

**From:** Gelsi, Steven <SGelsi@marketwatch.com>  
**To:** Couret, Ivonne  
**Sent:** Wed Mar 16 11:21:43 2011  
**Subject:** RE: NRC Reply - Market Watch NY

Hello Ivonne

ABC news reported about two hours ago that a large American nuclear response team of hundreds of military and other folks is on its way to Japan.

I didn't see anything else about this on your web site? Could you confirm?

---

**From:** Couret, Ivonne [mailto:Ivonne.Couret@nrc.gov]  
**Sent:** Monday, March 14, 2011 1:13 PM

**To:** Gelsi, Steven  
**Subject:** RE: NRC Reply - Market Watch NY

11:45a.m.

Ivonne L. Couret  
Public Affairs Officer  
Office of Public Affairs



(301) 415-8205

[ivonne.couret@nrc.gov](mailto:ivonne.couret@nrc.gov)

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<http://www.nrc.gov/reading-rm/photo-gallery/>

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

NRC Employees can read Interesting Insight on the OPA Blog  
<http://portal.nrc.gov/OCM/opa/blog/default.aspx>

Please consider the environmental impact before printing this email.

---

**From:** Gelsi, Steven [<mailto:SGelsi@marketwatch.com>]  
**Sent:** Monday, March 14, 2011 1:11 PM  
**To:** Couret, Ivonne  
**Subject:** RE: NRC Reply - Market Watch NY

Thanks how long has this been out? Dow Jones Newswires just flashed headlines on it

---

**From:** Couret, Ivonne [<mailto:Ivonne.Couret@nrc.gov>]  
**Sent:** Monday, March 14, 2011 1:08 PM  
**To:** Gelsi, Steven  
**Subject:** RE: NRC Reply - Market Watch NY

Ivonne L. Couret  
Public Affairs Officer  
Office of Public Affairs




(301) 415-8205

[ivonne.couret@nrc.gov](mailto:ivonne.couret@nrc.gov)

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

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

NRC Employees can read Interesting Insight on the OPA Blog  
<http://portal.nrc.gov/OCM/opa/blog/default.aspx>

 Please consider the environmental impact before printing this email.

**From:** Gelsi, Steven [mailto:SGelsi@marketwatch.com]  
**Sent:** Monday, March 14, 2011 1:06 PM  
**To:** Couret, Ivonne  
**Subject:** RE: NRC Reply - Market Watch NY

Hello could you please send over release ASAP about Japan formally asking US for help in cooling reactors? Thanks

STEVE GELSI

---

**From:** Couret, Ivonne [mailto:Ivonne.Couret@nrc.gov]  
**Sent:** Sunday, March 13, 2011 1:00 PM  
**To:** Gelsi, Steven  
**Subject:** RE: NRC Reply - Market Watch NY

New Reactor Application under review - <http://www.nrc.gov/reactors/new-reactors/col.html> - There have been request from the licensee specifically talking about Vogtle Limited Work Authorization (LWA)

Limited work authority regulations to allow some preconstruction activities without NRC approval, such as site clearing, road building, and transmission line routing. Other activities require authorization by NRC. Thus applicants must place request for LWA. Does this help? Ivonne

**Ivonne L. Couret**  
Public Affairs Officer  
Office of Public Affairs




(301) 415-8205  
[ivonne.couret@nrc.gov](mailto:ivonne.couret@nrc.gov)

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

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

NRC Employees can read Interesting Insight on the OPA Blog  
<http://portal.nrc.gov/OCM/opa/blog/default.aspx>

 Please consider the environmental impact before printing this email.

---

**From:** Gelsi, Steven [mailto:SGelsi@marketwatch.com]  
**Sent:** Sunday, March 13, 2011 12:46 PM  
**To:** Couret, Ivonne  
**Subject:** RE: NRC Reply - Market Watch NY

Thanks – Ivonne, you said no construction permits have yet been issued, but there have been preliminary construction plants issued for at least one project.

---

**From:** Couret, Ivonne [mailto:Ivonne.Couret@nrc.gov]  
**Sent:** Sunday, March 13, 2011 12:42 PM

**To:** Gelsi, Steven  
**Subject:** NRC Reply - Market Watch NY

Steve -

Website link to BWR backgrounder – Diagrams hyperlinked

Information Digest provide summary of NRC regulatory activities is plain English - <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/>

Details of current operating commercial Nuclear Reactors – Appendix A (attached)

Another resource is NEI.org website at <http://www.nei.org/newsandevents/information-on-the-japanese-earthquake-and-reactors-in-that-region>

Trust this helps. Ivonne

**Ivonne L. Couret**  
Public Affairs Officer  
Office of Public Affairs




(301) 415-8205

[ivonne.couret@nrc.gov](mailto:ivonne.couret@nrc.gov)

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

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<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/>

NRC Employees can read Interesting insight on the OPA Blog  
<http://portal.nrc.gov/OCM/opa/blog/default.aspx>

 Please consider the environmental impact before printing this email.

## Wittick, Brian

---

**From:** Wittick, Brian  
**Sent:** Thursday, March 24, 2011 10:35 AM  
**To:** Stahl, Eric; Schwartzman, Jennifer; Abrams, Charlotte; Mayros, Lauren; Afshar-Tous, Mugeh; Bloom, Steven; English, Lance; Owens, Janice; Tobin, Jennifer; Smiroldo, Elizabeth; Shepherd, Jill; Henderson, Karen; Fragoyannis, Nancy; Baker, Stephen; Rosales-Cooper, Cindy; Jones, Andrea; Young, Francis; Fehst, Geraldine  
**Cc:** Smith, Wilkins; Dembek, Stephen; Kreuter, Jane; Emche, Danielle  
**Subject:** RE: OIP Ops Center Coverage: March 21-April 15

Eric,

Since you are going down to one person on the mid-watches you might consider revising the watchbill to use the second person on each of those shifts

Brian Wittick  
Executive Technical Assistant for Reactors  
Office of the Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
301-415-2496 (w): (b)(6) (c)

---

**From:** Stahl, Eric  
**Sent:** Thursday, March 24, 2011 10:13 AM  
**To:** Schwartzman, Jennifer; Abrams, Charlotte; Mayros, Lauren; Afshar-Tous, Mugeh; Bloom, Steven; English, Lance; Owens, Janice; Tobin, Jennifer; Smiroldo, Elizabeth; Shepherd, Jill; Henderson, Karen; Fragoyannis, Nancy; Baker, Stephen; Wittick, Brian; Rosales-Cooper, Cindy; Jones, Andrea; Young, Francis; Fehst, Geraldine  
**Cc:** Smith, Wilkins; Dembek, Stephen; Kreuter, Jane; Emche, Danielle  
**Subject:** RE: OIP Ops Center Coverage: March 21-April 15

Good Morning –

As most of you may know, Danielle (Saturday) and I (Monday) are heading to Japan to relieve Kirk and Brooke. As such, we are now seeking volunteers to take our Ops Center shifts over the next three weeks. Please see the attached document and if you can take any of our shifts (which are highlighted), please respond to me and Jane Kreuter. Jane will be “managing” the coverage sheet once I leave, so please work with her on any future changes. First come, first served, so if you’ve been aching for some more time sitting in front of LIA02 or LIA03, here’s your chance!

Thanks in advance!  
Eric

---

**From:** Stahl, Eric  
**Sent:** Tuesday, March 22, 2011 10:41 PM  
**To:** Schwartzman, Jennifer; Abrams, Charlotte; Emche, Danielle; Mayros, Lauren; Afshar-Tous, Mugeh; Bloom, Steven; English, Lance; Owens, Janice; Tobin, Jennifer; Smiroldo, Elizabeth; Shepherd, Jill; Henderson, Karen; Fragoyannis, Nancy; Baker, Stephen; Wittick, Brian; Rosales-Cooper, Cindy; Jones, Andrea; Young, Francis; Fehst, Geraldine  
**Cc:** Doane, Margaret; Foggie, Kirk; Smith, Brooke; Smith, Wilkins; Mamish, Nader; Dembek, Stephen; Kreuter, Jane; Armstrong, Janine; Floyd, Daphene; LIA02 Hoc; LIA03 Hoc; OST02 HOC; Ramsey, Jack; Shaffer, Mark  
**Subject:** RE: OIP Ops Center Coverage: March 21-April 15



Please find an update coverage schedule for the Ops Center attached. As a reminder, the 11pm-7am shift will only need to be covered by one person (it is up to the two people scheduled to determine who will staff the Ops Center and who will serve as a back-up).

Thank you all for your help with staffing and for volunteering to take extra shifts!

Eric

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**From:** Stahl, Eric

**Sent:** Tuesday, March 22, 2011 7:21 AM

**To:** Stahl, Eric; Schwartzman, Jennifer; Abrams, Charlotte; Emche, Danielle; Mayros, Lauren; Afshar-Tous, Mugeh; Bloom, Steven; English, Lance; Owens, Janice; Tobin, Jennifer; Smiroldo, Elizabeth; Shepherd, Jill; Henderson, Karen; Fragoyannis, Nancy; Baker, Stephen; Wittick, Brian; Rosales-Cooper, Cindy; Jones, Andrea; Young, Francis

**Cc:** Doane, Margaret; Foggie, Kirk; Smith, Brooke; Fehst, Geraldine; Smith, Wilkins; Mamish, Nader; Dembek, Stephen

**Subject:** RE: OIP Ops Center Coverage: March 21-April 15

Based on the decreased level-of-work during the **11pm-7am** shift in recent days, only one staff member will need to cover the international liaison desk during that shift from now on.

On the coverage sheet, two people will still be listed as responsible for the shift's coverage. Now, only one of you will be expected to staff the Ops Center, while the other will be expected to serve as their back-up (in case you need to be called in due to heavy workload, illness, etc.). It is up to the two staff members designated to work the shift to determine who is responsible for being in the office. One person can cover all three days, you can rotate days, you can flip a coin for each day - the choice is yours and yours alone.

At this point, all other shifts will require two staff members covering the international liaison desks. If you all believe that two staff members is superfluous at any other times, please let me know.

I have attached the coverage document to this email for your awareness. If you have any other questions, please let me know.

Thanks again,  
Eric

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**From:** Stahl, Eric

**Sent:** Monday, March 21, 2011 10:39 PM

**To:** Schwartzman, Jennifer; Abrams, Charlotte; Emche, Danielle; Mayros, Lauren; Afshar-Tous, Mugeh; Bloom, Steven; English, Lance; Owens, Janice; Tobin, Jennifer; Smiroldo, Elizabeth; Shepherd, Jill; Henderson, Karen; Fragoyannis, Nancy; Baker, Stephen; Wittick, Brian; Rosales-Cooper, Cindy; Jones, Andrea; Young, Francis

**Cc:** Doane, Margaret; Foggie, Kirk; Smith, Brooke; Fehst, Geraldine; Smith, Wilkins; Mamish, Nader; Dembek, Stephen

**Subject:** RE: OIP Ops Center Coverage: March 21-April 15

Is everyone having fun yet?

Please find a slightly revised copy of the OIP Ops Center coverage sheet through April 15. This document should include all changes made through Monday (that I was notified about). If you have any other changes, please let me know. If you have already told me you cannot work a shift, it is highlighted in yellow. If you would like to volunteer for one of the yellow shifts, please let me know. In addition, if you cannot work a shift that you have been designated to cover and have been unable to find a replacement yet, please let me know and I will update the sheet and try to find volunteers. Lastly, if you see any inaccuracies, please let me know.

As a reminder, please respond only to me and not the whole email distribution.

Thanks,  
Eric

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**From:** Stahl, Eric  
**Sent:** Thursday, March 17, 2011 11:44 AM  
**To:** Schwartzman, Jennifer; Abrams, Charlotte; Emche, Danielle; Mayros, Lauren; Afshar-Tous, Mugeh; Bloom, Steven; English, Lance; Owens, Janice; Tobin, Jennifer; Smiroldo, Elizabeth; Shepherd, Jill; Henderson, Karen; Fragoyannis, Nancy; Baker, Stephen; Wittick, Brian  
**Cc:** Doane, Margaret; Young, Francis; Foggie, Kirk; Smith, Brooke; Fehst, Geraldine; Smith, Wilkins; Jones, Andrea; Mamish, Nader; Dembek, Stephen  
**Subject:** OIP Ops Center Coverage: March 21-April 15

Team OIP –

First of all, thank you for providing input on such short notice concerning OIP's coverage of the international liaison desks in the Ops Center. Attached you will find the coverage sheet from March 21 through April 15. Most of you will work for three days on, followed by six days off. The reason for this is that management believed it was important to maintain staff consistency in the Ops Center, while not overburdening specific people.

Please read the following information carefully:

- I did my best to incorporate when you all preferred to work. Since most people preferred 7am-3pm, this did not always work.
- I did my best to incorporate feedback concerning you leave, CWS and travel into the document, this did not always work.
- If you are scheduled to work a shift that you cannot work (whether because you have leave, have other obligations, are on CWS, etc.), it is your responsibility to find a replacement. I will maintain the master copy, so if there is a change, please email it to me. I will plan on sending out updates to the sheet as necessary every few days.
- In addition to the people who have already been working in the Ops Center or will start shifts there soon, feel free to reach out to Gerri, Wilkins, Andrea, Kirk and Brooke when they return to the office. We have 20+ people in the office who are available and eager to help, so it should not be too difficult to find a replacement when needed.
- At this point, we are under the assumption that we will need two people manning the international liaison desk through April 15. If this changes, we will let you know.

Once again, please look at the coverage spreadsheet closely. Your name may only appear a few times or it may appear 10+ times. In some cases you may have been substituted for people who are away on travel in what may appear to be random fashion. It is your responsibility to show up during your designated shift or to find a replacement for it. If you have any questions or concerns, please reply directly to me **only**.

Please note: coverage through this Sunday (March 20) has already been finalized. The document with this information is also attached.

Once again, thank you all for your contributions. Everyone understands this has been an overwhelming and challenging time for OIP, but I think everyone's eagerness to help and flexibility have been clearly demonstrated.

**Rihm, Roger**

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**From:** Rihm, Roger  
**Sent:** Thursday, March 24, 2011 4:34 PM  
**To:** Landau, Mindy  
**Subject:** Fw: Heads Up - Iodine-131 is Making it Here

Hmmmmmm.....

Sent from an NRC BlackBerry  
Roger S. Rihm

(b)(6)

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**From:** Barkley, Richard  
**To:** Ellmers, Glenn; Rihm, Roger  
**Sent:** Thu Mar 24 16:19:35 2011  
**Subject:** Heads Up - Iodine-131 is Making it Here

Several of our reactor sites are now picking up Iodine -131 in water samples onsite which is being attributed to fallout from Fukushima.

The numbers they are showing are 40 – 90 pCi/liter.

While that doesn't sound like a lot when we are used to dealing with tritium, the EPA drinking water limit for Iodine is only 3 pCi/liter. For tritium to give an equivalent dose, its level needs to be 20,000 pCi/liter.

I expect a few inquiries on this before too long once the public finds out. The heavy rains the last few days must be washing it out of the atmosphere.

At least iodine has a short-half life (8 days), so it will be almost all gone in a few months.

Richard S. Barkley, PE  
Nuclear & Environmental Engineer  
(610) 337-5065 Work  
(b)(6) Cell

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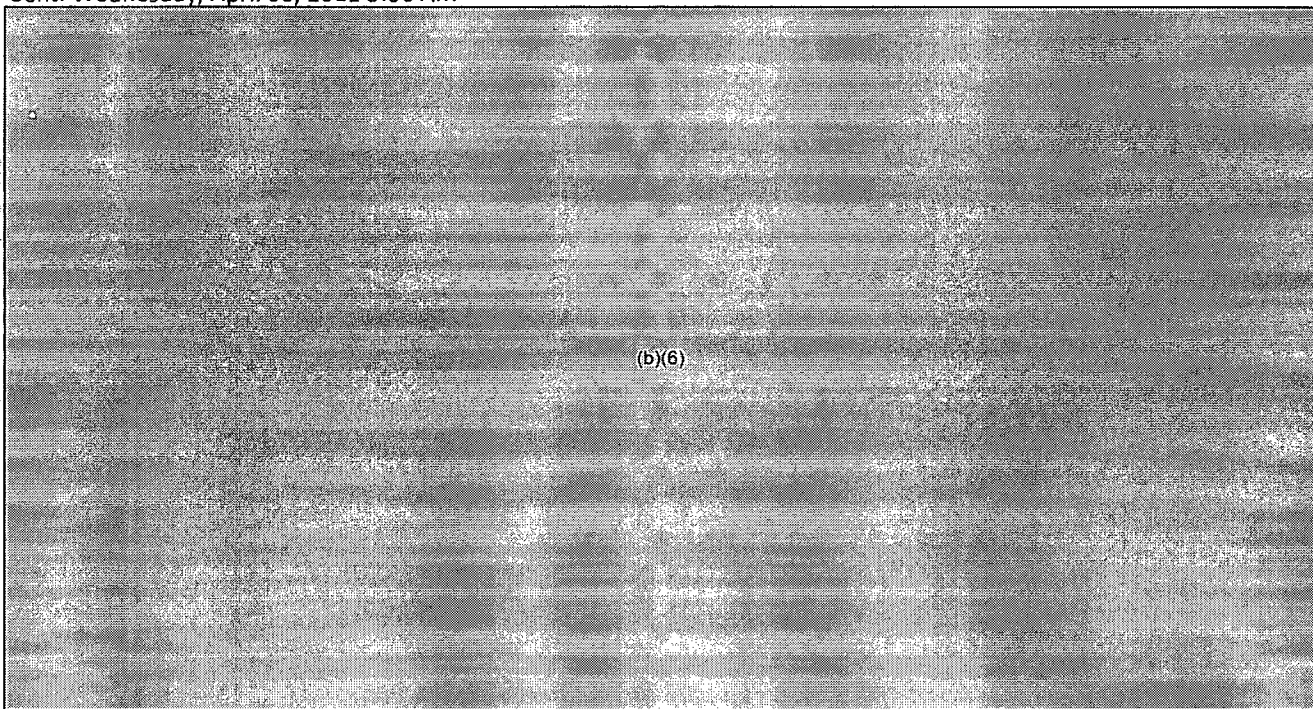
**From:** OST01 HOC  
**Sent:** Wednesday, April 06, 2011 5:07 AM  
**To:** RST01 Hoc; PMT11 Hoc; PMT02 Hoc; Hoc, PMT12  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** (Japanese)20110406\_18.pdf; (unofficial)(Japanese)20110406\_18with lat\_long.pdf; (Japanese)20110406\_19.pdf

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

**From:** HOO Hoc  
**Sent:** Wednesday, April 06, 2011 5:07 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

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

**From:** eda@mext.go.jp [mailto:eda@mext.go.jp]  
**Sent:** Wednesday, April 06, 2011 5:06 AM



**Subject:** Radiation data by MEXT

Dear Sir,

Please see attached the document.

Sincerely yours,

Kei EDA

EOC, Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan

## 福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月6日 16時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注) 太下線データが今回追加分

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【1】 (約60km北西)	4月6日14時58分	1.5 <u>*2</u>	降雨なし	日本原子力研究開発機構
測定エリア【1】 (約60km北西)	4月6日8時45分	1.4 *2	降雨なし	文部科学省
測定エリア【2】 (約55km北西)	4月6日9時12分	2.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【3】 (約45km北西)	4月6日10時51分	3.9 *2	降雨なし	日本原子力研究開発機構
測定エリア【4】 (約50km北西)	4月6日9時34分	1.2 *2	降雨なし	文部科学省
測定エリア【5】 (約45km北)	4月6日11時36分	0.8 *2	降雨なし	日本原子力研究開発機構
測定エリア【6】 (約35km北)	4月6日11時54分	1.0 <u>*2</u>	降雨なし	日本原子力研究開発機構
測定エリア【7】 (約35km北)	4月6日12時03分	0.8 <u>*2</u>	降雨なし	日本原子力研究開発機構
測定エリア【10】 (約40km北西)	4月6日9時48分	1.1 *2	降雨なし	文部科学省
測定エリア【11】 (約40km北西)	4月6日9時56分	1.5 *2	降雨なし	文部科学省
測定エリア【12】 (約40km西)	4月6日11時23分	0.3 *2	降雨なし	文部科学省
測定エリア【13】 (約40km西)	4月6日12時25分	0.5 <u>*2</u>	降雨なし	文部科学省
測定エリア【14】 (約35km西)	4月6日12時32分	0.2 <u>*2</u>	降雨なし	文部科学省
測定エリア【15】 (約35km西)	4月6日12時41分	1.0 <u>*2</u>	降雨なし	文部科学省

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【20】(約45km北西)	4月6日10時25分	0.7 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【21】(約30km西北西)	4月6日10時52分	3.0 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【22】(約35km西北西)	4月6日10時41分	0.5 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【23】(約35km西北西)	4月6日10時33分	0.9 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【31】(約30km西北西)	4月6日11時37分	10.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【32】(約30km北西)	4月6日11時58分	25.8 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【33】(約30km北西)	4月6日12時17分	13.2 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【34】(約30km北西)	4月6日14時00分	6.8 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【36】(約40km北西)	4月6日11時03分	4.1 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【37】(約50km北西)	4月6日10時38分	3.7 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【38】(約35km南)	4月6日14時22分	0.7 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【39】(約45km北)	4月6日11時15分	0.3 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【71】(約25km南)	4月6日8時15分	1.1 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【72】(約30km南)	4月6日14時55分	1.5 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【72】(約30km南)	4月6日8時50分	0.9 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【73】(約35km南)	4月6日14時36分	1.4 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【73】(約35km南)	4月6日9時10分	0.4 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【74】(約35km南)	4月6日14時03分	0.4 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【74】(約35km南)	4月6日7時21分	0.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

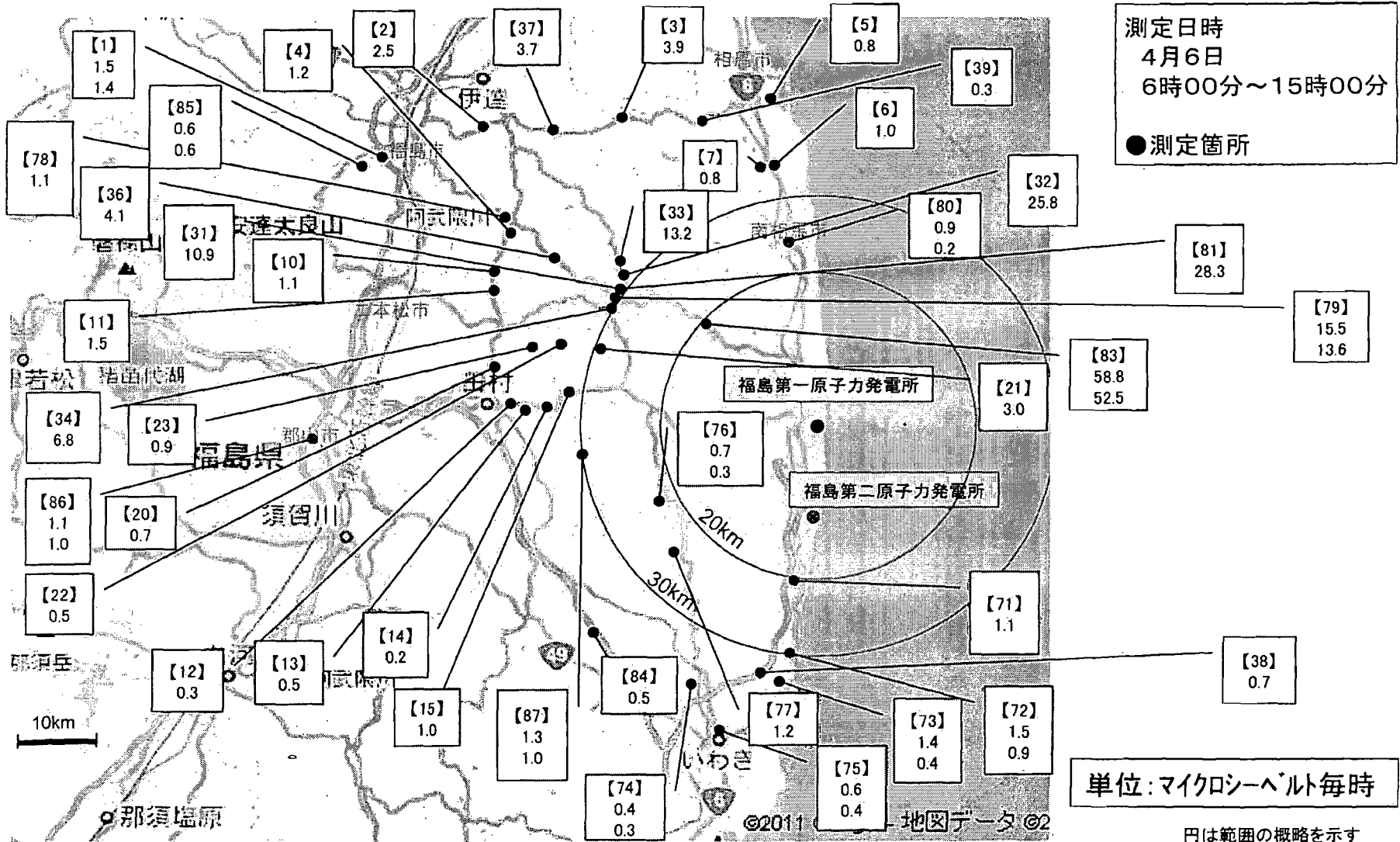
場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【75】(約45km南)	4月6日13時40分	0.6 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【75】(約45km南)	4月6日6時58分	0.4 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【76】(約20km南西)	4月6日13時39分	0.7 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【76】(約20km南西)	4月6日12時22分	0.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【77】(約25km南西)	4月6日12時01分	1.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【78】(約45km北西)	4月6日7時48分	1.1 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【79】(約30km北西)	4月6日13時21分	15.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【79】(約30km北西)	4月6日9時59分	13.6 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【80】(約25km北)	4月6日13時08分	0.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【80】(約25km北)	4月6日11時40分	0.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【81】(約30km北西)	4月6日8時39分	28.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【83】(約20km北西)	4月6日13時42分	58.8 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【83】(約20km北西)	4月6日10時22分	52.5 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【84】(約40km南西)	4月6日13時06分	0.5 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【85】(約60km北西)	4月6日14時00分	0.6 <sup>*2</sup>	降雨なし	防衛省
測定エリア【85】(約60km北西)	4月6日 6時00分	0.6 <sup>*2</sup>	降雨なし	防衛省
測定エリア【86】(約55km西)	4月6日 14時00分	1.1 <sup>*2</sup>	降雨なし	防衛省
測定エリア【86】(約55km西)	4月6日 6時00分	1.0 <sup>*2</sup>	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月6日 14時00分	1.3 <sup>*2</sup>	降雨なし	防衛省



- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【87】(約30km西南西)	4月6日 6時00分	1.0 *2	降雨なし	防衛省

# 福島第一原子力発電所周辺のモニタリング結果



福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月6日 16時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置			測定位置 の備考	天候	実施者
			N	E	数値			
測定エリア【1】 (約60km北西)	4月6日14時58分	<u>1.5</u> *2	37°	44'	12.6"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【1】 (約60km北西)	4月6日8時45分	1.4 *2	37°	44'	12.6"	20110330 確認	降雨なし	文部科学省
測定エリア【2】 (約55km北西)	4月6日9時12分	2.5 *2	37°	41'	12.7"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【3】 (約45km北西)	4月6日10時51分	3.9 *2	37°	45'	40.5"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【4】 (約50km北西)	4月6日9時34分	1.2 *2	37°	39'	30.0"	20110330 確認	降雨なし	文部科学省
測定エリア【5】 (約45km北)	4月6日11時36分	0.8 *2	37°	47'	17.4"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【6】 (約35km北)	4月6日11時54分	<u>1.0</u> *2	37°	42'	09.5"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【7】 (約35km北)	4月6日12時03分	<u>0.8</u> *2	37°	41'	49.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【10】 (約40km北西)	4月6日9時48分	1.1 *2	37°	36'	02.9"	20110403 確認	降雨なし	文部科学省
測定エリア【11】 (約40km北西)	4月6日9時56分	1.5 *2	37°	34'	00.0"	20110330 確認	降雨なし	文部科学省
測定エリア【12】 (約40km西)	4月6日11時23分	0.3 *2	37°	25'	53.6"	20110330 確認	降雨なし	文部科学省
測定エリア【13】 (約40km西)	4月6日12時25分	<u>0.5</u> *2	37°	26'	21.5"	20110330 確認	降雨なし	文部科学省
測定エリア【14】 (約35km西)	4月6日12時32分	<u>0.2</u> *2	37°	26'	09.4"	20110330 確認	降雨なし	文部科学省
測定エリア【15】 (約35km西)	4月6日12時41分	<u>1.0</u> *2	37°	26'	54.0"	20110330 確認	降雨なし	文部科学省
測定エリア【20】 (約45km北西)	4月6日10時25分	0.7 *2	37°	29'	24.2"	20110330 確認	降雨なし	文部科学省
測定エリア【21】 (約30km西北西)	4月6日10時52分	3.0 *2	37°	30'	28.7"	20110330 確認	降雨なし	文部科学省

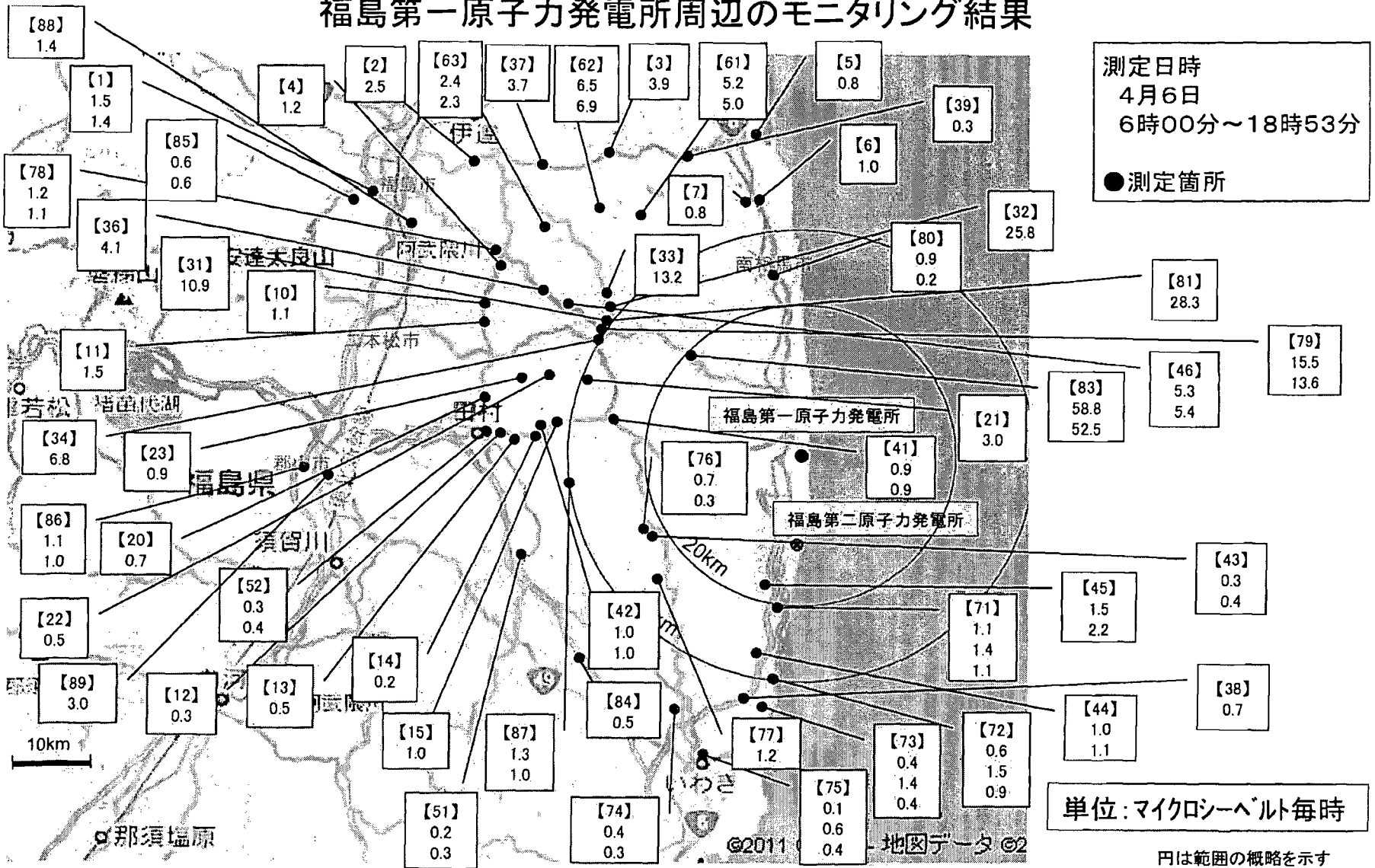
- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【22】(約35km西北西)	4月6日10時41分	0.5 <sup>*2</sup>	N: 37' 30" E: 140' 39"	41.3" 28.8" 20110330 確認	降雨なし	文部科学省
測定エリア【23】(約35km西北西)	4月6日10時33分	0.9 <sup>*2</sup>	N: 37' 30" E: 140' 34"	18.9" 40.6" 20110330 確認	降雨なし	文部科学省
測定エリア【31】(約30km西北西)	4月6日11時37分	10.9 <sup>*2</sup>	N: 37' 33" E: 140' 44"	45.0" 49.9" 20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【32】(約30km北西)	4月6日11時58分	25.8 <sup>*2</sup>	N: 37' 35" E: 140' 45"	42.0" 14.5" 20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【33】(約30km北西)	4月6日12時17分	13.2 <sup>*2</sup>	N: 37' 36" E: 140' 45"	34.6" 09.1" 20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【34】(約30km北西)	4月6日14時00分	6.8 <sup>*2</sup>	N: 37' 33" E: 140' 44"	03.2" 25.0" 20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【36】(約40km北西)	4月6日11時03分	4.1 <sup>*2</sup>	N: 37' 36" E: 140' 37"	20.6" 58.9" 20110331 確認	降雨なし	日本原子力研究開発機構
測定エリア【37】(約50km北西)	4月6日10時38分	3.7 <sup>*2</sup>	N: 37' 45" E: 140' 41"	06.7" 29.2" 20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【38】(約35km南)	4月6日14時22分	0.7 <sup>*2</sup>	N: 37' 07" E: 140' 57"	18.4" 03.8" 20110401 確認	降雨なし	文部科学省
測定エリア【39】(約45km北)	4月6日11時15分	0.3 <sup>*2</sup>	N: 37' 45" E: 140' 51"	52.7" 47.1" 20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【71】(約25km南)	4月6日8時15分	1.1 <sup>*2</sup>	N: 37' 12" E: 140' 57"	32.4" 08.2" 20110323 確認	降雨なし	警察(NBC対策部隊)
測定エリア【72】(約30km南)	4月6日14時55分	1.5 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【72】(約30km南)	4月6日8時50分	0.9 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【73】(約35km南)	4月6日14時36分	1.4 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【73】(約35km南)	4月6日9時10分	0.4 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【74】(約35km南)	4月6日14時03分	0.4 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【74】(約35km南)	4月6日7時21分	0.3 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【75】(約45km南)	4月6日13時40分	0.6 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【75】(約45km南)	4月6日6時58分	0.4 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【76】(約20km南西)	4月6日13時39分	0.7 <sup>*2</sup>	N: 37' 20" E: 140' 48"	25.3" 25.7" 20110402 確認	降雨なし	文部科学省
測定エリア【76】(約20km南西)	4月6日12時22分	0.3 <sup>*2</sup>	N: 37' 20" E: 140' 48"	25.3" 25.7" 20110402 確認	降雨なし	警察(NBC対策部隊)

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【77】(約25km南西)	4月6日12時01分	1.2 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【78】(約45km北西)	4月6日7時48分	1.1 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【79】(約30km北西)	4月6日13時21分	15.5 <sup>*2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【79】(約30km北西)	4月6日9時59分	13.6 <sup>*2</sup>	N: 37' 33' 22.2" E: 140' 45' 46.9"	20110323 確認	降雨なし	警察(NBC対策部隊)
測定エリア【80】(約25km北)	4月6日13時08分	0.9 <sup>*2</sup>	N: 37' 33' 22.2" E: 140' 45' 46.9"	20110323 確認	降雨なし	日本原子力研究開発機構
測定エリア【80】(約25km北)	4月6日11時40分	0.2 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【81】(約30km北西)	4月6日8時39分	28.3 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【83】(約20km北西)	4月6日13時42分	58.8 <sup>*2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【83】(約20km北西)	4月6日10時22分	52.5 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【84】(約40km南西)	4月6日13時06分	0.5 <sup>*2</sup>	N: 37' 10' 20.0" E: 140' 43' 30.7"	20110330 確認	降雨なし	文部科学省
測定エリア【85】(約60km北西)	4月6日14時00分	0.6 <sup>*2</sup>	N: 37' 42' 45.0" E: 140' 22' 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【85】(約60km北西)	4月6日 6時00分	0.6 <sup>*2</sup>	N: 37' 42' 45.0" E: 140' 22' 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】(約55km西)	4月6日 14時00分	1.1 <sup>*2</sup>	N: 37' 23' 57.0" E: 140' 19' 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】(約55km西)	4月6日 6時00分	1.0 <sup>*2</sup>	N: 37' 23' 57.0" E: 140' 19' 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月6日 14時00分	1.3 <sup>*2</sup>	N: 37' 21' 42.0" E: 140' 42' 54.0"	20110330 確認	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月6日 6時00分	1.0 <sup>*2</sup>	N: 37' 21' 42.0" E: 140' 42' 54.0"	20110330 確認	降雨なし	防衛省

# 福島第一原子力発電所周辺のモニタリング結果



ダストサンプリングの測定結果 (1/2)

□ : 枠内は新規追加データ。

平成23年4月7日10時00分現在  
文部科学省

測定試料採取点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 (μSv/h)	備考	
		<sup>131</sup> I	<sup>137</sup> Cs			
【1-1】(約45km北西)	3月23日 10:45~10:55	4.0	1.2	5.5	【3】	
【1-2】(約40km北西)	3月23日 10:50~11:10	5.2	<1.2	9.0	【36】	
【1-3】(約30km西北西)	3月23日 13:54~14:17	8.0	<1.4	9.4	【21】	
【1-4】(約35km西)	3月23日 12:40~13:02	2.8	<1.1	2.3	【15】	
【1-4】(約35km西)1回目	3月24日 10:58~11:09	3.1	<0.99	2		
【1-4】(約35km西)2回目	3月24日 11:58~12:09	2.4	1.3	2.8		
【1-4】(約35km西)3回目	3月24日 12:58~13:09	2.5	<1.2	2.5		
【1-4】(約35km西)4回目	3月24日 13:58~14:09	2.2	1.6	2.2		
【1-4】(約35km西)5回目	3月24日 14:58~15:09	2.8	<1.2	2.5		
【1-4】(約35km西)6回目	3月24日 15:58~16:09	2.1	<1.0	2.2		
【1-5】(約25km南) 走行測定1回目	3月23日 13:15~13:58	530.0	6.6	5.5~14.0	【71】	
【1-5】(約25km南) 走行測定2回目	3月23日 14:30~15:10	180.0	2.3	5.5~14.0		
【1-5】(約25km南) 走行測定3回目	3月23日 15:20~15:59	110.0	2.1	5.5~14.0		
【1-5】(約25km南) 走行測定1回目	3月24日 10:06~10:44	5.9	<0.66	5.6		
【1-5】(約25km南) 走行測定2回目	3月24日 10:53~11:33	9.2	<0.71	5.6		
【1-5】(約25km南) 走行測定3回目	3月24日 11:44~12:26	12.0	1.1	5.6		
【1-5】(約25km南) 走行測定	3月25日 11:51~12:38	43.0	2.0	4.1~5.5		
【1-5】(約25km南)1回目	3月25日 13:12~13:42	23.0	1.4	2		
【1-5】(約25km南)2回目	3月25日 14:12~14:42	19.0	1.3	2.8		
【1-5】(約25km南)3回目	3月25日 15:12~15:42	24.0	2.5	2.5		
【1-5】(約25km南)4回目	3月25日 16:12~16:42	10.0	1.3	2.2		
【1-5】(約25km南)1回目	3月26日 12:47~13:21	13.0	1.3	3.9		
【1-5】(約25km南)2回目	3月26日 14:21~14:57	10.0	1.5	3.9		
【1-5】(約25km南) 走行測定1回目	3月27日 12:36~13:26	20.0	0.8	2.8~3.8		
【1-5】(約25km南)1回目	3月27日 13:58~14:33	7.1	<0.98	3.8		
【1-5】(約25km南)2回目	3月27日 15:33~16:08	6.6	<1.0	3.8		
【1-5】(約25km南)3回目	3月27日 16:16~16:53	10.0	<1.1	3.8		
【1-5】(約25km南) 走行測定2回目	3月27日 14:43~15:18	5.5	1.2	2.8~3.8		
【1-5】(約25km南)1回目	3月28日 9:48~13:03	6.6	0.57	3.0		
【1-5】(約25km南)2回目	3月28日 13:23~14:07	54.0	8.0	3.0		
【1-5】(約25km南)3回目	3月28日 14:18~15:19	20.0	3.0	3.0		
【1-5】(約25km南)1回目	3月31日 12:22~13:12	24.0	4.5	2.1		
【1-5】(約25km南)2回目	3月31日 13:17~14:01	18.0	1.3	2.0		
【1-5】(約25km南)3回目	3月31日 14:06~14:50	13.0	1.0	1.9		
【1-5】(約25km南)4回目	3月31日 15:00~15:44	13.0	<0.79	2.0		
【1-7】(約35km北)1回目	3月25日 12:58~13:09	3.5	<0.99	3.2		【7】
【1-7】(約35km北)2回目	3月25日 13:58~14:09	4.3	1.6	3.2		
【1-7】(約35km北)3回目	3月25日 14:57~15:08	15.0	<0.98	3.2		
【1-7】(約35km北)4回目	3月25日 15:58~16:09	22.0	1.1	3.2		
【1-7】(約35km北)5回目	3月26日 11:27~11:38	2.9	1.0	1.5		
【1-7】(約35km北)6回目	3月26日 13:00~13:11	2.2	1.3	1.5		
【1-8】(約45km北)1回目	3月28日 13:00~16:00	19.0	3.2	0.6~1.2	【5】	

測定試料採取点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)	備考
		<sup>131</sup> I	<sup>137</sup> Cs		
【2-1】(約40km北西)1回目	3月29日 12:50~13:45	4.2	0.73	7.0	【61】
【2-1】(約40km北西)2回目	3月29日 13:49~14:46	3.4	0.79	7.0	
【2-1】(約40km北西)3回目	3月29日 14:47~15:50	2.9	<0.74	7.0	
【2-1】(約40km北西)1回目	3月30日 11:15~11:35	4.8	<1.8	6.7	
【2-1】(約40km北西)2回目	3月30日 12:15~12:35	4.7	2.00	7.2	
【2-1】(約40km北西)3回目	3月30日 13:15~13:35	3.4	1.80	7.0	
【2-1】(約40km北西)4回目	3月30日 14:15~14:35	28.0	20.00	7.4	【80】
【2-1】(約40km北西)5回目	3月30日 15:15~15:35	7.7	1.90	7.5	
【2-4】(約25km北)1回目	3月29日 11:17~12:15	75.0	46.0	1.7	
【2-4】(約25km北)2回目	3月29日 12:15~13:15	29.0	34.0	0.4	
【2-4】(約25km北)3回目	3月29日 13:15~14:15	32.0	23.0	0.6	
【2-4】(約25km北)4回目	3月29日 14:15~15:00	29.0	25.0	0.5	
【2-4】(約25km北)1回目	3月30日 11:09~11:29	1.8	0.5	0.0	
【2-4】(約25km北)2回目	3月30日 12:10~12:30	1.6	0.5	0.8	
【2-4】(約25km北)3回目	3月30日 13:10~13:30	1.2	0.4	0.2	
【2-4】(約25km北)4回目	3月30日 14:10~14:30	1.5	0.5	0.3	
【2-4】(約25km北)5回目	3月30日 15:10~15:30	1.1	<0.49	0.6	
【2-4】(約25km北)1回目	4月1日 12:33~12:48	1.5	1.0	1.2	
【2-4】(約25km北)2回目	4月1日 13:33~13:55	2.2	0.85	1.2	
【2-4】(約25km北)3回目	4月1日 14:33~14:53	1.9	<0.7	1.2	
【2-4】(約25km北)4回目	4月1日 15:33~15:53	1.7	1.0	1.2	
【2-7】(約35km北西)	3月29日 12:00~13:00	0.95	0.59	8.0	
【2-7】(約35km北西)	3月29日 13:00~14:00	0.66	<0.70	8.0	
【2-7】(約35km北西)	3月29日 14:00~15:00	0.75	<0.76	8.0	
【2-7】(約35km北西)	3月29日 15:00~16:00	0.90	<0.58	8.0	
【2-7】(約35km北西)	3月29日 16:00~17:00	0.69	<0.59	8.0	
【2-7】(約35km北西)1回目	3月30日 12:11~12:31	1.9	1.0	13.9	
【2-7】(約35km北西)2回目	3月30日 13:11~13:33	1.3	1.0	15.2	【33】
【2-7】(約35km北西)3回目	3月30日 14:11~14:32	89.0	91.0	14.6	
【2-7】(約35km北西)4回目	3月30日 15:11~15:32	180.0	140.0	15.0	
【3-1】(約30km北西)1回目	3月24日 11:20~11:41	43.0	2.0	30	
【3-1】(約30km北西)2回目	3月24日 12:20~12:40	3.3	<0.98	30	
【3-1】(約30km北西)3回目	3月24日 13:20~13:42	3.8	<1.2	30	
【3-1】(約30km北西)4回目	3月24日 14:20~14:42	3.8	1.5	30	
【3-1】(約30km北西)5回目	3月24日 15:20~15:42	3.3	1.7	30	
【3-1】(約30km北西)1回目	3月26日 11:38~12:00	5.8	4.8	26	
【3-1】(約30km北西)2回目	3月26日 13:18~13:39	5.2	2.2	26	
【3-1】(約30km北西)1回目	3月28日 11:31~11:52	2.6	1.8	26	【76】
【3-1】(約30km北西)2回目	3月28日 12:53~13:15	2.7	<1.2	26	
【3-1】(約30km北西)1回目	3月29日 11:18~11:40	2.4	1.1	18.9	
【3-1】(約30km北西)2回目	3月29日 13:23~13:50	1.9	<1.0	-	
【76】(約20km南西)1回目	4月2日 11:22~11:47	4.5	1.1	1.0	
【76】(約20km南西)2回目	4月2日 11:54~12:36	2.0	<0.39	1.0	
【76】(約20km南西)3回目	4月2日 12:42~13:47	1.3	0.45	1.0	
【76】(約20km南西)4回目	4月2日 13:50~14:56	1.6	<0.33	1.0	
【76】(約20km南西)5回目	4月2日 14:59~16:03	1.6	<0.33	1.0	
【76】(約20km南西)1回目	4月3日 11:35~12:34	2.1	0.56	0.7	
【76】(約20km南西)2回目	4月3日 12:36~13:35	1.4	<0.31	0.7	
【76】(約20km南西)3回目	4月3日 13:38~14:37	2.4	<0.39	0.7	
【76】(約20km南西)1回目	4月4日 12:00~13:00	1.3	1.60	0.8	
【76】(約20km南西)2回目	4月4日 13:08~13:57	2.0	1.10	0.8	
【76】(約20km南西)3回目	4月4日 14:01~14:50	2.3	0.94	0.8	

備考欄の番号は、モニタリングカーによる測定箇所を示す。  
空間線量率は、別途発表済み。



ダストサンプリングの測定結果(2/2)

: 枠内は新規追加データです。太字下線は訂正箇所。

採取地点	採取日時	放射能濃度 (Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【1】(約60km北西)	3月19日 18:30~18:50	1.22	ND	7.2
	3月20日 18:30~18:50	203.00	32.20	5.0
	3月21日 18:30~18:50	2.50	ND	4.5
	3月22日 18:30~18:50	3.06	ND	5.2
	3月23日 19:38~19:58	3.69	1.20	4.0
	3月24日 18:30~18:55	ND	ND	3.6
	3月25日 19:10~19:20	24.00	14.20	2.5
	3月26日 18:30~18:40	1.75	ND	2.5
	3月27日 18:30~18:50	0.87	ND	3.5
	3月28日 18:33~18:43	1.13	ND	3.2
	3月29日 18:30~18:50	1.56	ND	2.1
	3月30日 18:40~19:00	0.91	ND	2.0
	3月31日 18:30~18:45	2.34	0.56	2.6
	4月1日 18:30~18:40	2.92	1.28	2.7
	4月2日 18:37~18:50	2.36	0.52	1.9
	4月3日 18:30~18:40	1.86	ND	2.0
	4月4日 18:33~18:43	0.72	ND	1.5
4月5日 19:09~19:19	1.99	LTD	1.8	
【2-1】(約40km北西)	3月21日 13:00~13:20	12.80	2.37	4.1
	3月22日 12:26~12:46	5.87	ND	4.2
	3月23日 12:50~13:10	2.99	ND	16.8
	3月24日 13:30~13:50	5.80	1.51	10.0
	3月25日 12:45~13:05	5.87	ND	12.3
	3月26日 12:26~12:46	5.39	1.33	7.8
	3月27日 12:06~12:26	2.22	ND	11.2
	3月28日 12:05~12:25	1.66	ND	9.6
	3月29日 12:07~12:27	2.42	6.79	9.2
	3月30日 13:22~13:42	3.47	LTD	8.5
	3月31日 11:50~12:10	1.74	LTD	8.0
	4月1日 12:00~12:20	1.78	1.69	7.7
	4月2日 11:46~12:06	0.84	ND	8.6
	4月3日 11:18~11:38	ND	0.78	7.7
	4月4日 11:07~11:27	LTD	1.38	7.2
4月5日 11:55~12:15	LTD	ND	6.4	

採取地点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【2-2】(約45km北西)	3月22日 11:10~11:30	10.50	ND	7.8
	3月23日 11:31~11:51	1.47	ND	6.0
	3月24日 11:20~11:40	1.47	ND	2.0
	3月25日 11:25~11:45	2.15	ND	7.5
	3月26日 11:10~11:30	1.19	ND	4.3
	3月27日 10:50~11:10	2.97	ND	5.5
	3月28日 11:00~11:20	1.66	0.87	5.5
	3月29日 11:30~11:23	1.10	2.02	4.8
	3月30日 11:37~11:57	1.38	1.11	4.6
	3月31日 10:40~11:00	1.36	ND	4.8
	4月1日 10:40~11:00	ND	LTD	3.3
	4月2日 10:31~10:51	ND	ND	3.2
	4月3日 10:12~10:32	ND	ND	3.7
	4月4日 10:05~10:25	LTD	ND	3.1
	4月5日 10:45~11:05	4.07	ND	2.8
【2-3】(約40km西)	3月21日 12:30~12:50	3.74	ND	0.9
	3月22日 11:32~11:52	3.92	ND	2.2
	3月23日 11:50~12:10	1.75	ND	1.0
	3月24日 12:12~12:32	0.97	ND	-
	3月25日 13:33~13:53	37.00	1.45	0.8
	3月26日 11:52~12:12	1.77	ND	0.8
	3月27日 11:48~12:08	1.07	ND	0.8
	3月28日 11:39~11:59	ND	ND	0.4
	3月29日 13:44~13:54	2.29	0.63	0.7
	3月30日 12:25~12:35	1.59	ND	0.5
	3月31日 12:05~12:15	2.07	ND	0.5
	4月1日 12:11~12:31	ND	ND	0.3
	4月2日 11:24~11:44	LTD	ND	0.3
	4月3日 11:18~11:38	ND	ND	0.3
	4月4日 11:17~11:37	ND	ND	0.3
4月5日 11:45~11:55	LTD	LTD	0.4	
【2-4】(約25km北)	3月21日 14:20~14:40	13.20	0.74	2.8
	3月22日 13:35~13:55	3.81	ND	1.8
	3月23日 14:10~14:30	2.62	ND	1.1
	3月24日 14:55~15:15	193.00	2.94	1.2
	3月25日 14:20~14:40	16.10	ND	0.7
	3月26日 13:57~14:17	2.62	ND	1.3
	3月27日 13:38~13:58	1.31	ND	1.4
	3月28日 13:30~13:50	16.40	2.80	0.7
	3月29日 13:30~13:50	63.40	38.60	1.0
	3月30日 14:50~15:10	ND	LTD	0.0~1.3
	3月31日 13:20~13:40	5.02	1.63	1.4
	4月1日 13:40~14:00	2.66	LTD	1.2
	4月2日 13:14~13:34	0.80	ND	1.2
	4月3日 12:38~12:58	LTD	ND	1.0
	4月4日 12:26~12:46	0.85	1.80	0.7
4月5日 13:07~13:27	6.99	1.43	0.6	
【2-5】(約40km南西)	3月20日 13:57~14:17	24.00	1.75	0.6
	3月21日 13:37~13:57	2.69	ND	0.5
	3月22日 12:32~12:52	6.29	ND	0.4
	3月23日 12:50~13:10	1.86	ND	0.5
	3月24日 13:21~13:41	1.19	ND	-
	3月25日 13:35~13:55	12.40	ND	0.4
	3月26日 11:55~12:15	ND	ND	0.6
	3月27日 11:05~11:25	1.04	ND	0.5
	3月28日 11:25~11:45	0.82	ND	-
	3月29日 11:25~11:45	0.89	ND	0.3
	3月30日 11:00~11:20	ND	ND	0.3
	3月31日 11:07~11:27	ND	ND	0.3
	4月1日 10:49~11:09	0.74	ND	0.3
	4月2日 10:42~11:02	LTD	ND	0.3
	4月3日 10:21~10:41	ND	ND	0.3
4月4日 10:19~10:39	ND	ND	0.3	
4月5日 10:51~11:11	ND	ND	0.3	

採取地点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【2-6】(約45km南)	3月20日 15:25~15:45	6.89	ND	0.6
	3月21日 15:00~15:20	28.90	ND	1.5
	3月22日 14:00~14:20	17.00	ND	0.6
	3月23日 14:15~14:35	6.93	ND	1.0
	3月24日 15:12~15:32	8.25	ND	1.4
	3月25日 13:47~14:07	40.60	ND	1.1
	3月27日 12:30~12:50	1.55	ND	0.8
	3月28日 13:10~13:30	3.56	ND	0.3
	3月29日 12:55~13:15	2.68	ND	0.7
	3月30日 12:32~12:52	4.59	1.56	0.3
	3月31日 12:42~13:02	1.65	ND	0.7
	4月1日 12:16~12:36	1.00	ND	0.8
	4月2日 12:02~12:22	47.3	5.93	1.4
	4月3日 11:42~12:02	LTD	ND	0.4
	4月4日 11:43~12:03	0.9	ND	0.7
4月5日 12:12~12:32	0.9	ND	0.6	
【2-7】(約35km北西)	3月25日 15:05~15:22	555.00	12.40	12.0
	3月26日 14:06~14:26	1.54	ND	8.8
	3月27日 13:51~14:11	1.02	ND	8.7
	3月28日 13:39~13:59	2.14	ND	8.4
	3月29日 15:02~15:12	3.51	1.46	8.0
	3月30日 14:05~14:15	1.33	0.89	13.9~15.4
	3月31日 13:35~13:45	2.49	1.38	6.9
	4月1日 14:13~14:33	LTD	ND	6.5
	4月2日 13:22~13:42	LTD	ND	6.5
	4月3日 13:12~13:32	ND	ND	6.1
	4月4日 13:15~13:35	ND	ND	5.8
	4月5日 13:43~13:53	ND	ND	5.6
【2-8】(約50km北西)	3月24日 12:05~12:25	2.71	ND	—
	3月25日 16:13~16:33	34.00	ND	—
	3月26日 15:15~15:35	ND	ND	—
	3月27日 14:52~15:12	ND	ND	—
	3月28日 14:38~14:58	ND	ND	—
	3月29日 15:59~16:09	1.60	ND	1.6
	3月30日 16:05~16:15	2.09	0.77	—
	3月31日 14:25~14:35	1.04	LTD	—
	4月1日 15:09~15:29	ND	ND	—
	4月2日 14:18~14:38	ND	ND	—
	4月3日 14:07~14:27	ND	ND	—
	4月4日 14:10~14:30	ND	ND	—
4月5日 14:24~14:34	ND	ND	—	
【2-9】(約45km西北西)	3月25日 11:32~11:52	8.67	ND	—
	3月26日 10:10~10:30	7.98	ND	—
	3月27日 10:28~10:48	ND	ND	—
	3月28日 10:12~10:32	0.78	ND	—
	3月29日 11:56~12:06	2.53	0.59	—
	3月30日 11:00~11:10	1.54	ND	—
	3月31日 10:40~10:50	1.34	0.92	—
	4月1日 10:52~11:12	ND	ND	—
	4月2日 9:59~10:19	ND	ND	—
	4月3日 10:00~10:20	ND	ND	—
	4月4日 9:56~10:16	ND	ND	—
4月5日 10:39~10:49	0.82	LTD	—	
【2-10】(約50km北)	3月25日 16:25~16:45	33.60	0.84	—

上記測定結果は政府現地対策本部が、福島県に依頼し、その結果を入手したものの。

## 土壌モニタリング結果



: 枠内は新規追加データです。

測定試料採取点	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
		<sup>131</sup> I	<sup>137</sup> Cs		
[1-1](約45km北西)	3月31日 11:19	29,000	9,400	4.8	[3]
[1-1](約45km北西)	4月1日 10:18	11,000	2,900	3.3	[3]
[1-1](約45km北西)	4月2日 10:59	25,000	9,000	2.8	[3]
[1-2](約40km北西)	4月3日 9:52	41,000	21,000	5.4	[36]
[13](約40km西)	4月1日 11:58	3,300	1,200	0.5	[13]
[2](約55km北西)	3月31日 10:20	48,000	15,000	4.1	[2]
[2](約55km北西)	3月31日 14:35	16,000	6,300	2.1	[2]
[2](約55km北西)	4月1日 9:22	31,000	8,800	3.8	[2]
[2](約55km北西)	4月1日 9:42	13,000	5,700	3.8	[2]
[2](約55km北西)	4月2日 9:33	53,000	20,000	3.5	[2]
[2-4](約25km北)	4月3日 11:57	7,300	3,600	1.0	[80]
[2-4](約25km北)	4月4日 12:09	4,400	2,500	1.0	[80]
[3-1](約30km北西)	3月23日 11:10	200,000	45,000	103.0	[33]
[3-1](約30km北西)	3月25日 14:45	251,000	60,100	27.0	[33]
[3-1](約30km北西)	3月25日 14:45	341,000 <sup>*1</sup>	68,500 <sup>*1</sup>	27.0	[33]
[3-1](約30km北西)	3月26日 10:55	15,000	3,000	26.0	[33]
[3-1](約30km北西)	3月27日 12:15	93,000	29,000	20.0	[33]
[3-1](約30km北西)	3月28日 11:18	110,000	36,000	43.0	[33]
[3-1](約30km北西)	3月29日 11:18	220,000	65,000	18.9	[33]
[3-1](約30km北西)	3月30日 11:30	190,000	70,000	17.3	[33]
[3-1](約30km北西)	3月31日 11:23	160,000	67,000	18.2	[33]
[3-1](約30km北西)	4月1日 11:36	130,000	40,000	18.2	[33]
[3-1](約30km北西)	4月2日 12:10	61,000	6,200	21.0	[33]
[3-1](約30km北西)	4月3日 11:11	69,000	18,000	21.3	[33]
[3-1](約30km北西)	4月4日 11:12	125,510	76,429	18.6	[33]
[3-1](約30km北西)	4月5日 11:15	88,243	55,001	16.3	[33]
[3-2](約30km北西)	3月23日 13:17	92,000	15,000	15.0	[34]
[3-3](約35km西)	3月23日 12:50	11,000	3,300	2.3	[15]
[3-3](約35km西)	3月24日 12:58	4,900	220	2.5	[15]
[3-4](約40km北西)	3月23日 11:08	33,000	8,600	2.8	[11]
[3-5](約50km北西)	3月23日 10:30	4,200	770	2.8	[4]
[3-6](約30km西北西)	3月23日 14:00	70,000	12,000	9.4	[21]
[3-6](約30km西北西)	3月26日 15:33	13,000	2,900	6.5	[21]
[3-6](約30km西北西)	3月28日 11:03	14,000	4,600	5.3	[21]
[3-6](約30km西北西)	3月29日 11:34	25,000	7,100	-	[21]
[3-7](約25km南)	3月23日 13:00	69,000	2,600	14.0	[71]
[3-8](約25km南)	3月23日 16:22	140,000	2,900	14.0	[71]
[3-9](約45km北)	3月25日 11:24	6,900	1,600	2.7	[5]
[3-9](約45km北)	3月26日 10:48	6,900	1,600	1.0	[5]
[3-9](約45km北)	3月26日 12:30	110,000	2,800	1.0	[5]
[3-9](約45km北)	3月28日 13:00	12,000	4,100	0.6~1.2	[5]
[3-10](約35km北)	3月25日 12:18	11,000	3,300	3.7	[6]
[3-10](約35km北)	3月26日 11:12	14,000	3,800	1.5	[6]
[3-10](約35km北)	3月28日 10:32	11,000	3,600	1.2	[6]
[3-10](約35km北)	3月29日 15:20	8,400	3,200	1.3	[6]
[3-10](約35km北)	3月30日 15:54	6,100	2,000	1.4	[6]
[3-10](約35km北)	3月31日 12:18	9,600	4,700	1.3	[6]
[3-10](約35km北)	4月1日 11:35	5,400	2,800	1.0	[6]
[3-10](約35km北)	4月2日 12:49	7,800	4,400	1.0	[6]
[3-10](約35km北)	4月3日 11:15	4,900	1,700	1.1	[6]
[3-10](約35km北)	4月4日 11:18	5,500	4,300	1.2	[6]
[3-10](約35km北)	4月5日 11:21	4,600	3,900	1.3	[6]
[3-10](約35km北)	4月6日 11:56	5,100	3,900	1.0	[6]
[3-11](約35km北)	3月25日 12:33	8,000	1,300	3.2	[7]
[3-11](約35km北)	3月26日 11:33	13,000	4,300	1.5	[7]
[3-11](約35km北)	3月28日 10:38	8,200	2,000	3.3	[7]

測定試料採取点	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
		$^{131}\text{I}$	$^{137}\text{Cs}$		
{3-12}(約30km西北西)	3月25日 14:13	29,000	627	30.5	{31}
{3-12}(約30km西北西)	3月26日 10:15	22,000	1,600	17.8	{31}
{3-12}(約30km西北西)	3月27日 11:30	120,000	27,000	25.0	{31}
{3-12}(約30km西北西)	3月28日 10:29	120,000	28,000	23.0	{31}
{3-12}(約30km西北西)	3月29日 9:59	710,000	220,000	18.3	{31}
{3-12}(約30km西北西)	3月30日 10:50	710,000	290,000	16.3	{31}
{3-12}(約30km西北西)	3月31日 10:45	50,000	15,000	-	{31}
{3-12}(約30km西北西)	4月1日 10:39	79,000	29,000	15.4	{31}
{3-12}(約30km西北西)	4月2日 11:42	21,000	5,400	14.0	{31}
{3-12}(約30km西北西)	4月3日 10:36	60,000	27,000	12.5	{31}
{3-12}(約30km西北西)	4月4日 10:27	143,900	6,907	9.8	{31}
{3-12}(約30km西北西)	4月5日 10:42	103,970	68,209	10.6	{31}
{3-13}(約30km北西)	3月25日 14:30	88,700	9,260	65.0	{32}
{3-13}(約30km北西)	3月26日 10:40	290,000	33,000	46.0	{32}
{3-13}(約30km北西)	3月27日 11:55	550,000	80,000	45.0	{32}
{3-13}(約30km北西)	3月28日 10:51	210,000	9,200	50.0	{32}
{3-13}(約30km北西)	3月29日 10:57	660,000	94,000	43.0	{32}
{3-13}(約30km北西)	3月30日 11:08	260,000	52,000	41.6	{32}
{3-13}(約30km北西)	3月31日 11:04	91,000	40,000	38.0	{32}
{3-13}(約30km北西)	4月1日 11:01	250,000	130,000	36.2	{32}
{3-13}(約30km北西)	4月2日 11:55	120,000	35,000	34.0	{32}
{3-13}(約30km北西)	4月3日 10:56	280,000	110,000	32.7	{32}
{3-13}(約30km北西)	4月4日 10:50	157,730	98,551	32.7	{32}
{3-13}(約30km北西)	4月5日 10:59	201,800	103,390	26.0	{32}
{3-14}(約40km北西)	3月25日 15:35	73,000	18,000	7.0	{36}
{3-14}(約40km北西)	3月26日 19:30	49,000	9,300	7.8	{36}
{3-14}(約40km北西)	3月28日 9:15	65,000	21,000	8.0	{36}
{3-14}(約40km北西)	3月29日 9:41	63,000	21,000	6.0	{36}
{3-14}(約40km北西)	3月30日 10:18	71,000	24,000	5.6	{36}
{3-14}(約40km北西)	3月31日 10:21	59,000	28,000	5.3	{36}
{3-14}(約40km北西)	4月1日 10:11	54,000	23,000	5.7	{36}
{3-14}(約40km北西)	4月2日 11:20	54,000	26,000	5.1	{36}
{3-14}(約40km北西)	4月4日 9:52	6,600	3,300	5.2	{36}
{3-14}(約40km北西)	4月5日 9:26	31,000	20,000	4.6	{36}
{3-14}(約40km北西)	4月6日 11:05	41,000	25,000	4.1	{36}
{3-15}(約25km南)	3月25日 14:15	560	410	5.5	{71}
{3-15}(約25km南)	3月26日 12:55	31,000	1,800	3.9	{71}
{3-15}(約25km南)	3月28日 9:54	42,000	1,500	3.0	{71}
{3-16}(約45km北西)	3月28日 16:18	7,800	3,500	1.7	-
{37}(約50km北西)	4月1日 9:59	15,000	16,000	4.6	{37}
{37}(約50km北西)	4月2日 10:40	20,000	20,000	4.3	{37}
{72}(約30km南)	3月31日 12:00	18,000	1,500	1.5	{72}
{72}(約30km南)	4月1日 12:46	24,000	2,400	1.6	{72}
{72}(約30km南)	4月3日 13:33	22,000	2,200	1.2	{72}
{72}(約30km南)	4月4日 12:51	19,000	1,700	1.5	{72}
{73}(約35km南)	3月31日 12:39	13,000	1,100	1.3	{73}
{73}(約35km南)	4月1日 12:02	14,000	1,100	1.4	{73}
{73}(約35km南)	4月3日 12:57	9,900	1,400	1.2	{73}
{73}(約35km南)	4月4日 12:30	8,200	800	1.1	{73}
{74}(約35km南)	3月31日 13:18	4,300	330	0.5	{74}
{74}(約35km南)	4月1日 11:13	5,900	710	0.3	{74}
{74}(約35km南)	4月3日 11:51	3,700	410	0.4	{74}
{74}(約35km南)	4月4日 11:26	4,300	440	0.6	{74}
{75}(約45km南)	3月31日 14:03	14,000	650	0.7	{75}
{75}(約45km南)	4月1日 10:34	20,000	1,300	0.8	{75}
{75}(約45km南)	4月3日 11:19	14,000	1,200	0.4	{75}
{75}(約45km南)	4月4日 10:50	14,000	1,300	0.7	{75}
{76}(約20km南西)	4月4日 12:04	5,500	1,800	0.8	{76}
{83}(約20km北西)	3月30日 15:40	340,000	170,000	59.3	{83}

\*1 通常は深さ5cm以内程度までを採取するが、参考として、深さ約5mm程度までを採取し、測定したものの備考欄の番号は、モニタリングカーによる測定箇所を示す。

環境試料の測定結果

□ : 枠内は新規追加データです。太字下線は訂正箇所。

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
					<sup>131</sup> I	<sup>137</sup> Cs		
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月18日 12:20	2,520,000	1,800,000	30以上	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月19日 11:40	845,000	1,010,000	26.5	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月20日 12:40	2,540,000	2,650,000	25.8	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月21日 12:32	1,330,000	1,240,000	20.4	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月22日 12:00	1,110,000	1,600,000	15.3	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月23日 11:30	819,000	1,620,000	16.8	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月24日 13:05	805,000	1,050,000	13.2	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月25日 12:20	400,000	398,000	12.3	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月26日 12:00	1,030,000	2,870,000	10.2	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月27日 11:40	508,000	910,000	11.2	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月28日 11:50	381,000	480,000	9.6	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月29日 11:10	330,000	311,000	9.2	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月30日 12:25	578,000	1,890,000	8.5	
(2-1)(約40km北西)	飯館村	雑草	葉菜	3月31日 11:30	303,000	1,620,000	8.0	
(2-1)(約40km北西)	飯館村	雑草	葉菜	4月1日 11:30	219,000	725,000	7.7	
(2-1)(約40km北西)	飯館村	雑草	葉菜	4月2日 11:24	171,000	863,000	8.6	
(2-1)(約40km北西)	飯館村	雑草	葉菜	4月3日 10:55	301,000	1,420,000	7.7	
(2-1)(約40km北西)	飯館村	雑草	葉菜	4月4日 10:05	192,000	275,000	7.2	
(2-1)(約40km北西)	飯館村	雑草	葉菜	4月5日 11:31	297,000	1,440,000	6.4	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月18日 11:45	173,000	72,800	-	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月19日 11:00	184,000	65,100	-	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月20日 12:05	308,000	138,000	4.2	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月21日 12:03	315,000	120,000	3.5	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月22日 11:00	180,000	89,000	7.8	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月23日 11:30	170,000	73,700	5.5	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月23日 11:30	74,400	23,100	5.5	洗浄なし*
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月23日 11:30	46,200	16,000	5.5	洗浄あり*
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月24日 11:20	141,000	43,200	5.0	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月25日 11:30	155,000	53,000	7.5	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月26日 11:20	79,500	54,700	4.3	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月27日 10:45	50,000	32,900	5.5	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月28日 11:05	46,000	33,600	5.5	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月29日 11:00	71,900	67,900	4.8	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月30日 11:35	33,500	27,500	4.6	
(2-2)(約45km北西)	川俣町	雑草	葉菜	3月31日 10:35	33,000	34,100	4.8	
(2-2)(約45km北西)	川俣町	雑草	葉菜	4月1日 10:35	52,600	45,300	3.3	
(2-2)(約45km北西)	川俣町	雑草	葉菜	4月2日 10:34	34,100	36,200	3.2	
(2-2)(約45km北西)	川俣町	雑草	葉菜	4月3日 10:10	16,500	16,700	3.7	
(2-2)(約45km北西)	川俣町	雑草	葉菜	4月4日 10:05	46,500	61,000	3.1	
(2-2)(約45km北西)	川俣町	雑草	葉菜	4月5日 10:39	31,200	60,900	2.8	
(2-3)(約40km西)	田村市	雑草	葉菜	3月18日 11:35	36,000	40,100	1.6	
(2-3)(約40km西)	田村市	雑草	葉菜	3月19日 11:35	68,000	38,500	0.8	
(2-3)(約40km西)	田村市	雑草	葉菜	3月20日 12:40	75,700	50,000	0.7	
(2-3)(約40km西)	田村市	雑草	葉菜	3月21日 12:30	30,800	25,000	0.7	
(2-3)(約40km西)	田村市	雑草	葉菜	3月22日 11:30	43,200	25,000	1.4	
(2-3)(約40km西)	田村市	雑草	葉菜	3月23日 11:50	24,100	17,000	1.0	
(2-3)(約40km西)	田村市	雑草	葉菜	3月24日 11:35	29,400	32,600	0.5	
(2-3)(約40km西)	田村市	雑草	葉菜	3月25日 13:28	23,400	13,700	0.8	
(2-3)(約40km西)	田村市	雑草	葉菜	3月26日 11:35	33,100	10,700	0.6	
(2-3)(約40km西)	田村市	雑草	葉菜	3月27日 11:45	33,300	19,800	0.4	
(2-3)(約40km西)	田村市	雑草	葉菜	3月28日 11:36	37,000	22,400	0.7	
(2-3)(約40km西)	田村市	雑草	葉菜	3月29日 13:35	24,800	34,500	0.7	
(2-3)(約40km西)	田村市	雑草	葉菜	3月30日 12:30	18,600	18,800	0.5	
(2-3)(約40km西)	田村市	雑草	葉菜	3月31日 12:10	15,500	11,500	0.5	
(2-3)(約40km西)	田村市	雑草	葉菜	4月1日 12:21	15,800	17,200	0.3	
(2-3)(約40km西)	田村市	雑草	葉菜	4月2日 11:29	15,500	14,500	0.3	
(2-3)(約40km西)	田村市	雑草	葉菜	4月3日 11:28	9,640	6,140	0.3	
(2-3)(約40km西)	田村市	雑草	葉菜	4月4日 11:25	8,760	6,810	0.3	
(2-3)(約40km西)	田村市	雑草	葉菜	4月5日 11:42	7,450	7,480	0.4	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月18日 13:30	88,600	17,800	-	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月19日 13:00	455,000	24,900	-	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月20日 14:30	497,000	24,700	3.4	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月21日 14:07	289,000	13,400	2.8	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月22日 13:35	140,000	17,200	1.8	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月23日 14:10	185,000	17,200	1.1	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月24日 14:40	184,000	27,900	1.2	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月25日 14:20	217,000	18,800	0.7	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月26日 13:50	83,700	10,500	1.3	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月27日 13:25	181,000	39,900	1.4	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月28日 13:27	113,000	23,900	0.7	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月29日 13:30	109,000	17,000	1.0	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月30日 14:45	113,000	13,100	0.0~1.3	
(2-4)(約25km北)	南相馬市	雑草	葉菜	3月31日 13:15	65,100	20,600	1.4	
(2-4)(約25km北)	南相馬市	雑草	葉菜	4月1日 13:40	44,900	12,400	1.2	
(2-4)(約25km北)	南相馬市	雑草	葉菜	4月2日 13:13	89,200	28,400	0.5	
(2-4)(約25km北)	南相馬市	雑草	葉菜	4月3日 12:35	170,000	84,200	1.0	
(2-4)(約25km北)	南相馬市	雑草	葉菜	4月4日 12:20	55,500	21,500	0.7	
(2-4)(約25km北)	南相馬市	雑草	葉菜	4月5日 13:05	68,900	55,200	0.6	

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
					<sup>131</sup> I	<sup>137</sup> Cs		
(2-5)(約40km南西)	小野町	雑草	葉菜	3月18日 12:35	181,000	28,300	0.9	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月19日 12:15	201,000	73,800	0.7	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月20日 13:50	36,900	11,700	0.6	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月21日 13:40	20,300	11,200	0.4	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月22日 12:40	32,000	8,120	0.5	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月23日 12:50	22,300	10,300	0.5	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月24日 13:18	29,700	4,900	0.4	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月25日 11:30	21,800	8,040	0.4	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月26日 11:50	25,800	5,150	0.6	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月27日 11:10	18,600	4,970	0.5	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月28日 11:25	16,700	4,550	-	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月29日 11:30	16,700	3,770	0.3	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月30日 11:08	10,300	6,280	0.3	
(2-5)(約40km南西)	小野町	雑草	葉菜	3月31日 11:11	9,960	6,600	0.3	
(2-5)(約40km南西)	小野町	雑草	葉菜	4月1日 10:52	9,390	5,470	0.3	
(2-5)(約40km南西)	小野町	雑草	葉菜	4月2日 10:46	6,590	3,830	0.3	
(2-5)(約40km南西)	小野町	雑草	葉菜	4月3日 10:20	5,400	3,160	0.3	
(2-5)(約40km南西)	小野町	雑草	葉菜	4月4日 10:17	4,080	4,090	0.3	
(2-5)(約40km南西)	小野町	雑草	葉菜	4月5日 10:52	5,170	3,570	0.3	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月18日 13:15	690,000	17,400	-	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月18日 13:40	468,000	10,100	-	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月20日 15:25	548,000	17,500	0.6	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月21日 15:10	115,000	2,380	1.5	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月22日 13:50	448,000	18,600	0.6	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月23日 14:20	451,000	30,300	1.0	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月24日 15:00	454,000	6,210	1.4	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月25日 13:45	170,000	6,860	1.1	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月26日 13:50	291,000	12,800	1.0	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月27日 12:30	126,000	7,470	0.8	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月28日 12:50	71,800	4,370	0.3	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月29日 13:05	132,000	9,310	0.7	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月30日 12:30	121,000	10,100	0.3	
(2-6)(約45km南)	いわき市	雑草	葉菜	3月31日 12:51	81,600	4,990	0.7	
(2-6)(約45km南)	いわき市	雑草	葉菜	4月1日 12:19	166,000	7,180	0.8	
(2-6)(約45km南)	いわき市	雑草	葉菜	4月2日 12:03	99,200	2,980	1.4	
(2-6)(約45km南)	いわき市	雑草	葉菜	4月3日 11:45	35,600	3,320	0.4	
(2-6)(約45km南)	いわき市	雑草	葉菜	4月4日 11:46	110,000	13,300	0.7	
(2-6)(約45km南)	いわき市	雑草	葉菜	4月5日 12:10	46,800	4,190	0.6	
(2-7)(約35km北西)	川俣町	雑草	葉菜	3月25日 15:07	663,000	497,000	12.0	
(2-7)(約35km北西)	川俣町	雑草	葉菜	3月26日 14:03	488,000	571,000	8.8	
(2-7)(約35km北西)	川俣町	雑草	葉菜	3月27日 13:44	402,000	490,000	8.7	
(2-7)(約35km北西)	川俣町	雑草	葉菜	3月28日 13:39	443,000	689,000	8.4	
(2-7)(約35km北西)	川俣町	雑草	葉菜	3月29日 14:50	242,000	383,000	8.0	
(2-7)(約35km北西)	川俣町	雑草	葉菜	3月30日 14:00	267,000	338,000	13.9~15.4	
(2-7)(約35km北西)	川俣町	雑草	葉菜	3月31日 13:40	227,000	465,000	6.9	
(2-7)(約35km北西)	川俣町	雑草	葉菜	4月1日 14:23	503,000	968,000	6.5	
(2-7)(約35km北西)	川俣町	雑草	葉菜	4月2日 13:30	256,000	811,000	6.5	
(2-7)(約35km北西)	川俣町	雑草	葉菜	4月3日 13:22	153,000	373,000	6.0	
(2-7)(約35km北西)	川俣町	雑草	葉菜	4月4日 13:24	119,000	367,000	5.8	
(2-7)(約35km北西)	川俣町	雑草	葉菜	4月5日 13:40	189,000	409,000	5.6	
(2-8)(約50km北西)	伊達市	雑草	葉菜	3月25日 16:18	77,100	40,700	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	3月26日 15:13	39,400	24,000	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	3月27日 15:50	43,900	44,600	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	3月28日 14:37	43,300	52,000	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	3月29日 15:50	37,100	62,100	1.6	
(2-8)(約50km北西)	伊達市	雑草	葉菜	3月30日 16:05	33,800	44,300	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	3月31日 14:25	22,500	24,500	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	4月1日 15:14	72,000	91,600	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	4月2日 14:29	60,300	73,400	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	4月3日 14:13	42,700	56,000	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	4月4日 14:16	22,700	56,700	-	
(2-8)(約50km北西)	伊達市	雑草	葉菜	4月5日 14:25	24,800	46,800	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	3月25日 11:40	73,400	235,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	3月26日 10:13	24,300	106,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	3月27日 10:30	73,400	230,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	3月28日 10:13	34,500	223,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	3月29日 11:45	34,000	160,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	3月30日 10:35	31,500	153,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	3月31日 10:50	17,700	131,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	4月1日 11:03	23,600	135,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	4月2日 10:08	35,000	217,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	4月3日 10:05	27,500	161,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	4月4日 10:04	21,800	170,000	-	
(2-9)(約45km西北西)	二本松市	雑草	葉菜	4月5日 10:35	15,800	208,000	-	
(2-10)(約50km北)	新地町	雑草	葉菜	3月25日 16:20	29,300	12,500	-	

上記測定結果は政府現地対策本部が、福島県に依頼し、その結果を入手したものの、  
試料は原則洗浄せずに測定。

\* 1: 同一試料を対象に洗浄しない場合と洗浄した場合で測定した値。

環境試料の測定結果

□ :枠内は新規追加データです。

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		備考
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-1】(約40km北西)	飯舘村	陸水	池水	3月18日 12:20	2,090	511	
	飯舘村	陸水	池水	3月19日 11:36	2,450	940	
	飯舘村	陸水	池水	3月20日 12:40	2,010	437	
	飯舘村	陸水	池水	3月21日 12:35	1,720	246	
	飯舘村	陸水	池水	3月22日 12:00	1,330	172	
	飯舘村	陸水	池水	3月23日 12:25	1,260	145	
	飯舘村	陸水	池水	3月24日 13:05	1,330	268	
	飯舘村	陸水	池水	3月25日 12:20	1,280	507	
	飯舘村	陸水	池水	3月26日 12:00	835	162	
	飯舘村	陸水	池水	3月27日 11:40	828	145	
	飯舘村	陸水	池水	3月28日 11:50	884	183	
	飯舘村	陸水	池水	3月29日 11:50	701	158	
	飯舘村	陸水	池水	3月30日 12:25	629	113	
	飯舘村	陸水	池水	3月31日 11:30	610	192	
	飯舘村	陸水	池水	4月1日 11:30	612	192	
	飯舘村	陸水	池水	4月2日 11:23	465	139	
	飯舘村	陸水	池水	4月3日 10:55	393	106	
	飯舘村	陸水	池水	4月4日 10:50	439	75	
	飯舘村	陸水	池水	4月5日 11:31	357	86	
	飯舘村	陸土	土壌	3月19日 11:40	300,000	28,100	
	飯舘村	陸土	土壌	3月20日 12:40	1,170,000	163,000	
	飯舘村	陸土	土壌	3月21日 12:32	207,000	39,900	
	飯舘村	陸土	土壌	3月22日 12:00	256,000	57,400	
	飯舘村	陸土	土壌	3月23日 12:25	135,000	32,200	
	飯舘村	陸土	土壌	3月24日 13:05	45,500	1,870	
	飯舘村	陸土	土壌	3月25日 13:05	265,000	27,900	
	飯舘村	陸土	土壌	3月26日 12:00	564,000	227,000	
	飯舘村	陸土	土壌	3月26日 15:20	82,000	28,000	
	飯舘村	陸土	土壌	3月27日 11:40	169,000	29,100	
	飯舘村	陸土	土壌	3月27日 12:00	69,800	20,800	
	飯舘村	陸土	土壌	3月28日 11:50	14,000	2,040	
	飯舘村	陸土	土壌	3月28日 12:10	23,100	860	
	飯舘村	陸土	土壌	3月29日 11:50	53,700	5,650	
	飯舘村	陸土	土壌	3月29日 12:10	58,400	25,100	
	飯舘村	陸土	土壌	3月30日 12:25	89,000	32,300	
	飯舘村	陸土	土壌	3月30日 12:45	11,900	408	
	飯舘村	陸土	土壌	3月31日 11:30	149,000	27,600	
	飯舘村	陸土	土壌	3月31日 11:45	60,800	26,500	
	飯舘村	陸土	土壌	4月1日 11:30	146,000	43,700	
	飯舘村	陸土	土壌	4月1日 12:05	21,400	1,410	
	飯舘村	陸土	土壌	4月2日 11:24	55,500	8,140	
	飯舘村	陸土	土壌	4月2日 11:48	61,900	30,800	
飯舘村	陸土	土壌	4月3日 10:55	103,000	27,600		
飯舘村	陸土	土壌	4月3日 11:15	9,670	885		
飯舘村	陸土	土壌	4月4日 10:50	70,000	21,200		
飯舘村	陸土	土壌	4月4日 11:10	40,400	23,100		
飯舘村	陸土	土壌	4月5日 11:31	31,600	8,280		
飯舘村	陸土	土壌	4月5日 11:53	59,300	24,500		
【2-2】(約45km北西)	川俣町	陸土	土壌	3月18日 11:45	84,300	14,200	
	川俣町	陸土	土壌	3月19日 11:00	85,400	8,690	
	川俣町	陸土	土壌	3月20日 12:04	151,000	15,100	
	川俣町	陸土	土壌	3月21日 12:10	157,000	16,500	
	川俣町	陸土	土壌	3月22日 11:00	38,900	4,720	
	川俣町	陸土	土壌	3月23日 11:30	44,600	6,010	
	川俣町	陸土	土壌	3月24日 11:20	21,500	1,160	
	川俣町	陸土	土壌	3月26日 11:20	29,300	3,760	
	川俣町	陸土	土壌	3月27日 10:45	44,900	7,580	
	川俣町	陸土	土壌	3月28日 11:05	31,100	2,470	
	川俣町	陸土	土壌	3月29日 11:00	34,400	5,900	
	川俣町	陸土	土壌	3月30日 11:35	23,800	5,280	
	川俣町	陸土	土壌	3月31日 10:35	32,300	6,810	
	川俣町	陸土	土壌	4月1日 10:35	19,500	5,130	
	川俣町	陸土	土壌	4月2日 10:39	22,000	5,740	
	川俣町	陸土	土壌	4月3日 10:10	18,800	8,140	
	川俣町	陸土	土壌	4月4日 10:05	18,800	8,020	
	川俣町	陸土	土壌	4月5日 10:39	28,300	6,700	



採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		備考
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-3】(約40km西)	田村市	陸土	土壌	3月18日 11:50	19,300	3,510	
	田村市	陸土	土壌	3月19日 11:35	6,970	1,260	
	田村市	陸土	土壌	3月20日 12:40	5,390	1,250	
	田村市	陸土	土壌	3月21日 12:30	3,000	390	
	田村市	陸土	土壌	3月22日 11:30	7,290	1,290	
	田村市	陸土	土壌	3月24日 11:35	6,600	1,310	
	田村市	陸土	土壌	3月25日 13:35	5,480	778	
	田村市	陸土	土壌	3月26日 11:51	5,250	1,010	
	田村市	陸土	土壌	3月27日 11:45	3,700	796	
	田村市	陸土	土壌	3月28日 11:37	4,360	1,110	
	田村市	陸土	土壌	3月29日 13:35	5,080	1,610	
	田村市	陸土	土壌	3月30日 12:30	5,040	834	
	田村市	陸土	土壌	3月31日 12:10	3,530	1,180	
	田村市	陸土	土壌	4月1日 12:19	3,160	934	
	田村市	陸土	土壌	4月2日 11:27	2,200	803	
	【2-4】(約25km北)	南相馬市	陸土	土壌	3月18日 13:30	22,600	3,280
南相馬市		陸土	土壌	3月19日 13:00	35,800	4,040	
南相馬市		陸土	土壌	3月20日 14:30	35,800	4,850	
南相馬市		陸土	土壌	3月21日 14:07	83,200	8,660	
南相馬市		陸土	土壌	3月23日 14:10	16,600	1,720	
南相馬市		陸土	土壌	3月24日 14:40	14,900	1,990	
南相馬市		陸土	土壌	3月25日 14:20	2,480	189	
南相馬市		陸土	土壌	3月26日 13:50	15,100	2,490	
南相馬市		陸土	土壌	3月27日 13:25	10,100	1,520	
南相馬市		陸土	土壌	3月28日 13:27	7,730	1,330	
南相馬市		陸土	土壌	3月29日 13:30	9,010	2,200	
南相馬市		陸土	土壌	3月30日 14:45	14,900	3,300	
南相馬市		陸土	土壌	3月31日 13:15	7,980	2,850	
南相馬市		陸土	土壌	4月1日 13:40	10,200	2,900	
南相馬市		陸土	土壌	4月2日 13:17	8,210	2,410	
【2-5】(約40km南西)		小野町	陸水	雨水	3月22日 12:40	7,440	107
	小野町	陸水	雨水	3月25日 11:38	3,000	800	
	小野町	陸土	土壌	3月18日 12:30	8,170	2,260	
	小野町	陸土	土壌	3月19日 12:15	14,100	4,630	
	小野町	陸土	土壌	3月20日 13:50	10,300	3,020	
	小野町	陸土	土壌	3月21日 13:40	4,830	910	
	小野町	陸土	土壌	3月22日 11:40	3,220	466	
	小野町	陸土	土壌	3月23日 12:50	6,430	1,590	
	小野町	陸土	土壌	3月24日 13:18	2,830	747	
	小野町	陸土	土壌	3月25日 11:39	3,000	800	
	小野町	陸土	土壌	3月26日 11:50	1,510	159	
	小野町	陸土	土壌	3月27日 11:10	2,140	158	
	小野町	陸土	土壌	3月28日 11:25	505	59	
	小野町	陸土	土壌	3月29日 11:30	2,290	161	
	小野町	陸土	土壌	3月30日 11:02	2,230	947	
	小野町	陸土	土壌	3月31日 11:10	1,690	342	
小野町	陸土	土壌	4月1日 10:50	1,450	281		
小野町	陸土	土壌	4月2日 10:40	1,390	600		
小野町	陸土	土壌	4月3日 10:22	1,280	671		
小野町	陸土	土壌	4月4日 10:17	791	139		
小野町	陸土	土壌	4月5日 10:48	1,410	1,040		

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		備考	
					<sup>131</sup> I	<sup>137</sup> Cs		
【2-6】(約45km南)	いわき市	陸土	土壌	3月19日 13:15	12,600	288		
	いわき市	陸土	土壌	3月20日 15:17	14,600	460		
	いわき市	陸土	土壌	3月21日 15:10	30,700	1,220		
	いわき市	陸土	土壌	3月22日 13:50	1,960	1,290		
	いわき市	陸土	土壌	3月23日 14:20	32,600	840		
	いわき市	陸土	土壌	3月24日 15:00	27,100	951		
	いわき市	陸土	土壌	3月25日 13:45	23,900	519		
	いわき市	陸土	土壌	3月26日 13:50	41,100	875		
	いわき市	陸土	土壌	3月27日 12:30	25,100	849		
	いわき市	陸土	土壌	3月28日 12:50	11,500	465		
	いわき市	陸土	土壌	3月29日 13:05	15,700	617		
	いわき市	陸土	土壌	3月30日 12:30	1,420	ND		
	いわき市	陸土	土壌	3月31日 12:51	8,370	150		
	いわき市	陸土	土壌	4月1日 12:17	1,540	50		
	いわき市	陸土	土壌	4月2日 12:04	12,600	540		
	【2-7】(約35km北西)	川俣町	陸土	土壌	3月25日 15:05	112,000	21,800	
川俣町		陸土	土壌	3月26日 13:59	100,000	21,900		
川俣町		陸土	土壌	3月27日 13:47	50,800	7,350		
川俣町		陸土	土壌	3月28日 13:39	39,800	4,330		
川俣町		陸土	土壌	3月29日 14:50	61,800	23,400		
川俣町		陸土	土壌	3月30日 14:00	42,600	7,750		
川俣町		陸土	土壌	3月31日 13:40	14,700	949		
川俣町		陸土	土壌	4月1日 14:22	26,400	3,900		
川俣町		陸土	土壌	4月2日 13:28	19,400	5,340		
川俣町		陸土	土壌	4月3日 13:20	43,000	22,000		
川俣町		陸土	土壌	4月4日 13:23	65,900	38,500		
川俣町		陸土	土壌	4月5日 13:40	39,300	16,300		
【2-8】(約50km北西)		伊達市	陸土	土壌	3月24日 12:10	41,200	6,850	
		伊達市	陸土	土壌	3月25日 16:15	20,800	3,790	
	伊達市	陸土	土壌	3月26日 15:13	16,000	3,740		
	伊達市	陸土	土壌	3月27日 14:54	16,900	3,070		
	伊達市	陸土	土壌	3月28日 14:34	22,300	5,320		
	伊達市	陸土	土壌	3月29日 15:50	25,700	5,800		
	伊達市	陸土	土壌	3月30日 16:05	20,500	3,360		
	伊達市	陸土	土壌	3月31日 14:25	27,200	6,740		
	伊達市	陸土	土壌	4月1日 15:12	27,000	6,030		
	伊達市	陸土	土壌	4月2日 14:27	21,100	6,100		
	伊達市	陸土	土壌	4月3日 14:11	25,800	8,510		
	伊達市	陸土	土壌	4月4日 14:15	8,270	2,640		
	伊達市	陸土	土壌	4月5日 14:25	18,900	7,180		
	【2-9】(約45km西北西)	二本松市	陸土	土壌	3月25日 11:35	32,900	9,330	
二本松市		陸土	土壌	3月26日 10:14	39,000	16,900		
二本松市		陸土	土壌	3月27日 10:26	49,300	22,700		
二本松市		陸土	土壌	3月28日 10:13	34,100	15,700		
二本松市		陸土	土壌	3月29日 11:45	36,400	21,100		
二本松市		陸土	土壌	3月30日 10:35	24,000	14,800		
二本松市		陸土	土壌	3月31日 10:50	24,400	14,200		
二本松市		陸土	土壌	4月1日 11:05	17,800	10,500		
二本松市		陸土	土壌	4月2日 10:05	5,010	12,700		
二本松市		陸土	土壌	4月3日 10:04	21,100	15,500		
二本松市		陸土	土壌	4月4日 10:02	20,300	19,200		
二本松市		陸土	土壌	4月5日 10:35	17,800	15,800		
【2-10】(約50km北)		新地町	陸土	土壌	3月25日 16:20	44	3,740	
(参考)								
【2-11】(約5km南西)	大熊町	陸土	土壌	3月31日 13:00	423,000	98,100		

上記測定結果は政府現地対策本部が、福島県に依頼し、その結果を入手したものです。

福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月7日 10時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【1】 (約60km北西)	4月6日14時58分	1.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【1】 (約60km北西)	4月6日8時45分	1.4 *2	降雨なし	文部科学省
測定エリア【2】 (約55km北西)	4月6日9時12分	2.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【3】 (約45km北西)	4月6日10時51分	3.9 *2	降雨なし	日本原子力研究開発機構
測定エリア【4】 (約50km北西)	4月6日9時34分	1.2 *2	降雨なし	文部科学省
測定エリア【5】 (約45km北)	4月6日11時36分	0.8 *2	降雨なし	日本原子力研究開発機構
測定エリア【6】 (約35km北)	4月6日11時54分	1.0 *2	降雨なし	日本原子力研究開発機構
測定エリア【7】 (約35km北)	4月6日12時03分	0.8 *2	降雨なし	日本原子力研究開発機構
測定エリア【10】 (約40km北西)	4月6日9時48分	1.1 *2	降雨なし	文部科学省
測定エリア【11】 (約40km北西)	4月6日9時56分	1.5 *2	降雨なし	文部科学省
測定エリア【12】 (約40km西)	4月6日11時23分	0.3 *2	降雨なし	文部科学省
測定エリア【13】 (約40km西)	4月6日12時25分	0.5 *2	降雨なし	文部科学省
測定エリア【14】 (約35km西)	4月6日12時32分	0.2 *2	降雨なし	文部科学省
測定エリア【15】 (約35km西)	4月6日12時41分	1.0 *2	降雨なし	文部科学省

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【20】 (約45km北西)	4月6日10時25分	0.7 * <sup>2</sup>	降雨なし	文部科学省
測定エリア【21】 (約30km西北西)	4月6日10時52分	3.0 * <sup>2</sup>	降雨なし	文部科学省
測定エリア【22】 (約35km西北西)	4月6日10時41分	0.5 * <sup>2</sup>	降雨なし	文部科学省
測定エリア【23】 (約35km西北西)	4月6日10時33分	0.9 * <sup>2</sup>	降雨なし	文部科学省
測定エリア【31】 (約30km西北西)	4月6日11時37分	10.9 * <sup>2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【32】 (約30km北西)	4月6日11時58分	25.8 * <sup>2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【33】 (約30km北西)	4月6日12時17分	13.2 * <sup>2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【34】 (約30km北西)	4月6日14時00分	6.8 * <sup>2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【36】 (約40km北西)	4月6日11時03分	4.1 * <sup>2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【37】 (約50km北西)	4月6日10時38分	3.7 * <sup>2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【38】 (約35km南)	4月6日14時22分	0.7 * <sup>2</sup>	降雨なし	文部科学省
測定エリア【39】 (約45km北)	4月6日11時15分	0.3 * <sup>2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【41】 (約20km西)	4月6日13時15分	0.9 * <sup>2</sup>	降雨なし	電力会社
測定エリア【41】 (約20km西)	4月6日9時40分	0.9 * <sup>2</sup>	降雨なし	電力会社
測定エリア【42】 (約30km西)	4月6日13時20分	1.0 * <sup>2</sup>	降雨なし	電力会社
測定エリア【42】 (約30km西)	4月6日9時40分	1.0 * <sup>2</sup>	降雨なし	電力会社
測定エリア【43】 (約20km南西)	4月6日15時00分	0.3 * <sup>2</sup>	降雨なし	電力会社
測定エリア【43】 (約20km南西)	4月6日11時00分	0.4 * <sup>2</sup>	降雨なし	電力会社
測定エリア【44】 (約30km南)	4月6日13時00分	1.0 * <sup>2</sup>	降雨なし	電力会社

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【44】 (約30km南)	4月6日10時00分	1.1 <sup>*2</sup>	降雨なし	電力会社
測定エリア【45】 (約20km南)	4月6日13時11分	1.5 <sup>*2</sup>	降雨なし	電力会社
測定エリア【45】 (約20km南)	4月6日10時09分	2.2 <sup>*2</sup>	降雨なし	電力会社
測定エリア【46】 (約30km北西)	4月6日14時00分	5.3 <sup>*2</sup>	降雨なし	電力会社
測定エリア【46】 (約30km北西)	4月6日10時30分	5.4 <sup>*2</sup>	降雨なし	電力会社
測定エリア【51】 (約40km南西)	4月6日13時23分	0.2 <sup>*3</sup>	降雨なし	福島県
測定エリア【51】 (約40km南西)	4月6日10時29分	0.3 <sup>*3</sup>	降雨なし	福島県
測定エリア【52】 (約40km西)	4月6日13時56分	0.3 <sup>*3</sup>	降雨なし	福島県
測定エリア【52】 (約40km西)	4月6日11時24分	0.4 <sup>*3</sup>	降雨なし	福島県
測定エリア【61】 (約40km北西)	4月6日14時29分	5.2 <sup>*3</sup>	降雨なし	福島県
測定エリア【61】 (約40km北西)	4月6日12時21分	5.0 <sup>*3</sup>	降雨なし	福島県
測定エリア【62】 (約40km北西)	4月6日14時40分	6.5 <sup>*3</sup>	降雨なし	福島県
測定エリア【62】 (約40km北西)	4月6日12時13分	6.9 <sup>*3</sup>	降雨なし	福島県
測定エリア【63】 (約45km北西)	4月6日15時04分	2.4 <sup>*3</sup>	降雨なし	福島県
測定エリア【63】 (約45km北西)	4月6日11時10分	2.3 <sup>*3</sup>	降雨なし	福島県
測定エリア【71】 (約25km南)	4月6日15時42分	1.1 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【71】 (約25km南)	4月6日15時14分	1.4 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【71】 (約25km南)	4月6日8時15分	1.1 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【72】 (約30km南)	4月6日18時14分	0.6 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)

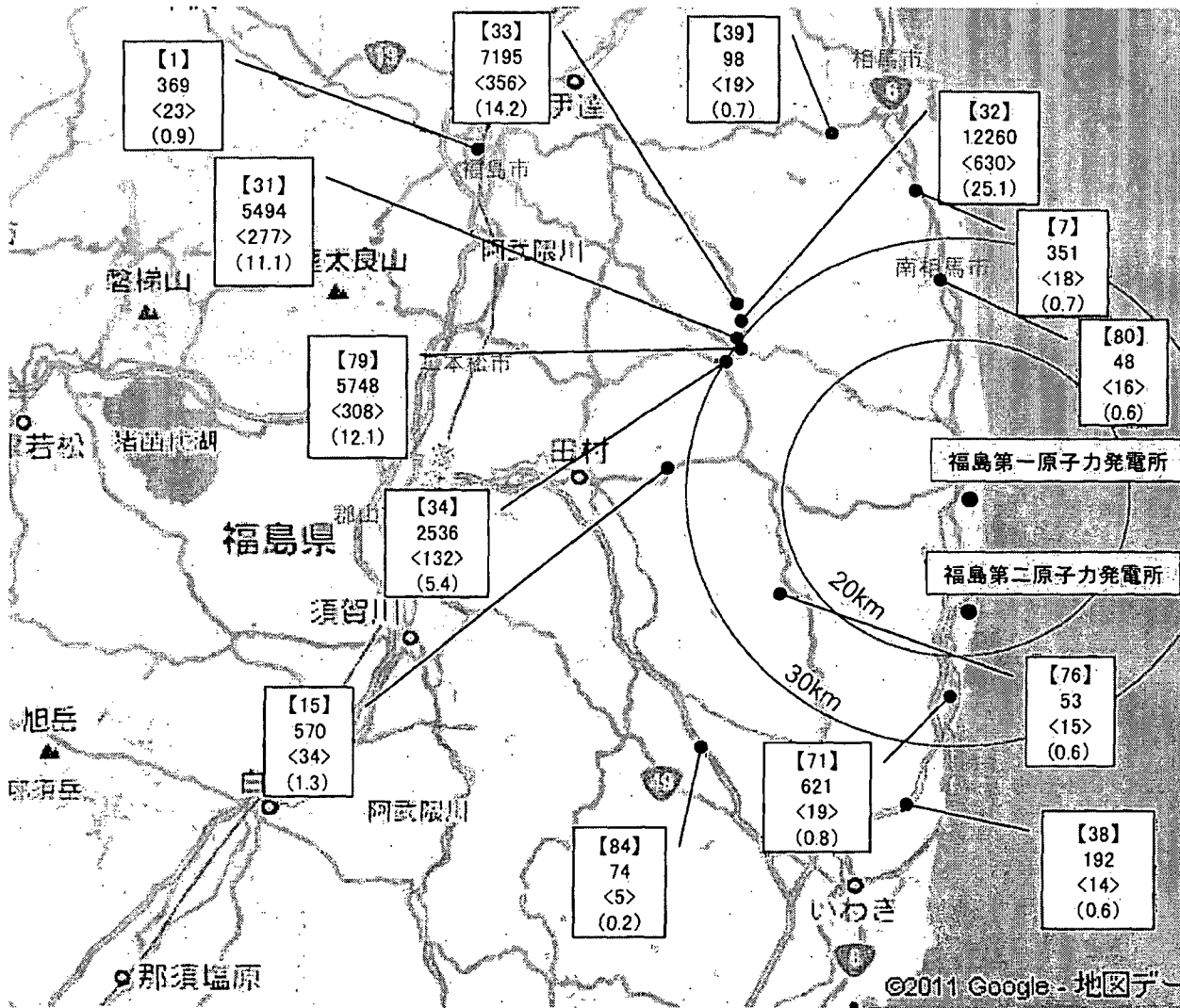
- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【72】 (約30km南)	4月6日14時55分	1.5 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【72】 (約30km南)	4月6日8時50分	0.9 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【73】 (約35km南)	4月6日16時33分	0.4 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【73】 (約35km南)	4月6日14時36分	1.4 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【73】 (約35km南)	4月6日9時10分	0.4 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【74】 (約35km南)	4月6日14時03分	0.4 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【74】 (約35km南)	4月6日7時21分	0.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【75】 (約45km南)	4月6日18時53分	0.1 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【75】 (約45km南)	4月6日13時40分	0.6 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【75】 (約45km南)	4月6日6時58分	0.4 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【76】 (約20km南西)	4月6日13時39分	0.7 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【76】 (約20km南西)	4月6日12時22分	0.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【77】 (約25km南西)	4月6日12時01分	1.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【78】 (約45km北西)	4月6日13時54分	1.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【78】 (約45km北西)	4月6日7時48分	1.1 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【79】 (約30km北西)	4月6日13時21分	15.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【79】 (約30km北西)	4月6日9時59分	13.6 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【80】 (約25km北)	4月6日13時08分	0.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【80】 (約25km北)	4月6日11時40分	0.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【81】(約30km北西)	4月6日8時39分	28.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【83】(約20km北西)	4月6日13時42分	58.8 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【83】(約20km北西)	4月6日10時22分	52.5 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【84】(約40km南西)	4月6日13時06分	0.5 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【85】(約60km北西)	4月6日14時00分	0.6 <sup>*2</sup>	降雨なし	防衛省
測定エリア【85】(約60km北西)	4月6日6時00分	0.6 <sup>*2</sup>	降雨なし	防衛省
測定エリア【86】(約55km西)	4月6日14時00分	1.1 <sup>*2</sup>	降雨なし	防衛省
測定エリア【86】(約55km西)	4月6日6時00分	1.0 <sup>*2</sup>	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月6日14時00分	1.3 <sup>*2</sup>	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月6日6時00分	1.0 <sup>*2</sup>	降雨なし	防衛省
測定エリア【88】(約55km西北西)	4月6日16時00分	1.4 <sup>*2</sup>	降雨なし	防衛省
測定エリア【88】(約55km西北西)	4月5日17時00分	1.4 <sup>*2</sup>	降雨なし	防衛省
測定エリア【89】(約60km西)	4月6日16時00分	3.0 <sup>*2</sup>	降雨なし	防衛省
測定エリア【89】(約60km西)	4月5日17時00分	3.7 <sup>*2</sup>	降雨なし	防衛省

# 福島第一原子力発電所周辺の積算線量結果



- 測定日時
- ・3月23日～4月6日  
(測定エリア:7、31～34、71、79)
  - ・3月24日～4月6日  
(測定エリア:1、15)
  - ・3月25日～4月6日  
(測定エリア:84)
  - ・3月31日～4月6日  
(測定エリア:38)
  - ・4月1日～4月6日  
(測定エリア:39)
  - ・4月2日～4月6日  
(測定エリア:76)
  - ・4月3日～4月6日  
(測定エリア:80)
- 測定箇所

(凡例)

【ポイント番号】  
 積算線量※  
 <前回取得日時からの増加量>  
 (1時間当たりの平均線量)

※積算線量については、各測定開始から4月6日までの約3日～14日間の積算である。

単位:マイクロシーベルト  
 (マイクロシーベルト/時)



福島第一原子力発電所の20km以遠の積算線量結果について

平成23年4月7日10時00分現在  
文部科学省

\*1 簡易型線量計(ポケット線量計)における値

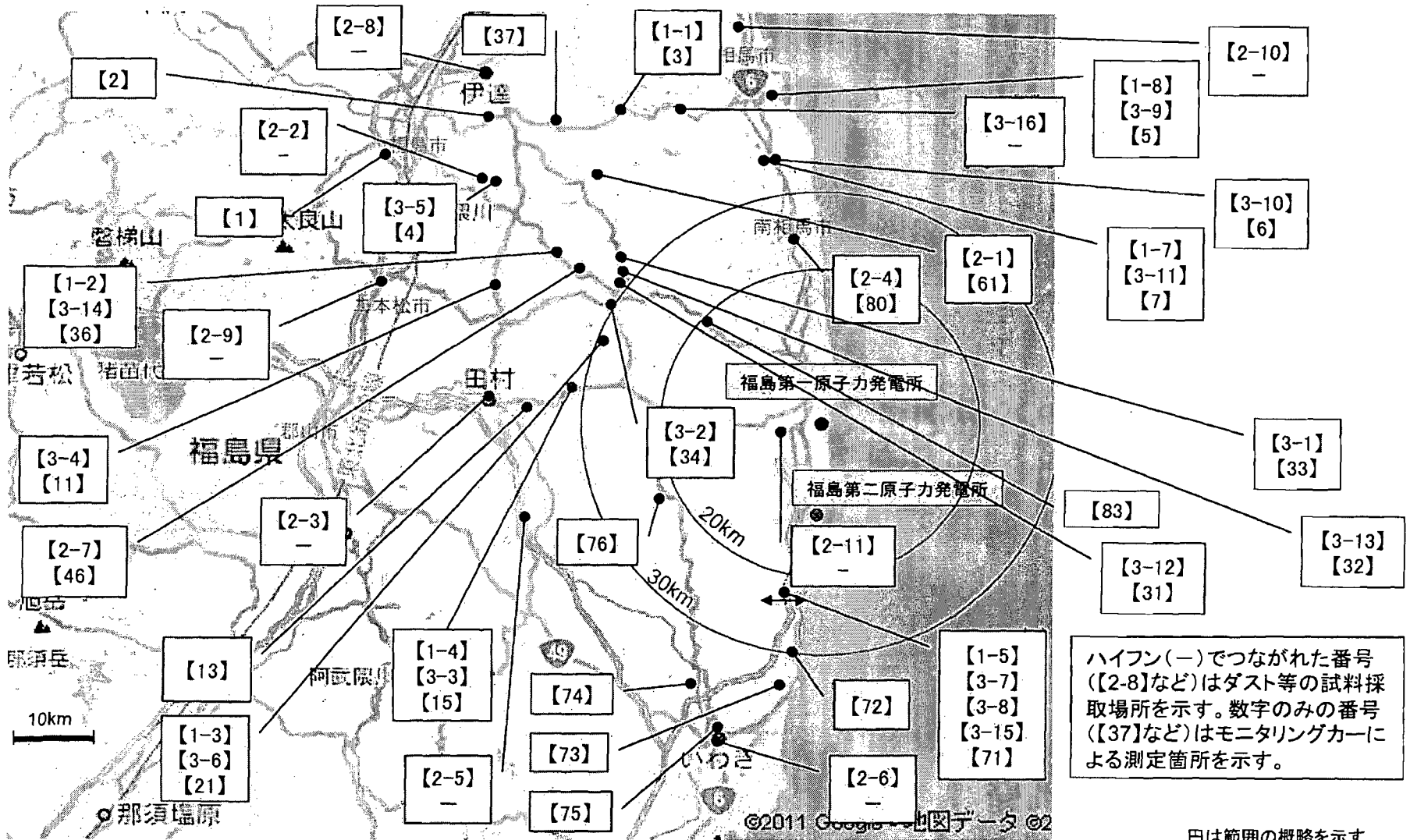
場所(福島第1発電所からの距離)	設置日時	前回取得日時等(x)	前回取得時 数値(a) (マイクロシー ベルト)	データ採取日時 (y)	積算数値(b) (マイクロシー ベルト)	経過時間 (z=y-x)	積算数値(c=b-a) (マイクロシーベ ルト)	天候
測定エリア【31】(約30km西北西)	3月23日11時43分	4月5日10時38分	5217 <sup>*1</sup>	4月6日11時35分	5494 <sup>*1</sup>	24時間57分	277 (11.1 μSv/時)	降雨無し
測定エリア【32】(約30km北西)	3月23日12時14分	4月5日10時56分	11630 <sup>*1</sup>	4月6日12時00分	12260 <sup>*1</sup>	25時間04分	630 (25.1 μSv/時)	降雨無し
測定エリア【33】(約30km北西)	3月23日12時32分	4月5日11時20分	6839 <sup>*1</sup>	4月6日12時21分	7195 <sup>*1</sup>	25時間01分	356 (14.2 μSv/時)	降雨無し
測定エリア【34】(約30km北西)	3月23日13時08分	4月5日13時44分	2404 <sup>*1</sup>	4月6日14時01分	2536 <sup>*1</sup>	24時間17分	132 (5.4 μSv/時)	降雨無し
測定エリア【38】(約35km南)	3月31日16時23分	4月5日14時17分	178 <sup>*1</sup>	4月6日14時23分	192 <sup>*1</sup>	24時間06分	14 (0.6 μSv/時)	降雨無し
測定エリア【71】(約25km南)	3月23日13時00分	4月5日15時58分	602 <sup>*1</sup>	4月6日15時13分	621 <sup>*1</sup>	23時間15分	19 (0.8 μSv/時)	降雨無し
測定エリア【79】(約30km北西)	3月23日14時09分	4月5日11時54分	5440 <sup>*1</sup>	4月6日13時23分	5748 <sup>*1</sup>	25時間29分	308 (12.1 μSv/時)	降雨無し
測定エリア【7】(約45km北)	3月23日12時06分	4月5日11時31分	333 <sup>*1</sup>	4月6日12時04分	351 <sup>*1</sup>	24時間33分	18 (0.7 μSv/時)	降雨無し
測定エリア【1】(約60km北西)	3月24日15時20分	4月5日14時41分	346 <sup>*1</sup>	4月6日14時59分	369 <sup>*1</sup>	24時間18分	23 (0.9 μSv/時)	降雨無し
測定エリア【15】(約35km西)	3月24日10時58分	4月5日11時05分	536 <sup>*1</sup>	4月6日12時41分	570 <sup>*1</sup>	25時間36分	34.0 (1.3 μSv/時)	降雨無し
測定エリア【84】(約40km南西)	3月25日10時40分	4月5日10時09分	69 <sup>*1</sup>	4月6日13時05分	74 <sup>*1</sup>	26時間56分	5 (0.2 μSv/時)	降雨無し
測定エリア【39】(約45km北)	4月1日10時45分	4月5日9時42分	79 <sup>*1</sup>	4月6日11時17分	98 <sup>*1</sup>	25時間35分	19 (0.7 μSv/時)	降雨無し
測定エリア【76】(約20km南西)	4月2日11時35分	4月5日11時50分	38 <sup>*1</sup>	4月6日13時39分	53 <sup>*1</sup>	25時間49分	15 (0.6 μSv/時)	降雨無し
測定エリア【80】(約25km北)	4月3日11時56分	4月5日11時57分	32 <sup>*1</sup>	4月6日13時10分	48 <sup>*1</sup>	25時間13分	16 (0.6 μSv/時)	降雨無し

注)積算数値の括弧書きは、積算数値を経過時間で割った値(c/z)である。

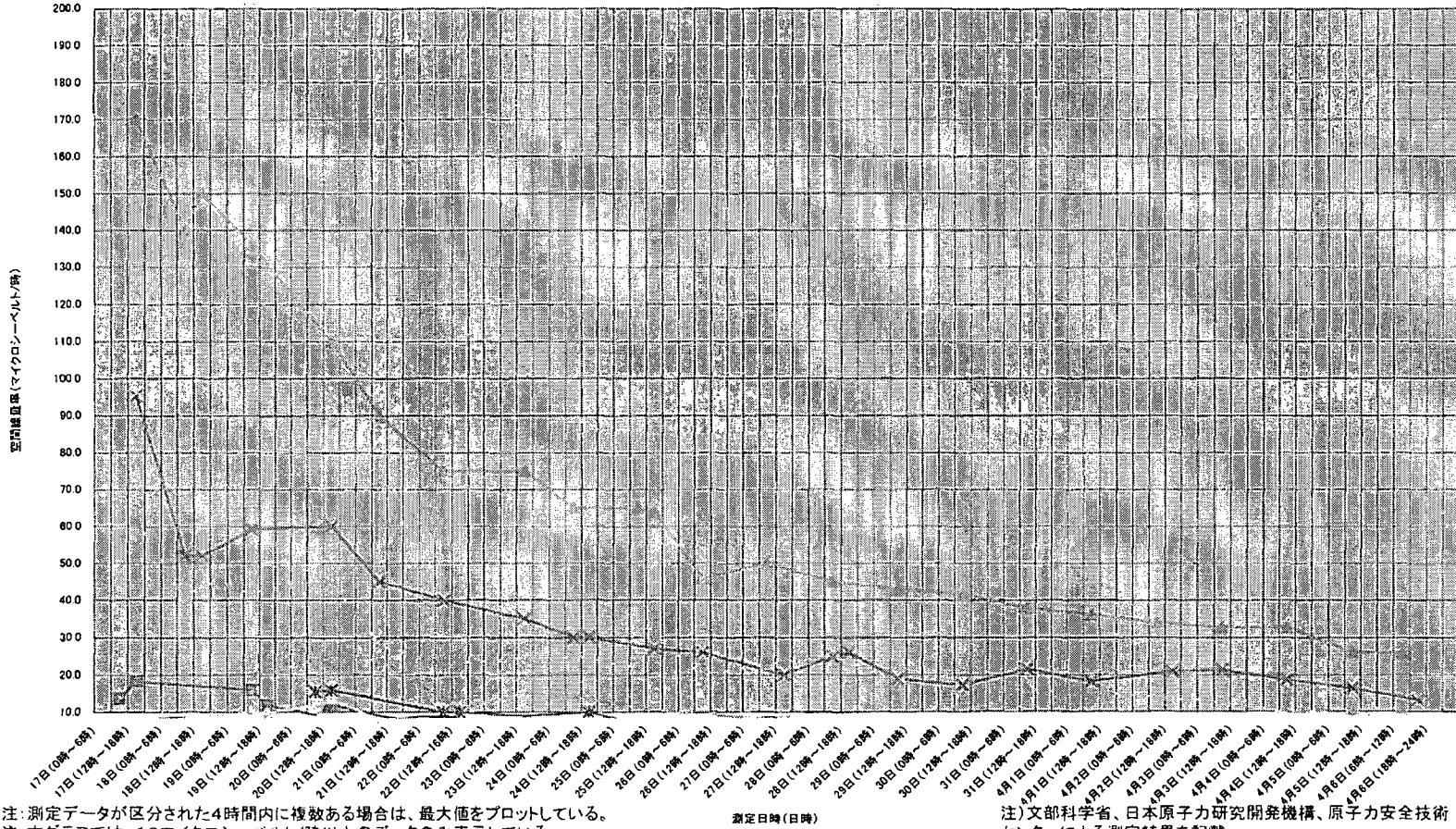
・測定者:文部科学省

・前回取得時数値が0.0と表示のものは新規に設置した箇所を示す。

# 福島第一原子力発電所周辺のダスト等試料採取場所



# 福島第一原子力発電所の20km以遠のモニタリング結果の推移



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**From:** Kokajko, Lawrence  
**Sent:** Friday, April 15, 2011 11:21 AM  
**To:** OST01 HOC  
**Subject:** Out of Office: ET Director Information

I will be away from the office until Monday morning, April 18, 2011.

Please contact Ms. Vonna Ordaz (b)(6) regarding matters related to NMSS until Cathy Haney returns on Wednesday.

Thank you.

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**From:** OST01 HOC  
**Sent:** Thursday, April 07, 2011 1:05 AM  
**To:** RST01 Hoc; PMT11 Hoc; PMT02 Hoc; Hoc, PMT12  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** (Japanese)20110407\_01.pdf; (unofficial)(Japanese)20110407\_01with lat\_long.pdf; (Japanese)20110407\_02.pdf; (Japanese)20110407\_03.pdf; (Japanese)20110407\_04.pdf; (Japanese)20110407\_05.pdf; (Japanese)20110407\_06.pdf; (Japanese)20110407\_07.pdf

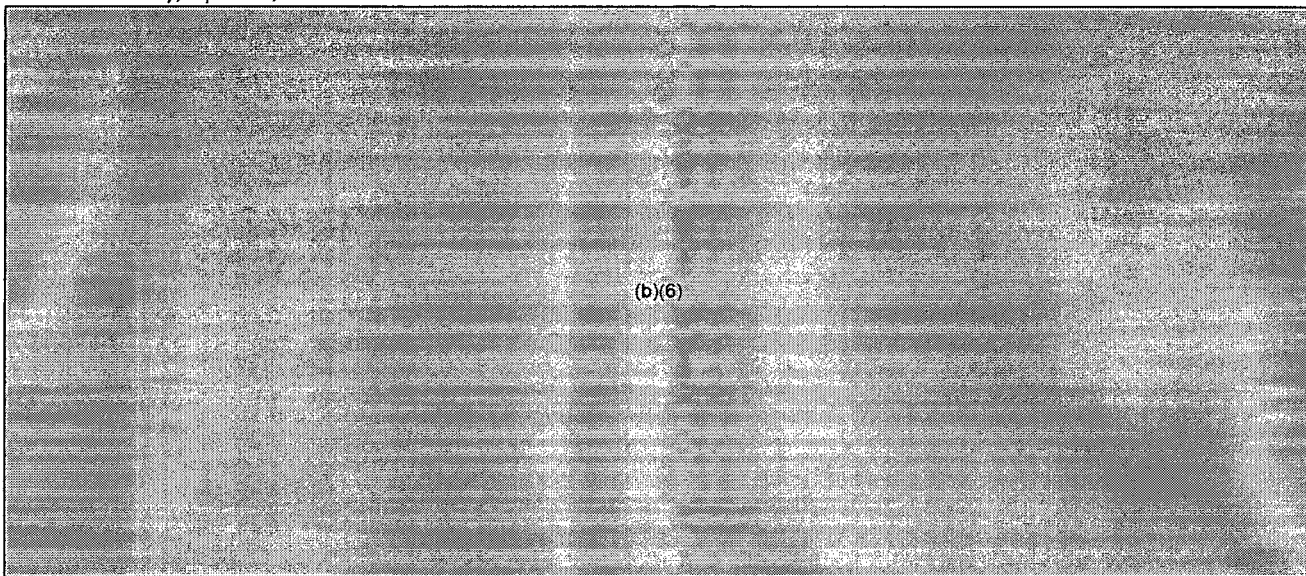
-----Original Message-----

**From:** HOO Hoc  
**Sent:** Thursday, April 07, 2011 1:05 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

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

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

**From:** [eda@mext.go.jp](mailto:eda@mext.go.jp) [mailto:[eda@mext.go.jp](mailto:eda@mext.go.jp)]  
**Sent:** Thursday, April 07, 2011 12:48 AM



(b)(6)

Subject: Radiation data by MEXT

Dear Sir,

Please see attached the document.

Sincerely yours,

Kei EDA

EOC, Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan

福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月7日 10時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置			測定位置 の備考	天候	実施者
測定エリア【1】 (約60km北西)	4月6日14時58分	1.5 <sup>*2</sup>	N: 37' 44' 12.6"	20110330	確認	降雨なし	日本原子力研究開発機構	
			E: 140' 28' 02.9"					
測定エリア【1】 (約60km北西)	4月6日8時45分	1.4 <sup>*2</sup>	N: 37' 44' 12.6"	20110330	確認	降雨なし	文部科学省	
			E: 140' 28' 02.9"					
測定エリア【2】 (約55km北西)	4月6日9時12分	2.5 <sup>*2</sup>	N: 37' 41' 12.7"	20110330	確認	降雨なし	日本原子力研究開発機構	
			E: 140' 33' 29.3"					
測定エリア【3】 (約45km北西)	4月6日10時51分	3.9 <sup>*2</sup>	N: 37' 45' 40.5"	20110330	確認	降雨なし	日本原子力研究開発機構	
			E: 140' 44' 19.9"					
測定エリア【4】 (約50km北西)	4月6日9時34分	1.2 <sup>*2</sup>	N: 37' 39' 30.0"	20110330	確認	降雨なし	文部科学省	
			E: 140' 35' 54.0"					
測定エリア【5】 (約45km北)	4月6日11時36分	0.8 <sup>*2</sup>	N: 37' 47' 17.4"	20110330	確認	降雨なし	日本原子力研究開発機構	
			E: 140' 55' 59.1"					
測定エリア【6】 (約35km北)	4月6日11時54分	1.0 <sup>*2</sup>	N: 37' 42' 09.5"	20110330	確認	降雨なし	日本原子力研究開発機構	
			E: 140' 58' 04.6"					
測定エリア【7】 (約35km北)	4月6日12時03分	0.8 <sup>*2</sup>	N: 37' 41' 49.0"	20110330	確認	降雨なし	日本原子力研究開発機構	
			E: 140' 57' 57.7"					
測定エリア【10】 (約40km北西)	4月6日9時48分	1.1 <sup>*2</sup>	N: 37' 36' 02.9"	20110403	確認	降雨なし	文部科学省	
			E: 140' 35' 07.3"					
測定エリア【11】 (約40km北西)	4月6日9時56分	1.5 <sup>*2</sup>	N: 37' 34' 00.0"	20110330	確認	降雨なし	文部科学省	
			E: 140' 34' 48.0"					
測定エリア【12】 (約40km西)	4月6日11時23分	0.3 <sup>*2</sup>	N: 37' 25' 53.6"	20110330	確認	降雨なし	文部科学省	
			E: 140' 35' 44.2"					
測定エリア【13】 (約40km西)	4月6日12時25分	0.5 <sup>*2</sup>	N: 37' 26' 21.5"	20110330	確認	降雨なし	文部科学省	
			E: 140' 37' 20.7"					
測定エリア【14】 (約35km西)	4月6日12時32分	0.2 <sup>*2</sup>	N: 37' 26' 09.4"	20110330	確認	降雨なし	文部科学省	
			E: 140' 38' 49.5"					
測定エリア【15】 (約35km西)	4月6日12時41分	1.0 <sup>*2</sup>	N: 37' 26' 54.0"	20110330	確認	降雨なし	文部科学省	
			E: 140' 40' 53.2"					
測定エリア【20】 (約45km北西)	4月6日10時25分	0.7 <sup>*2</sup>	N: 37' 29' 24.2"	20110330	確認	降雨なし	文部科学省	
			E: 140' 34' 54.2"					
測定エリア【21】 (約30km西西北西)	4月6日10時52分	3.0 <sup>*2</sup>	N: 37' 30' 28.7"	20110330	確認	降雨なし	文部科学省	
			E: 140' 42' 08.7"					

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【22】(約35km西北西)	4月6日10時41分	0.5 <sup>*2</sup>	N: 37' 30" 41.3" E: 140' 39" 28.8"	20110330 確認	降雨なし	文部科学省
測定エリア【23】(約35km西北西)	4月6日10時33分	0.9 <sup>*2</sup>	N: 37' 30" 18.9" E: 140' 34" 40.6"	20110330 確認	降雨なし	文部科学省
測定エリア【31】(約30km西北西)	4月6日11時37分	10.9 <sup>*2</sup>	N: 37' 33" 45.0" E: 140' 44" 49.9"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【32】(約30km北西)	4月6日11時58分	25.8 <sup>*2</sup>	N: 37' 35" 42.0" E: 140' 45" 14.5"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【33】(約30km北西)	4月6日12時17分	13.2 <sup>*2</sup>	N: 37' 36" 34.6" E: 140' 45" 09.1"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【34】(約30km北西)	4月6日14時00分	6.8 <sup>*2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【36】(約40km北西)	4月6日11時03分	4.1 <sup>*2</sup>	N: 37' 36" 20.6" E: 140' 37" 58.9"	20110331 確認	降雨なし	日本原子力研究開発機構
測定エリア【37】(約50km北西)	4月6日10時38分	3.7 <sup>*2</sup>	N: 37' 45" 06.7" E: 140' 41" 29.2"	20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【38】(約35km南)	4月6日14時22分	0.7 <sup>*2</sup>	N: 37' 07" 18.4" E: 140' 57" 03.8"	20110401 確認	降雨なし	文部科学省
測定エリア【39】(約45km北)	4月6日11時15分	0.3 <sup>*2</sup>	N: 37' 45" 52.7" E: 140' 51" 47.1"	20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【41】(約20km西)	4月6日13時15分	0.9 <sup>*2</sup>			降雨なし	電力会社
測定エリア【41】(約20km西)	4月6日9時40分	0.9 <sup>*2</sup>			降雨なし	電力会社
測定エリア【42】(約30km西)	4月6日13時20分	1.0 <sup>*2</sup>			降雨なし	電力会社
測定エリア【42】(約30km西)	4月6日9時40分	1.0 <sup>*2</sup>			降雨なし	電力会社
測定エリア【43】(約20km南西)	4月6日15時00分	0.3 <sup>*2</sup>			降雨なし	電力会社
測定エリア【43】(約20km南西)	4月6日11時00分	0.4 <sup>*2</sup>			降雨なし	電力会社
測定エリア【44】(約30km南)	4月6日13時00分	1.0 <sup>*2</sup>			降雨なし	電力会社
測定エリア【44】(約30km南)	4月6日10時00分	1.1 <sup>*2</sup>			降雨なし	電力会社
測定エリア【45】(約20km南)	4月6日13時11分	1.5 <sup>*2</sup>			降雨なし	電力会社
測定エリア【45】(約20km南)	4月6日10時09分	2.2 <sup>*2</sup>			降雨なし	電力会社
測定エリア【46】(約30km北西)	4月6日14時00分	5.3 <sup>*2</sup>			降雨なし	電力会社



- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【46】(約30km北西)	4月6日10時30分	5.4 <sup>*2</sup>			降雨なし	電力会社
測定エリア【51】(約40km南西)	4月6日13時23分	0.2 <sup>*3</sup>			降雨なし	福島県
測定エリア【51】(約40km南西)	4月6日10時29分	0.3 <sup>*3</sup>			降雨なし	福島県
測定エリア【52】(約40km西)	4月6日13時56分	0.3 <sup>*3</sup>			降雨なし	福島県
測定エリア【52】(約40km西)	4月6日11時24分	0.4 <sup>*3</sup>			降雨なし	福島県
測定エリア【61】(約40km北西)	4月6日14時29分	5.2 <sup>*3</sup>			降雨なし	福島県
測定エリア【61】(約40km北西)	4月6日12時21分	5.0 <sup>*3</sup>			降雨なし	福島県
測定エリア【62】(約40km北西)	4月6日14時40分	6.5 <sup>*3</sup>			降雨なし	福島県
測定エリア【62】(約40km北西)	4月6日12時13分	6.9 <sup>*3</sup>			降雨なし	福島県
測定エリア【63】(約45km北西)	4月6日15時04分	2.4 <sup>*3</sup>			降雨なし	福島県
測定エリア【63】(約45km北西)	4月6日11時10分	2.3 <sup>*3</sup>			降雨なし	福島県
測定エリア【71】(約25km南)	4月6日15時42分	1.1 <sup>*2</sup>	N: 37° 12' 32.4"	20110323 確認	降雨なし	警察(NBC対策部隊)
測定エリア【71】(約25km南)	4月6日15時14分	1.4 <sup>*2</sup>	E: 140° 57' 08.2"	20110323 確認	降雨なし	文部科学省
測定エリア【71】(約25km南)	4月6日8時15分	1.1 <sup>*2</sup>	N: 37° 12' 32.4"	20110323 確認	降雨なし	警察(NBC対策部隊)
測定エリア【72】(約30km南)	4月6日16時14分	0.6 <sup>*2</sup>	E: 140° 57' 08.2"		降雨なし	警察(NBC対策部隊)
測定エリア【72】(約30km南)	4月6日14時55分	1.5 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【72】(約30km南)	4月6日8時50分	0.9 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【73】(約35km南)	4月6日16時33分	0.4 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【73】(約35km南)	4月6日14時36分	1.4 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【73】(約35km南)	4月6日9時10分	0.4 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【74】(約35km南)	4月6日14時03分	0.4 <sup>*2</sup>			降雨なし	文部科学省

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【74】 (約35km南)	4月6日7時21分	0.3 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【75】 (約45km南)	4月6日18時53分	0.1 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【75】 (約45km南)	4月6日13時40分	0.6 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【75】 (約45km南)	4月6日6時58分	0.4 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【76】 (約20km南西)	4月6日13時39分	0.7 <sup>*2</sup>	N: 37° 20' 25.3" E: 140° 48' 25.7"	20110402 確認	降雨なし	文部科学省
測定エリア【76】 (約20km南西)	4月6日12時22分	0.3 <sup>*2</sup>	N: 37° 20' 25.3" E: 140° 48' 25.7"	20110402 確認	降雨なし	警察(NBC対策部隊)
測定エリア【77】 (約25km南西)	4月6日12時01分	1.2 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【78】 (約45km北西)	4月6日13時54分	1.2 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【78】 (約45km北西)	4月6日7時48分	1.1 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【79】 (約30km北西)	4月6日13時21分	15.5 <sup>*2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【79】 (約30km北西)	4月6日9時59分	13.6 <sup>*2</sup>	N: 37° 33' 22.2" E: 140° 45' 46.9"	20110323 確認	降雨なし	警察(NBC対策部隊)
測定エリア【80】 (約25km北)	4月6日13時08分	0.9 <sup>*2</sup>	N: 37° 33' 22.2" E: 140° 45' 46.9"	20110323 確認	降雨なし	日本原子力研究開発機構
測定エリア【80】 (約25km北)	4月6日11時40分	0.2 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【81】 (約30km北西)	4月6日8時39分	28.3 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【83】 (約20km北西)	4月6日13時42分	58.8 <sup>*2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【83】 (約20km北西)	4月6日10時22分	52.5 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【84】 (約40km南西)	4月6日13時06分	0.5 <sup>*2</sup>	N: 37° 10' 20.0" E: 140° 43' 30.7"	20110330 確認	降雨なし	文部科学省
測定エリア【85】 (約60km北西)	4月6日14時00分	0.6 <sup>*2</sup>	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【85】 (約60km北西)	4月6日6時00分	0.6 <sup>*2</sup>	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】 (約55km西)	4月6日14時00分	1.1 <sup>*2</sup>	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】 (約55km西)	4月6日6時00分	1.0 <sup>*2</sup>	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330 確認	降雨なし	防衛省

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【87】(約30km西南西)	4月6日14時00分	1.3 <sup>*2</sup>	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330 確認	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月6日6時00分	1.0 <sup>*2</sup>	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330 確認	降雨なし	防衛省
測定エリア【88】(約55km西北西)	4月6日16時00分	1.4 <sup>*2</sup>	N: 37° 41' 24.2" E: 140° 28' 17.4"	201100404 確認	降雨なし	防衛省
測定エリア【88】(約55km西北西)	4月5日17時00分	1.4 <sup>*2</sup>	N: 37° 41' 24.2" E: 140° 28' 17.4"	201100404 確認	降雨なし	防衛省
測定エリア【89】(約60km西)	4月6日16時00分	3.0 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	防衛省
測定エリア【89】(約60km西)	4月5日17時00分	3.7 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	防衛省

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【80】(約25km北)	4月10日11時29分	0.9 <sup>*2</sup>	N: 37° 33' 22.2" E: 140° 45' 46.9"	20110323 確認	降雨なし	日本原子力研究開発機構
測定エリア【80】(約25km北)	4月10日8時13分	0.2 <sup>*2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【84】(約40km南西)	4月10日9時55分	0.2 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【85】(約60km北西)	4月10日6時00分	0.4 <sup>*2</sup>	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】(約55km西)	4月10日6時00分	0.9 <sup>*2</sup>	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月10日6時00分	1.6 <sup>*2</sup>	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330 確認	降雨あり	防衛省
測定エリア【101】(約55km北西)	4月10日9時19分	1.5 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【102】(約50km北西)	4月10日13時49分	1.2 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【103】(約20km北)	4月10日12時19分	0.5 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【105】(約20km西)	4月10日11時59分	1.5 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	文部科学省
測定エリア【106】(約30km南西)	4月10日12時45分	1.2 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	文部科学省
測定エリア【107】(約25km北北西)	4月10日12時35分	2.2 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【108】(約30km北北西)	4月10日12時56分	2.7 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構

## 福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月10日 16時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【1】 (約60km北西)	4月10日8時30分	0.3 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【2】 (約55km北西)	4月10日8時53分	2.6 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【3】 (約45km北西)	4月10日9時47分	2.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【4】 (約50km北西)	4月10日9時14分	1.9 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【5】 (約45km北)	4月10日10時24分	0.6 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【6】 (約35km北)	4月10日10時49分	1.2 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
<b>測定エリア【7】 (約35km北)</b>	<b>4月10日11時01分</b>	<b>0.7<sup>*2</sup></b>	<b>降雨なし</b>	<b>日本原子力研究開発機構</b>
測定エリア【10】 (約40km北西)	4月10日9時27分	1.6 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【11】 (約40km北西)	4月10日9時35分	1.9 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【12】 (約40km西)	4月10日11時15分	<u>1.2<sup>*2</sup></u>	降雨なし	文部科学省
測定エリア【13】 (約40km西)	4月10日11時23分	<u>1.6<sup>*2</sup></u>	降雨なし	文部科学省
測定エリア【14】 (約35km西)	4月10日11時29分	<u>0.8<sup>*2</sup></u>	降雨なし	文部科学省
測定エリア【15】 (約35km西)	4月10日11時42分	<u>1.5<sup>*2</sup></u>	降雨なし	文部科学省
測定エリア【20】 (約45km北西)	4月10日9時58分	1.6 <sup>*2</sup>	降雨なし	文部科学省

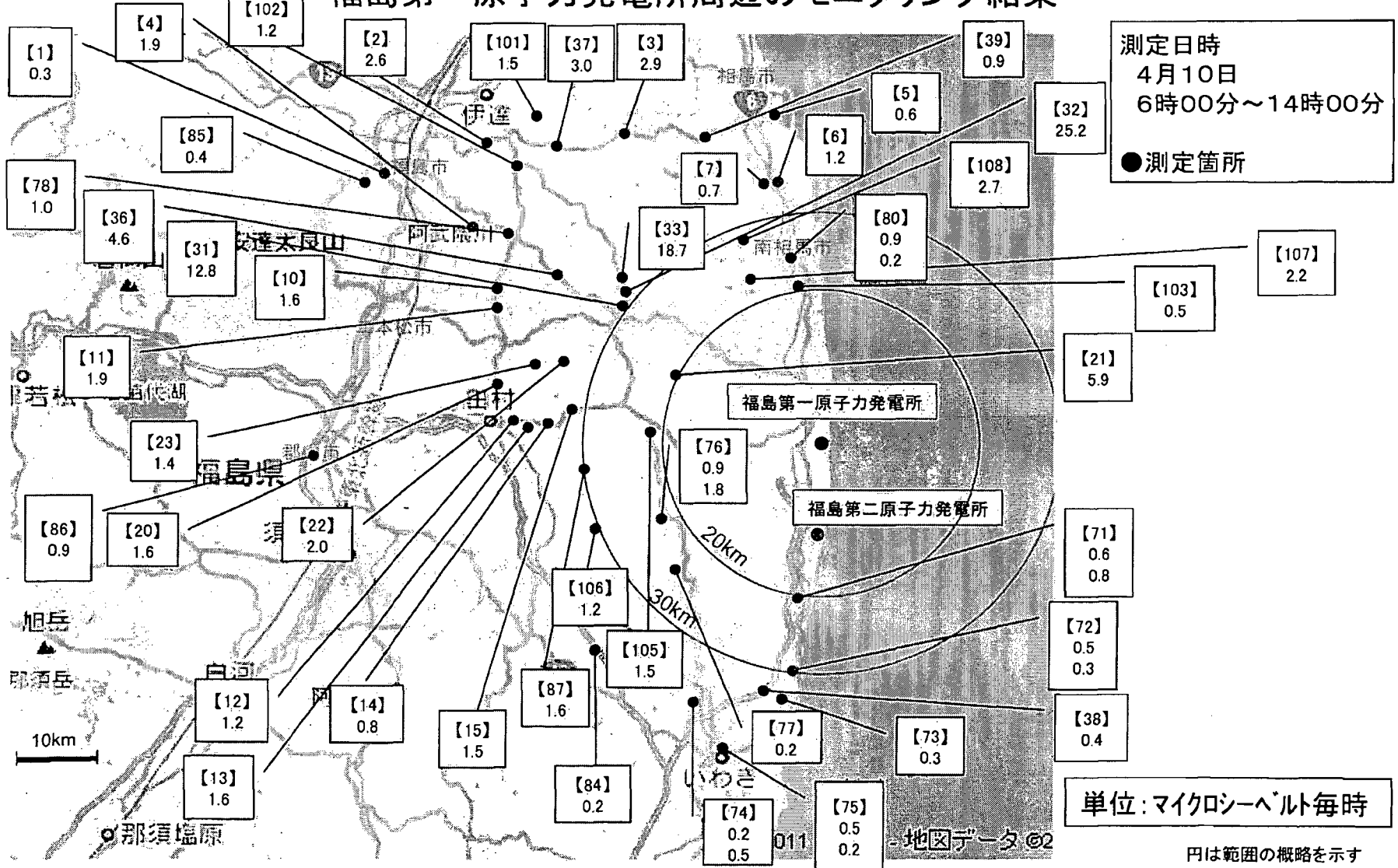
- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【21】(約30km西北西)	4月10日10時24分	5.9 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【22】(約35km西北西)	4月10日10時12分	2.0 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【23】(約35km西北西)	4月10日10時50分	1.4 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【31】(約30km西北西)	4月10日10時00分	12.8 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【32】(約30km北西)	4月10日10時38分	25.2 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【33】(約30km北西)	4月10日11時08分	18.7 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【36】(約40km北西)	4月10日9時38分	4.6 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【37】(約50km北西)	4月10日9時40分	3.0 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【38】(約35km南)	4月10日11時20分	0.4 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【39】(約45km北)	4月10日10時10分	0.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【71】(約25km南)	4月10日12時23分	0.6 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【71】(約25km南)	4月10日7時50分	0.8 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【72】(約30km南)	4月10日12時08分	0.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【72】(約30km南)	4月10日8時24分	0.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【73】(約35km南)	4月10日8時41分	0.3 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【74】(約35km南)	4月10日12時22分	0.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【74】(約35km南)	4月10日10時55分	0.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【75】(約45km南)	4月10日10時33分	0.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【75】 (約45km南)	4月10日7時00分	0.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【76】 (約20km南西)	4月10日12時17分	0.9 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【76】 (約20km南西)	4月10日11時38分	1.8 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【77】 (約25km南西)	4月10日11時18分	0.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【78】 (約45km北西)	4月10日7時00分	1.0 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【80】 (約25km北)	4月10日11時29分	0.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【80】 (約25km北)	4月10日8時13分	0.2 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【84】 (約40km南西)	4月10日9時55分	0.2 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【85】 (約60km北西)	4月10日6時00分	0.4 <sup>*2</sup>	降雨なし	防衛省
測定エリア【86】 (約55km西)	4月10日6時00分	0.9 <sup>*2</sup>	降雨なし	防衛省
測定エリア【87】 (約30km西南西)	4月10日6時00分	1.6 <sup>*2</sup>	降雨あり	防衛省
測定エリア【101】 (約55km北西)	4月10日9時19分	1.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【102】 (約50km北西)	4月10日13時49分	1.2 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【103】 (約20km北)	4月10日12時19分	0.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【105】 (約20km西)	4月10日11時59分	1.5 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【106】 (約30km南西)	4月10日12時45分	1.2 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【107】 (約25km北北西)	4月10日12時35分	2.2 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【108】 (約30km北北西)	4月10日12時56分	2.7 <sup>*2</sup>	降雨なし	日本原子力研究開発機構

# 福島第一原子力発電所周辺のモニタリング結果





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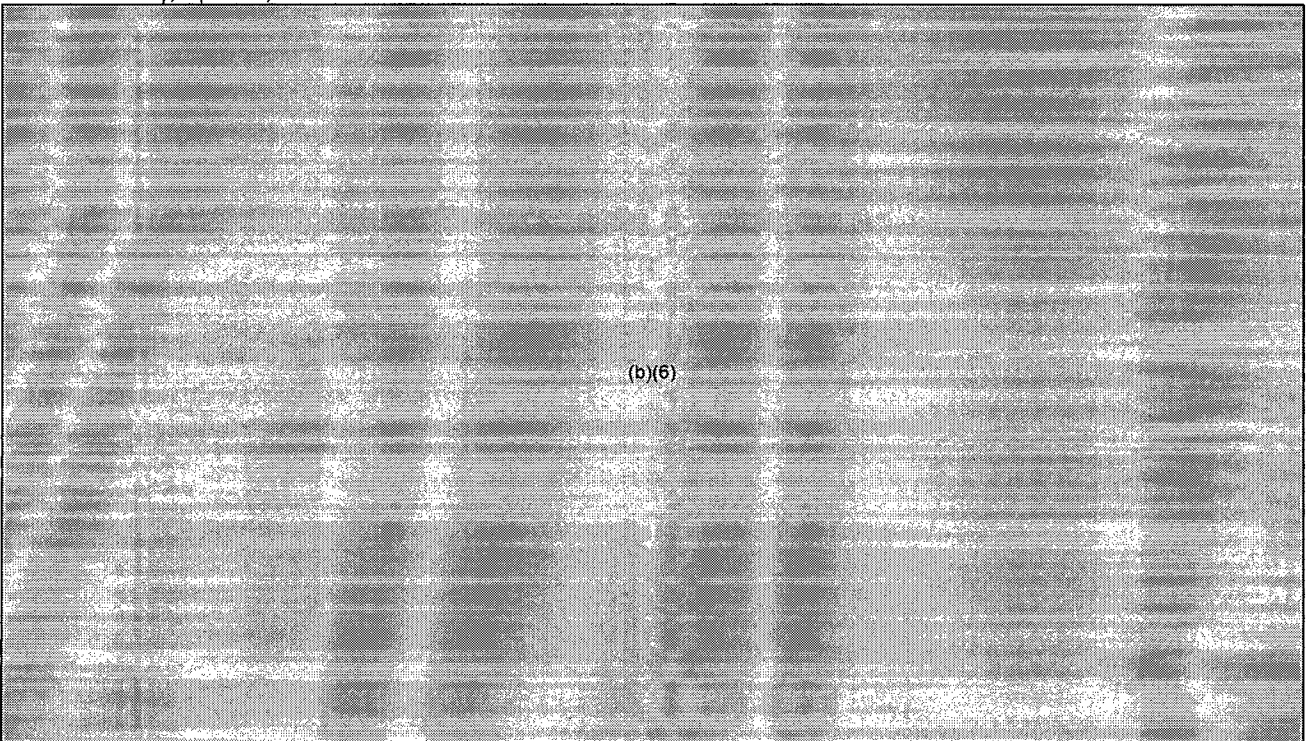
**From:** OST01 HOC  
**Sent:** Sunday, April 10, 2011 4:24 AM  
**To:** RST01 Hoc; PMT01 Hoc; PMT02 Hoc; PMT11 Hoc; Hoc, PMT12  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** (Japanese)20110410\_01.pdf; (unofficial)(Japanese)20110410\_01with lat\_long.pdf; (Japanese)20110410\_02.pdf; (Japanese)20110410\_03.pdf; (Japanese)20110410\_04.pdf; (unofficial)(Japanese)20110410\_04with lat\_long.pdf; (Japanese)20110410\_05.pdf; (Japanese)20110410\_06.pdf; (Japanese)20110410\_07.pdf

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

**From:** HOO Hoc  
**Sent:** Sunday, April 10, 2011 4:23 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

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

**From:** eda@mext.go.jp [mailto:eda@mext.go.jp]  
**Sent:** Saturday, April 09, 2011 11:36 PM



**Subject:** Radiation data by MEXT

Dear Sir,

Please see attached the document.

Sincerely yours,

Kei EDA

EOC, Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan

福島第一原子力発電所の20km以遠の積算線量結果について

平成23年4月10日10時00分現在  
文部科学省

\*1 簡易型線量計(ポケット線量計)における値

場所(福島第1発電所からの距離)	設置日時	前回取得日時等 (x)	前回取得時 数値(a) (マイクロシー ベルト)	データ採収日時 (y)	積算数値(b) (マイクロシー ベルト)	経過時間 (z=y-x)	積算数値(c=b-a) (マイクロシー ベルト)	天候
測定エリア【31】(約30km西北西)	3月23日11時43分	4月8日11時00分	5977 <sup>*1</sup>	4月9日10時27分	6214 <sup>*1</sup>	23時間27分	237 (10.1 μSv/時)	降雨有り
測定エリア【32】(約30km北西)	3月23日12時14分	4月8日11時20分	13400 <sup>*1</sup>	4月9日10時45分	13950 <sup>*1</sup>	23時間25分	550 (23.5 μSv/時)	降雨有り
測定エリア【33】(約30km北西)	3月23日12時32分	4月8日11時35分	7838 <sup>*1</sup>	4月9日10時53分	8141 <sup>*1</sup>	23時間18分	303 (13.0 μSv/時)	降雨有り
測定エリア【34】(約30km北西)	3月23日13時08分	4月8日12時26分	2779 <sup>*1</sup>	4月9日9時49分	2887 <sup>*1</sup>	21時間23分	108 (5.1 μSv/時)	降雨有り
測定エリア【38】(約35km南)	3月31日16時23分	4月8日11時46分	216 <sup>*1</sup>	4月9日11時26分	227 <sup>*1</sup>	23時間40分	11 (0.5 μSv/時)	降雨有り
測定エリア【71】(約25km南)	3月23日13時00分	4月8日13時05分	656 <sup>*1</sup>	4月9日12時43分	672 <sup>*1</sup>	23時間38分	16 (0.7 μSv/時)	降雨有り
測定エリア【79】(約30km北西)	3月23日14時09分	4月8日11時56分	6301 <sup>*1</sup>	4月9日10時18分	6559 <sup>*1</sup>	22時間22分	258 (11.5 μSv/時)	降雨有り
測定エリア【7】(約35km北)	3月23日12時06分	4月8日11時40分	384 <sup>*1</sup>	4月9日10時57分	400 <sup>*1</sup>	23時間17分	16 (0.7 μSv/時)	降雨有り
測定エリア【1】(約60km北西)	3月24日15時20分	4月8日15時56分	414 <sup>*1</sup>	4月9日14時27分	477 <sup>*1</sup>	22時間31分	63 (2.8 μSv/時)	降雨無し
測定エリア【15】(約35km西)	3月24日10時58分	4月8日11時00分	631 <sup>*1</sup>	4月9日11時40分	660 <sup>*1</sup>	24時間40分	29.0 (1.2 μSv/時)	降雨有り
測定エリア【84】(約40km南西)	3月25日10時40分	4月8日10時04分	82 <sup>*1</sup>	4月9日10時03分	86 <sup>*1</sup>	23時間59分	4 (0.2 μSv/時)	降雨有り
測定エリア【39】(約45km北)	4月1日10時45分	4月8日10時47分	130 <sup>*1</sup>	4月9日10時18分	145 <sup>*1</sup>	23時間31分	15 (0.6 μSv/時)	降雨有り
測定エリア【76】(約20km南西)	4月2日11時35分	4月8日11時41分	77 <sup>*1</sup>	4月9日10時55分	90 <sup>*1</sup>	23時間14分	13 (0.6 μSv/時)	降雨有り
測定エリア【80】(約25km北)	4月3日11時56分	4月8日12時19分	75 <sup>*1</sup>	4月9日11時25分	88 <sup>*1</sup>	23時間06分	13 (0.6 μSv/時)	降雨有り

注)積算数値の括弧書きは、積算数値を経過時間で割った値(c/z)である。

- ・測定者:文部科学省
- ・前回取得時数値が0.0と表示のものは新規に設置した箇所を示す。

ダストサンプリングの測定結果 (1/2)

プレス発表資料

: 枠内は新規追加データ。

平成23年4月10日10時00分現在  
文部科学省

測定試料採取点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)	備考	
		<sup>131</sup> I	<sup>137</sup> Cs			
【1-1】(約45km北西)	3月23日 10:45~10:55	4.0	1.2	5.5	【3】	
【1-2】(約40km北西)	3月23日 10:50~11:10	5.2	<1.2	9.0	【36】	
【1-3】(約30km西北西)	3月23日 13:54~14:17	8.0	<1.4	9.4	【21】	
【1-4】(約35km西)	3月23日 12:40~13:02	2.8	<1.1	2.3	【15】	
【1-4】(約35km西)1回目	3月24日 10:58~11:09	3.1	<0.99	2		
【1-4】(約35km西)2回目	3月24日 11:58~12:09	2.4	1.3	2.8		
【1-4】(約35km西)3回目	3月24日 12:58~13:09	2.5	<1.2	2.5		
【1-4】(約35km西)4回目	3月24日 13:58~14:09	2.2	1.6	2.2		
【1-4】(約35km西)5回目	3月24日 14:58~15:09	2.8	<1.2	2.5		
【1-4】(約35km西)6回目	3月24日 15:58~16:09	2.1	<1.0	2.2		
【1-5】(約25km南) 走行測定1回目	3月23日 13:15~13:58	530.0	6.6	5.5~14.0	【71】	
【1-5】(約25km南) 走行測定2回目	3月23日 14:30~15:10	180.0	2.3	5.5~14.0		
【1-5】(約25km南) 走行測定3回目	3月23日 15:20~15:59	110.0	2.1	5.5~14.0		
【1-5】(約25km南) 走行測定1回目	3月24日 10:06~10:44	5.9	<0.66	5.6		
【1-5】(約25km南) 走行測定2回目	3月24日 10:53~11:33	9.2	<0.71	5.6		
【1-5】(約25km南) 走行測定3回目	3月24日 11:44~12:26	12.0	1.1	5.6		
【1-5】(約25km南) 走行測定	3月25日 11:51~12:38	43.0	2.0	4.1~5.5		
【1-5】(約25km南)1回目	3月25日 13:12~13:42	23.0	1.4	2		
【1-5】(約25km南)2回目	3月25日 14:12~14:42	19.0	1.3	2.8		
【1-5】(約25km南)3回目	3月25日 15:12~15:42	24.0	2.5	2.5		
【1-5】(約25km南)4回目	3月25日 16:12~16:42	10.0	1.3	2.2		
【1-5】(約25km南)1回目	3月26日 12:47~13:21	13.0	1.3	3.9		
【1-5】(約25km南)2回目	3月26日 14:21~14:57	10.0	1.5	3.9		
【1-5】(約25km南) 走行測定1回目	3月27日 12:36~13:26	20.0	0.8	2.8~3.8		
【1-5】(約25km南)1回目	3月27日 13:58~14:33	7.1	<0.98	3.8		
【1-5】(約25km南)2回目	3月27日 15:33~16:08	6.6	<1.0	3.8		
【1-5】(約25km南)3回目	3月27日 16:16~16:53	10.0	<1.1	3.8		
【1-5】(約25km南) 走行測定2回目	3月27日 14:43~15:18	5.5	1.2	2.8~3.8		
【1-5】(約25km南)1回目	3月28日 9:48~13:03	6.6	0.57	3.0		
【1-5】(約25km南)2回目	3月28日 13:23~14:07	54.0	8.0	3.0		
【1-5】(約25km南)3回目	3月28日 14:18~15:19	20.0	3.0	3.0		
【1-5】(約25km南)1回目	3月31日 12:22~13:12	24.0	4.5	2.1		
【1-5】(約25km南)2回目	3月31日 13:17~14:01	18.0	1.3	2.0		
【1-5】(約25km南)3回目	3月31日 14:06~14:50	13.0	1.0	1.9		
【1-5】(約25km南)4回目	3月31日 15:00~15:44	13.0	<0.79	2.0		
【1-7】(約35km北)1回目	3月25日 12:58~13:09	3.5	<0.99	3.2		【7】
【1-7】(約35km北)2回目	3月25日 13:58~14:09	4.3	1.6	3.2		
【1-7】(約35km北)3回目	3月25日 14:57~15:08	15.0	<0.98	3.2		
【1-7】(約35km北)4回目	3月25日 15:58~16:09	22.0	1.1	3.2		
【1-7】(約35km北)5回目	3月26日 11:27~11:38	2.9	1.0	1.5		
【1-7】(約35km北)6回目	3月26日 13:00~13:11	2.2	1.3	1.5		
【1-8】(約45km北)1回目	3月28日 13:00~16:00	19.0	3.2	0.6~1.2	【5】	

測定試料採取点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)	備考
		<sup>131</sup> I	<sup>137</sup> Cs		
【2-1】(約40km北西)1回目	3月29日 12:50~13:45	4.2	0.73	7.0	【61】
【2-1】(約40km北西)2回目	3月29日 13:49~14:46	3.4	0.79	7.0	
【2-1】(約40km北西)3回目	3月29日 14:47~15:50	2.9	<0.74	7.0	
【2-1】(約40km北西)1回目	3月30日 11:15~11:35	4.8	<1.8	6.7	
【2-1】(約40km北西)2回目	3月30日 12:15~12:35	4.7	2.00	7.2	
【2-1】(約40km北西)3回目	3月30日 13:15~13:35	3.4	1.80	7.0	
【2-1】(約40km北西)4回目	3月30日 14:15~14:35	28.0	20.00	7.4	
【2-1】(約40km北西)5回目	3月30日 15:15~15:35	7.7	1.90	7.5	
【2-4】(約25km北)1回目	3月29日 11:17~12:15	75.0	46.0	1.7	【80】
【2-4】(約25km北)2回目	3月29日 12:15~13:15	29.0	34.0	0.4	
【2-4】(約25km北)3回目	3月29日 13:15~14:15	32.0	23.0	0.6	
【2-4】(約25km北)4回目	3月29日 14:15~15:00	29.0	25.0	0.5	
【2-4】(約25km北)1回目	3月30日 11:09~11:29	1.8	0.5	0.0	
【2-4】(約25km北)2回目	3月30日 12:10~12:30	1.6	0.5	0.8	
【2-4】(約25km北)3回目	3月30日 13:10~13:30	1.2	0.4	0.2	
【2-4】(約25km北)4回目	3月30日 14:10~14:30	1.5	0.5	0.3	
【2-4】(約25km北)5回目	3月30日 15:10~15:30	1.1	<0.49	0.6	
【2-4】(約25km北)1回目	4月1日 12:33~12:48	1.5	1.0	1.2	
【2-4】(約25km北)2回目	4月1日 13:33~13:55	2.2	0.85	1.2	
【2-4】(約25km北)3回目	4月1日 14:33~14:53	1.9	<0.7	1.2	
【2-4】(約25km北)4回目	4月1日 15:33~15:53	1.7	1.0	1.2	
【2-7】(約35km北西)	3月29日 12:00~13:00	0.95	0.59	8.0	【46】
【2-7】(約35km北西)	3月29日 13:00~14:00	0.66	<0.70	8.0	
【2-7】(約35km北西)	3月29日 14:00~15:00	0.75	<0.76	8.0	
【2-7】(約35km北西)	3月29日 15:00~16:00	0.90	<0.58	8.0	
【2-7】(約35km北西)	3月29日 16:00~17:00	0.69	<0.59	8.0	
【2-7】(約35km北西)1回目	3月30日 12:11~12:31	1.9	1.0	13.9	
【2-7】(約35km北西)2回目	3月30日 13:11~13:33	1.3	1.0	15.2	
【2-7】(約35km北西)3回目	3月30日 14:11~14:32	89.0	91.0	14.6	
【2-7】(約35km北西)4回目	3月30日 15:11~15:32	180.0	140.0	15.0	
【3-1】(約30km北西)1回目	3月24日 11:20~11:41	43.0	2.0	30	【33】
【3-1】(約30km北西)2回目	3月24日 12:20~12:40	3.3	<0.98	30	
【3-1】(約30km北西)3回目	3月24日 13:20~13:42	3.8	<1.2	30	
【3-1】(約30km北西)4回目	3月24日 14:20~14:42	3.8	1.5	30	
【3-1】(約30km北西)5回目	3月24日 15:20~15:42	3.3	1.7	30	
【3-1】(約30km北西)1回目	3月26日 11:38~12:00	5.8	4.8	26	
【3-1】(約30km北西)2回目	3月26日 13:18~13:39	5.2	2.2	26	
【3-1】(約30km北西)1回目	3月28日 11:31~11:52	2.6	1.8	26	
【3-1】(約30km北西)2回目	3月28日 12:53~13:15	2.7	<1.2	26	
【3-1】(約30km北西)1回目	3月29日 11:18~11:40	2.4	1.1	18.9	
【3-1】(約30km北西)2回目	3月29日 13:23~13:50	1.9	<1.0	-	
【76】(約20km南西)1回目	4月2日 11:22~11:47	4.5	1.1	1.0	【76】
【76】(約20km南西)2回目	4月2日 11:54~12:36	2.0	<0.39	1.0	
【76】(約20km南西)3回目	4月2日 12:42~13:47	1.3	0.45	1.0	
【76】(約20km南西)4回目	4月2日 13:50~14:56	1.6	<0.33	1.0	
【76】(約20km南西)5回目	4月2日 14:59~16:03	1.6	<0.33	1.0	
【76】(約20km南西)1回目	4月3日 11:35~12:34	2.1	0.56	0.7	
【76】(約20km南西)2回目	4月3日 12:36~13:35	1.4	<0.31	0.7	
【76】(約20km南西)3回目	4月3日 13:38~14:37	2.4	<0.39	0.7	
【76】(約20km南西)1回目	4月4日 12:00~13:00	1.3	1.60	0.8	
【76】(約20km南西)2回目	4月4日 13:08~13:57	2.0	1.10	0.8	
【76】(約20km南西)3回目	4月4日 14:01~14:50	2.3	0.94	0.8	

備考欄の番号は、モニタリングカーによる測定箇所を示す。

空間線量率は、別途発表済み。

ダストサンプリングの測定結果(2/2)

□ : 枠内は新規追加データです。

採取地点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 (μSv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【1】(約60km北西)	3月19日 18:30~18:50	1.22	ND	7.2
	3月20日 18:30~18:50	203.00	32.20	5.0
	3月21日 18:30~18:50	2.50	ND	4.5
	3月22日 18:30~18:50	3.06	ND	5.2
	3月23日 19:38~19:58	3.69	1.20	4.0
	3月24日 18:30~18:55	ND	ND	3.6
	3月25日 19:10~19:20	24.00	14.20	2.5
	3月26日 18:30~18:40	1.75	ND	2.5
	3月27日 18:30~18:50	0.87	ND	3.5
	3月28日 18:33~18:43	1.13	ND	3.2
	3月29日 18:30~18:50	1.56	ND	2.1
	3月30日 18:40~19:00	0.91	ND	2.0
	3月31日 18:30~18:45	2.34	0.56	2.6
	4月1日 18:30~18:40	2.92	1.28	2.7
	4月2日 18:37~18:50	2.36	0.52	1.9
	4月3日 18:30~18:40	1.86	ND	2.0
	4月4日 18:33~18:43	0.72	ND	1.5
	4月5日 19:09~19:19	1.99	LTD	1.8
	4月6日 18:48~18:58	0.70	ND	1.5
	4月7日 18:30~18:40	0.84	ND	1.5
4月8日 18:30~18:40	1.94	2.28	1.1	
【2-1】(約40km北西)	3月21日 13:00~13:20	12.80	2.37	4.1
	3月22日 12:26~12:46	5.87	ND	4.2
	3月23日 12:50~13:10	2.99	ND	16.8
	3月24日 13:30~13:50	5.80	1.51	10.0
	3月25日 12:45~13:05	5.87	ND	12.3
	3月26日 12:26~12:46	5.39	1.33	7.8
	3月27日 12:06~12:26	2.22	ND	11.2
	3月28日 12:05~12:25	1.66	ND	9.6
	3月29日 12:07~12:27	2.42	6.79	9.2
	3月30日 13:22~13:42	3.47	LTD	8.5
	3月31日 11:50~12:10	1.74	LTD	8.0
	4月1日 12:00~12:20	1.78	1.69	7.7
	4月2日 11:46~12:06	0.84	ND	8.6
	4月3日 11:18~11:38	ND	0.78	7.7
	4月4日 11:07~11:27	LTD	1.36	7.2
	4月5日 11:55~12:15	LTD	ND	6.4
	4月6日 11:45~12:05	LTD	ND	6.9
	4月7日 11:29~11:49	ND	ND	6.5
	4月8日 11:45~12:05	0.995	ND	7.0
	【2-2】(約45km北西)	3月22日 11:10~11:30	10.50	ND
3月23日 11:31~11:51		1.47	ND	6.0
3月24日 11:20~11:40		1.47	ND	2.0
3月25日 11:25~11:45		2.15	ND	7.5
3月26日 11:10~11:30		1.19	ND	4.3
3月27日 10:50~11:10		2.97	ND	5.5
3月28日 11:00~11:20		1.66	0.87	5.5
3月29日 11:30~11:23		1.10	2.02	4.8
3月30日 11:37~11:57		1.38	1.11	4.6
3月31日 10:40~11:00		1.36	ND	4.8
4月1日 10:40~11:00		ND	LTD	3.3
4月2日 10:31~10:51		ND	ND	3.2
4月3日 10:12~10:32		ND	ND	3.7
4月4日 10:05~10:25		LTD	ND	3.1
4月5日 10:45~11:05		4.07	ND	2.8
4月6日 10:37~10:57		ND	ND	3.9
4月7日 10:21~10:41		LTD	ND	4.0
4月8日 10:45~11:05		ND	ND	2.8

採取地点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【2-3】(約40km西)	3月21日 12:30~12:50	3.74	ND	0.9
	3月22日 11:32~11:52	3.92	ND	2.2
	3月23日 11:50~12:10	1.75	ND	1.0
	3月24日 12:12~12:32	0.97	ND	-
	3月25日 13:33~13:53	37.00	1.45	0.8
	3月26日 11:52~12:12	1.77	ND	0.8
	3月27日 11:48~12:08	1.07	ND	0.8
	3月28日 11:39~11:59	ND	ND	0.4
	3月29日 13:44~13:54	2.29	0.63	0.7
	3月30日 12:25~12:35	1.59	ND	0.5
	3月31日 12:05~12:15	2.07	ND	0.5
	4月1日 12:11~12:31	ND	ND	0.3
	4月2日 11:24~11:44	LTD	ND	0.3
	4月3日 11:18~11:38	ND	ND	0.3
	4月4日 11:17~11:37	ND	ND	0.3
	4月5日 11:45~11:55	LTD	LTD	0.4
	4月6日 11:28~11:38	LTD	ND	0.4
	4月7日 11:28~11:38	ND	ND	0.4
4月8日 11:27~11:37	LTD	0.905	0.4	
【2-4】(約25km北)	3月21日 14:20~14:40	13.20	0.74	2.8
	3月22日 13:35~13:55	3.81	ND	1.8
	3月23日 14:10~14:30	2.62	ND	1.1
	3月24日 14:55~15:15	193.00	2.94	1.2
	3月25日 14:20~14:40	16.10	ND	0.7
	3月26日 13:57~14:17	2.62	ND	1.3
	3月27日 13:38~13:58	1.31	ND	1.4
	3月28日 13:30~13:50	16.40	2.80	0.7
	3月29日 13:30~13:50	63.40	38.60	1.0
	3月30日 14:50~15:10	ND	LTD	0.0~1.3
	3月31日 13:20~13:40	5.02	1.63	1.4
	4月1日 13:40~14:00	2.66	LTD	1.2
	4月2日 13:14~13:34	0.80	ND	1.2
	4月3日 12:38~12:58	LTD	ND	1.0
	4月4日 12:26~12:46	0.85	1.80	0.7
	4月5日 13:07~13:27	6.99	1.43	0.6
	4月6日 12:01~12:21	8.81	2.68	0.9
	4月7日 12:46~13:06	35.90	4.40	0.9
4月8日 12:55~13:15	1.05	ND	0.5	
【2-5】(約40km南西)	3月20日 13:57~14:17	24.00	1.75	0.6
	3月21日 13:37~13:57	2.69	ND	0.5
	3月22日 12:32~12:52	6.29	ND	0.4
	3月23日 12:50~13:10	1.86	ND	0.5
	3月24日 13:21~13:41	1.19	ND	-
	3月25日 13:35~13:55	12.40	ND	0.4
	3月26日 11:55~12:15	ND	ND	0.6
	3月27日 11:05~11:25	1.04	ND	0.5
	3月28日 11:25~11:45	0.82	ND	-
	3月29日 11:25~11:45	0.89	ND	0.3
	3月30日 11:00~11:20	ND	ND	0.3
	3月31日 11:07~11:27	ND	ND	0.3
	4月1日 10:49~11:09	0.74	ND	0.3
	4月2日 10:42~11:02	LTD	ND	0.3
	4月3日 10:21~10:41	ND	ND	0.3
	4月4日 10:19~10:39	ND	ND	0.3
	4月5日 10:51~11:11	ND	ND	0.3
	4月6日 10:35~10:55	ND	ND	0.3
4月7日 10:51~11:11	ND	ND	0.2	
4月8日 10:38~10:58	ND	ND	0.2	

採取地点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【2-6】(約45km南)	3月20日 15:25~15:45	6.89	ND	0.6
	3月21日 15:00~15:20	28.90	ND	1.5
	3月22日 14:00~14:20	17.00	ND	0.6
	3月23日 14:15~14:35	6.93	ND	1.0
	3月24日 15:12~15:32	8.25	ND	1.4
	3月25日 13:47~14:07	40.60	ND	1.1
	3月27日 12:30~12:50	1.55	ND	0.8
	3月28日 13:10~13:30	3.56	ND	0.3
	3月29日 12:55~13:15	2.68	ND	0.7
	3月30日 12:32~12:52	4.59	1.56	0.3
	3月31日 12:42~13:02	1.65	ND	0.7
	4月1日 12:16~12:36	1.00	ND	0.8
	4月2日 12:02~12:22	47.3	5.93	1.4
	4月3日 11:42~12:02	LTD	ND	0.4
	4月4日 11:43~12:03	0.9	ND	0.7
	4月5日 12:12~12:32	0.9	ND	0.6
	4月6日 11:55~12:15	LTD	ND	0.6
	4月7日 12:10~12:30	1.8	ND	0.3
4月8日 12:02~12:22	0.938	ND	1.0	
【2-7】(約35km北西)	3月25日 15:05~15:22	555.00	12.40	12.0
	3月26日 14:06~14:26	1.54	ND	8.8
	3月27日 13:51~14:11	1.02	ND	8.7
	3月28日 13:39~13:59	2.14	ND	8.4
	3月29日 15:02~15:12	3.51	1.46	8.0
	3月30日 14:05~14:15	1.33	0.89	13.9~15.4
	3月31日 13:35~13:45	2.49	1.38	6.9
	4月1日 14:13~14:33	LTD	ND	6.5
	4月2日 13:22~13:42	LTD	ND	6.5
	4月3日 13:12~13:32	ND	ND	6.1
	4月4日 13:15~13:35	ND	ND	5.8
	4月5日 13:43~13:53	ND	ND	5.6
	4月6日 13:01~13:11	1.26	1.34	5.4
	4月7日 13:06~13:16	LTD	LTD	5.3
	4月8日 13:03~13:13	0.871	LTD	5.1
【2-8】(約50km北西)	3月24日 12:05~12:25	2.71	ND	—
	3月25日 16:13~16:33	34.00	ND	—
	3月26日 15:15~15:35	ND	ND	—
	3月27日 14:52~15:12	ND	ND	—
	3月28日 14:38~14:58	ND	ND	—
	3月29日 15:59~16:09	1.60	ND	1.6
	3月30日 16:05~16:15	2.09	0.77	—
	3月31日 14:25~14:35	1.04	LTD	—
	4月1日 15:09~15:29	ND	ND	—
	4月2日 14:18~14:38	ND	ND	—
	4月3日 14:07~14:27	ND	ND	—
	4月4日 14:10~14:30	ND	ND	—
	4月5日 14:24~14:34	ND	ND	—
	4月6日 13:43~13:53	LTD	0.74	—
	4月7日 13:48~13:58	LTD	ND	—
4月8日 13:50~14:00	LTD	ND	—	
【2-9】(約45km西北西)	3月25日 11:32~11:52	8.67	ND	—
	3月26日 10:10~10:30	7.98	ND	—
	3月27日 10:28~10:48	ND	ND	—
	3月28日 10:12~10:32	0.78	ND	—
	3月29日 11:56~12:06	2.53	0.59	—
	3月30日 11:00~11:10	1.54	ND	—
	3月31日 10:40~10:50	1.34	0.92	—
	4月1日 10:52~11:12	ND	ND	—
	4月2日 9:59~10:19	ND	ND	—
	4月3日 10:00~10:20	ND	ND	—
	4月4日 9:56~10:16	ND	ND	—
	4月5日 10:39~10:49	0.82	LTD	—
	4月6日 10:18~10:28	1.00	0.69	—
	4月7日 10:18~10:28	LTD	ND	—
	4月8日 10:16~10:26	0.643	ND	—



採取地点	採取日時	放射能濃度(Bq/m <sup>3</sup> )		空間線量率 ( $\mu$ Sv/h)
		<sup>131</sup> I	<sup>137</sup> Cs	
【2-10】(約50km北)	3月25日 16:25~16:45	33.60	0.84	—
【4-1】(約80km南西)	4月7日 14:53~15:13	ND	ND	—
	4月8日 14:45~15:05	ND	ND	—
【4-2】(約60km西)	4月7日 12:49~13:09	ND	ND	—
	4月8日 11:45~12:05	ND	ND	—
【4-3】(約60km西)	4月7日 10:40~11:00	LTD	ND	—
	4月8日 10:35~10:55	ND	ND	—
【4-4】(約70km南西)	4月7日 14:00~14:20	ND	ND	—
	4月8日 13:35~13:55	ND	ND	—
【4-5】(約80km南西)	4月8日 15:23~15:43	ND	ND	—

LTD: 検出限界未滿      ND: 検出せず

太字アンダーラインは訂正箇所。

上記測定結果は政府現地対策本部が、福島県に依頼し、その結果を入手したものの。

土壤モニタリング結果

: 枠内は新規追加データです。

測定試料採取点	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
		$^{131}\text{I}$	$^{137}\text{Cs}$		
【1-1】(約45km北西)	3月31日 11:19	29,000	9,400	4.8	【3】
	4月1日 10:18	11,000	2,900	3.3	
	4月2日 10:59	25,000	9,000	2.8	
【1-2】(約40km北西)	4月3日 9:52	41,000	21,000	5.4	【36】
【13】(約40km西)	4月1日 11:58	3,300	1,200	0.5	【13】
【2】(約55km北西)	3月31日 10:20	48,000	15,000	4.1	【2】
	3月31日 14:35	16,000	6,300	2.1	
	4月1日 9:22	31,000	8,800	3.8	
	4月1日 9:42	13,000	5,700	3.8	
【2-4】(約25km北)	4月2日 9:33	53,000	20,000	3.5	【80】
	4月3日 11:57	7,300	3,600	1.0	
【3-1】(約30km北西)	4月4日 12:09	4,400	2,500	1.0	【33】
	3月23日 11:10	200,000	45,000	103.0	
	3月25日 14:45	251,000	60,100	27.0	
	3月25日 14:45	341,000*1	68,500*1	27.0	
	3月26日 10:55	15,000	3,000	26.0	
	3月27日 12:15	93,000	29,000	20.0	
	3月28日 11:18	110,000	36,000	43.0	
	3月29日 11:18	220,000	65,000	18.9	
	3月30日 11:30	190,000	70,000	17.3	
	3月31日 11:23	160,000	67,000	18.2	
	4月1日 11:36	130,000	40,000	18.2	
	4月2日 12:10	61,000	6,200	21.0	
	4月3日 11:11	69,000	18,000	21.3	
	4月4日 11:12	125,510	76,429	18.6	
	4月5日 11:15	88,243	55,001	16.3	
	4月6日 12:19	90,816	68,192	13.2	
4月7日 11:03	74,481	58,104	19.5		
4月8日 11:35	72,500	63,600	15.5		
【3-2】(約30km北西)	3月23日 13:17	92,000	15,000	15.0	【34】
【3-3】(約35km西)	3月23日 12:50	11,000	3,300	2.3	【15】
	3月24日 12:58	4,900	220	2.5	
【3-4】(約40km北西)	3月23日 11:08	33,000	8,600	2.8	【11】
【3-5】(約50km北西)	3月23日 10:30	4,200	770	2.8	【4】
【3-6】(約30km西北西)	3月23日 14:00	70,000	12,000	9.4	【21】
	3月26日 15:33	13,000	2,900	6.5	
	3月28日 11:03	14,000	4,600	5.3	
	3月29日 11:34	25,000	7,100	-	
4月8日 13:20	11,000	7,600	3.7		
【3-7】(約25km南)	3月23日 13:00	69,000	2,600	14.0	【71】
【3-8】(約25km南)	3月23日 16:22	140,000	2,900	14.0	【71】
【3-9】(約45km北)	3月25日 11:24	6,900	1,600	2.7	【5】
	3月26日 10:48	6,900	1,600	1.0	
	3月26日 12:30	110,000	2,800	1.0	
	3月28日 13:00	12,000	4,100	0.6~1.2	
【3-10】(約35km北)	3月25日 12:18	11,000	3,300	3.7	【6】
	3月26日 11:12	14,000	3,800	1.5	
	3月28日 10:32	11,000	3,600	1.2	
	3月29日 15:20	8,400	3,200	1.3	
	3月30日 15:54	6,100	2,000	1.4	
	3月31日 12:18	9,600	4,700	1.3	
	4月1日 11:35	5,400	2,800	1.0	
	4月2日 12:49	7,800	4,400	1.0	
	4月3日 11:15	4,900	1,700	1.1	
	4月4日 11:18	5,500	4,300	1.2	
	4月5日 11:21	4,600	3,900	1.3	
4月6日 11:56	5,100	3,900	1.0		
4月7日 11:18	4,200	3,600	0.6		
4月8日 11:29	3,600	3,800	0.6		

測定試料採取点	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
		$^{131}\text{I}$	$^{137}\text{Cs}$		
【3-11】(約35km北)	3月25日 12:33	8,000	1,300	3.2	【7】
	3月26日 11:33	13,000	4,300	1.5	
	3月28日 10:38	8,200	2,000	3.3	
【3-12】(約30km西北西)	3月25日 14:13	29,000	627	30.5	【31】
	3月26日 10:15	22,000	1,600	17.8	
	3月27日 11:30	120,000	27,000	25.0	
	3月28日 10:29	120,000	28,000	23.0	
	3月29日 9:59	710,000	220,000	18.3	
	3月30日 10:50	710,000	290,000	16.3	
	3月31日 10:45	50,000	15,000	-	
	4月1日 10:39	79,000	29,000	15.4	
	4月2日 11:42	21,000	5,400	14.0	
	4月3日 10:36	60,000	27,000	12.5	
	4月4日 10:27	143,900	6,907	9.8	
	4月5日 10:42	103,970	68,209	10.6	
	4月6日 11:45	84,819	51,942	10.9	
	4月7日 10:30	78,581	51,167	11.4	
【3-13】(約30km北西)	3月25日 14:30	88,700	9,260	65.0	【32】
	3月26日 10:40	290,000	33,000	46.0	
	3月27日 11:55	550,000	80,000	45.0	
	3月28日 10:51	210,000	9,200	50.0	
	3月29日 10:57	660,000	94,000	43.0	
	3月30日 11:08	260,000	52,000	41.6	
	3月31日 11:04	91,000	40,000	38.0	
	4月1日 11:01	250,000	130,000	36.2	
	4月2日 11:55	120,000	35,000	34.0	
	4月3日 10:56	280,000	110,000	32.7	
	4月4日 10:50	157,730	98,551	32.7	
	4月5日 10:59	201,800	103,390	26.0	
	4月6日 11:59	125,200	58,761	25.8	
	4月7日 10:47	139,810	73,554	27.8	
【3-14】(約40km北西)	4月8日 11:23	85,800	64,300	24.6	【36】
	3月25日 15:35	73,000	18,000	7.0	
	3月26日 19:30	49,000	9,300	7.8	
	3月28日 9:15	65,000	21,000	8.0	
	3月29日 9:41	63,000	21,000	6.0	
	3月30日 10:18	71,000	24,000	5.6	
	3月31日 10:21	59,000	28,000	5.3	
	4月1日 10:11	54,000	23,000	5.7	
	4月2日 11:20	54,000	26,000	5.1	
	4月4日 9:52	6,600	3,300	5.2	
	4月5日 9:26	31,000	20,000	4.6	
	4月6日 11:05	41,000	25,000	4.1	
	4月7日 10:02	39,000	29,000	4.1	
	4月8日 10:07	27,000	24,000	3.8	
【3-15】(約25km南)	3月25日 14:15	560	410	5.5	【71】
【3-16】(約45km北西)	3月26日 12:55	31,000	1,800	3.9	
	3月28日 9:54	42,000	1,500	3.0	
【37】(約50km北西)	3月28日 16:18	7,800	3,500	1.7	-
	4月1日 9:59	15,000	16,000	4.6	【37】
【72】(約30km南)	4月2日 10:40	20,000	20,000	4.3	
	3月31日 12:00	18,000	1,500	1.5	
	4月1日 12:46	24,000	2,400	1.6	
	4月3日 13:33	22,000	2,200	1.2	
【73】(約35km南)	4月4日 12:51	19,000	1,700	1.5	
	3月31日 12:39	13,000	1,100	1.3	
	4月1日 12:02	14,000	1,100	1.4	
	4月3日 12:57	9,900	1,400	1.2	
【74】(約35km南)	4月4日 12:30	8,200	800	1.1	
	3月31日 13:18	4,300	330	0.5	
	4月1日 11:13	5,900	710	0.3	
	4月3日 11:51	3,700	410	0.4	
	4月4日 11:26	4,300	440	0.6	【74】

測定試料採取点	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
		$^{131}\text{I}$	$^{137}\text{Cs}$		
【75】(約45km南)	3月31日 14:03	14,000	650	0.7	【75】
	4月1日 10:34	20,000	1,300	0.8	
	4月3日 11:19	14,000	1,200	0.4	
	4月4日 10:50	14,000	1,300	0.7	
【76】(約20km南西)	4月4日 12:04	5,500	1,800	0.8	【76】
【83】(約20km北西)	3月30日 15:40	340,000	170,000	59.3	【83】
	4月8日 12:10	210,000	270,000	53.5	
【101】(約55km北西)	4月8日 9:40	2,600	2,400	1.3	【101】
【102】(約50km北西)	4月8日 15:00	7,000	6,400	1.2	【102】
【103】(約20km北)	4月8日 12:45	2,000	1,800	0.6	【103】
【104】(約25km西北西)	4月8日 12:41	13,000	9,700	1.7	【104】
【105】(約20km西)	4月8日 11:20	5,100	2,400	1.1	【105】
【106】(約30km南西)	4月8日 12:06	1,300	1,200	0.6	【106】
【107】(約25km北北西)	4月8日 13:21	5,800	5,300	2.8	【107】
【108】(約30km北北西)	4月8日 13:52	3,500	11,000	3.5	【108】

\*1 通常は深さ5cm以内程度までを採取するが、参考として深さ約5mm程度までを採取し、測定したものの備考欄の番号は、モニタリングカーによる測定箇所を示す。

環境試料の測定結果

□ : 枠内は新規追加データです。

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考	
					<sup>131</sup> I	<sup>137</sup> Cs			
【2-1】(約40km北西)	飯館村	雑草	葉菜	3月18日 12:20	2,520,000	1,800,000	30以上		
	飯館村	雑草	葉菜	3月19日 11:40	845,000	1,010,000	26.5		
	飯館村	雑草	葉菜	3月20日 12:40	2,540,000	2,650,000	25.8		
	飯館村	雑草	葉菜	3月21日 12:32	1,330,000	1,240,000	20.4		
	飯館村	雑草	葉菜	3月22日 12:00	1,110,000	1,600,000	15.3		
	飯館村	雑草	葉菜	3月23日 11:30	819,000	1,620,000	16.8		
	飯館村	雑草	葉菜	3月24日 13:05	805,000	1,050,000	13.2		
	飯館村	雑草	葉菜	3月25日 12:20	400,000	398,000	12.3		
	飯館村	雑草	葉菜	3月26日 12:00	1,030,000	2,870,000	10.2		
	飯館村	雑草	葉菜	3月27日 11:40	508,000	910,000	11.2		
	飯館村	雑草	葉菜	3月28日 11:50	381,000	480,000	9.6		
	飯館村	雑草	葉菜	3月29日 11:10	330,000	311,000	9.2		
	飯館村	雑草	葉菜	3月30日 12:25	576,000	1,890,000	8.5		
	飯館村	雑草	葉菜	3月31日 11:30	303,000	1,620,000	8.0		
	飯館村	雑草	葉菜	4月1日 11:30	219,000	725,000	7.7		
	飯館村	雑草	葉菜	4月2日 11:24	171,000	863,000	8.6		
	飯館村	雑草	葉菜	4月3日 10:55	301,000	1,420,000	7.7		
	飯館村	雑草	葉菜	4月4日 10:05	192,000	275,000	7.2		
	飯館村	雑草	葉菜	4月5日 11:31	297,000	1,440,000	6.4		
	【2-2】(約45km北西)	川俣町	雑草	葉菜	3月18日 11:45	173,000	72,800	-	
川俣町		雑草	葉菜	3月19日 11:00	184,000	65,100	-		
川俣町		雑草	葉菜	3月20日 12:05	308,000	138,000	4.2		
川俣町		雑草	葉菜	3月21日 12:03	315,000	120,000	3.5		
川俣町		雑草	葉菜	3月22日 11:00	180,000	89,000	7.8		
川俣町		雑草	葉菜	3月23日 11:30	170,000	73,700	5.5		
川俣町		雑草	葉菜	3月23日 11:30	74,400	23,100	5.5	洗浄なし*1	
川俣町		雑草	葉菜	3月23日 11:30	46,200	16,000	5.5	洗浄あり*1	
川俣町		雑草	葉菜	3月24日 11:20	141,000	43,200	5.0		
川俣町		雑草	葉菜	3月25日 11:30	155,000	53,000	7.5		
川俣町		雑草	葉菜	3月26日 11:20	79,500	54,700	4.3		
川俣町		雑草	葉菜	3月27日 10:45	50,000	32,900	5.5		
川俣町		雑草	葉菜	3月28日 11:05	46,000	33,600	5.5		
川俣町		雑草	葉菜	3月29日 11:00	71,900	67,900	4.8		
川俣町		雑草	葉菜	3月30日 11:35	33,500	27,500	4.6		
川俣町		雑草	葉菜	3月31日 10:35	33,000	34,100	4.8		
川俣町		雑草	葉菜	4月1日 10:35	52,600	45,300	3.3		
川俣町		雑草	葉菜	4月2日 10:34	34,100	36,200	3.2		
【2-3】(約40km西)		田村市	雑草	葉菜	3月18日 11:35	36,000	40,100	1.6	
		田村市	雑草	葉菜	3月19日 11:35	68,000	38,500	0.8	
	田村市	雑草	葉菜	3月20日 12:40	75,700	50,000	0.7		
	田村市	雑草	葉菜	3月21日 12:30	30,800	25,000	0.7		
	田村市	雑草	葉菜	3月22日 11:30	43,200	25,000	1.4		
	田村市	雑草	葉菜	3月23日 11:50	24,100	17,000	1.0		
	田村市	雑草	葉菜	3月24日 11:35	29,400	32,600	0.5		
	田村市	雑草	葉菜	3月25日 13:28	23,400	13,700	0.8		
	田村市	雑草	葉菜	3月26日 11:35	33,100	10,700	0.6		
	田村市	雑草	葉菜	3月27日 11:45	33,300	19,800	0.4		
	田村市	雑草	葉菜	3月28日 11:36	37,000	22,400	0.7		
	田村市	雑草	葉菜	3月29日 13:35	24,800	34,500	0.7		
	田村市	雑草	葉菜	3月30日 12:30	18,600	18,800	0.5		
	田村市	雑草	葉菜	3月31日 12:10	15,500	11,500	0.5		
	田村市	雑草	葉菜	4月1日 12:21	15,800	17,200	0.3		
	田村市	雑草	葉菜	4月2日 11:29	15,500	14,500	0.3		
	田村市	雑草	葉菜	4月3日 11:28	9,640	6,140	0.3		
	田村市	雑草	葉菜	4月4日 11:25	8,760	6,810	0.3		
	田村市	雑草	葉菜	4月5日 11:42	7,450	7,480	0.4		
	田村市	雑草	葉菜	4月6日 11:24	6,380	8,020	0.4		
田村市	雑草	葉菜	4月7日 11:24	2,600	2,330	0.4			
田村市	雑草	葉菜	4月8日 11:39	9,620	3,630	0.4			

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
					$^{131}\text{I}$	$^{137}\text{Cs}$		
【2-4】(約25km北)	南相馬市	雑草	葉菜	3月18日 13:30	88,600	17,800	-	
	南相馬市	雑草	葉菜	3月19日 13:00	455,000	24,900	-	
	南相馬市	雑草	葉菜	3月20日 14:30	497,000	24,700	3.4	
	南相馬市	雑草	葉菜	3月21日 14:07	289,000	13,400	2.8	
	南相馬市	雑草	葉菜	3月22日 13:35	140,000	17,200	1.8	
	南相馬市	雑草	葉菜	3月23日 14:10	185,000	17,200	1.1	
	南相馬市	雑草	葉菜	3月24日 14:40	184,000	27,900	1.2	
	南相馬市	雑草	葉菜	3月25日 14:20	217,000	18,800	0.7	
	南相馬市	雑草	葉菜	3月26日 13:50	83,700	10,500	1.3	
	南相馬市	雑草	葉菜	3月27日 13:25	161,000	39,900	1.4	
	南相馬市	雑草	葉菜	3月28日 13:27	113,000	23,900	0.7	
	南相馬市	雑草	葉菜	3月29日 13:30	109,000	17,000	1.0	
	南相馬市	雑草	葉菜	3月30日 14:45	113,000	13,100	0.0~1.3	
	南相馬市	雑草	葉菜	3月31日 13:15	65,100	20,600	1.4	
	南相馬市	雑草	葉菜	4月1日 13:40	44,900	12,400	1.2	
	南相馬市	雑草	葉菜	4月2日 13:13	89,200	28,400	0.5	
	南相馬市	雑草	葉菜	4月3日 12:35	170,000	84,200	1.0	
	南相馬市	雑草	葉菜	4月4日 12:20	55,500	21,500	0.7	
	南相馬市	雑草	葉菜	4月5日 13:05	68,800	55,200	0.6	
	【2-5】(約40km南西)	小野町	雑草	葉菜	3月18日 12:35	181,000	28,300	0.9
小野町		雑草	葉菜	3月19日 12:15	201,000	73,800	0.7	
小野町		雑草	葉菜	3月20日 13:50	36,900	11,700	0.6	
小野町		雑草	葉菜	3月21日 13:40	20,300	11,200	0.4	
小野町		雑草	葉菜	3月22日 12:40	32,000	8,120	0.5	
小野町		雑草	葉菜	3月23日 12:50	22,300	10,300	0.5	
小野町		雑草	葉菜	3月24日 13:18	29,700	4,900	0.4	
小野町		雑草	葉菜	3月25日 11:30	21,800	8,040	0.4	
小野町		雑草	葉菜	3月26日 11:50	25,800	5,150	0.6	
小野町		雑草	葉菜	3月27日 11:10	18,600	4,970	0.5	
小野町		雑草	葉菜	3月28日 11:25	16,700	4,550	-	
小野町		雑草	葉菜	3月29日 11:30	16,700	3,770	0.3	
小野町		雑草	葉菜	3月30日 11:08	10,300	6,280	0.3	
小野町		雑草	葉菜	3月31日 11:11	9,960	6,600	0.3	
小野町		雑草	葉菜	4月1日 10:52	9,390	5,470	0.3	
小野町		雑草	葉菜	4月2日 10:46	6,590	3,830	0.3	
小野町		雑草	葉菜	4月3日 10:20	5,400	3,160	0.3	
小野町		雑草	葉菜	4月4日 10:17	4,080	4,090	0.3	
小野町		雑草	葉菜	4月5日 10:52	5,170	3,570	0.3	
【2-6】(約45km南)		いわき市	雑草	葉菜	3月18日 13:15	690,000	17,400	-
	いわき市	雑草	葉菜	3月18日 13:40	468,000	10,100	-	
	いわき市	雑草	葉菜	3月20日 15:25	548,000	17,500	0.6	
	いわき市	雑草	葉菜	3月21日 15:10	115,000	2,380	1.5	
	いわき市	雑草	葉菜	3月22日 13:50	448,000	18,600	0.6	
	いわき市	雑草	葉菜	3月23日 14:20	451,000	30,300	1.0	
	いわき市	雑草	葉菜	3月24日 15:00	454,000	6,210	1.4	
	いわき市	雑草	葉菜	3月25日 13:45	170,000	8,860	1.1	
	いわき市	雑草	葉菜	3月26日 13:50	291,000	12,800	1.0	
	いわき市	雑草	葉菜	3月27日 12:30	126,000	7,470	0.8	
	いわき市	雑草	葉菜	3月28日 12:50	71,800	4,370	0.3	
	いわき市	雑草	葉菜	3月29日 13:05	132,000	9,310	0.7	
	いわき市	雑草	葉菜	3月30日 12:30	121,000	10,100	0.3	
	いわき市	雑草	葉菜	3月31日 12:51	81,600	4,990	0.7	
	いわき市	雑草	葉菜	4月1日 12:19	166,000	7,180	0.8	
	いわき市	雑草	葉菜	4月2日 12:03	99,200	2,980	1.4	
	いわき市	雑草	葉菜	4月3日 11:45	35,600	3,320	0.4	
	いわき市	雑草	葉菜	4月4日 11:46	110,000	13,300	0.7	
	いわき市	雑草	葉菜	4月5日 12:10	46,800	4,190	0.6	
	いわき市	雑草	葉菜	4月6日 12:04	37,500	5,150	0.6	
いわき市	雑草	葉菜	4月7日 12:22	15,000	1,890	0.3		
いわき市	雑草	葉菜	4月8日 12:07	11,600	2,620	1.0		

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		空間線量率 ( $\mu$ Sv/h)	備考
					<sup>131</sup> I	<sup>137</sup> Cs		
【2-7】(約35km北西)	川俣町	雑草	葉菜	3月25日 15:07	663,000	497,000	12.0	
	川俣町	雑草	葉菜	3月26日 14:03	488,000	571,000	8.8	
	川俣町	雑草	葉菜	3月27日 13:44	402,000	490,000	8.7	
	川俣町	雑草	葉菜	3月28日 13:39	443,000	689,000	8.4	
	川俣町	雑草	葉菜	3月29日 14:50	242,000	383,000	8.0	
	川俣町	雑草	葉菜	3月30日 14:00	267,000	338,000	13.9~15.4	
	川俣町	雑草	葉菜	3月31日 13:40	227,000	465,000	6.9	
	川俣町	雑草	葉菜	4月1日 14:23	503,000	968,000	6.5	
	川俣町	雑草	葉菜	4月2日 13:30	256,000	811,000	6.5	
	川俣町	雑草	葉菜	4月3日 13:22	153,000	373,000	6.0	
	川俣町	雑草	葉菜	4月4日 13:24	119,000	367,000	5.8	
	川俣町	雑草	葉菜	4月5日 13:40	189,000	409,000	5.6	
	川俣町	雑草	葉菜	4月6日 12:57	162,000	275,000	5.4	
	川俣町	雑草	葉菜	4月7日 13:02	90,000	211,000	5.3	
川俣町	雑草	葉菜	4月8日 13:13	50,100	173,000	5.1		
【2-8】(約50km北西)	伊達市	雑草	葉菜	3月25日 16:18	77,100	40,700	-	
	伊達市	雑草	葉菜	3月26日 15:13	39,400	24,000	-	
	伊達市	雑草	葉菜	3月27日 15:50	43,900	44,600	-	
	伊達市	雑草	葉菜	3月28日 14:37	43,300	52,000	-	
	伊達市	雑草	葉菜	3月29日 15:50	37,100	62,100	1.6	
	伊達市	雑草	葉菜	3月30日 16:05	33,800	44,300	-	
	伊達市	雑草	葉菜	3月31日 14:25	22,500	24,500	-	
	伊達市	雑草	葉菜	4月1日 15:14	72,000	91,600	-	
	伊達市	雑草	葉菜	4月2日 14:29	60,300	73,400	-	
	伊達市	雑草	葉菜	4月3日 14:13	42,700	56,000	-	
	伊達市	雑草	葉菜	4月4日 14:16	22,700	56,700	-	
	伊達市	雑草	葉菜	4月5日 14:25	24,800	46,800	-	
	伊達市	雑草	葉菜	4月6日 13:40	11,700	22,500	-	
	伊達市	雑草	葉菜	4月7日 13:46	9,570	19,900	-	
伊達市	雑草	葉菜	4月8日 13:54	5,700	11,700	-		
【2-9】(約45km西北西)	二本松市	雑草	葉菜	3月25日 11:40	73,400	235,000	-	
	二本松市	雑草	葉菜	3月26日 10:13	24,300	106,000	-	
	二本松市	雑草	葉菜	3月27日 10:30	73,400	230,000	-	
	二本松市	雑草	葉菜	3月28日 10:13	34,500	223,000	-	
	二本松市	雑草	葉菜	3月29日 11:45	34,000	160,000	-	
	二本松市	雑草	葉菜	3月30日 10:35	31,500	153,000	-	
	二本松市	雑草	葉菜	3月31日 10:50	17,700	131,000	-	
	二本松市	雑草	葉菜	4月1日 11:03	23,600	135,000	-	
	二本松市	雑草	葉菜	4月2日 10:08	35,000	217,000	-	
	二本松市	雑草	葉菜	4月3日 10:05	27,500	161,000	-	
	二本松市	雑草	葉菜	4月4日 10:04	21,800	170,000	-	
	二本松市	雑草	葉菜	4月5日 10:35	15,800	208,000	-	
	二本松市	雑草	葉菜	4月6日 10:13	7,870	66,100	-	
	二本松市	雑草	葉菜	4月7日 10:10	5,230	60,300	-	
二本松市	雑草	葉菜	4月8日 10:24	6,630	80,600	-		
【2-10】(約50km北)	新地町	雑草	葉菜	3月25日 16:20	29,300	12,500	-	
【4-1】(約80km南西)	白河市	雑草	葉菜	4月7日 15:00	4,070	21,100	-	
	白河市	雑草	葉菜	4月8日 14:50	4,180	28,400	-	
【4-2】(約60km西)	須賀川市	雑草	葉菜	4月7日 13:10	7,020	17,000	-	
	須賀川市	雑草	葉菜	4月8日 11:50	5,520	16,100	-	
【4-3】(約60km西)	大玉村	雑草	葉菜	4月7日 11:10	3,090	27,900	-	
	大玉村	雑草	葉菜	4月8日 10:35	2,970	17,900	-	
【4-4】(約70km南西)	泉崎村	雑草	葉菜	4月7日 14:10	3,710	8,200	-	
	泉崎村	雑草	葉菜	4月8日 13:40	2,540	14,000	-	
【4-5】(約80km南西)	西郷村	雑草	葉菜	4月8日 15:30	1,830	14,300	-	

上記測定結果は政府現地対策本部が、福島県に依頼し、その結果を入手したものの、  
試料は原則洗浄せずに測定。

\* 1: 同一試料を対象に洗浄しない場合と洗浄した場合で測定した値。

環境試料の測定結果

: 枠内は新規追加データです。

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		備考
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-1】(約40km北西)	飯舘村	陸水	池水	3月18日 12:20	2,090	511	
	飯舘村	陸水	池水	3月19日 11:36	2,450	940	
	飯舘村	陸水	池水	3月20日 12:40	2,010	437	
	飯舘村	陸水	池水	3月21日 12:35	1,720	246	
	飯舘村	陸水	池水	3月22日 12:00	1,330	172	
	飯舘村	陸水	池水	3月23日 12:25	1,260	145	
	飯舘村	陸水	池水	3月24日 13:05	1,330	268	
	飯舘村	陸水	池水	3月25日 12:20	1,280	507	
	飯舘村	陸水	池水	3月26日 12:00	835	162	
	飯舘村	陸水	池水	3月27日 11:40	828	145	
	飯舘村	陸水	池水	3月28日 11:50	884	183	
	飯舘村	陸水	池水	3月29日 11:50	701	158	
	飯舘村	陸水	池水	3月30日 12:25	629	113	
	飯舘村	陸水	池水	3月31日 11:30	610	192	
	飯舘村	陸水	池水	4月1日 11:30	612	192	
	飯舘村	陸水	池水	4月2日 11:23	465	139	
	飯舘村	陸水	池水	4月3日 10:55	393	106	
	飯舘村	陸水	池水	4月4日 10:50	439	75	
	飯舘村	陸水	池水	4月5日 11:31	357	86	
	飯舘村	陸水	池水	4月6日 11:23	306	91	
飯舘村	陸水	池水	4月7日 11:07	303	268		
飯舘村	陸水	池水	4月8日 11:30	290	123		
【2-5】(約40km南西)	小野町	陸水	雨水	3月22日 12:40	7,440	107	
	小野町	陸水	雨水	3月25日 11:38	3,000	800	

上記測定結果は政府現地対策本部が、福島県に依頼し、その結果を入手したもの。



環境試料の測定結果

□ : 枠内は新規追加データです。

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		備考
					<sup>137</sup> I	<sup>137</sup> Cs	
【2-1】(約40km北西)	飯舘村	陸土	土壌	3月19日 11:40	300,000	28,100	
	飯舘村	陸土	土壌	3月20日 12:40	1,170,000	163,000	
	飯舘村	陸土	土壌	3月21日 12:32	207,000	39,900	
	飯舘村	陸土	土壌	3月22日 12:00	256,000	57,400	
	飯舘村	陸土	土壌	3月23日 12:25	135,000	32,200	
	飯舘村	陸土	土壌	3月24日 13:05	45,500	1,870	
	飯舘村	陸土	土壌	3月25日 13:05	265,000	27,900	
	飯舘村	陸土	土壌	3月26日 12:00	564,000	227,000	
	飯舘村	陸土	土壌	3月26日 15:20	82,000	28,000	
	飯舘村	陸土	土壌	3月27日 11:40	169,000	29,100	
	飯舘村	陸土	土壌	3月27日 12:00	69,800	20,800	
	飯舘村	陸土	土壌	3月28日 11:50	14,000	2,040	
	飯舘村	陸土	土壌	3月28日 12:10	23,100	860	
	飯舘村	陸土	土壌	3月29日 11:50	53,700	5,650	
	飯舘村	陸土	土壌	3月29日 12:10	58,400	25,100	
	飯舘村	陸土	土壌	3月30日 12:25	89,000	32,300	
	飯舘村	陸土	土壌	3月30日 12:45	11,900	408	
	飯舘村	陸土	土壌	3月31日 11:30	149,000	27,600	
	飯舘村	陸土	土壌	3月31日 11:45	60,800	26,500	
	飯舘村	陸土	土壌	4月1日 11:30	146,000	43,700	
	飯舘村	陸土	土壌	4月1日 12:05	21,400	1,410	
	飯舘村	陸土	土壌	4月2日 11:24	55,500	8,140	
	飯舘村	陸土	土壌	4月2日 11:48	61,900	30,800	
	飯舘村	陸土	土壌	4月3日 10:55	103,000	27,600	
	飯舘村	陸土	土壌	4月3日 11:15	9,670	885	
	飯舘村	陸土	土壌	4月4日 10:50	70,000	21,200	
	飯舘村	陸土	土壌	4月4日 11:10	40,400	23,100	
	飯舘村	陸土	土壌	4月5日 11:31	31,600	8,280	
	飯舘村	陸土	土壌	4月5日 11:53	59,300	24,500	
	飯舘村	陸土	土壌	4月6日 11:23	5,970	2,930	
飯舘村	陸土	土壌	4月6日 11:47	31,100	12,100		
飯舘村	陸土	土壌	4月7日 11:07	52,800	31,400		
飯舘村	陸土	土壌	4月7日 11:30	57,300	3,500		
飯舘村	陸土	土壌	4月8日 11:30	29,000	19,500		
飯舘村	陸土	土壌	4月8日 11:45	64,600	34,200		
【2-2】(約45km北西)	川俣町	陸土	土壌	3月18日 11:45	84,300	14,200	
	川俣町	陸土	土壌	3月19日 11:00	85,400	8,690	
	川俣町	陸土	土壌	3月20日 12:04	151,000	15,100	
	川俣町	陸土	土壌	3月21日 12:10	157,000	16,500	
	川俣町	陸土	土壌	3月22日 11:00	38,900	4,720	
	川俣町	陸土	土壌	3月23日 11:30	44,600	6,010	
	川俣町	陸土	土壌	3月24日 11:20	21,500	1,160	
	川俣町	陸土	土壌	3月26日 11:20	29,300	3,760	
	川俣町	陸土	土壌	3月27日 10:45	44,900	7,580	
	川俣町	陸土	土壌	3月28日 11:05	31,100	2,470	
	川俣町	陸土	土壌	3月29日 11:00	34,400	5,900	
	川俣町	陸土	土壌	3月30日 11:35	23,800	5,280	
	川俣町	陸土	土壌	3月31日 10:35	32,300	6,810	
	川俣町	陸土	土壌	4月1日 10:35	19,500	5,130	
	川俣町	陸土	土壌	4月2日 10:39	22,000	5,740	
	川俣町	陸土	土壌	4月3日 10:10	18,800	8,140	
	川俣町	陸土	土壌	4月4日 10:05	18,800	8,020	
	川俣町	陸土	土壌	4月5日 10:39	28,300	6,700	
	川俣町	陸土	土壌	4月6日 10:38	16,400	5,320	
	川俣町	陸土	土壌	4月7日 11:27	17,100	5,320	
川俣町	陸土	土壌	4月8日 10:50	12,000	4,710		

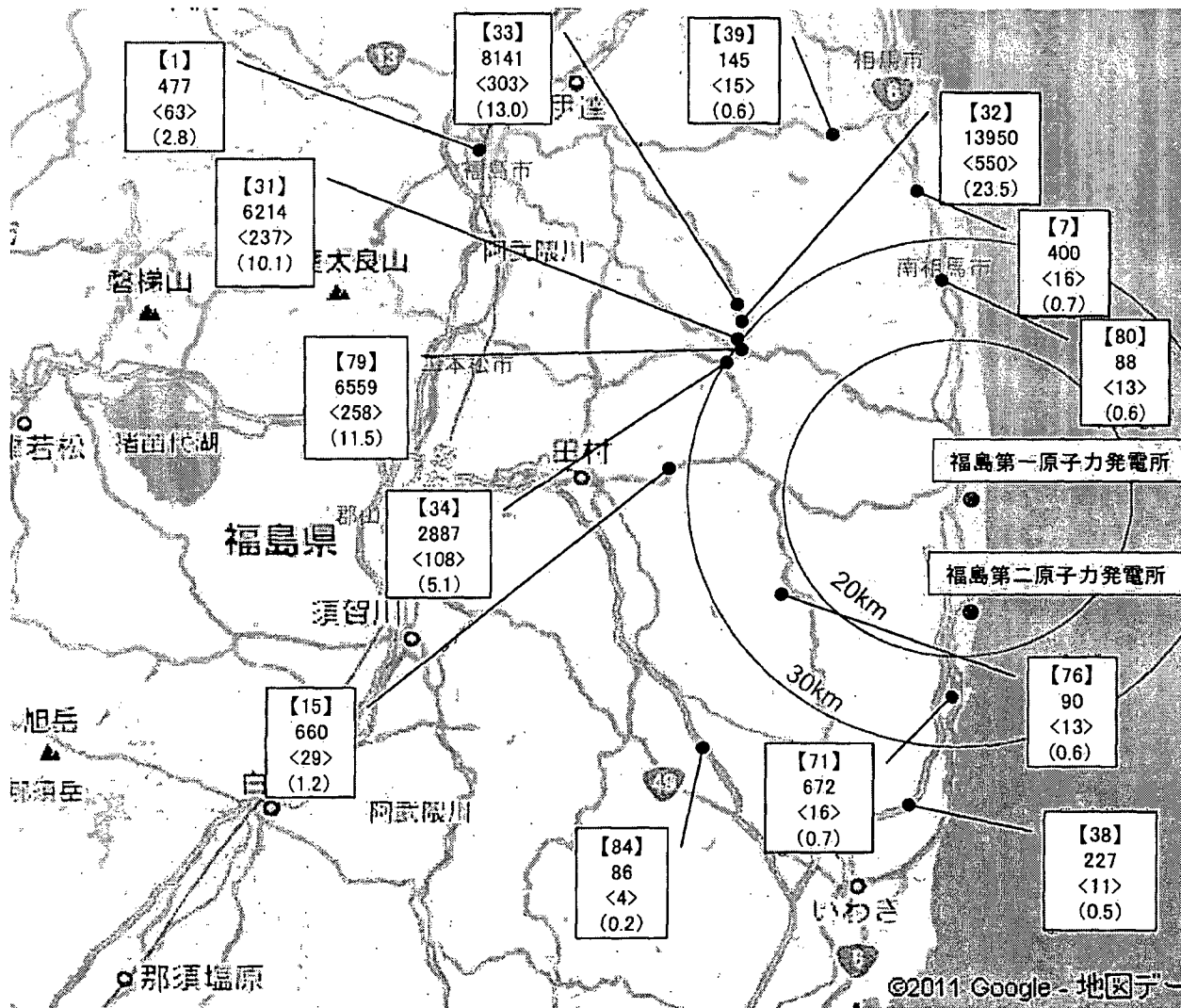
採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		備考
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-3】(約40km西)	田村市	陸土	土壌	3月18日 11:50	19,300	3,510	
	田村市	陸土	土壌	3月19日 11:35	6,970	1,260	
	田村市	陸土	土壌	3月20日 12:40	5,390	1,250	
	田村市	陸土	土壌	3月21日 12:30	3,000	390	
	田村市	陸土	土壌	3月22日 11:30	7,290	1,290	
	田村市	陸土	土壌	3月24日 11:35	6,600	1,310	
	田村市	陸土	土壌	3月25日 13:35	5,480	778	
	田村市	陸土	土壌	3月26日 11:51	5,250	1,010	
	田村市	陸土	土壌	3月27日 11:45	3,700	796	
	田村市	陸土	土壌	3月28日 11:37	4,360	1,110	
	田村市	陸土	土壌	3月29日 13:35	5,080	1,610	
	田村市	陸土	土壌	3月30日 12:30	5,040	834	
	田村市	陸土	土壌	3月31日 12:10	3,530	1,180	
	田村市	陸土	土壌	4月1日 12:19	3,160	934	
	田村市	陸土	土壌	4月2日 11:27	2,200	803	
	田村市	陸土	土壌	4月3日 11:25	3,130	1,530	
	田村市	陸土	土壌	4月4日 11:23	3,070	1,570	
	【2-4】(約25km北)	南相馬市	陸土	土壌	3月18日 13:30	22,600	3,280
南相馬市		陸土	土壌	3月19日 13:00	35,800	4,040	
南相馬市		陸土	土壌	3月20日 14:30	35,800	4,850	
南相馬市		陸土	土壌	3月21日 14:07	83,200	8,660	
南相馬市		陸土	土壌	3月23日 14:10	16,600	1,720	
南相馬市		陸土	土壌	3月24日 14:40	14,900	1,990	
南相馬市		陸土	土壌	3月25日 14:20	2,480	189	
南相馬市		陸土	土壌	3月26日 13:50	15,100	2,490	
南相馬市		陸土	土壌	3月27日 13:25	10,100	1,520	
南相馬市		陸土	土壌	3月28日 13:27	7,730	1,330	
南相馬市		陸土	土壌	3月29日 13:30	9,010	2,200	
南相馬市		陸土	土壌	3月30日 14:45	14,900	3,300	
南相馬市		陸土	土壌	3月31日 13:15	7,980	2,850	
南相馬市		陸土	土壌	4月1日 13:40	10,200	2,900	
南相馬市		陸土	土壌	4月2日 13:17	8,210	2,410	
南相馬市		陸土	土壌	4月3日 12:35	4,730	1,810	
南相馬市		陸土	土壌	4月4日 12:20	14,800	4,770	
【2-5】(約40km南西)		小野町	陸土	土壌	3月18日 12:30	8,170	2,260
	小野町	陸土	土壌	3月19日 12:15	14,100	4,630	
	小野町	陸土	土壌	3月20日 13:50	10,300	3,020	
	小野町	陸土	土壌	3月21日 13:40	4,830	910	
	小野町	陸土	土壌	3月22日 11:40	3,220	466	
	小野町	陸土	土壌	3月23日 12:50	6,430	1,590	
	小野町	陸土	土壌	3月24日 13:18	2,830	747	
	小野町	陸土	土壌	3月25日 11:39	3,000	800	
	小野町	陸土	土壌	3月26日 11:50	1,510	159	
	小野町	陸土	土壌	3月27日 11:10	2,140	158	
	小野町	陸土	土壌	3月28日 11:25	505	59	
	小野町	陸土	土壌	3月29日 11:30	2,290	161	
	小野町	陸土	土壌	3月30日 11:02	2,230	947	
	小野町	陸土	土壌	3月31日 11:10	1,690	342	
	小野町	陸土	土壌	4月1日 10:50	1,450	281	
	小野町	陸土	土壌	4月2日 10:40	1,390	600	
	小野町	陸土	土壌	4月3日 10:22	1,280	671	
	小野町	陸土	土壌	4月4日 10:17	791	139	
小野町	陸土	土壌	4月5日 10:48	1,410	1,040		
小野町	陸土	土壌	4月6日 10:35	650	240		
小野町	陸土	土壌	4月7日 10:49	984	593		
小野町	陸土	土壌	4月8日 10:40	1,720	1,900		

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度 (Bq/kg)		備考
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-6】(約45km南)	いわき市	陸土	土壌	3月19日 13:15	12,600	288	
	いわき市	陸土	土壌	3月20日 15:17	14,600	460	
	いわき市	陸土	土壌	3月21日 15:10	30,700	1,220	
	いわき市	陸土	土壌	3月22日 13:50	1,960	1,290	
	いわき市	陸土	土壌	3月23日 14:20	32,600	840	
	いわき市	陸土	土壌	3月24日 15:00	27,100	951	
	いわき市	陸土	土壌	3月25日 13:45	23,900	519	
	いわき市	陸土	土壌	3月26日 13:50	41,100	875	
	いわき市	陸土	土壌	3月27日 12:30	25,100	849	
	いわき市	陸土	土壌	3月28日 12:50	11,500	465	
	いわき市	陸土	土壌	3月29日 13:05	15,700	617	
	いわき市	陸土	土壌	3月30日 12:30	1,420	ND	
	いわき市	陸土	土壌	3月31日 12:51	8,370	150	
	いわき市	陸土	土壌	4月1日 12:17	1,540	50	
	いわき市	陸土	土壌	4月2日 12:04	12,600	540	
	いわき市	陸土	土壌	4月3日 11:45	1,400	56	
	いわき市	陸土	土壌	4月4日 11:46	2,070	24	
	【2-7】(約35km北西)	川俣町	陸土	土壌	3月25日 15:05	112,000	21,800
川俣町		陸土	土壌	3月26日 13:59	100,000	21,900	
川俣町		陸土	土壌	3月27日 13:47	50,800	7,350	
川俣町		陸土	土壌	3月28日 13:39	39,800	4,330	
川俣町		陸土	土壌	3月29日 14:50	61,800	23,400	
川俣町		陸土	土壌	3月30日 14:00	42,600	7,750	
川俣町		陸土	土壌	3月31日 13:40	14,700	949	
川俣町		陸土	土壌	4月1日 14:22	26,400	3,900	
川俣町		陸土	土壌	4月2日 13:28	19,400	5,340	
川俣町		陸土	土壌	4月3日 13:20	43,000	22,000	
川俣町		陸土	土壌	4月4日 13:23	65,900	38,500	
川俣町		陸土	土壌	4月5日 13:40	39,300	16,300	
川俣町		陸土	土壌	4月6日 12:57	30,600	19,800	
川俣町		陸土	土壌	4月7日 13:02	38,300	22,300	
【2-8】(約50km北西)	伊達市	陸土	土壌	3月24日 12:10	41,200	6,850	
	伊達市	陸土	土壌	3月25日 16:15	20,800	3,790	
	伊達市	陸土	土壌	3月26日 15:13	16,000	3,740	
	伊達市	陸土	土壌	3月27日 14:54	16,900	3,070	
	伊達市	陸土	土壌	3月28日 14:34	22,300	5,320	
	伊達市	陸土	土壌	3月29日 15:50	25,700	5,800	
	伊達市	陸土	土壌	3月30日 16:05	20,500	3,360	
	伊達市	陸土	土壌	3月31日 14:25	27,200	6,740	
	伊達市	陸土	土壌	4月1日 15:12	27,000	6,030	
	伊達市	陸土	土壌	4月2日 14:27	21,100	6,100	
	伊達市	陸土	土壌	4月3日 14:11	25,800	8,510	
	伊達市	陸土	土壌	4月4日 14:15	8,270	2,640	
	伊達市	陸土	土壌	4月5日 14:25	18,900	7,180	
	伊達市	陸土	土壌	4月6日 13:40	3,870	494	
伊達市	陸土	土壌	4月7日 13:46	2,730	400		
伊達市	陸土	土壌	4月8日 13:56	9,980	4,360		

採取地点	市町村名	試料名	種類 又は部位	採取日時	放射能濃度(Bq/kg)		備考
					<sup>131</sup> I	<sup>137</sup> Cs	
【2-9】(約45km西北西)	二本松市	陸土	土壌	3月25日 11:35	32,900	9,330	
	二本松市	陸土	土壌	3月26日 10:14	39,000	16,900	
	二本松市	陸土	土壌	3月27日 10:26	49,300	22,700	
	二本松市	陸土	土壌	3月28日 10:13	34,100	15,700	
	二本松市	陸土	土壌	3月29日 11:45	36,400	21,100	
	二本松市	陸土	土壌	3月30日 10:35	24,000	14,800	
	二本松市	陸土	土壌	3月31日 10:50	24,400	14,200	
	二本松市	陸土	土壌	4月1日 11:05	17,800	10,500	
	二本松市	陸土	土壌	4月2日 10:05	5,010	12,700	
	二本松市	陸土	土壌	4月3日 10:04	21,100	15,500	
	二本松市	陸土	土壌	4月4日 10:02	20,300	19,200	
	二本松市	陸土	土壌	4月5日 10:35	17,800	15,800	
	二本松市	陸土	土壌	4月6日 10:13	12,000	8,000	
	二本松市	陸土	土壌	4月7日 10:10	3,990	1,190	
	二本松市	陸土	土壌	4月8日 10:20	15,900	16,300	
【2-10】(約50km北)	新地町	陸土	土壌	3月25日 16:20	44	3,740	
【4-1】(約80km南西)	白河市	陸土	土壌	4月7日 15:00	1,850	1,660	
	白河市	陸土	土壌	4月8日 14:50	1,630	1,520	
【4-2】(約60km西)	須賀川市	陸土	土壌	4月7日 13:10	1,450	1,600	
	須賀川市	陸土	土壌	4月8日 11:50	1,090	925	
【4-3】(約60km西)	大玉村	陸土	土壌	4月7日 11:10	3,770	3,310	
	大玉村	陸土	土壌	4月8日 10:35	4,460	5,070	
【4-4】(約70km南西)	泉崎村	陸土	土壌	4月7日 14:15	3,670	2,990	
	泉崎村	陸土	土壌	4月7日 14:10	1,830	1,390	
	泉崎村	陸土	土壌	4月8日 13:40	2,790	2,410	
【4-5】(約80km南西)	西郷村	陸土	土壌	4月8日 15:30	1,330	923	
(参考)							
【2-11】(約5km南西)	大熊町	陸土	土壌	3月31日 13:00	423,000	98,100	

上記測定結果は政府現地対策本部が、福島県に依頼し、その結果を入手したものの。

# 福島第一原子力発電所周辺の積算線量結果



- 測定日時**
- 3月23日~4月9日 (測定エリア:7、31~34、79)
  - 3月23日~28日、4月3日~9日 (測定エリア:71)
  - 3月24日~4月9日 (測定エリア:1、15)
  - 3月25日~4月1日、4月3日~9日 (測定エリア:84)
  - 3月31日~4月1日、4月3日~9日 (測定エリア:38)
  - 4月1日~4月9日 (測定エリア:39)
  - 4月2日~4月9日 (測定エリア:76)
  - 4月3日~4月9日 (測定エリア:80)
- 測定箇所

(凡例)

【ポイント番号】  
 積算線量※  
 <前回取得日時からの増加量>  
 (1時間当たりの平均線量)

※積算線量については、各測定開始から4月9日までの約6日~17日間の積算である。

単位:マイクロシーベルト  
 (マイクロシーベルト/時)

福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月10日 10時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \*1 GM(ガイガーミューラー計数管)における値
- \*2 電線箱における値
- \*3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \*4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置の備考	天候	実施者
測定エリア【1】(約80km北西)	4月9日16時27分	1.0 <sup>*2</sup>	N: 37' 44" 12.6" E: 140' 28" 02.9"	20110330確認	降雨あり	文部科学省
測定エリア【1】(約80km北西)	4月9日8時35分	0.8 <sup>*2</sup>	N: 37' 44" 12.6" E: 140' 28" 02.9"	20110330確認	降雨あり	日本原子力研究開発機構
測定エリア【2】(約55km北西)	4月9日9時03分	3.8 <sup>*2</sup>	N: 37' 41" 12.7" E: 140' 33" 29.3"	20110330確認	降雨あり	日本原子力研究開発機構
測定エリア【3】(約45km北西)	4月9日9時54分	3.0 <sup>*2</sup>	N: 37' 45" 40.5" E: 140' 44" 19.9"	20110330確認	降雨あり	日本原子力研究開発機構
測定エリア【4】(約50km北西)	4月9日15時10分	1.8 <sup>*2</sup>	N: 37' 39" 30.0" E: 140' 35" 54.0"	20110330確認	降雨あり	文部科学省
測定エリア【5】(約45km北)	4月9日10時32分	1.1 <sup>*2</sup>	N: 37' 47" 17.4" E: 140' 55" 59.1"	20110330確認	降雨あり	日本原子力研究開発機構
測定エリア【6】(約35km北)	4月9日10時49分	1.2 <sup>*2</sup>	N: 37' 42" 09.5" E: 140' 58" 04.6"	20110330確認	降雨あり	日本原子力研究開発機構
測定エリア【7】(約35km北)	4月9日10時56分	1.5 <sup>*2</sup>	N: 37' 41" 49.0" E: 140' 57" 57.7"	20110330確認	降雨あり	日本原子力研究開発機構
測定エリア【10】(約40km北西)	4月9日14時54分	1.7 <sup>*2</sup>	N: 37' 36" 02.9" E: 140' 35" 07.3"	20110403確認	降雨なし	文部科学省
測定エリア【11】(約40km北西)	4月9日14時41分	1.6 <sup>*2</sup>	N: 37' 34" 00.0" E: 140' 34" 48.0"	20110330確認	降雨あり	文部科学省
測定エリア【12】(約40km西)	4月9日12時15分	1.2 <sup>*2</sup>	N: 37' 25" 53.6" E: 140' 35" 44.2"	20110330確認	降雨あり	文部科学省
測定エリア【13】(約40km西)	4月9日12時04分	1.0 <sup>*2</sup>	N: 37' 26" 21.5" E: 140' 37" 20.7"	20110330確認	降雨あり	文部科学省
測定エリア【14】(約35km西)	4月9日11時54分	0.3 <sup>*2</sup>	N: 37' 26" 09.4" E: 140' 38" 49.5"	20110330確認	降雨あり	文部科学省
測定エリア【15】(約35km西)	4月9日11時45分	1.1 <sup>*2</sup>	N: 37' 28" 54.0" E: 140' 40" 53.2"	20110330確認	降雨あり	文部科学省
測定エリア【20】(約45km北西)	4月9日12時39分	1.4 <sup>*2</sup>	N: 37' 29" 24.2" E: 140' 34" 54.2"	20110330確認	降雨あり	文部科学省
測定エリア【22】(約39km西北西)	4月9日12時55分	1.5 <sup>*2</sup>	N: 37' 30" 41.3" E: 140' 39" 28.8"	20110330確認	降雨あり	文部科学省
測定エリア【23】(約35km西北西)	4月9日12時48分	1.8 <sup>*2</sup>	N: 37' 30" 18.9" E: 140' 34" 40.8"	20110330確認	降雨あり	文部科学省
測定エリア【31】(約30km西北西)	4月9日10時23分	10.7 <sup>*2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330確認	降雨あり	文部科学省
測定エリア【32】(約30km北西)	4月9日10時43分	28.1 <sup>*2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330確認	降雨あり	文部科学省
測定エリア【33】(約30km北西)	4月9日10時51分	15.3 <sup>*2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330確認	降雨あり	文部科学省
測定エリア【34】(約30km北西)	4月9日9時47分	5.1 <sup>*2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330確認	降雨あり	文部科学省
測定エリア【36】(約40km北西)	4月9日11時38分	3.1 <sup>*2</sup>	N: 37' 36" 20.6" E: 140' 37" 58.9"	20110331確認	降雨あり	文部科学省
測定エリア【37】(約50km北西)	4月9日9時48分	4.0 <sup>*2</sup>	N: 37' 45" 08.7" E: 140' 41" 29.2"	20110402確認	降雨あり	日本原子力研究開発機構
測定エリア【38】(約35km南)	4月9日11時26分	0.7 <sup>*2</sup>	N: 37' 07" 18.4" E: 140' 57" 03.8"	20110401確認	降雨あり	日本原子力研究開発機構
測定エリア【39】(約45km北)	4月9日10時16分	1.4 <sup>*2</sup>	N: 37' 45" 52.7" E: 140' 51" 47.1"	20110402確認	降雨あり	日本原子力研究開発機構
測定エリア【41】(約20km西)	4月9日13時40分	0.8 <sup>*2</sup>			降雨あり	電力会社
測定エリア【41】(約20km西)	4月9日9時55分	0.8 <sup>*2</sup>			降雨あり	電力会社
測定エリア【42】(約20km西)	4月9日13時00分	0.8 <sup>*2</sup>			降雨あり	電力会社

- \*1 GM(ガイガーミュラー計数管)における値
- \*2 電線箱における値
- \*3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \*4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置の備考	天候	実施者
測定エリア【42】(約30km西)	4月8日9時43分	0.8 <sup>*2</sup>			降雨あり	電力会社
測定エリア【43】(約20km南西)	4月8日15時00分	0.5 <sup>*2</sup>			降雨あり	電力会社
測定エリア【43】(約20km南西)	4月8日11時00分	0.4 <sup>*2</sup>			降雨あり	電力会社
測定エリア【44】(約30km南)	4月8日13時00分	0.8 <sup>*2</sup>			降雨あり	電力会社
測定エリア【44】(約30km南)	4月8日10時00分	0.8 <sup>*2</sup>			降雨あり	電力会社
測定エリア【45】(約20km南)	4月8日13時07分	1.1 <sup>*2</sup>			降雨あり	電力会社
測定エリア【45】(約20km南)	4月8日10時07分	1.2 <sup>*2</sup>			降雨あり	電力会社
測定エリア【46】(約30km北西)	4月8日13時55分	4.7 <sup>*2</sup>			降雨あり	電力会社
測定エリア【46】(約30km北西)	4月8日10時30分	4.8 <sup>*2</sup>			降雨あり	電力会社
測定エリア【51】(約40km南西)	4月8日13時58分	0.2 <sup>*3</sup>			降雨あり	福島県
測定エリア【51】(約40km南西)	4月8日10時48分	0.3 <sup>*3</sup>			降雨あり	福島県
測定エリア【52】(約40km西)	4月8日14時30分	0.3 <sup>*3</sup>			降雨あり	福島県
測定エリア【52】(約40km西)	4月8日11時16分	0.3 <sup>*3</sup>			降雨あり	福島県
測定エリア【61】(約40km北西)	4月8日14時20分	3.9 <sup>*3</sup>			降雨あり	福島県
測定エリア【61】(約40km北西)	4月8日12時16分	1.1 <sup>*3</sup>			降雨あり	福島県
測定エリア【62】(約40km北西)	4月8日14時31分	8.0 <sup>*3</sup>			降雨あり	福島県
測定エリア【62】(約40km北西)	4月8日12時08分	8.4 <sup>*3</sup>			降雨あり	福島県
測定エリア【63】(約45km北西)	4月8日14時57分	2.1 <sup>*3</sup>			降雨あり	福島県
測定エリア【63】(約45km北西)	4月8日11時03分	1.7 <sup>*3</sup>			降雨あり	福島県
測定エリア【71】(約25km南)	4月9日15時30分	1.8 <sup>*2</sup>	N: 37° 12' 32.4"	20110323 確認	降雨あり	警察(NBC対策部隊)
測定エリア【71】(約25km南)	4月9日12時43分	0.9 <sup>*2</sup>	E: 140° 57' 08.2"	20110323確 認	降雨あり	日本原子力研究開発機構
測定エリア【71】(約25km南)	4月9日8時03分	1.8 <sup>*2</sup>	N: 37° 12' 32.4"	20110323確 認	降雨あり	警察(NBC対策部隊)
測定エリア【72】(約30km南)	4月8日16時05分	0.6 <sup>*2</sup>	E: 140° 57' 08.2"		降雨あり	警察(NBC対策部隊)
測定エリア【72】(約30km南)	4月9日12時30分	0.7 <sup>*2</sup>			降雨あり	日本原子力研究開発機構
測定エリア【72】(約30km南)	4月9日8時36分	1.0 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【73】(約35km南)	4月8日16時23分	0.8 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【73】(約35km南)	4月9日12時11分	1.2 <sup>*2</sup>			降雨あり	日本原子力研究開発機構
測定エリア【73】(約35km南)	4月9日9時01分	1.2 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【74】(約35km南)	4月9日12時53分	0.3 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【74】(約35km南)	4月9日11時04分	0.5 <sup>*2</sup>			降雨あり	日本原子力研究開発機構
測定エリア【75】(約45km南)	4月8日17時20分	0.2 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【75】(約45km南)	4月9日10時39分	0.7 <sup>*2</sup>	N: 37° 33' 03.2"	20110330確 認	降雨あり	日本原子力研究開発機構
測定エリア【75】(約45km南)	4月9日7時13分	0.0 <sup>*2</sup>	E: 140° 44' 25.0"		降雨あり	警察(NBC対策部隊)

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電線塔における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置の 備考	天候	実施者
測定エリア【76】(約20km南西)	4月9日11時41分	0.0 <sup>*2</sup>	N: 37° 20' 25.3" E: 140° 48' 25.7"	20110402確 認	降雨あり	警察(NBC対策部隊)
測定エリア【76】(約20km南西)	4月9日10時50分	0.5 <sup>*2</sup>	N: 37° 20' 25.3" E: 140° 48' 25.7"	20110402確 認	降雨あり	文部科学省
測定エリア【77】(約25km南西)	4月9日12時01分	1.7 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【78】(約45km北西)	4月9日18時27分	1.3 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【78】(約45km北西)	4月9日8時00分	0.2 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【79】(約30km北西)	4月9日10時16分	12.3 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330確 認	降雨あり	文部科学省
測定エリア【79】(約30km北西)	4月9日8時49分	10.4 <sup>*2</sup>	N: 37° 33' 22.2" E: 140° 45' 46.9"	20110323確 認	降雨あり	警察(NBC対策部隊)
測定エリア【80】(約25km北)	4月9日14時35分	0.5 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【80】(約25km北)	4月9日11時24分	1.2 <sup>*2</sup>	N: 37° 33' 22.2" E: 140° 45' 46.9"	20110323確 認	降雨あり	日本原子力研究開発機構
測定エリア【80】(約25km北)	4月9日11時05分	0.5 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【81】(約30km北西)	4月9日8時41分	24.2 <sup>*2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【83】(約20km北西)	4月9日10時02分	47.5 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330確 認	降雨あり	文部科学省
測定エリア【83】(約20km北西)	4月9日9時04分	39.6 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330確 認	降雨あり	警察(NBC対策部隊)
測定エリア【84】(約40km南西)	4月9日10時03分	0.3 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330確 認	降雨あり	日本原子力研究開発機構
測定エリア【85】(約60km北西)	4月9日14時00分	0.1 <sup>*2</sup>	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330確 認	降雨なし	防衛省
測定エリア【85】(約60km北西)	4月9日8時00分	0.2 <sup>*2</sup>	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330確 認	降雨なし	防衛省
測定エリア【86】(約55km西)	4月9日14時00分	0.9 <sup>*2</sup>	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330確 認	降雨あり	防衛省
測定エリア【86】(約55km西)	4月9日6時00分	1.2 <sup>*2</sup>	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330確 認	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月9日14時00分	0.8 <sup>*2</sup>	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330確 認	降雨あり	防衛省
測定エリア【87】(約30km西南西)	4月9日8時00分	1.3 <sup>*2</sup>	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330確 認	降雨あり	防衛省
測定エリア【88】(約55km西北西)	4月9日12時00分	1.1 <sup>*2</sup>	N: 37° 41' 24.2" E: 140° 28' 17.4"	201100404 確認	降雨あり	防衛省
測定エリア【89】(約60km西)	4月9日12時00分	3.5 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨あり	防衛省
測定エリア【101】(約55km北西)	4月9日9時25分	1.7 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404確 認	降雨あり	日本原子力研究開発機構
測定エリア【102】(約50km北西)	4月9日13時33分	2.1 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404確 認	降雨あり	日本原子力研究開発機構
測定エリア【103】(約20km北)	4月9日11時45分	1.2 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404確 認	降雨あり	日本原子力研究開発機構
測定エリア【104】(約25km西北西)	4月9日7時30分	2.3 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨あり	文部科学省
測定エリア【105】(約20km西)	4月9日11時20分	0.4 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404確 認	降雨あり	文部科学省
測定エリア【106】(約30km南西)	4月9日10時30分	0.8 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404確 認	降雨あり	文部科学省
測定エリア【107】(約25km北北西)	4月9日12時05分	3.4 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404確 認	降雨あり	日本原子力研究開発機構
測定エリア【108】(約30km北北西)	4月9日12時43分	4.2 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404確 認	降雨あり	日本原子力研究開発機構





## 福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月10日 10時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【1】 (約60km北西)	4月9日16時27分	1.0 <sup>*2</sup>	降雨あり	文部科学省
測定エリア【1】 (約60km北西)	4月9日8時35分	0.8 <sup>*2</sup>	降雨あり	日本原子力研究開発機構
測定エリア【2】 (約55km北西)	4月9日9時03分	3.8 <sup>*2</sup>	降雨あり	日本原子力研究開発機構
測定エリア【3】 (約45km北西)	4月9日9時54分	3.0 <sup>*2</sup>	降雨あり	日本原子力研究開発機構
測定エリア【4】 (約50km北西)	4月9日15時10分	1.8 <sup>*2</sup>	降雨あり	文部科学省
測定エリア【5】 (約45km北)	4月9日10時32分	1.1 <sup>*2</sup>	降雨あり	日本原子力研究開発機構
測定エリア【6】 (約35km北)	4月9日10時49分	1.2 <sup>*2</sup>	降雨あり	日本原子力研究開発機構
測定エリア【7】 (約35km北)	4月9日10時56分	1.5 <sup>*2</sup>	降雨あり	日本原子力研究開発機構
測定エリア【10】 (約40km北西)	4月9日14時54分	1.7 <sup>*2</sup>	降雨なし	文部科学省
測定エリア【11】 (約40km北西)	4月9日14時41分	1.6 <sup>*2</sup>	降雨あり	文部科学省
測定エリア【12】 (約40km西)	4月9日12時15分	1.2 <sup>*2</sup>	降雨あり	文部科学省
測定エリア【13】 (約40km西)	4月9日12時04分	1.0 <sup>*2</sup>	降雨あり	文部科学省
測定エリア【14】 (約35km西)	4月9日11時54分	0.3 <sup>*2</sup>	降雨あり	文部科学省

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【15】 (約35km西)	4月9日11時45分	1.1 *2	降雨あり	文部科学省
測定エリア【20】 (約45km北西)	4月9日12時39分	1.4 *2	降雨あり	文部科学省
測定エリア【22】 (約35km西北西)	4月9日12時55分	1.5 *2	降雨あり	文部科学省
測定エリア【23】 (約35km西北西)	4月9日12時48分	1.8 *2	降雨あり	文部科学省
測定エリア【31】 (約30km西北西)	4月9日10時23分	10.7 *2	降雨あり	文部科学省
測定エリア【32】 (約30km北西)	4月9日10時43分	26.1 *2	降雨あり	文部科学省
測定エリア【33】 (約30km北西)	4月9日10時51分	15.3 *2	降雨あり	文部科学省
測定エリア【34】 (約30km北西)	4月9日9時47分	5.1 *2	降雨あり	文部科学省
測定エリア【36】 (約40km北西)	4月9日11時38分	3.1 *2	降雨あり	文部科学省
測定エリア【37】 (約50km北西)	4月9日9時46分	4.0 *2	降雨あり	日本原子力研究開発機構
測定エリア【38】 (約35km南)	4月9日11時26分	0.7 *2	降雨あり	日本原子力研究開発機構
測定エリア【39】 (約45km北)	4月9日10時16分	1.4 *2	降雨あり	日本原子力研究開発機構
測定エリア【41】 (約20km西)	4月9日13時40分	0.8 *2	降雨あり	電力会社
測定エリア【41】 (約20km西)	4月9日9時55分	0.8 *2	降雨あり	電力会社
測定エリア【42】 (約30km西)	4月9日13時00分	0.9 *2	降雨あり	電力会社
測定エリア【42】 (約30km西)	4月9日9時43分	0.9 *2	降雨あり	電力会社
測定エリア【43】 (約20km南西)	4月9日15時00分	0.5 *2	降雨あり	電力会社
測定エリア【43】 (約20km南西)	4月9日11時00分	0.4 *2	降雨あり	電力会社

- \* 1 GM(ガイガーミューラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【44】 (約30km南)	4月9日13時00分	0.8 <sup>*2</sup>	降雨あり	電力会社
測定エリア【44】 (約30km南)	4月9日10時00分	0.8 <sup>*2</sup>	降雨あり	電力会社
測定エリア【45】 (約20km南)	4月9日13時07分	1.1 <sup>*2</sup>	降雨あり	電力会社
測定エリア【45】 (約20km南)	4月9日10時07分	1.2 <sup>*2</sup>	降雨あり	電力会社
測定エリア【46】 (約30km北西)	4月9日13時55分	4.7 <sup>*2</sup>	降雨あり	電力会社
測定エリア【46】 (約30km北西)	4月9日10時30分	4.8 <sup>*2</sup>	降雨あり	電力会社
測定エリア【51】 (約40km南西)	4月9日13時56分	0.2 <sup>*3</sup>	降雨あり	福島県
測定エリア【51】 (約40km南西)	4月9日10時48分	0.3 <sup>*3</sup>	降雨あり	福島県
測定エリア【52】 (約40km西)	4月9日14時30分	0.3 <sup>*3</sup>	降雨あり	福島県
測定エリア【52】 (約40km西)	4月9日11時16分	0.3 <sup>*3</sup>	降雨あり	福島県
測定エリア【61】 (約40km北西)	4月9日14時20分	3.9 <sup>*3</sup>	降雨あり	福島県
測定エリア【61】 (約40km北西)	4月9日12時16分	1.1 <sup>*3</sup>	降雨あり	福島県
測定エリア【62】 (約40km北西)	4月9日14時31分	6.0 <sup>*3</sup>	降雨あり	福島県
測定エリア【62】 (約40km北西)	4月9日12時06分	6.4 <sup>*3</sup>	降雨あり	福島県
測定エリア【63】 (約45km北西)	4月9日14時57分	2.1 <sup>*3</sup>	降雨あり	福島県
測定エリア【63】 (約45km北西)	4月9日11時03分	1.7 <sup>*3</sup>	降雨あり	福島県
測定エリア【71】 (約25km南)	4月9日15時30分	1.8 <sup>*2</sup>	降雨あり	警察(NBC対策部隊)
測定エリア【71】 (約25km南)	4月9日12時43分	0.9 <sup>*2</sup>	降雨あり	日本原子力研究開発機構

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【71】 (約25km南)	4月9日8時03分	1.8 *2	降雨あり	警察(NBC対策部隊)
測定エリア【72】 (約30km南)	4月9日16時05分	0.6 *2	降雨あり	警察(NBC対策部隊)
測定エリア【72】 (約30km南)	4月9日12時30分	0.7 *2	降雨あり	日本原子力研究開発機構
測定エリア【72】 (約30km南)	4月9日8時36分	1.0 *2	降雨あり	警察(NBC対策部隊)
測定エリア【73】 (約35km南)	4月9日16時23分	0.9 *2	降雨あり	警察(NBC対策部隊)
測定エリア【73】 (約35km南)	4月9日12時11分	1.2 *2	降雨あり	日本原子力研究開発機構
測定エリア【73】 (約35km南)	4月9日9時01分	1.2 *2	降雨あり	警察(NBC対策部隊)
測定エリア【74】 (約35km南)	4月9日12時53分	0.3 *2	降雨あり	警察(NBC対策部隊)
測定エリア【74】 (約35km南)	4月9日11時04分	0.5 *2	降雨あり	日本原子力研究開発機構
測定エリア【75】 (約45km南)	4月9日17時20分	0.2 *2	降雨あり	警察(NBC対策部隊)
測定エリア【75】 (約45km南)	4月9日10時39分	0.7 *2	降雨あり	日本原子力研究開発機構
測定エリア【75】 (約45km南)	4月9日7時13分	0.0 *2	降雨あり	警察(NBC対策部隊)
測定エリア【76】 (約20km南西)	4月9日11時41分	0.0 *2	降雨あり	警察(NBC対策部隊)
測定エリア【76】 (約20km南西)	4月9日10時50分	0.5 *2	降雨あり	文部科学省
測定エリア【77】 (約25km南西)	4月9日12時01分	1.7 *2	降雨あり	警察(NBC対策部隊)
測定エリア【78】 (約45km北西)	4月9日18時27分	1.3 *2	降雨あり	警察(NBC対策部隊)
測定エリア【78】 (約45km北西)	4月9日8時00分	0.2 *2	降雨あり	警察(NBC対策部隊)
測定エリア【79】 (約30km北西)	4月9日10時16分	12.3 *2	降雨あり	文部科学省

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【79】 (約30km北西)	4月9日8時49分	10.4 *2	降雨あり	警察(NBC対策部隊)
測定エリア【80】 (約25km北)	4月9日14時35分	0.5 *2	降雨あり	警察(NBC対策部隊)
測定エリア【80】 (約25km北)	4月9日11時24分	1.2 *2	降雨あり	日本原子力研究開発機構
測定エリア【80】 (約25km北)	4月9日11時05分	0.5 *2	降雨あり	警察(NBC対策部隊)
測定エリア【81】 (約30km北西)	4月9日8時41分	24.2 *2	降雨あり	警察(NBC対策部隊)
測定エリア【83】 (約20km北西)	4月9日10時02分	47.5 *2	降雨あり	文部科学省
測定エリア【83】 (約20km北西)	4月9日9時04分	39.6 *2	降雨あり	警察(NBC対策部隊)
測定エリア【84】 (約40km南西)	4月9日10時03分	0.3 *2	降雨あり	日本原子力研究開発機構
測定エリア【85】 (約60km北西)	4月9日14時00分	0.1 *2	降雨なし	防衛省
測定エリア【85】 (約60km北西)	4月9日6時00分	0.2 *2	降雨なし	防衛省
測定エリア【86】 (約55km西)	4月9日14時00分	0.9 *2	降雨あり	防衛省
測定エリア【86】 (約55km西)	4月9日6時00分	1.2 *2	降雨なし	防衛省
測定エリア【87】 (約30km西南西)	4月9日14時00分	0.8 *2	降雨あり	防衛省
測定エリア【87】 (約30km西南西)	4月9日6時00分	1.3 *2	降雨あり	防衛省
測定エリア【88】 (約55km西北西)	4月9日12時00分	1.1 *2	降雨あり	防衛省
測定エリア【89】 (約60km西)	4月9日12時00分	3.5 *2	降雨あり	防衛省
測定エリア【101】 (約55km北西)	4月9日9時25分	1.7 *2	降雨あり	日本原子力研究開発機構
測定エリア【102】 (約50km北西)	4月9日13時33分	2.1 *2	降雨あり	日本原子力研究開発機構

- \* 1 GM(ガイガーミューラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【103】 (約20km北)	4月9日11時45分	1.2 *2	降雨あり	日本原子力研究開発機構
測定エリア【104】 (約25km西北西)	4月9日7時30分	2.3 *2	降雨あり	文部科学省
測定エリア【105】 (約20km西)	4月9日11時20分	0.4 *2	降雨あり	文部科学省
測定エリア【106】 (約30km南西)	4月9日10時30分	0.8 *2	降雨あり	文部科学省
測定エリア【107】 (約25km北北西)	4月9日12時05分	3.4 *2	降雨あり	日本原子力研究開発機構
測定エリア【108】 (約30km北北西)	4月9日12時43分	4.2 *2	降雨あり	日本原子力研究開発機構

福島第一原子力発電所の20km以遠の積算線量結果について

平成23年4月10日10時00分現在  
文部科学省

\*1 簡易型線量計(ポケット線量計)における値

場所(福島第1発電所からの距離)	設置日時	前回取得日時等 (x)	前回取得時 数値(a) (マイクロシー ベルト)	データ採取日時 (y)	積算数値(b) (マイクロシー ベルト)	経過時間 (z=y-x)	積算数値(c=b-a) (マイクロシーベルト)	測定位置	天候
測定エリア【31】(約30km西北西)	3月23日11時43分	4月8日11時00分	5977 <sup>**</sup>	4月9日10時27分	6214 <sup>**</sup>	23時間27分	237 <sup>**</sup> (10.1 μSv/時)	N: 37° 33' 45.0" E: 140° 44' 49.9"	降雨有り
測定エリア【32】(約30km北西)	3月23日12時14分	4月8日11時20分	13400 <sup>**</sup>	4月9日10時45分	13950 <sup>**</sup>	23時間25分	550 <sup>**</sup> (23.5 μSv/時)	N: 37° 35' 42.0" E: 140° 45' 14.5"	降雨有り
測定エリア【33】(約30km北西)	3月23日12時32分	4月8日11時35分	7838 <sup>**</sup>	4月9日10時53分	8141 <sup>**</sup>	23時間18分	303 <sup>**</sup> (13.0 μSv/時)	N: 37° 36' 34.6" E: 140° 45' 09.1"	降雨有り
測定エリア【34】(約30km北西)	3月23日13時08分	4月8日12時26分	2779 <sup>**</sup>	4月9日9時49分	2887 <sup>**</sup>	21時間23分	108 <sup>**</sup> (5.1 μSv/時)	N: 37° 33' 03.2" E: 140° 44' 28.6"	降雨有り
測定エリア【38】(約35km南)	3月31日16時23分	4月8日11時46分	216 <sup>**</sup>	4月9日11時26分	227 <sup>**</sup>	23時間40分	11 <sup>**</sup> (0.5 μSv/時)	N: 37° 12' 52.5" E: 140° 59' 40.2"	降雨有り
測定エリア【71】(約25km南)	3月23日13時00分	4月8日13時05分	656 <sup>**</sup>	4月9日12時43分	672 <sup>**</sup>	23時間38分	16 <sup>**</sup> (0.7 μSv/時)	N: 37° 12' 52.5" E: 140° 59' 40.2"	降雨有り
測定エリア【79】(約30km北西)	3月23日14時09分	4月8日11時56分	6301 <sup>**</sup>	4月9日10時18分	6559 <sup>**</sup>	22時間22分	258 <sup>**</sup> (11.5 μSv/時)	N: 37° 47' 53.8" E: 140° 55' 24.7"	降雨有り
測定エリア【7】(約35km北)	3月23日12時06分	4月8日11時40分	384 <sup>**</sup>	4月9日10時57分	400 <sup>**</sup>	23時間17分	16 <sup>**</sup> (0.7 μSv/時)	N: 37° 47' 53.8" E: 140° 55' 24.7"	降雨有り
測定エリア【1】(約60km北西)	3月24日15時20分	4月8日15時56分	414 <sup>**</sup>	4月9日14時27分	477 <sup>**</sup>	22時間31分	63 <sup>**</sup> (2.8 μSv/時)	N: 37° 44' 45.2" E: 140° 28' 10.6"	降雨無し
測定エリア【15】(約35km西)	3月24日10時58分	4月8日11時00分	631 <sup>**</sup>	4月9日11時40分	660 <sup>**</sup>	24時間40分	29.0 <sup>**</sup> (1.2 μSv/時)	N: 37° 27' 08.1" E: 140° 40' 39.7"	降雨有り
測定エリア【84】(約40km南西)	3月25日10時40分	4月8日10時04分	82 <sup>**</sup>	4月9日10時03分	86 <sup>**</sup>	23時間59分	4 <sup>**</sup> (0.2 μSv/時)	N: 37° 12' 52.5" E: 140° 59' 40.2"	降雨有り
測定エリア【39】(約45km北)	4月1日10時45分	4月8日10時47分	130 <sup>**</sup>	4月9日10時18分	145 <sup>**</sup>	23時間31分	15 <sup>**</sup> (0.6 μSv/時)	N: 37° 45' 52.7" E: 140° 51' 47.1"	降雨有り
測定エリア【76】(約20km南西)	4月2日11時35分	4月8日11時41分	77 <sup>**</sup>	4月9日10時55分	90 <sup>**</sup>	23時間14分	13 <sup>**</sup> (0.6 μSv/時)	N: 37° 45' 52.7" E: 140° 51' 47.1"	降雨有り
測定エリア【80】(約25km北)	4月3日11時56分	4月8日12時19分	75 <sup>**</sup>	4月9日11時25分	88 <sup>**</sup>	23時間06分	13 <sup>**</sup> (0.6 μSv/時)	N: 37° 45' 52.7" E: 140° 51' 47.1"	降雨有り

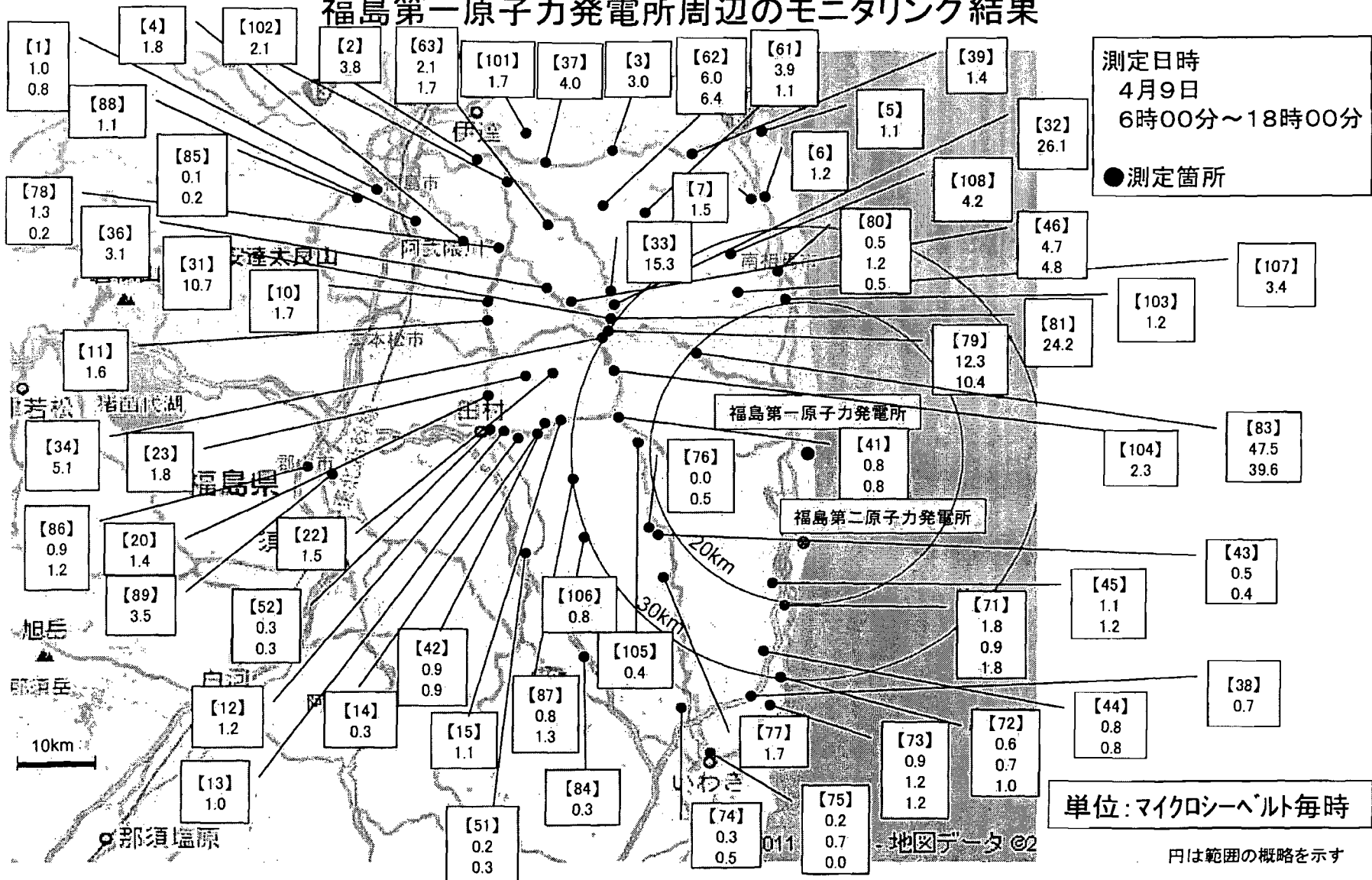
注) 積算数値の括弧書きは、積算数値を経過時間で割った値(c/z)である。

・測定者: 文部科学省

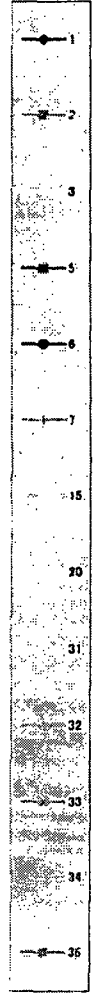
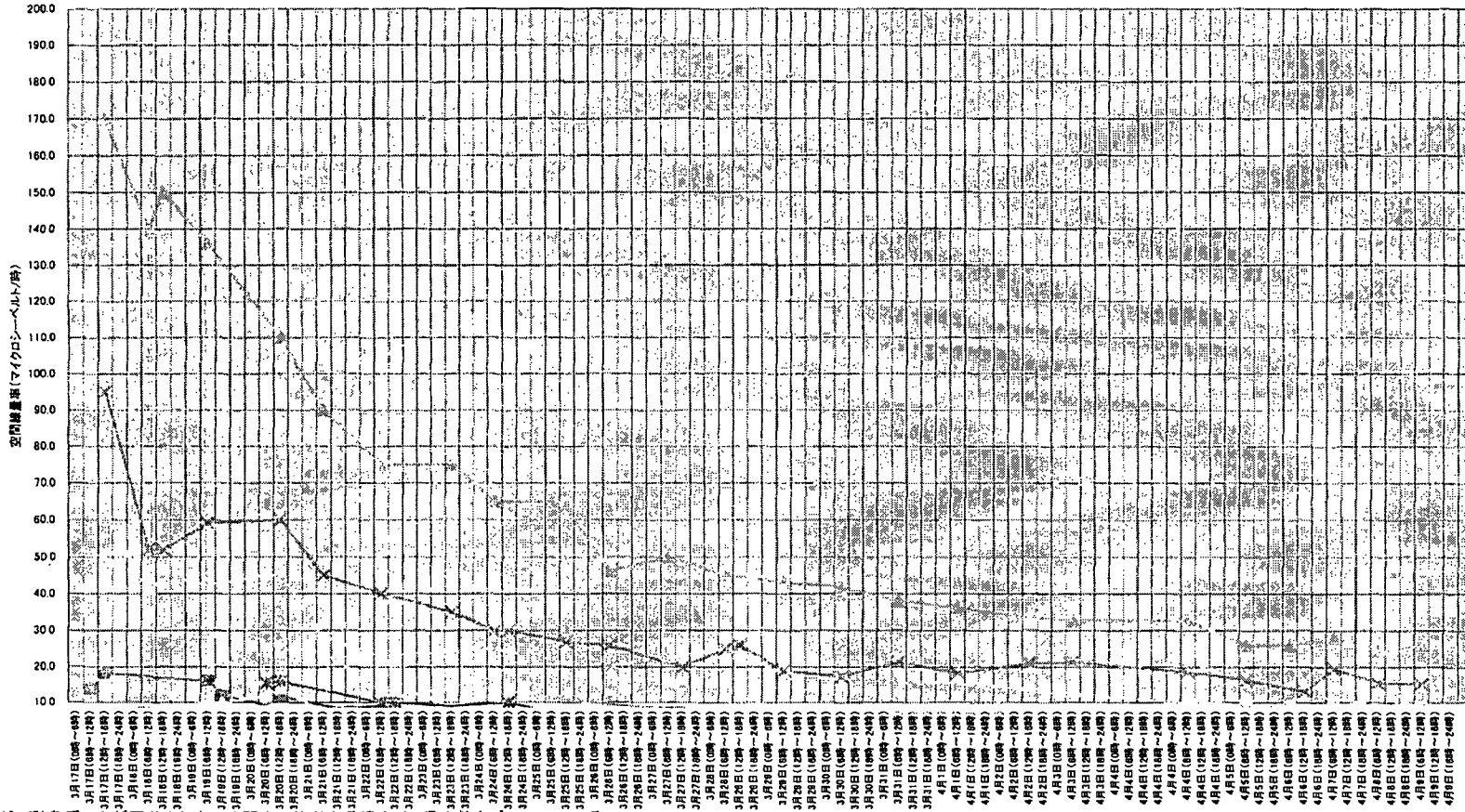
・前回取得時数値が0.0と表示のものは新規に設置した箇所を示す。



# 福島第一原子力発電所周辺のモニタリング結果



# 福島第一原子力発電所の20km以遠のモニタリング結果の推移



注:測定データが区分された4時間内に複数ある場合は、最大値をプロットしている。  
 注:本グラフでは、10マイクロシーベルト/時以上のデータのみ表示している。

注)文部科学省、日本原子力研究開発機構、原子力安全技術センターによる測定結果を記載

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**From:** OST01 HOC  
**Sent:** Friday, April 08, 2011 2:25 AM  
**To:** RST01 Hoc; PMT01 Hoc; PMT02 Hoc; PMT11 Hoc  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** (Japanese)20110408\_10.pdf; (Japanese)20110408\_11.pdf; (Japanese)20110408\_12.pdf; (Japanese)20110408\_13.pdf; (Japanese)20110408\_14.pdf; (unofficial) (Japanese)20110408\_10with lat\_long.pdf

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

**From:** HOO Hoc  
**Sent:** Friday, April 08, 2011 2:23 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

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

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

**From:** [eda@mext.go.jp](mailto:eda@mext.go.jp) [mailto:[eda@mext.go.jp](mailto:eda@mext.go.jp)]  
**Sent:** Friday, April 08, 2011 2:14 AM  
**To:** 17ows.do@hickam.af.mil; 374oss.weather@yokota.af.mil; DartDOELiaison1@OFDA.gov; Andrae.brooks@dtra.mil; Ulses, Anthony; ASINK@OFDA.GOV; Benjamin.Cote@usfj.mil; Smith, Brooke; bryan.moyers@fe.navy.mil; bryan.payne@navy.mil; Carl.Johnson@usfj.mil; CherryRC@state.gov; christopher.hanson@yokota.af.mil; Casto, Chuck; cmht@nnsa.doe.gov; Craig.Haas@usfj.mil; Curry.Wright@usfj.mil; damian.peko@nuclear.energy.gov; Dorman, Dan; Daniel.Blumenthal@nnsa.doe.gov; darrel.dehaven@navy.mil; david.mack@yokota.af.mil; DuncanAD@state.gov; esteban.acosta@yokota.af.mil; frederick.l.lentz@navy.mil; gragory.davenport@navy.mil; timothy.r.halladay@navy.mil; HarrellBL@state.gov; HOO Hoc; Foster, Jack; james.waldrep@navy.mil; jay.frogness@navy.mil; jeffery.brann@navy.mil; Justina.Jensen@usfj.mil; jhughart@ofda.gov; Monninger, John; john.niemeyer@fe.navy.mil; john.okon@fe.navy.mil; John.tran@usfj.mil; John\_J.\_Szymanski@ostp.eop.gov; johnstonegm@state.gov; Joseph.Espiritu@usfj.mil; joseph.hughart@foh.hhs.gov; Keith.simmers@dtra.mil; Kenneth.spurlock@usfj.mil; Foggie, Kirk; latrice.davis@jtfcs.northcom.mil; Leo.Caballero@usfj.mil; LewisBM2@state.gov; LIA01 Hoc; LIA02 Hoc; kristopher.long@hickam.af.mil; MearsJM@state.gov; michael.coleman@usfj.mil; miki.huntington@usfj.mil; MoralesRA@state.gov; naccr.rdcon.fct@fe.navy.mil; narak@llnl.gov; Nathan.frost@usfj.mil; NITOPS@nnsa.doe.gov; paul.guss@usfj.mil; PMT01 Hoc; Hoc, PMT12; PRLH\_PHNS\_LOG\_C.NNPI.FCT@NAVY.MIL; prlh\_phns\_rdcon.fct@navy.mil; Devercelly, Richard; richard.kirchner@fe.navy.mil; Richard.O'Malley@fe.navy.mil; richard.peeke@jtfcs.northcom.mil; Richard.Peeke@usfj.mil; Richard\_A.\_Reed@nss.eop.gov; Alexis.Robinson@usfj.mil; Jamie.Stowe@usfj.mil; theodore.shaw@fe.navy.mil; thomas.j.murphy4@navy.mil; Thomas.Singleton@usfj.mil;

ThurRR@state.gov; Nakanishi, Tony; troy.mueller@navy.mil; UchidaKX@state.gov; usfj-cat-chief@usfj.mil; usfj-cat-j5@usfj.mil; jay.vietas@kadena.af.mil; Cook, William; Christopher.Wong@usfj.mil; Terry.Carden@usfj.mil; kristopher.long@hickam.af.mil  
Cc: saigai03@mext.go.jp; akasaka@mext.go.jp; senami@mext.go.jp  
Subject: Radiation data by MEXT

Dear Sir,

Please see attached the document.

Sincerely yours,

Kei EDA

EOC, Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan

福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月8日 13時00分現在  
文 部 科 学 省

○文部科学省が集計した結果

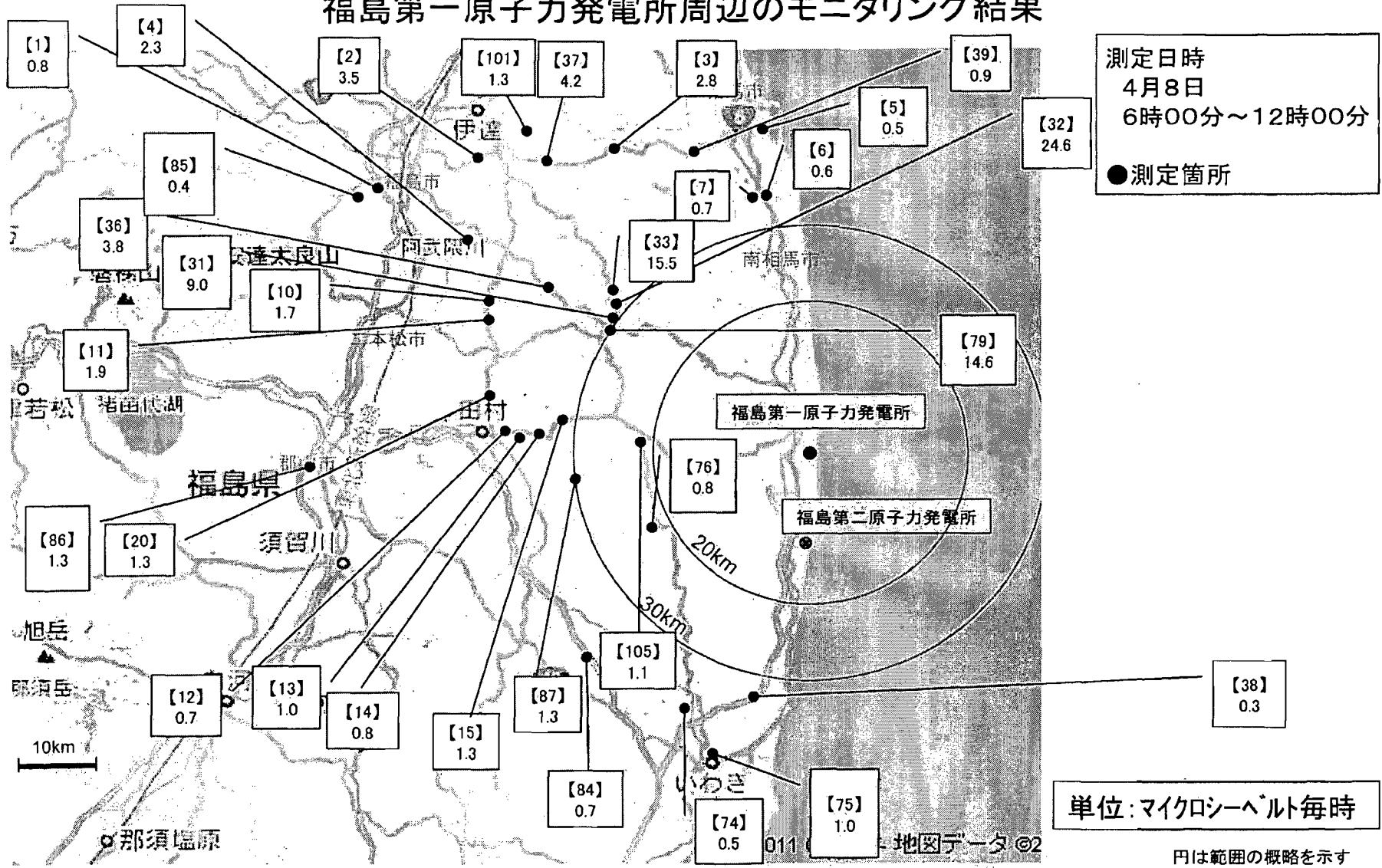
- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置			測定位置 の備考	天候	実施者
			N:	E:	値			
測定エリア【1】 (約60km北西)	4月8日8時31分	0.8 <sup>*2</sup>	N: 37'	E: 140'	44' 12.6"	20110330 確認	降雨なし	文部科学省
測定エリア【2】 (約55km北西)	4月8日9時10分	3.5 <sup>*2</sup>	N: 37'	E: 140'	41' 12.7"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【3】 (約45km北西)	4月8日10時20分	2.8 <sup>*2</sup>	N: 37'	E: 140'	45' 40.5"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【4】 (約50km北西)	4月8日9時29分	2.3 <sup>*2</sup>	N: 37'	E: 140'	39' 30.0"	20110330 確認	降雨なし	文部科学省
測定エリア【5】 (約45km北)	4月8日11時03分	0.5 <sup>*2</sup>	N: 37'	E: 140'	47' 17.4"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【6】 (約35km北)	4月8日11時25分	0.6 <sup>*2</sup>	N: 37'	E: 140'	42' 09.5"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【7】 (約35km北)	4月8日11時39分	0.7 <sup>*2</sup>	N: 37'	E: 140'	41' 49.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【10】 (約40km北西)	4月8日9時43分	1.7 <sup>*2</sup>	N: 37'	E: 140'	36' 02.9"	20110403 確認	降雨なし	文部科学省
測定エリア【11】 (約40km北西)	4月8日9時54分	1.9 <sup>*2</sup>	N: 37'	E: 140'	34' 48.0"	20110330 確認	降雨なし	文部科学省
測定エリア【12】 (約40km西)	4月8日10時32分	0.7 <sup>*2</sup>	N: 37'	E: 140'	25' 53.6"	20110330 確認	降雨なし	文部科学省
測定エリア【13】 (約40km西)	4月8日10時39分	1.0 <sup>*2</sup>	N: 37'	E: 140'	26' 21.5"	20110330 確認	降雨なし	文部科学省
測定エリア【14】 (約35km西)	4月8日10時49分	0.8 <sup>*2</sup>	N: 37'	E: 140'	26' 09.4"	20110330 確認	降雨なし	文部科学省
測定エリア【15】 (約35km西)	4月8日10時59分	1.3 <sup>*2</sup>	N: 37'	E: 140'	26' 54.0"	20110330 確認	降雨なし	文部科学省
測定エリア【20】 (約45km北西)	4月8日10時18分	1.3 <sup>*2</sup>	N: 37'	E: 140'	29' 24.2"	20110330 確認	降雨なし	文部科学省
測定エリア【31】 (約30km西北西)	4月8日10時51分	9.0 <sup>*2</sup>	N: 37'	E: 140'	33' 45.0"	20110330 確認	降雨なし	文部科学省
測定エリア【32】 (約30km北西)	4月8日11時16分	24.6 <sup>*2</sup>	N: 37'	E: 140'	35' 42.0"	20110330 確認	降雨なし	文部科学省

- \* 1 GM(ガイガーミュラー計測管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	測定位置	測定位置 の備考	天候	実施者
測定エリア【33】(約30km北西)	4月8日11時33分	15.5 <sup>*2</sup>	N: 37° 36' 34.6" E: 140° 45' 09.1"	20110330 確認	降雨なし	文部科学省
測定エリア【36】(約40km北西)	4月8日10時05分	3.8 <sup>*2</sup>	N: 37° 36' 20.6" E: 140° 37' 58.9"	20110331 確認	降雨なし	文部科学省
測定エリア【37】(約50km北西)	4月8日10時07分	4.2 <sup>*2</sup>	N: 37° 45' 06.7" E: 140° 41' 29.2"	20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【38】(約35km南)	4月8日11時47分	0.3 <sup>*2</sup>	N: 37° 07' 18.4" E: 140° 57' 03.8"	20110401 確認	降雨なし	日本原子力研究開発機構
測定エリア【39】(約45km北)	4月8日10時45分	0.9 <sup>*2</sup>	N: 37° 45' 52.7" E: 140° 51' 47.1"	20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【74】(約35km南)	4月8日11時25分	0.5 <sup>*2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【75】(約45km南)	4月8日10時54分	1.0 <sup>*2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【76】(約20km南西)	4月8日11時40分	0.8 <sup>*2</sup>	N: 37° 20' 25.3" E: 140° 48' 25.7"	20110402 確認	降雨なし	文部科学省
測定エリア【79】(約30km北西)	4月8日11時55分	14.6 <sup>*2</sup>			降雨なし	文部科学省
測定エリア【84】(約40km南西)	4月8日10時05分	0.7 <sup>*2</sup>	N: 37° 10' 20.0" E: 140° 43' 30.7"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【85】(約60km北西)	4月8日6時00分	0.4 <sup>*2</sup>	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】(約55km西)	4月8日6時00分	1.3 <sup>*2</sup>	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【87】(約30km西南西)	4月8日6時00分	1.3 <sup>*2</sup>	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330 確認	降雨なし	防衛省
測定エリア【101】(約55km北西)	4月8日9時37分	1.3 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【105】(約20km西)	4月8日11時18分	1.1 <sup>*2</sup>	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	降雨なし	文部科学省

# 福島第一原子力発電所周辺のモニタリング結果



## 福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月12日 10時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

測定場所	測定日時	数値 (マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【1】 福島市杉妻町	4月11日16時59分	1.6 <u>*2</u>	降雨あり	文部科学省
測定エリア【1】 福島市杉妻町	4月11日7時29分	1.8 *2	降雨なし	文部科学省
測定エリア【2】 福島市大波滝ノ入	4月11日8時53分	2.7 *2	降雨なし	日本原子力研究開発機構
測定エリア【3】 伊達市霊山町石田彦平	4月11日9時48分	3.6 *2	降雨なし	日本原子力研究開発機構
測定エリア【4】 伊達郡川俣町大字鶴沢字川端	4月11日16時06分	1.7 *2	降雨あり	文部科学省
測定エリア【5】 相馬市中野寺前	4月11日10時24分	1.2 *2	降雨なし	日本原子力研究開発機構
測定エリア【6】 南相馬市鹿島区西町	4月11日10時48分	1.8 *2	降雨なし	日本原子力研究開発機構
測定エリア【7】 南相馬市鹿島区寺内本屋敷	4月11日10時55分	1.6 *2	降雨なし	日本原子力研究開発機構
測定エリア【10】 二本松市針道中島	4月11日15時52分	1.8 *2	降雨あり	文部科学省
測定エリア【11】 二本松市太田字下田	4月11日15時44分	2.2 *2	降雨あり	文部科学省
測定エリア【12】 田村市船引町船引字小沢川代	4月11日12時13分	0.7 *2	降雨なし	文部科学省
測定エリア【13】 田村市常葉町西向屋形	4月11日11時52分	1.0 *2	降雨なし	文部科学省
測定エリア【14】 田村市常葉町常葉内町	4月11日11時30分	1.1 *2	降雨なし	文部科学省
測定エリア【15】 田村市常葉町山根鹿島	4月11日11時18分	1.6 *2	降雨なし	文部科学省
測定エリア【20】 田村市船引町新館下	4月11日12時28分	1.1 *2	降雨なし	文部科学省
測定エリア【21】 双葉郡浪江町津島東館	4月11日12時54分	4.2 *2	降雨なし	文部科学省
測定エリア【22】 田村市船引町上移字後田	4月11日12時43分	1.4 *2	降雨なし	文部科学省
測定エリア【23】 田村市船引町新館曲山	4月11日12時36分	1.3 *2	降雨なし	文部科学省
測定エリア【31】 双葉郡浪江町津島仲沖	4月11日13時32分	12.6 *2	降雨なし	文部科学省
測定エリア【32】 双葉郡浪江町赤字木手七郎	4月11日13時49分	23.9 *2	降雨なし	文部科学省
測定エリア【33】 相馬郡飯館村長泥	4月11日14時03分	17.5 *2	降雨なし	文部科学省
測定エリア【34】 双葉郡浪江町津島大高木	4月11日15時05分	6.7 *2	降雨なし	文部科学省
測定エリア【36】 伊達郡川俣町山木屋長橋	4月11日10時34分	4.0 *2	降雨なし	文部科学省
測定エリア【37】 伊達市霊山町石田宝司沢	4月11日9時41分	3.6 *2	降雨なし	日本原子力研究開発機構
測定エリア【38】 いわき市四倉町白岩保木田	4月11日11時24分	0.6 *2	降雨なし	日本原子力研究開発機構
測定エリア【39】 相馬市山上上並木	4月11日10時11分	1.6 *2	降雨なし	日本原子力研究開発機構
測定エリア【41】 田村市宮路町古道寺ノ前	4月11日13時40分	0.7 *2	降雨なし	電力会社
測定エリア【41】 田村市宮路町古道寺ノ前	4月11日10時05分	0.7 *2	降雨なし	電力会社
測定エリア【42】 田村市常葉町山根富岡	4月11日13時00分	0.9 *2	降雨なし	電力会社



- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

測定場所	測定日時	数値 (マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【42】 田村市常葉町山根富岡	4月11日9時20分	0.9 <sup>*2</sup>	降雨なし	電力会社
測定エリア【43】 双葉郡川内村下川内宮渡	4月11日15時00分	0.4 <sup>*2</sup>	降雨あり	電力会社
測定エリア【43】 双葉郡川内村下川内宮渡	4月11日11時00分	0.5 <sup>*2</sup>	降雨なし	電力会社
測定エリア【44】 いわき市大久保町大久矢/目沢	4月11日13時00分	0.8 <sup>*2</sup>	降雨なし	電力会社
測定エリア【44】 いわき市大久保町大久矢/目沢	4月11日10時00分	0.8 <sup>*2</sup>	降雨なし	電力会社
測定エリア【45】 双葉郡楢葉町山田岡美し森	4月11日13時21分	1.1 <sup>*2</sup>	降雨なし	電力会社
測定エリア【45】 双葉郡楢葉町山田岡美し森	4月11日10時06分	1.1 <sup>*2</sup>	降雨なし	電力会社
測定エリア【46】 伊達郡川俣町山木屋向出山	4月11日13時05分	4.7 <sup>*2</sup>	降雨なし	電力会社
測定エリア【46】 伊達郡川俣町山木屋向出山	4月11日10時25分	4.7 <sup>*2</sup>	降雨なし	電力会社
測定エリア【51】 田村郡小野町小野新町鏡園	4月11日13時52分	0.2 <sup>*3</sup>	降雨あり	福島県
測定エリア【51】 田村郡小野町小野新町鏡園	4月11日10時37分	0.2 <sup>*3</sup>	降雨なし	福島県
測定エリア【52】 田村市船引町船引黒瀬川原	4月11日14時27分	0.3 <sup>*3</sup>	降雨なし	福島県
測定エリア【52】 田村市船引町船引黒瀬川原	4月11日11時00分	0.4 <sup>*3</sup>	降雨なし	福島県
測定エリア【61】 相馬郡飯館村八木沢	4月11日15時17分	5.2 <sup>*3</sup>	降雨なし	福島県
測定エリア【61】 相馬郡飯館村八木沢	4月11日13時15分	5.0 <sup>*3</sup>	降雨なし	福島県
測定エリア【62】 相馬郡飯館村草野大師堂	4月11日15時30分	6.2 <sup>*3</sup>	降雨なし	福島県
測定エリア【62】 相馬郡飯館村草野大師堂	4月11日13時03分	6.3 <sup>*3</sup>	降雨なし	福島県
測定エリア【63】 相馬郡飯館村二枚橋	4月11日15時57分	2.0 <sup>*3</sup>	降雨あり	福島県
測定エリア【63】 相馬郡飯館村二枚橋	4月11日11時41分	2.1 <sup>*3</sup>	降雨なし	福島県
測定エリア【71】 双葉郡広野町下北迫苗代野	4月11日16時00分	0.6 <sup>*2</sup>	降雨あり	警察(NBC対策部隊)
測定エリア【71】 双葉郡広野町下北迫苗代野	4月11日12時06分	0.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【71】 双葉郡広野町下北迫苗代野	4月11日7時53分	1.0 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【72】 いわき市久之浜町久之浜字北原跡	4月11日16時31分	0.5 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【72】 いわき市久之浜町久之浜字北原跡	4月11日11時51分	0.5 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【72】 いわき市久之浜町久之浜字北原跡	4月11日8時29分	0.4 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【73】 いわき市四倉町	4月11日16時46分	0.3 <sup>*2</sup>	降雨あり	警察(NBC対策部隊)
測定エリア【73】 いわき市四倉町	4月11日11時40分	0.9 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【73】 いわき市四倉町	4月11日8時43分	0.6 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【74】 いわき市小川町高萩	4月11日12時28分	0.0 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【74】 いわき市小川町高萩	4月11日11時04分	0.3 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【75】 いわき市内郷御殿町	4月11日20時20分	0.6 <sup>*2</sup>	降雨あり	警察(NBC対策部隊)
測定エリア【75】 いわき市内郷御殿町	4月11日10時40分	0.4 <sup>*2</sup>	降雨なし	日本原子力研究開発機構
測定エリア【75】 いわき市内郷御殿町	4月11日7時02分	0.5 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)
測定エリア【76】 双葉郡川内村上川内早渡	4月11日11時12分	0.5 <sup>*2</sup>	降雨なし	警察(NBC対策部隊)

- \* 1 GM(ガイガーミュラー計数管)における値
- \* 2 電離箱における値
- \* 3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \* 4 測定時間内における測定値の変動範囲

測定場所	測定日時	数値 (マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定エリア【76】 双葉郡川内村上川内早渡	4月11日10時37分	0.5 *2	降雨なし	文部科学省
測定エリア【77】 いわき市小川町上小川	4月11日11時29分	0.1 *2	降雨なし	警察(NBC対策部隊)
測定エリア【78】 伊達郡川俣町鶴沢	4月11日6時50分	1.0 *2	降雨なし	警察(NBC対策部隊)
測定エリア【79】 双葉郡浪江町下津島萱深	4月11日16時55分	7.3 *2	降雨あり	警察(NBC対策部隊)
測定エリア【79】 双葉郡浪江町下津島萱深	4月11日14時57分	14.2 *2	降雨なし	文部科学省
測定エリア【80】 南相馬市原町区高見町	4月11日16時04分	0.3 *2	降雨あり	警察(NBC対策部隊)
測定エリア【80】 南相馬市原町区高見町	4月11日11時25分	1.4 *2	降雨なし	日本原子力研究開発機構
測定エリア【80】 南相馬市原町区高見町	4月11日8時00分	0.5 *2	降雨なし	警察(NBC対策部隊)
測定エリア【81】 双葉郡浪江町赤字木石小屋	4月11日17時05分	16.0 *2	降雨あり	警察(NBC対策部隊)
測定エリア【83】 双葉郡浪江町赤字木橋平	4月11日16時45分	5.3 *2	降雨あり	警察(NBC対策部隊)
測定エリア【83】 双葉郡浪江町赤字木橋平	4月11日14時44分	53.5 *2	降雨なし	文部科学省
測定エリア【84】 いわき市三和町差塩	4月11日10時12分	0.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【85】 福島市荒井原宿	4月11日14時00分	0.5 *2	降雨なし	防衛省
測定エリア【85】 福島市荒井原宿	4月11日6時00分	0.3 *2	降雨なし	防衛省
測定エリア【86】 郡山市大槻町長右工門林	4月11日14時00分	1.1 *2	降雨なし	防衛省
測定エリア【86】 郡山市大槻町長右工門林	4月11日6時00分	1.1 *2	降雨なし	防衛省
測定エリア【87】 双葉郡川内村上川内花ノ内	4月11日14時00分	0.8 *2	降雨あり	防衛省
測定エリア【87】 双葉郡川内村上川内花ノ内	4月11日6時00分	1.2 *2	降雨なし	防衛省
測定エリア【88】 福島市光が丘	4月11日17時00分	1.9 *2	降雨あり	防衛省
測定エリア【89】 郡山市豊田町	4月11日17時00分	2.8 *2	降雨あり	防衛省
測定エリア【101】 伊達市豊山町大石字三ノ輪	4月11日9時17分	2.2 *2	降雨なし	日本原子力研究開発機構
測定エリア【102】 伊達市月館町月館字町	4月11日14時13分	1.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【103】 南相馬市原町区高字大豆橋内	4月11日12時23分	1.5 *2	降雨なし	日本原子力研究開発機構
測定エリア【104】 双葉郡葛尾村大字落合字落合	4月11日13時09分	2.6 *2	降雨なし	文部科学省
測定エリア【105】 田村市都路町古道字寺ノ前	4月11日10時57分	0.5 *2	降雨なし	文部科学省
測定エリア【106】 いわき市川前町小井井字新築小屋	4月11日10時11分	0.6 *2	降雨なし	文部科学省
測定エリア【107】 南相馬市原町区馬場字中内	4月11日12時41分	3.3 *2	降雨なし	日本原子力研究開発機構
測定エリア【108】 南相馬市原町区大原台畑	4月11日12時57分	3.7 *2	降雨なし	日本原子力研究開発機構

## 福島第一原子力発電所の20km以遠の積算線量結果について

平成23年4月12日10時00分現在  
文部科学省

## \*1 簡易型線量計(ポケット線量計)における値

測定場所 (福島第1発電所からの距離)	設置日時	前回取得日時等 (x)	前回取得時 数値(a) (マイクロシー ベルト)	データ採取日時 (y)	積算数値(b) (マイクロシー ベルト)	経過時間 (z=y-x)	積算数値 (c=b-a) (マイクロシーベルト)	測定位置	天候
測定エリア【31】 双葉郡浪江町津島仲沖 (約30km西北西)	3月23日11時43分	4月10日10時10分	6433 <sup>*1</sup>	4月11日13時30分	6681 <sup>*1</sup>	27時間20分	248 <sup>*1</sup> (9.1 μSv/時)	N: 37° 33' 45.0" E: 140° 44' 49.9"	降雨無し
測定エリア【32】 双葉郡浪江町赤字本手七郎 (約30km北西)	3月23日12時14分	4月10日10時47分	14480 <sup>*1</sup>	4月11日13時50分	15060 <sup>*1</sup>	27時間03分	580 <sup>*1</sup> (21.4 μSv/時)	N: 37° 35' 42.0" E: 140° 45' 14.5"	降雨無し
測定エリア【33】 相馬郡飯館村長泥 (約30km北西)	3月23日12時32分	4月10日11時10分	8442 <sup>*1</sup>	4月11日14時04分	8768 <sup>*1</sup>	26時間54分	326 <sup>*1</sup> (12.1 μSv/時)	N: 37° 36' 34.6" E: 140° 45' 09.1"	降雨無し
測定エリア【34】 双葉郡浪江町津島大高木 (約30km北西)	3月23日13時08分	4月10日16時14分	3034 <sup>*1</sup>	4月11日15時06分	3143 <sup>*1</sup>	22時間52分	109 <sup>*1</sup> (4.8 μSv/時)	N: 37° 33' 03.2" E: 140° 44' 28.6"	降雨無し
測定エリア【38】 いわき市四倉町白岩保木田 (約35km南)	3月31日16時23分	4月10日11時20分	239 <sup>*1</sup>	4月11日11時23分	250 <sup>*1</sup>	24時間03分	11 (0.5 μSv/時)	N: 37° 12' 52.5" E: 140° 59' 40.2"	降雨無し
測定エリア【71】 双葉郡広野町下北迫苗代替 (約25km南)	3月23日13時00分	4月10日12時23分	688 <sup>*1</sup>	4月11日12時05分	704 <sup>*1</sup>	23時間42分	16 (0.7 μSv/時)	N: 37° 12' 52.5" E: 140° 59' 40.2"	降雨無し
測定エリア【79】 双葉郡浪江町下津島置深 (約30km北西)	3月23日14時09分	4月10日16時20分	6888 <sup>*1</sup>	4月11日14時58分	7141 <sup>*1</sup>	22時間38分	253 <sup>*1</sup> (11.2 μSv/時)	N: 37° 47' 53.8" E: 140° 55' 24.7"	降雨無し
測定エリア【7】 南相馬市鹿島寺内本屋敷 (約25km北)	3月23日12時06分	4月10日10時58分	417 <sup>*1</sup>	4月11日10時56分	432 <sup>*1</sup>	23時間58分	15 <sup>*1</sup> (0.6 μSv/時)	N: 37° 47' 53.8" E: 140° 55' 24.7"	降雨無し
測定エリア【1】 福島市杉妻町 (約60km北西)	3月24日15時20分	4月10日14時39分	497 <sup>*1</sup>	4月11日14時58分	518 <sup>*1</sup>	24時間19分	21 <sup>*1</sup> (0.9 μSv/時)	N: 37° 44' 45.2" E: 140° 28' 10.6"	降雨無し
測定エリア【15】 田村市常葉町山根鹿島 (約35km西)	3月24日10時58分	4月10日11時42分	687 <sup>*1</sup>	4月11日11時19分	714 <sup>*1</sup>	23時間37分	27 <sup>*1</sup> (1.1 μSv/時)	N: 37° 27' 08.1" E: 140° 40' 39.7"	降雨無し
測定エリア【84】 いわき市三和町差塩 (約40km南西)	3月25日10時40分	4月10日9時55分	90 <sup>*1</sup>	4月11日10時10分	94 <sup>*1</sup>	24時間15分	4 (0.2 μSv/時)	N: 37° 12' 52.5" E: 140° 59' 40.2"	降雨無し
測定エリア【39】 相馬市山上上並木 (約45km北)	4月1日10時45分	4月10日10時07分	161 <sup>*1</sup>	4月11日10時10分	177 <sup>*1</sup>	24時間03分	16 (0.7 μSv/時)	N: 37° 45' 52.7" E: 140° 51' 47.1"	降雨無し
測定エリア【76】 双葉郡川内村上川内早波 (約20km南西)	4月2日11時35分	4月10日12時19分	103 <sup>*1</sup>	4月11日10時38分	113 <sup>*1</sup>	22時間19分	10 (0.4 μSv/時)	N: 37° 45' 52.7" E: 140° 51' 47.1"	降雨無し
測定エリア【80】 南相馬市原町区高見町 (約25km北)	4月3日11時56分	4月10日11時26分	101 <sup>*1</sup>	4月11日11時27分	114 <sup>*1</sup>	24時間01分	13 (0.5 μSv/時)	N: 37° 45' 52.7" E: 140° 51' 47.1"	降雨無し
測定エリア【21】 双葉郡浪江町津島東館 (約30km西北西)	4月8日13時18分	4月10日10時24分	161 <sup>*1</sup>	4月11日12時54分	252 <sup>*1</sup>	26時間30分	91 (3.4 μSv/時)	N: 37° 45' 52.7" E: 140° 51' 47.1"	降雨無し

注)積算数値の括弧書きは、積算数値を経過時間で割った値(c/z)である。

・測定者:文部科学省

・前回取得時数値が0.0と表示のものは新規に設置した箇所を示す。

福島第一原子力発電所の20km以遠のモニタリング結果について

平成23年4月12日 10時00分現在  
文 部 科 学 省

○文部科学省が集計した結果 注)太下線データが今回追加分

- \*1 GM(ガイガーミュラー計数管)における値
- \*2 電離箱における値
- \*3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \*4 測定時間内における測定値の変動範囲

測定場所	測定日時	数値 (マイクロシーベルト/時) (記載のない限り屋外)	測定位置			測定位置の 備考	天候	実施者
			N	E	値			
測定エリア【1】 福島市杉妻町	4月11日16時59分	1.6 <sup>*2</sup>	N: 37' 44"	E: 140' 28"	12.6	20110330 確認	降雨あり	文部科学省
測定エリア【1】 福島市杉妻町	4月11日7時29分	1.8 <sup>*2</sup>	N: 37' 44"	E: 140' 28"	12.6	20110330 確認	降雨なし	文部科学省
測定エリア【2】 福島市大波滝ノ入	4月11日8時53分	2.7 <sup>*2</sup>	N: 37' 41"	E: 140' 33"	12.7	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【3】 伊達市置山町石田塚平	4月11日9時48分	3.6 <sup>*2</sup>	N: 37' 45"	E: 140' 44"	40.5	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【4】 伊達郡川根町大字横沢平山端	4月11日16時06分	1.7 <sup>*2</sup>	N: 37' 39"	E: 140' 35"	30.0	20110330 確認	降雨あり	文部科学省
測定エリア【5】 相馬市中野寺前	4月11日10時24分	1.2 <sup>*2</sup>	N: 37' 47"	E: 140' 55"	17.4	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【6】 南相馬市鹿島区西町	4月11日10時48分	1.8 <sup>*2</sup>	N: 37' 42"	E: 140' 58"	09.5	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【7】 南相馬市鹿島区寺内本庭敷	4月11日10時55分	1.6 <sup>*2</sup>	N: 37' 41"	E: 140' 57"	49.0	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【10】 二本松市針道中島	4月11日15時52分	1.8 <sup>*2</sup>	N: 37' 36"	E: 140' 35"	02.9	20110403 確認	降雨あり	文部科学省
測定エリア【11】 二本松市太田字下田	4月11日15時44分	2.2 <sup>*2</sup>	N: 37' 34"	E: 140' 34"	00.0	20110330 確認	降雨あり	文部科学省
測定エリア【12】 田村市船引町船引平小沢川代	4月11日12時13分	0.7 <sup>*2</sup>	N: 37' 25"	E: 140' 35"	53.6	20110330 確認	降雨なし	文部科学省
測定エリア【13】 田村市常葉町西向徳形	4月11日11時52分	1.0 <sup>*2</sup>	N: 37' 26"	E: 140' 37"	21.5	20110330 確認	降雨なし	文部科学省
測定エリア【14】 田村市常葉町常葉内町	4月11日11時30分	1.1 <sup>*2</sup>	N: 37' 26"	E: 140' 38"	49.5	20110330 確認	降雨なし	文部科学省
測定エリア【15】 田村市常葉町山根高島	4月11日11時18分	1.6 <sup>*2</sup>	N: 37' 26"	E: 140' 40"	54.0	20110330 確認	降雨なし	文部科学省
測定エリア【20】 田村市船引町新館下	4月11日12時28分	1.1 <sup>*2</sup>	N: 37' 29"	E: 140' 34"	24.2	20110330 確認	降雨なし	文部科学省
測定エリア【21】 双葉郡浪江町津島東館	4月11日12時54分	4.2 <sup>*2</sup>	N: 37' 30"	E: 140' 42"	28.7	20110330 確認	降雨なし	文部科学省
測定エリア【22】 田村市船引町上移字後田	4月11日12時43分	1.4 <sup>*2</sup>	N: 37' 30"	E: 140' 39"	41.3	20110330 確認	降雨なし	文部科学省
測定エリア【23】 田村市船引町新館山	4月11日12時36分	1.3 <sup>*2</sup>	N: 37' 30"	E: 140' 34"	18.9	20110330 確認	降雨なし	文部科学省
測定エリア【31】 双葉郡浪江町津島村沖	4月11日13時32分	12.6 <sup>*2</sup>	N: 37' 44"	E: 140' 44"	03.2	20110330 確認	降雨なし	文部科学省
測定エリア【32】 双葉郡浪江町赤十字手七郎	4月11日13時49分	23.9 <sup>*2</sup>	N: 37' 35"	E: 140' 45"	42.0	20110330 確認	降雨なし	文部科学省
測定エリア【33】 相馬郡飯館村長泥	4月11日14時03分	17.5 <sup>*2</sup>	N: 37' 36"	E: 140' 45"	34.6	20110330 確認	降雨なし	文部科学省
測定エリア【34】 双葉郡浪江町津島大高木	4月11日15時05分	6.7 <sup>*2</sup>	N: 37' 33"	E: 140' 44"	03.2	20110330 確認	降雨なし	文部科学省
測定エリア【36】 伊達郡川根町山本豊長橋	4月11日10時34分	4.0 <sup>*2</sup>	N: 37' 36"	E: 140' 37"	20.6	20110331 確認	降雨なし	文部科学省
測定エリア【37】 伊達市置山町石田宮町沢	4月11日9時41分	3.6 <sup>*2</sup>	N: 37' 45"	E: 140' 41"	06.7	20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【38】 いわき市四倉町白旗後木田	4月11日11時24分	0.6 <sup>*2</sup>	N: 37' 07"	E: 140' 57"	18.4	20110401 確認	降雨なし	日本原子力研究開発機構
測定エリア【39】 相馬市山上上並木	4月11日10時11分	1.6 <sup>*2</sup>	N: 37' 45"	E: 140' 51"	52.7	20110402 確認	降雨なし	日本原子力研究開発機構
測定エリア【41】 田村市宮路町古道寺ノ前	4月11日13時40分	0.7 <sup>*2</sup>					降雨なし	電力会社
測定エリア【41】 田村市宮路町古道寺ノ前	4月11日10時05分	0.7 <sup>*2</sup>					降雨なし	電力会社
測定エリア【42】 田村市常葉町山根高島	4月11日13時00分	0.9 <sup>*2</sup>					降雨なし	電力会社
測定エリア【42】 田村市常葉町山根高島	4月11日9時20分	0.9 <sup>*2</sup>					降雨なし	電力会社
測定エリア【43】 双葉郡川内村下川内宮敷	4月11日15時00分	0.4 <sup>*2</sup>					降雨あり	電力会社
測定エリア【43】 双葉郡川内村下川内宮敷	4月11日11時00分	0.5 <sup>*2</sup>					降雨なし	電力会社
測定エリア【44】 いわき市大久保町大久保ノ目沢	4月11日13時00分	0.8 <sup>*2</sup>					降雨なし	電力会社
測定エリア【44】 いわき市大久保町大久保ノ目沢	4月11日10時00分	0.8 <sup>*2</sup>					降雨なし	電力会社
測定エリア【45】 双葉郡飯館町山田岡美し山	4月11日13時21分	1.1 <sup>*2</sup>					降雨なし	電力会社
測定エリア【45】 双葉郡飯館町山田岡美し山	4月11日10時06分	1.1 <sup>*2</sup>					降雨なし	電力会社
測定エリア【46】 伊達郡川根町山本屋向山	4月11日13時05分	4.7 <sup>*2</sup>					降雨なし	電力会社
測定エリア【46】 伊達郡川根町山本屋向山	4月11日10時25分	4.7 <sup>*2</sup>					降雨なし	電力会社
測定エリア【51】 田村県小野町小野新館東館	4月11日13時52分	0.2 <sup>*3</sup>					降雨あり	福島県
測定エリア【51】 田村県小野町小野新館東館	4月11日10時37分	0.2 <sup>*3</sup>					降雨なし	福島県
測定エリア【52】 田村県船引町船引東館山	4月11日14時27分	0.3 <sup>*3</sup>					降雨なし	福島県
測定エリア【52】 田村県船引町船引東館山	4月11日11時00分	0.4 <sup>*3</sup>					降雨なし	福島県
測定エリア【61】 相馬郡飯館村八木沢	4月11日15時17分	5.2 <sup>*3</sup>					降雨なし	福島県
測定エリア【61】 相馬郡飯館村八木沢	4月11日13時15分	5.0 <sup>*3</sup>					降雨なし	福島県
測定エリア【62】 相馬郡飯館村厚野大御堂	4月11日15時30分	6.2 <sup>*3</sup>					降雨なし	福島県

- \*1 GM(ガイガーミュラー計数管)における値
- \*2 電離箱における値
- \*3 NaI(ヨウ化ナトリウム)シンチレータにおける値
- \*4 測定時間内における測定値の変動範囲

測定場所	測定日時	数値 (マイクロシーベルト/時) (記載のない限り塵外)	測定位置	測定位置の 備考	天候	実施者
測定エリア【62】 相模原駅南口東野大蔵東	4月11日13時03分	6.3 <sup>+3</sup>			降雨なし	福島県
測定エリア【63】 相模原駅南口二枚橋	4月11日15時57分	2.0 <sup>+3</sup>			降雨あり	福島県
測定エリア【63】 相模原駅南口二枚橋	4月11日11時41分	2.1 <sup>+3</sup>			降雨なし	福島県
測定エリア【71】 双葉郡広野町下北沼田代前	4月11日16時00分	0.6 <sup>+2</sup>	N: 37' 12" 32.4" E: 140' 57" 08.2"	20110323 確認	降雨あり	警察(NBC対策部隊)
測定エリア【71】 双葉郡広野町下北沼田代前	4月11日12時06分	0.9 <sup>+2</sup>	N: 37' 12" 32.4" E: 140' 57" 08.2"	20110323 確認	降雨なし	日本原子力研究開発機構
測定エリア【71】 双葉郡広野町下北沼田代前	4月11日7時53分	1.0 <sup>+2</sup>	N: 37' 12" 32.4" E: 140' 57" 08.2"	20110323 確認	降雨なし	警察(NBC対策部隊)
測定エリア【72】 いわき市久之原町久之原東	4月11日16時31分	0.5 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【72】 いわき市久之原町久之原東	4月11日11時51分	0.5 <sup>+2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【72】 いわき市久之原町久之原東	4月11日8時29分	0.4 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【73】 いわき市四倉町	4月11日16時46分	0.3 <sup>+2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【73】 いわき市四倉町	4月11日11時40分	0.9 <sup>+2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【73】 いわき市四倉町	4月11日8時43分	0.6 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【74】 いわき市小川町高萩	4月11日12時28分	0.0 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【74】 いわき市小川町高萩	4月11日11時04分	0.3 <sup>+2</sup>			降雨なし	日本原子力研究開発機構
測定エリア【75】 いわき市内郷御殿町	4月11日20時20分	0.6 <sup>+2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【75】 いわき市内郷御殿町	4月11日10時40分	0.4 <sup>+2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【75】 いわき市内郷御殿町	4月11日7時02分	0.5 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【76】 双葉郡川内村上川内早渡	4月11日11時12分	0.5 <sup>+2</sup>	N: 37' 20" 25.3" E: 140' 48" 25.7"	20110402 確認	降雨なし	警察(NBC対策部隊)
測定エリア【76】 双葉郡川内村上川内早渡	4月11日10時37分	0.5 <sup>+2</sup>	N: 37' 20" 25.3" E: 140' 48" 25.7"	20110402 確認	降雨なし	文部科学省
測定エリア【77】 いわき市小川町上小川	4月11日11時28分	0.1 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【78】 伊達郡川俣町鶴沢	4月11日6時50分	1.0 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【78】 双葉郡浪江町下津島東	4月11日16時55分	7.3 <sup>+2</sup>	N: 37' 33" 22.2" E: 140' 45" 46.9"	20110323 確認	降雨あり	警察(NBC対策部隊)
測定エリア【79】 双葉郡浪江町下津島東	4月11日14時57分	14.2 <sup>+2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	降雨なし	文部科学省
測定エリア【80】 南相馬市原町区高見町	4月11日16時04分	0.3 <sup>+2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【80】 南相馬市原町区高見町	4月11日11時25分	1.4 <sup>+2</sup>	N: 37' 33" 22.2" E: 140' 45" 46.9"	20110323 確認	降雨なし	日本原子力研究開発機構
測定エリア【80】 南相馬市原町区高見町	4月11日8時00分	0.5 <sup>+2</sup>			降雨なし	警察(NBC対策部隊)
測定エリア【81】 双葉郡浪江町東光寺北	4月11日17時05分	16.0 <sup>+2</sup>			降雨あり	警察(NBC対策部隊)
測定エリア【83】 双葉郡浪江町赤十字本町	4月11日16時45分	5.3 <sup>+2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	降雨あり	警察(NBC対策部隊)
測定エリア【83】 双葉郡浪江町赤十字本町	4月11日14時44分	53.5 <sup>+2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	降雨なし	文部科学省
測定エリア【84】 いわき市三和町差場	4月11日10時12分	0.5 <sup>+2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	降雨なし	日本原子力研究開発機構
測定エリア【85】 福島市荒井原宿	4月11日14時00分	0.5 <sup>+2</sup>	N: 37' 42" 45.0" E: 140' 22" 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【85】 福島市荒井原宿	4月11日6時00分	0.3 <sup>+2</sup>	N: 37' 42" 45.0" E: 140' 22" 59.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】 郡山市大槻町長石工門林	4月11日14時00分	1.1 <sup>+2</sup>	N: 37' 23" 57.0" E: 140' 19" 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【86】 郡山市大槻町長石工門林	4月11日6時00分	1.1 <sup>+2</sup>	N: 37' 23" 57.0" E: 140' 19" 35.0"	20110330 確認	降雨なし	防衛省
測定エリア【87】 双葉郡川内村上川内花ノ内	4月11日14時00分	0.8 <sup>+2</sup>	N: 37' 21" 42.0" E: 140' 42" 54.0"	20110330 確認	降雨あり	防衛省
測定エリア【87】 双葉郡川内村上川内花ノ内	4月11日6時00分	1.2 <sup>+2</sup>	N: 37' 21" 42.0" E: 140' 42" 54.0"	20110330 確認	降雨なし	防衛省
測定エリア【88】 福島市光が丘	4月11日17時00分	1.9 <sup>+2</sup>	N: 37' 41" 24.2" E: 140' 28" 17.4"	20110404 確認	降雨あり	防衛省
測定エリア【89】 郡山市豊田町	4月11日17時00分	2.8 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨あり	防衛省
測定エリア【101】 伊達市豊山町大石字三ノ輪	4月11日9時17分	2.2 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【102】 伊達市月鏡町月鏡字町	4月11日14時13分	1.5 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【103】 南相馬市原町区高字大及納内	4月11日12時23分	1.5 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【104】 双葉郡富良野町大字高字平橋	4月11日13時09分	2.6 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	文部科学省
測定エリア【105】 田村市藤野町古澤字寺ノ前	4月11日10時57分	0.5 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	文部科学省
測定エリア【106】 いわき市川俣町小川町小川	4月11日10時11分	0.6 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	文部科学省
測定エリア【107】 南相馬市原町区高橋字中内	4月11日12時41分	3.3 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構
測定エリア【108】 南相馬市原町区大原台	4月11日12時57分	3.7 <sup>+2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	降雨なし	日本原子力研究開発機構

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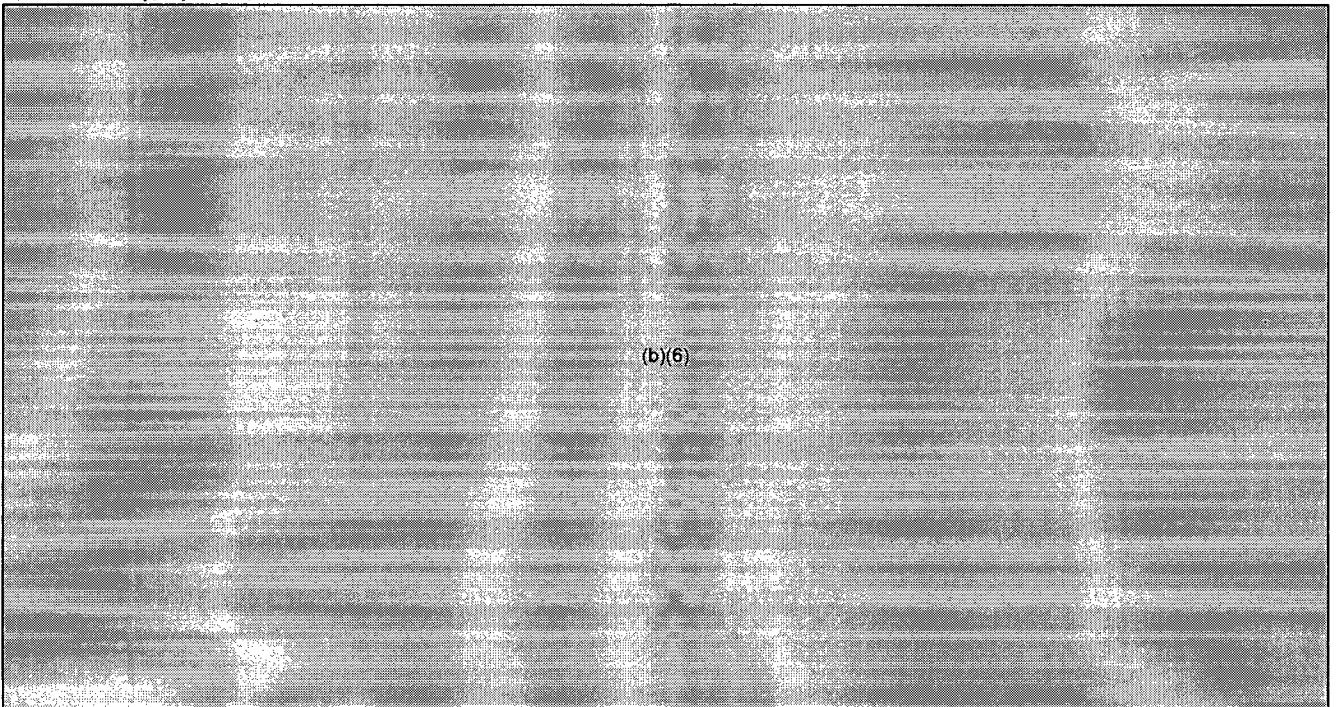
**From:** OST01 HOC  
**Sent:** Sunday, April 10, 2011 10:06 AM  
**To:** RST01 Hoc; PMT01 Hoc; PMT02 Hoc; PMT11 Hoc  
**Subject:** FW: Radiation data by MEXT  
**Attachments:** (English)20110410\_01.pdf; (unofficial)(English)20110410\_01with lat\_long.pdf; (English)20110410\_02.pdf; (English)20110410\_03.pdf; (English)20110410\_04.pdf; (unofficial)(Japanese)20110410\_04with lat\_long.pdf; (English)20110410\_05.pdf; (English)20110410\_06.pdf; (English)20110410\_07.pdf; (English)20110410\_08.pdf; (unofficial)(English)20110410\_08with lat\_long.pdf; (English)20110410\_09.pdf; (English)20110410\_10.pdf; (English)20110410\_11.pdf; (English)20110410\_12.pdf; (English)20110410\_13.pdf; (unofficial)(English)20110410\_13with lat\_long.pdf; (English)20110410\_14.pdf

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

**From:** HOO Hoc  
**Sent:** Sunday, April 10, 2011 10:05 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: Radiation data by MEXT

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

**From:** eda@mext.go.jp [mailto:eda@mext.go.jp]  
**Sent:** Sunday, April 10, 2011 9:29 AM



Subject: Radiation data by MEXT

Dear Sir,

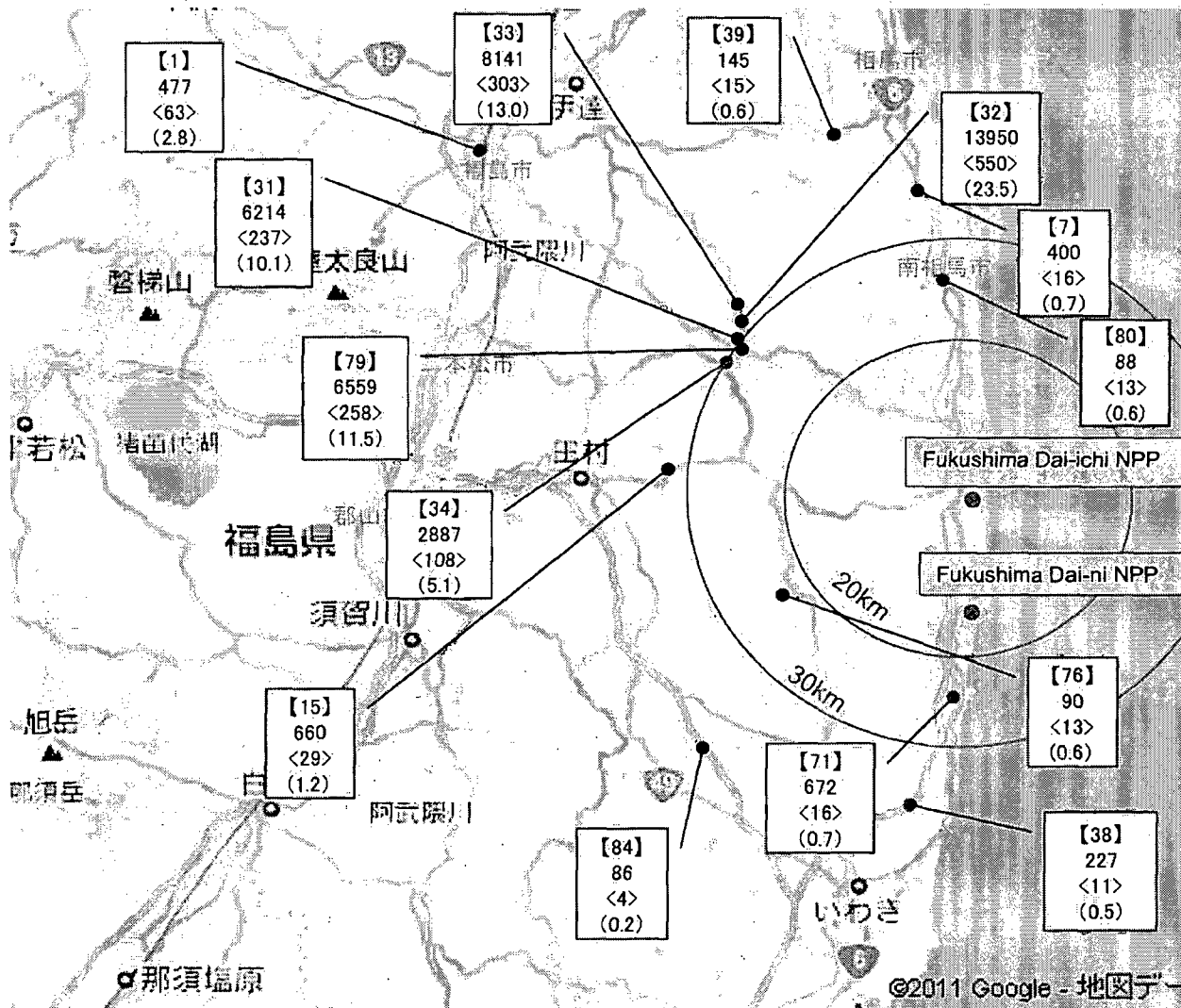
Please see attached the document.

Sincerely yours,

Kei EDA

EOC, Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan

# Readings of Integrated Dose at Monitoring Post out of Fukushima Dai-ichi NPP



## Monitoring Time

- March 23th ~ April 9th  
(Monitoring Post: 7, 31 ~ 34, 71, 79)
  - March 23th ~ 28th, April 3rd ~ 9th  
(Monitoring Post: 71)
  - March 24th ~ April 9th  
(Monitoring Post: 1, 15)
  - March 25th ~ April 1st, April 3rd ~ 9th  
(Monitoring Post: 84)
  - March 31th ~ April 1st, April 3rd ~ 9th  
(Monitoring Post: 38)
  - April 1st ~ April 9th  
(Monitoring Post: 39)
  - April 2nd ~ April 9th  
(Monitoring Post: 76)
  - April 3th ~ April 9th  
(Monitoring Post: 80)
- Monitoring Post

(explanatory note)

【 Monitoring Post number 】  
Readings of Integrated Dose ※  
<increment from the last monitoring>  
(average dose per hour)

Readings of Integrated Dose indicate that accumulation of dose from each starting date till April 9th, for 6 days to 17 days.

Unit:  $\mu$ Sv per hour



## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 13:00 April 10, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

## ○Monitoring Outputs by MEXT

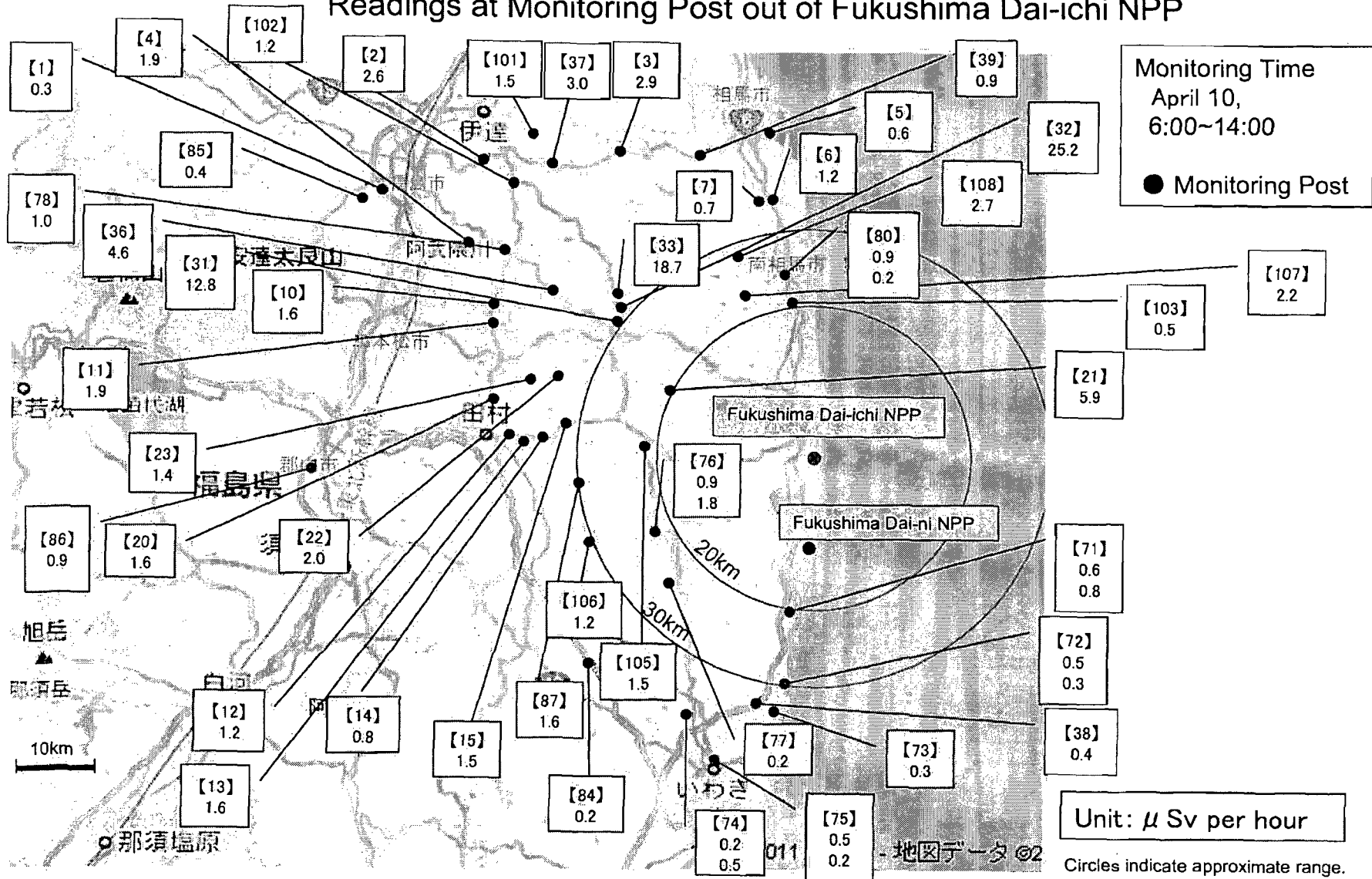
- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【1】 (About60kmNorth/West)	2011/4/10 8:30	0.3 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【2】 (About55kmNorth/West)	2011/4/10 8:53	2.6 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【3】 (About45kmNorth/West)	2011/4/10 9:47	2.9 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【4】 (About50kmNorth/West)	2011/4/10 9:14	1.9 *2	No Rain	MEXT
Reading Point 【5】 (About45kmNorth)	2011/4/10 10:24	0.6 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【6】 (About35kmNorth)	2011/4/10 10:49	1.2 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【10】 (About40kmNorth/West)	2011/4/10 9:27	1.6 *2	No Rain	MEXT
Reading Point 【11】 (About40kmNorth/West)	2011/4/10 9:35	1.9 *2	No Rain	MEXT
Reading Point 【20】 (About45kmNorth/West)	2011/4/10 9:58	1.6 *2	No Rain	MEXT
Reading Point 【21】 (About30kmWest/North/West)	2011/4/10 10:24	5.9 *2	No Rain	MEXT
Reading Point 【22】 (About35kmWest/North/West)	2011/4/10 10:12	2.0 *2	No Rain	MEXT
Reading Point 【23】 (About35kmWest/North/West)	2011/4/10 10:50	1.4 *2	No Rain	MEXT
Reading Point 【31】 (About30kmWest/North/West)	2011/4/10 10:00	12.8 *2	No Rain	MEXT
Reading Point 【32】 (About30kmNorth/West)	2011/4/10 10:38	25.2 *2	No Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h )	Weather	Reading by
Reading Point 【36】 (About40kmNorth/West)	2011/4/10 9:38	4.6 *2	No Rain	MEXT
Reading Point 【37】 (About50kmNorth/West)	2011/4/10 9:40	3.0 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【39】 (About45kmNorth)	2011/4/10 10:10	0.9 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【74】 (About35kmSouth)	2011/4/10 10:55	0.5 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【75】 (About45kmSouth)	2011/4/10 10:33	0.5 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【84】 (About40kmSouth/West)	2011/4/10 9:55	0.2 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【85】 (About60kmNorth/West)	2011/4/10 6:00	0.4 *2	No Rain	Ministry of Defence
Reading Point 【86】 (About55kmWest)	2011/4/10 6:00	0.9 *2	No Rain	Ministry of Defence
Reading Point 【87】 (About30kmWest/South/West)	2011/4/10 6:00	1.6 *2	Rain	Ministry of Defence
Reading Point 【101】 (About55kmNorth/West)	2011/4/10 9:19	1.5 *2	No Rain	JAEA (Japan Atomic Energy Agency)

# Readings at Monitoring Post out of Fukushima Dai-ichi NPP



## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 10:00 April 10, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

○Monitoring Outputs by MEXT \*Boldface and underlined readings are new.

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit: $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point <b>[1]</b> (About60kmNorth/West)	2011/4/9 16:27	<b>1.0</b> *2	Rain	MEXT
Reading Point <b>[1]</b> (About60kmNorth/West)	2011/4/9 8:35	<b>0.8</b> *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point <b>[2]</b> (About55kmNorth/West)	2011/4/9 9:03	<b>3.8</b> *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point <b>[3]</b> (About45kmNorth/West)	2011/4/9 9:54	<b>3.0</b> *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point <b>[4]</b> (About50kmNorth/West)	2011/4/9 15:10	<b>1.8</b> *2	Rain	MEXT
Reading Point <b>[5]</b> (About45kmNorth)	2011/4/9 10:32	<b>1.1</b> *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point <b>[6]</b> (About35kmNorth)	2011/4/9 10:49	<b>1.2</b> *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point <b>[7]</b> (About35kmNorth)	2011/4/9 10:56	<b>1.5</b> *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point <b>[10]</b> (About40kmNorth/West)	2011/4/9 14:54	<b>1.7</b> *2	No Rain	MEXT
Reading Point <b>[11]</b> (About40kmNorth/West)	2011/4/9 14:41	<b>1.6</b> *2	Rain	MEXT
Reading Point <b>[12]</b> (About40kmWest)	2011/4/9 12:15	<b>1.2</b> *2	Rain	MEXT
Reading Point <b>[13]</b> (About40kmWest)	2011/4/9 12:04	<b>1.0</b> *2	Rain	MEXT
Reading Point <b>[14]</b> (About35kmWest)	2011/4/9 11:54	<b>0.3</b> *2	Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit: $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【15】 (About35kmWest)	2011/4/9 11:45	1.1 *2	Rain	MEXT
Reading Point 【20】 (About45kmNorth/West)	2011/4/9 12:39	1.4 *2	Rain	MEXT
Reading Point 【22】 (About35kmWest/North/West)	2011/4/9 12:55	1.5 *2	Rain	MEXT
Reading Point 【23】 (About35kmWest/North/West)	2011/4/9 12:48	1.8 *2	Rain	MEXT
Reading Point 【31】 (About30kmWest/North/West)	2011/4/9 10:23	10.7 *2	Rain	MEXT
Reading Point 【32】 (About30kmNorth/West)	2011/4/9 10:43	26.1 *2	Rain	MEXT
Reading Point 【33】 (About30kmNorth/West)	2011/4/9 10:51	15.3 *2	Rain	MEXT
Reading Point 【34】 (About30kmNorth/West)	2011/4/9 9:47	5.1 *2	Rain	MEXT
Reading Point 【36】 (About40kmNorth/West)	2011/4/9 11:38	3.1 *2	Rain	MEXT
Reading Point 【37】 (About50kmNorth/West)	2011/4/9 9:46	4.0 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【38】 (About35kmSouth)	2011/4/9 11:26	0.7 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【39】 (About45kmNorth)	2011/4/9 10:16	1.4 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【41】 (About20kmWest)	2011/4/9 13:40	0.8 *2	Rain	Electric power company
Reading Point 【41】 (About20kmWest)	2011/4/9 9:55	0.8 *2	Rain	Electric power company
Reading Point 【42】 (About30kmWest)	2011/4/9 13:00	0.9 *2	Rain	Electric power company
Reading Point 【42】 (About30kmWest)	2011/4/9 9:43	0.9 *2	Rain	Electric power company
Reading Point 【43】 (About20kmSouth/West)	2011/4/9 15:00	0.5 *2	Rain	Electric power company
Reading Point 【43】 (About20kmSouth/West)	2011/4/9 11:00	0.4 *2	Rain	Electric power company

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【44】 (About30kmSouth)	2011/4/9 13:00	0.8 * <sup>2</sup>	Rain	Electric power company
Reading Point 【44】 (About30kmSouth)	2011/4/9 10:00	0.8 * <sup>2</sup>	Rain	Electric power company
Reading Point 【45】 (About20kmSouth)	2011/4/9 13:07	1.1 * <sup>2</sup>	Rain	Electric power company
Reading Point 【45】 (About20kmSouth)	2011/4/9 10:07	1.2 * <sup>2</sup>	Rain	Electric power company
Reading Point 【46】 (About30kmNorth/West)	2011/4/9 13:55	4.7 * <sup>2</sup>	Rain	Electric power company
Reading Point 【46】 (About30kmNorth/West)	2011/4/9 10:30	4.8 * <sup>2</sup>	Rain	Electric power company
Reading Point 【51】 (About40kmSouth/West)	2011/4/9 13:56	0.2 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【51】 (About40kmSouth/West)	2011/4/9 10:48	0.3 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【52】 (About40kmWest)	2011/4/9 14:30	0.3 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【52】 (About40kmWest)	2011/4/9 11:16	0.3 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【61】 (About40kmNorth/West)	2011/4/9 14:20	3.9 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【61】 (About40kmNorth/West)	2011/4/9 12:16	1.1 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【62】 (About40kmNorth/West)	2011/4/9 14:31	6.0 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【62】 (About40kmNorth/West)	2011/4/9 12:06	6.4 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【63】 (About45kmNorth/West)	2011/4/9 14:57	2.1 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【63】 (About45kmNorth/West)	2011/4/9 11:03	1.7 * <sup>3</sup>	Rain	Fukushima Prefecture
Reading Point 【71】 (About25kmSouth)	2011/4/9 15:30	1.8 * <sup>2</sup>	Rain	Police ( counter NBC operations unit )
Reading Point 【71】 (About25kmSouth)	2011/4/9 12:43	0.9 * <sup>2</sup>	Rain	JAEA (Japan Atomic Energy Agency)

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【71】 (About25kmSouth)	2011/4/9 8:03	1.8 *2	Rain	Police ( counter NBC operations unit )
<u>Reading Point 【72】 (About30kmSouth)</u>	<u>2011/4/9 16:05</u>	<u>0.6 *2</u>	<u>Rain</u>	<u>Police ( counter NBC operations unit )</u>
Reading Point 【72】 (About30kmSouth)	2011/4/9 12:30	0.7 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【72】 (About30kmSouth)	2011/4/9 8:36	1.0 *2	Rain	Police ( counter NBC operations unit )
<u>Reading Point 【73】 (About35kmSouth)</u>	<u>2011/4/9 16:23</u>	<u>0.9 *2</u>	<u>Rain</u>	<u>Police ( counter NBC operations unit )</u>
Reading Point 【73】 (About35kmSouth)	2011/4/9 12:11	1.2 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【73】 (About35kmSouth)	2011/4/9 9:01	1.2 *2	Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (About35kmSouth)	2011/4/9 12:53	0.3 *2	Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (About35kmSouth)	2011/4/9 11:04	0.5 *2	Rain	JAEA (Japan Atomic Energy Agency)
<u>Reading Point 【75】 (About45kmSouth)</u>	<u>2011/4/9 17:20</u>	<u>0.2 *2</u>	<u>Rain</u>	<u>Police ( counter NBC operations unit )</u>
Reading Point 【75】 (About45kmSouth)	2011/4/9 10:39	0.7 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【75】 (About45kmSouth)	2011/4/9 7:13	0.0 *2	Rain	Police ( counter NBC operations unit )
Reading Point 【76】 (About20kmSouth/West)	2011/4/9 11:41	0.0 *2	Rain	Police ( counter NBC operations unit )
Reading Point 【76】 (About20kmSouth/West)	2011/4/9 10:50	0.5 *2	Rain	MEXT
Reading Point 【77】 (About25kmSouth/West)	2011/4/9 12:01	1.7 *2	Rain	Police ( counter NBC operations unit )
<u>Reading Point 【78】 (About45kmNorth/West)</u>	<u>2011/4/9 18:27</u>	<u>1.3 *2</u>	<u>Rain</u>	<u>Police ( counter NBC operations unit )</u>
Reading Point 【78】 (About45kmNorth/West)	2011/4/9 8:00	0.2 *2	Rain	Police ( counter NBC operations unit )
Reading Point 【79】 (About30kmNorth/West)	2011/4/9 10:16	12.3 *2	Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h )	Weather	Reading by
Reading Point [79] (About30kmNorth/West)	2011/4/9 8:49	10.4 *2	Rain	Police ( counter NBC operations unit )
<u>Reading Point [80] (About25kmNorth)</u>	<u>2011/4/9 14:35</u>	<u>0.5 *2</u>	<u>Rain</u>	<u>Police ( counter NBC operations unit )</u>
Reading Point [80] (About25kmNorth)	2011/4/9 11:24	1.2 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [80] (About25kmNorth)	2011/4/9 11:05	0.5 *2	Rain	Police ( counter NBC operations unit )
Reading Point [81] (About30kmNorth/West)	2011/4/9 8:41	24.2 *2	Rain	Police ( counter NBC operations unit )
Reading Point [83] (About20kmNorth/West)	2011/4/9 10:02	47.5 *2	Rain	MEXT
Reading Point [83] (About20kmNorth/West)	2011/4/9 9:04	39.6 *2	Rain	Police ( counter NBC operations unit )
Reading Point [84] (About40kmSouth/West)	2011/4/9 10:03	0.3 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [85] (About60kmNorth/West)	2011/4/9 14:00	0.1 *2	No Rain	Ministry of Defense
Reading Point [85] (About60kmNorth/West)	2011/4/9 6:00	0.2 *2	No Rain	Ministry of Defense
Reading Point [86] (About55kmWest)	2011/4/9 14:00	0.9 *2	Rain	Ministry of Defense
Reading Point [86] (About55kmWest)	2011/4/9 6:00	1.2 *2	No Rain	Ministry of Defense
Reading Point [87] (About30kmWest/South/West)	2011/4/9 14:00	0.8 *2	Rain	Ministry of Defense
Reading Point [87] (About30kmWest/South/West)	2011/4/9 6:00	1.3 *2	Rain	Ministry of Defense
<u>Reading Point [88] (About55kmWest/North/West)</u>	<u>2011/4/9 12:00</u>	<u>1.1 *2</u>	<u>Rain</u>	<u>Ministry of Defense</u>
<u>Reading Point [89] (About60kmWest)</u>	<u>2011/4/9 12:00</u>	<u>3.5 *2</u>	<u>Rain</u>	<u>Ministry of Defense</u>
Reading Point [101] (About55kmNorth/West)	2011/4/9 9:25	1.7 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [102] (About50kmNorth/West)	2011/4/9 13:33	2.1 *2	Rain	JAEA (Japan Atomic Energy Agency)



- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h )	Weather	Reading by
Reading Point 【103】 (About20kmNorth)	2011/4/9 11:45	1.2 *2	Rain	JAEA (Japan Atomic Energy Agency)
<u>Reading Point 【104】 (About25kmWest/North/West)</u>	<u>2011/4/9 7:30</u>	<u>2.3 *2</u>	<u>Rain</u>	<u>MEXT</u>
Reading Point 【105】 (About20kmWest)	2011/4/9 11:20	0.4 *2	Rain	MEXT
Reading Point 【106】 (About30kmSouth/West)	2011/4/9 10:30	0.8 *2	Rain	MEXT
Reading Point 【107】 (About25kmNorth/North/West)	2011/4/9 12:05	3.4 *2	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【108】 (About30kmNorth/North/West)	2011/4/9 12:43	4.2 *2	Rain	JAEA (Japan Atomic Energy Agency)

## Readings of dust sampling (1 / 2)

: the readings in this thick-frame box are new.

As of 10:00 April 10, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Sampling Point	Sampling Time and Date	Radioactivity Concentration(Bq/m3)		Reading ( $\mu$ Sv/h)	Monitoring Point by monitoring car
		$^{131}\text{I}$	$^{137}\text{Cs}$		
<b>【1-1】</b> (About45kmNorth/West)	3/23 10:45~10:55	4.0	1.2	5.5	<b>【3】</b>
<b>【1-2】</b> (About40kmNorth/West)	3/23 10:50~11:10	5.2	<1.2	9.0	<b>【36】</b>
<b>【1-3】</b> (About30kmWest/North/West)	3/23 13:54~14:17	8.0	<1.4	9.4	<b>【21】</b>
<b>【1-4】</b> (About35kmWest)	3/23 12:40~13:02	2.8	<1.1	2.3	<b>【15】</b>
<b>【1-4】</b> (About35kmWest) Survey1st	3/24 10:58~11:09	3.1	<0.99	2	
<b>【1-4】</b> (About35kmWest) Survey2nd	3/24 11:58~12:09	2.4	1.3	2.8	
<b>【1-4】</b> (About35kmWest) Survey3rd	3/24 12:58~13:09	2.5	<1.2	2.5	
<b>【1-4】</b> (About35kmWest) Survey4th	3/24 13:58~14:09	2.2	1.6	2.2	
<b>【1-4】</b> (About35kmWest) Survey5th	3/24 14:58~15:09	2.8	<1.2	2.5	
<b>【1-4】</b> (About35kmWest) Survey6th	3/24 15:58~16:09	2.1	<1.0	2.2	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey1st	3/23 13:15~13:58	530.0	6.6	5.5~14.0	<b>【71】</b>
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey2nd	3/23 14:30~15:10	180.0	2.3	5.5~14.0	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey3rd	3/23 15:20~15:59	110.0	2.1	5.5~14.0	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey1st	3/24 10:06~10:44	5.9	<0.66	5.6	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey2nd	3/24 10:53~11:33	9.2	<0.71	5.6	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey3rd	3/24 11:44~12:26	12.0	1.1	5.6	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne	3/25 11:51~12:38	43.0	2.0	4.1~5.5	
<b>【1-5】</b> (About25kmSouth) Survey1st	3/25 13:12~13:42	23.0	1.4	2	
<b>【1-5】</b> (About25kmSouth) Survey2nd	3/25 14:12~14:42	19.0	1.3	2.8	
<b>【1-5】</b> (About25kmSouth) Survey3rd	3/25 15:12~15:42	24.0	2.5	2.5	
<b>【1-5】</b> (About25kmSouth) Survey4th	3/25 16:12~16:42	10.0	1.3	2.2	
<b>【1-5】</b> (About25kmSouth) Survey1st	3/26 12:47~13:21	13.0	1.3	3.9	
<b>【1-5】</b> (About25kmSouth) Survey2nd	3/26 14:21~14:57	10.0	1.5	3.9	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey1st	3/27 12:36~13:26	20.0	0.8	2.8~3.8	
<b>【1-5】</b> (About25kmSouth) Survey1st	3/27 13:58~14:33	7.1	<0.98	3.8	
<b>【1-5】</b> (About25kmSouth) Survey2nd	3/27 15:33~16:08	6.6	<1.0	3.8	
<b>【1-5】</b> (About25kmSouth) Survey3rd	3/27 16:16~16:53	10.0	<1.1	3.8	
<b>【1-5】</b> (About25kmSouth) Vehicle-Borne Survey2nd	3/27 14:43~15:18	5.5	1.2	2.8~3.8	
<b>【1-5】</b> (About25kmSouth) Survey1st	3/28 9:48~13:03	6.6	0.57	3.0	
<b>【1-5】</b> (About25kmSouth) Survey2nd	3/28 13:23~14:07	54.0	8.0	3.0	

Sampling Point	Sampling Time and Date	Radioactivity Concentration(Bq/m3)		Reading ( $\mu$ Sv/h)	Monitoring Point by monitoring car
		$^{131}\text{I}$	$^{137}\text{Cs}$		
【1-5】(About25kmSouth) Survey3rd	3/28 14:18~15:19	20.0	3.0	3.0	
【1-5】(About25kmSouth) Survey1st	3/31 12:22~13:12	24.0	4.5	2.1	
【1-5】(About25kmSouth) Survey2nd	3/31 13:17~14:01	18.0	1.3	2.0	
【1-5】(About25kmSouth) Survey3rd	3/31 14:06~14:50	13.0	1.0	1.9	
【1-5】(About25kmSouth) Survey4th	3/31 15:00~15:44	13.0	<0.79	2.0	
【1-7】(About35kmNorth) Survey1st	3/25 12:58~13:09	3.5	<0.99	3.2	【7】
【1-7】(About35kmNorth) Survey2nd	3/25 13:58~14:09	4.3	1.6	3.2	
【1-7】(About35kmNorth) Survey3rd	3/25 14:57~15:08	15.0	<0.98	3.2	
【1-7】(About35kmNorth) Survey4th	3/25 15:58~16:09	22.0	1.1	3.2	
【1-7】(About35kmNorth) Survey5th	3/26 11:27~11:38	2.9	1.0	1.5	
【1-7】(About35kmNorth) Survey6th	3/26 13:00~13:11	2.2	1.3	1.5	
【1-8】(About45kmNorth) Survey1st	3/28 13:00~16:00	19.0	3.2	0.6~1.2	【5】

Sampling Point	Sampling Time and Date	Radioactivity Concentration(Bq/m3)		Reading ( $\mu$ Sv/h)	Monitoring Point by monitoring car
		$^{131}\text{I}$	$^{137}\text{Cs}$		
【2-1】(About40kmNorth/West) Survey1st	3/29 12:50~13:45	4.2	0.73	7.0	【61】
【2-1】(About40kmNorth/West) Survey2nd	3/29 13:49~14:46	3.4	0.79	7.0	
【2-1】(About40kmNorth/West) Survey3rd	3/29 14:47~15:50	2.9	<0.74	7.0	
【2-1】(About40kmNorth/West) Survey1st	3/30 11:15~11:35	4.8	<1.8	6.7	
【2-1】(About40kmNorth/West) Survey2nd	3/30 12:15~12:35	4.7	2.00	7.2	
【2-1】(About40kmNorth/West) Survey3rd	3/30 13:15~13:35	3.4	1.80	7.0	
【2-1】(About40kmNorth/West) Survey4th	3/30 14:15~14:35	28.0	20.00	7.4	
【2-1】(About40kmNorth/West) Survey5th	3/30 15:15~15:35	7.7	1.90	7.5	
【2-4】(About25kmNorth) Survey1st	3/29 11:17~12:15	75.0	46.0	1.7	【80】
【2-4】(About25kmNorth) Survey2nd	3/29 12:15~13:15	29.0	34.0	0.4	
【2-4】(About25kmNorth) Survey3rd	3/29 13:15~14:15	32.0	23.0	0.6	
【2-4】(About25kmNorth) Survey4th	3/29 14:15~15:00	29.0	25.0	0.5	
【2-4】(About25kmNorth) Survey1st	3/30 11:09~11:29	1.8	0.5	0.0	
【2-4】(About25kmNorth) Survey2nd	3/30 12:10~12:30	1.6	0.5	0.8	
【2-4】(About25kmNorth) Survey3rd	3/30 13:10~13:30	1.2	0.4	0.2	
【2-4】(About25kmNorth) Survey4th	3/30 14:10~14:30	1.5	0.5	0.3	
【2-4】(About25kmNorth) Survey5th	3/30 15:10~15:30	1.1	<0.49	0.6	
【2-4】(About25kmNorth) Survey1st	4/1 12:33~12:48	1.5	1.0	1.2	
【2-4】(About25kmNorth) Survey2nd	4/1 13:33~13:55	2.2	0.85	1.2	
【2-4】(About25kmNorth) Survey3rd	4/1 14:33~14:53	1.9	<0.7	1.2	
【2-4】(About25kmNorth) Survey4th	4/1 15:33~15:53	1.7	1.0	1.2	
【2-7】(About35KmNorth/West)	3/29 12:00~13:00	0.95	0.59	8.0	
【2-7】(About35KmNorth/West)	3/29 13:00~14:00	0.66	<0.70	8.0	
【2-7】(About35KmNorth/West)	3/29 14:00~15:00	0.75	<0.76	8.0	
【2-7】(About35KmNorth/West)	3/29 15:00~16:00	0.90	<0.58	8.0	
【2-7】(About35KmNorth/West)	3/29 16:00~17:00	0.69	<0.59	8.0	
【2-7】(About35KmNorth/West) Survey1st	3/30 12:11~12:31	1.9	1.0	13.9	
【2-7】(About35KmNorth/West) Survey2nd	3/30 13:11~13:33	1.3	1.0	15.2	
【2-7】(About35KmNorth/West) Survey3rd	3/30 14:11~14:32	89.0	91.0	14.6	
【2-7】(About35KmNorth/West) Survey4th	3/30 15:11~15:32	180.0	140.0	15.0	
【3-1】(About30kmNorth/West) Survey1st	3/24 11:20~11:41	43.0	2.0	30	
【3-1】(About30kmNorth/West) Survey2nd	3/24 12:20~12:40	3.3	<0.98	30	
【3-1】(About30kmNorth/West) Survey3rd	3/24 13:20~13:42	3.8	<1.2	30	
【3-1】(About30kmNorth/West) Survey4th	3/24 14:20~14:42	3.8	1.5	30	
【3-1】(About30kmNorth/West) Survey5th	3/24 15:20~15:42	3.3	1.7	30	

Sampling Point	Sampling Time and Date	Radioactivity Concentration(Bq/m <sup>3</sup> )		Reading (μSv/h)	Monitoring Point by monitoring car
		<sup>131</sup> I	<sup>137</sup> Cs		
【3-1】(About30kmNorth/West) Survey1st	3/26 11:38~12:00	5.8	4.8	26	【33】
【3-1】(About30kmNorth/West) Survey2nd	3/26 13:18~13:39	5.2	2.2	26	
【3-1】(About30kmNorth/West) Survey1st	3/28 11:31~11:52	2.6	1.8	26	
【3-1】(About30kmNorth/West) Survey2nd	3/28 12:53~13:15	2.7	<1.2	26	
【3-1】(About30kmNorth/West) Survey1st	3/29 11:18~11:40	2.4	1.1	18.9	
【3-1】(About30kmNorth/West) Survey2nd	3/29 13:23~13:50	1.9	<1.0	-	
【76】(About20kmSouth/West) Survey1st	4/2 11:22~11:47	4.5	1.1	1.0	
【76】(About20kmSouth/West) Survey2nd	4/2 11:54~12:36	2.0	<0.39	1.0	
【76】(About20kmSouth/West) Survey3rd	4/2 12:42~13:47	1.3	0.45	1.0	
【76】(About20kmSouth/West) Survey4th	4/2 13:50~14:56	1.6	<0.33	1.0	
【76】(About20kmSouth/West) Survey5th	4/2 14:59~16:03	1.6	<0.33	1.0	
【76】(About20kmSouth/West) Survey1st	4/3 11:35~12:34	2.1	0.56	0.7	
【76】(About20kmSouth/West) Survey2nd	4/3 12:36~13:35	1.4	<0.31	0.7	
【76】(About20kmSouth/West) Survey3rd	4/3 13:38~14:37	2.4	<0.39	0.7	
【76】(About20kmSouth/West) Survey1st	4/4 12:00~13:00	1.3	1.60	0.8	
【76】(About20kmSouth/West) Survey2nd	4/4 13:08~13:57	2.0	1.10	0.8	
【76】(About20kmSouth/West) Survey3rd	4/4 14:01~14:50	2.3	0.94	0.8	

Readings are already announced in "Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP" air dose rate: It has announced separately.

## Readings of Integrated Dose at Monitoring Post out of Fukushima Dai-ichi NPP

As of 10:00 April 10, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

\* 1 the readings are measured by pocket dosimeter

Monitoring Post (length from NPP)	Installation Date and Time	Date and Time (last monitoring) (x)	Readings (last monitoring) (a) ( $\mu$ Sv)	Monitoring Date and Time (y)	Reading of Integrated Dose (b) ( $\mu$ Sv)	Accumulated Time ( $z = y - x$ )	Reading of integrated Dose ( $c = b - a$ ) ( $\mu$ Sv)	Weather
Monitoring Post 【31】 (About30kmWest/North/West)	2011/3/23 11:43	2011/4/8 11:00	5977 *1	2011/4/9 10:27	6214 *1	23hour27minutes	237 (10.1 $\mu$ Sv/h)	Rain
Monitoring Post 【32】 (About30kmNorth/West)	2011/3/23 12:14	2011/4/8 11:20	13400 *1	2011/4/9 10:45	13950 *1	23hour25minutes	550 (23.5 $\mu$ Sv/h)	Rain
Monitoring Post 【33】 (About30kmNorth/West)	2011/3/23 12:32	2011/4/8 11:35	7838 *1	2011/4/9 10:53	8141 *1	23hour18minutes	303 (13.0 $\mu$ Sv/h)	Rain
Monitoring Post 【34】 (About30kmNorth/West)	2011/3/23 13:08	2011/4/8 12:26	2779 *1	2011/4/9 9:49	2887 *1	21hour23minutes	108 (5.1 $\mu$ Sv/h)	Rain
Monitoring Post 【38】 (About35kmSouth)	2011/3/31 16:23	2011/4/8 11:46	216 *1	2011/4/9 11:26	227 *1	23hour40minutes	11 (0.5 $\mu$ Sv/h)	Rain
Monitoring Post 【71】 (About25kmSouth)	2011/3/23 13:00	2011/4/8 13:05	656 *1	2011/4/9 12:43	672 *1	23hour38minutes	16 (0.7 $\mu$ Sv/h)	Rain
Monitoring Post 【79】 (About30kmNorth/West)	2011/3/23 14:09	2011/4/8 11:56	6301 *1	2011/4/9 10:18	6559 *1	22hour22minutes	258 (11.5 $\mu$ Sv/h)	Rain
Monitoring Post 【7】 (About35kmNorth)	2011/3/23 12:06	2011/4/8 11:40	384 *1	2011/4/9 10:57	400 *1	23hour17minutes	16 (0.7 $\mu$ Sv/h)	Rain
Monitoring Post 【1】 (About60kmNorth/West)	2011/3/24 15:20	2011/4/8 15:56	414 *1	2011/4/9 14:27	477 *1	22hour31minutes	63 (2.8 $\mu$ Sv/h)	No Rain
Monitoring Post 【15】 (About35kmWest)	2011/3/24 10:58	2011/4/8 11:00	631 *1	2011/4/9 11:40	660 *1	24hour40minutes	29.0 (1.2 $\mu$ Sv/h)	Rain
Monitoring Post 【84】 (About40kmSouth/West)	2011/3/25 10:40	2011/4/8 10:04	82 *1	2011/4/9 10:03	86 *1	23hour59minutes	4 (0.2 $\mu$ Sv/h)	Rain
Monitoring Post 【39】 (About45kmNorth)	2011/4/1 10:45	2011/4/8 10:47	130 *1	2011/4/9 10:18	145 *1	23hour31minutes	15 (0.6 $\mu$ Sv/h)	Rain
Monitoring Post 【76】 (About20kmSouth/West)	2011/4/2 11:35	2011/4/8 11:41	77 *1	2011/4/9 10:55	90 *1	23hour14minutes	13 (0.6 $\mu$ Sv/h)	Rain
Monitoring Post 【80】 (About25kmNorth)	2011/4/3 11:56	2011/4/8 12:19	75 *1	2011/4/9 11:25	88 *1	23hour06minutes	13 (0.6 $\mu$ Sv/h)	Rain

notes: The parenthesis figures in the column "Integrated Dose" indicates the values of readings of integrated dose divided by accumulated time (c/z).

• Reading by MEXT

• The figures of 0.0 in the column "Date and Time (last monitoring)" indicate that there was new installation in the area.

## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 13:00 April 10, 2011  
Ministry of Education, Culture, Sports, Science and Technology (MEXT)

## ○Monitoring Outputs by MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置			測定位置 の備考	Weather	Reading by
			N	E	W			
Reading Point [1] (About 60km North/West)	2011/4/10 8:30	0.3 *2	37'	44'	12.6''	20110330 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [2] (About 55km North/West)	2011/4/10 8:53	2.6 *2	37'	41'	12.7''	20110330 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [3] (About 45km North/West)	2011/4/10 9:47	2.9 *2	37'	45'	40.5''	20110330 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [4] (About 50km North/West)	2011/4/10 9:14	1.9 *2	37'	39'	30.0''	20110330 確認	No Rain	MEXT
Reading Point [5] (About 45km North)	2011/4/10 10:24	0.6 *2	37'	47'	17.4''	20110330 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [6] (About 35km North)	2011/4/10 10:49	1.2 *2	37'	42'	09.5''	20110330 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [10] (About 40km North/West)	2011/4/10 9:27	1.6 *2	37'	36'	02.9''	20110403 確認	No Rain	MEXT
Reading Point [11] (About 40km North/West)	2011/4/10 9:35	1.9 *2	37'	34'	00.0''	20110330 確認	No Rain	MEXT
Reading Point [20] (About 45km North/West)	2011/4/10 9:58	1.6 *2	37'	29'	24.2''	20110330 確認	No Rain	MEXT
Reading Point [21] (About 30km West/North/West)	2011/4/10 10:24	5.9 *2	37'	30'	28.7''	20110330 確認	No Rain	MEXT
Reading Point [22] (About 35km West/North/West)	2011/4/10 10:12	2.0 *2	37'	30'	41.3''	20110330 確認	No Rain	MEXT
Reading Point [23] (About 35km West/North/West)	2011/4/10 10:50	1.4 *2	37'	30'	18.9''	20110330 確認	No Rain	MEXT
Reading Point [31] (About 30km West/North/West)	2011/4/10 10:00	12.8 *2	37'	33'	03.2''	20110330 確認	No Rain	MEXT
Reading Point [32] (About 30km North/West)	2011/4/10 10:38	25.2 *2	37'	33'	03.2''	20110330 確認	No Rain	MEXT
Reading Point [36] (About 40km North/West)	2011/4/10 9:38	4.6 *2	37'	36'	20.6''	20110331 確認	No Rain	MEXT
Reading Point [37] (About 50km North/West)	2011/4/10 9:40	3.0 *2	37'	45'	06.7''	20110402 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point [39] (About 45km North)	2011/4/10 10:10	0.9 *2	37'	45'	52.7''	20110402 確認	No Rain	JAEA (Japan Atomic Energy Agency)

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置	測定位置 の備考	Weather	Reading by
Reading Point 【74】 (About35kmSouth)	2011/4/10 10:55	0.5 *2			No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【75】 (About45kmSouth)	2011/4/10 10:33	0.5 *2	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【84】 (About40kmSouth/West)	2011/4/10 9:55	0.2 *2	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330 確認	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【85】 (About60kmNorth/West)	2011/4/10 6:00	0.4 *2	N: 37° 42' 45.0" E: 140° 22' 59.0"	20110330 確認	No Rain	Ministry of Defence
Reading Point 【86】 (About55kmWest)	2011/4/10 6:00	0.9 *2	N: 37° 23' 57.0" E: 140° 19' 35.0"	20110330 確認	No Rain	Ministry of Defence
Reading Point 【87】 (About30kmWest/South/West)	2011/4/10 6:00	1.6 *2	N: 37° 21' 42.0" E: 140° 42' 54.0"	20110330 確認	Rain	Ministry of Defence
Reading Point 【101】 (About55kmNorth/West)	2011/4/10 9:19	1.5 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	20110404 確認	No Rain	JAEA (Japan Atomic Energy Agency)



# Monitoring data at Ibaraki prefecture(1/1)

MEXT

2011/4/10 13:00

μ Sv/h

Date	JAEA nuclear science research institute (Tokai-village in Ibaraki-prefecture)	JAEA Nuclear fuel cycle engineering laboratory (Tokai-village in Ibaraki-prefecture)	Yayoi in Tokyo University (Tokai-village in Ibaraki-prefecture)
4/9			
0:00	1.14	0.64	1.01
1:00	1.14	0.64	1.06
2:00	1.15	0.64	0.94
3:00	1.14	0.64	1.05
4:00	1.14	0.64	0.86
5:00	1.14	0.64	1.00
6:00	1.14	0.64	0.90
7:00	1.14	0.64	0.99
8:00	1.14	0.64	0.97
9:00	1.13	0.63	0.95
10:00	1.13	0.63	0.91
11:00	1.13	0.63	0.95
12:00	1.13	0.63	0.98
13:00	1.12	0.63	0.96
14:00	1.13	0.63	0.97
15:00	1.13	0.63	0.92
16:00	1.12	0.63	0.93
17:00	1.12	0.62	0.94
18:00	1.12	0.62	0.99
19:00	1.11	0.62	1.03
20:00	1.11	0.62	0.92
21:00	1.11	0.62	0.94
22:00	1.11	0.62	0.92
23:00	1.11	0.61	1.01
4/10			
0:00	1.11	0.61	0.99
1:00	1.11	0.61	0.91
2:00	1.11	0.62	1.04
3:00	1.11	0.62	0.95
4:00	1.11	0.61	0.97
5:00	1.11	0.62	0.92
6:00	1.11	0.62	0.98
7:00	1.12	0.62	0.90
8:00	1.11	0.62	0.93
9:00	1.12	0.62	1.00
10:00	1.11	0.62	
11:00	1.11	0.62	
12:00	1.11	0.61	

※The readings are measured once every hour from March 24th.

The readings of JAEA nuclear science research institute and JAEA Nuclear fuel cycle engineering laboratory are also put on their websites in below.

JAEA nuclear science research institute

<http://erms.jaea.go.jp/Chart.htm>

JAEA Nuclear fuel cycle engineering laboratory

[http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl\\_10mStPo01.html](http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl_10mStPo01.html)

Readings of radioactivity level in drinking water by prefecture  
(be collected in April 9, 2011)

2011.4.10 13:00

(Bq/kg)

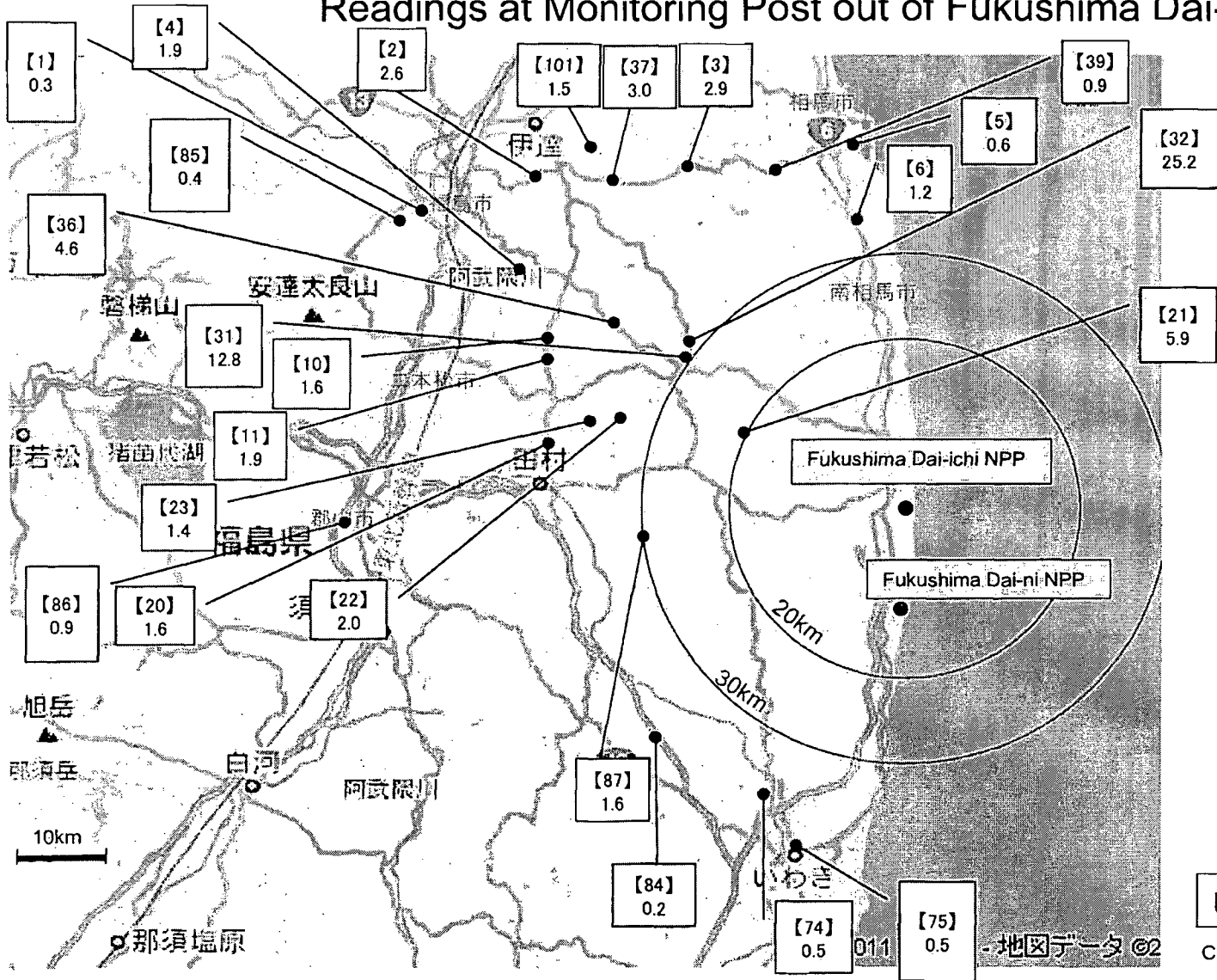
	Prefecture (City)	Drinking Water		Remarks
		I-131	Cs-134,Cs-137	
1	Hokkaido (Sapporo City)	Not Detectable	Not Detectable	
2	Aomori (Aomori City)	Not Detectable	Not Detectable	
3	Iwate (Morioka City)	Not Detectable	Not Detectable	
4	Miyagi	-	-	*Refer to the website of Miyagi Pref ( <a href="http://www.pref.miyagi.jp/gentai/Press/PressH230315.html">http://www.pref.miyagi.jp/gentai/Press/PressH230315.html</a> ) <a href="http://www.pref.miyagi.jp/gentai/Press/PressH230315.html">http://www.pref.miyagi.jp/gentai/Press/PressH230315.html</a> )
5	Akita (Akita City)	Not Detectable	Not Detectable	
6	Yamagata (Yamagata City)	Not Detectable	Not Detectable	
7	Fukushima	-	-	*Refer to the website of Fukushima Pref ( <a href="http://www.pref.fukushima.jp/j/index.htm">http://www.pref.fukushima.jp/j/index.htm</a> )
8	Ibaraki (Hitachinaka City)	1.3 (Under the reference value)	Not Detectable	
9	Tochigi (Utsunomiya City)	4.0 (Under the reference value)	3.7 (Under the reference value)	
10	Gunma (Maebashi City)	0.98 (Under the reference value)	Not Detectable	
11	Saitama (Saitama City)	0.79 (Under the reference value)	0.49 (Under the reference value)	
12	Chiba (Ichihara City)	Not Detectable	0.18 (Under the reference value)	
13	Tokyo (Shinjuku Ward)	1.0 (Under the reference value)	0.26 (Under the reference value)	
14	Kanagawa (Chigasaki City)	0.54 (Under the reference value)	Not Detectable	
15	Niigata (Niigata City)	0.32 (Under the reference value)	Not Detectable	
16	Toyama (Imizu City)	Not Detectable	Not Detectable	
17	Ishikawa (Kanazawa City)	Not Detectable	Not Detectable	
18	Fukui (Fukui City)	Not Detectable	Not Detectable	
19	Yamanashi (Kofu City)	Not Detectable	Not Detectable	
20	Nagano (Nagano City)	Not Detectable	Not Detectable	
21	Gifu (Kakamigahara City)	Not Detectable	Not Detectable	
22	Shizuoka (Shizuoka City)	Not Detectable	Not Detectable	
23	Aichi (Nagoya City)	Not Detectable	Not Detectable	
24	Mie (Yokkaichi City)	Not Detectable	Not Detectable	
25	Shiga (Otsu City)	Not Detectable	Not Detectable	
26	Kyoto (Kyoto City)	Not Detectable	Not Detectable	
27	Osaka (Osaka City)	Not Detectable	Not Detectable	
28	Hyogo (Kobe City)	Not Detectable	Not Detectable	
29	Nara (Nara City)	Not Detectable	Not Detectable	
30	Wakayama (Wakayama City)	Not Detectable	Not Detectable	
31	Tottori (Tohaku District)	Not Detectable	Not Detectable	
32	Shimane (Matsue City)	Not Detectable	Not Detectable	
33	Okayama (Okayama City)	Not Detectable	Not Detectable	
34	Hiroshima (Hiroshima City)	Not Detectable	Not Detectable	
35	Yamaguchi (Ube City)	Not Detectable	Not Detectable	
36	Tokushima (Tokushima City)	Not Detectable	Not Detectable	
37	Kagawa (Takamatsu City)	Not Detectable	Not Detectable	
38	Ehime (Yawatahama City)	Not Detectable	Not Detectable	
39	Kochi (Kochi City)	Not Detectable	Not Detectable	
40	Fukuoka (Dazaifu City)	Not Detectable	Not Detectable	
41	Saga (Saga City)	Not Detectable	Not Detectable	
42	Nagasaki (Omura City)	Not Detectable	Not Detectable	
43	Kumamoto (Uto City)	Not Detectable	Not Detectable	
44	Oita (Oita City)	Not Detectable	Not Detectable	
45	Miyazaki (Miyazaki City)	Not Detectable	Not Detectable	
46	Kagoshima (Kagoshima City)	Not Detectable	Not Detectable	
47	Okinawa (Naha City)	Not Detectable	Not Detectable	

\*These figures are estimated as 1Bq/liter = 1Bq/kg

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

\*"Emergency Preparedness for Nuclear Facilities (The Nuclear Safety Commission of Japan)". The index of drinking water based on the indicator about the restriction of food intake, I-131: More than 300Bq/kg, Cs-137: More than 200Bq/kg

# Readings at Monitoring Post out of Fukushima Dai-ichi NPP



Monitoring Time  
 April 10,  
 6:00~11:00  
 ● Monitoring Post

Unit: μSv per hour

Circles indicate approximate range.

Reading of environmental radioactivity level by prefecture

2011.4.10 13:00

( $\mu$  Sv/h)

	Prefecture(City)	4/9														Usual Value Band		
		9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23		23-24	
1	Hokkaido(Sapporo)	0.029	0.029	0.028	0.029	0.028	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.02	~0.105
2	Aomori(Aomori)	0.027	0.027	0.029	0.035	0.034	0.031	0.028	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.017	~0.102
3	Iwate(Morioka)	0.031	0.032	0.031	0.030	0.029	0.027	0.025	0.024	0.024	0.024	0.024	0.024	0.025	0.025	0.025	0.014	~0.084
4	Miyagi(Sendai)	0.088	0.086	0.084	0.084	0.085	0.085	0.085	0.084	0.083	0.083	0.082	0.082	0.082	0.082	0.081	0.0176	~0.0513
5	Akita(Akita)	0.041	0.040	0.041	0.041	0.042	0.039	0.036	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.022	~0.086
6	Yamagata(Yamagata)	0.060	0.059	0.059	0.059	0.058	0.057	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.056	0.025	~0.082
7	Fukushima(Fukushima)	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	0.037	~0.046
8	Ibaraki(Mito)	0.155	0.153	0.154	0.152	0.150	0.149	0.149	0.150	0.151	0.152	0.153	0.151	0.150	0.151	0.149	0.036	~0.056
9	Tochigi(Utsunomiya)	0.080	0.080	0.080	0.079	0.077	0.077	0.078	0.077	0.075	0.075	0.075	0.074	0.074	0.074	0.074	0.030	~0.067
10	Gunma(Maebashi)	0.044	0.043	0.043	0.043	0.043	0.044	0.043	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.017	~0.049
11	Saitama(Saitama)	0.065	0.065	0.065	0.065	0.065	0.066	0.066	0.066	0.066	0.066	0.065	0.066	0.069	0.070	0.068	0.031	~0.060
12	Chiba(Ishihara)	0.058	0.058	0.059	0.058	0.058	0.058	0.057	0.059	0.058	0.057	0.057	0.057	0.058	0.059	0.058	0.022	~0.044
13	Tokyo(Shinjuku)	0.084	0.085	0.085	0.084	0.084	0.084	0.083	0.083	0.084	0.084	0.084	0.084	0.083	0.083	0.083	0.028	~0.079
14	Kanagawa(Chigasaki)	0.060	0.061	0.061	0.061	0.061	0.059	0.058	0.058	0.058	0.058	0.058	0.059	0.059	0.059	0.059	0.035	~0.069
15	Niigata(Niigata)	0.052	0.054	0.058	0.060	0.057	0.051	0.048	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.031	~0.153
16	Toyama(Imizu)	0.051	0.053	0.050	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.047	0.048	0.048	0.048	0.029	~0.147
17	Ishikawa(Kanazawa)	0.053	0.051	0.048	0.049	0.048	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.0291	~0.1275
18	Fukui(Fukui)	0.052	0.050	0.047	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.046	0.046	0.032	~0.097
19	Yamanashi(Kohu)	0.045	0.044	0.044	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.044	0.044	0.044	0.044	0.040	~0.066
20	Nagano(Nagano)	0.045	0.044	0.043	0.045	0.048	0.046	0.043	0.042	0.042	0.042	0.043	0.043	0.043	0.042	0.043	0.0299	~0.0974
21	Gifu(Kakamigahara)	0.064	0.062	0.061	0.061	0.060	0.061	0.060	0.060	0.060	0.060	0.060	0.061	0.060	0.060	0.061	0.057	~0.110
22	Shizuoka(Shizuoka)	0.049	0.048	0.047	0.044	0.043	0.041	0.041	0.040	0.040	0.040	0.041	0.040	0.040	0.040	0.040	0.0281	~0.0765
23	Aichi(Nagoya)	0.041	0.041	0.040	0.039	0.040	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.035	~0.074
24	Mie(Yokkaichi)	0.047	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0416	~0.0789
25	Shiga(Otsu)	0.035	0.034	0.034	0.034	0.033	0.033	0.032	0.033	0.032	0.032	0.033	0.032	0.032	0.033	0.033	0.031	~0.061
26	Kyoto(Kyoto)	0.040	0.038	0.038	0.038	0.038	0.037	0.038	0.037	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.033	~0.087
27	Osaka(Osaka)	0.044	0.043	0.042	0.042	0.042	0.042	0.043	0.042	0.043	0.042	0.043	0.042	0.042	0.042	0.042	0.042	~0.061
28	Hyogo(Kobe)	0.038	0.040	0.039	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.035	~0.076
29	Nara(Nara)	0.054	0.050	0.048	0.048	0.047	0.048	0.048	0.047	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.046	~0.080
30	Wakayama(Wakayama)	0.031	0.032	0.032	0.032	0.032	0.031	0.031	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.031	0.031	~0.056
31	Tottori(Tohhaku)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.062	0.063	0.063	0.063	0.064	0.064	0.036	~0.110
32	Shimane(Matsue)	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.046	0.046	0.037	~0.131
33	Okayama(Okayama)	0.049	0.049	0.048	0.049	0.049	0.049	0.048	0.048	0.048	0.049	0.048	0.048	0.049	0.048	0.048	0.043	~0.104
34	Hiroshima(Hiroshima)	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.047	0.047	0.046	0.047	0.046	0.046	0.047	0.047	0.035	~0.069
35	Yamaguchi(Yamaguchi)	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.091	0.091	0.091	0.092	0.092	0.084	~0.128
36	Tokushima(Tokushima)	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.037	~0.067
37	Kagawa(Takamastu)	0.062	0.062	0.054	0.056	0.060	0.059	0.053	0.055	0.059	0.059	0.053	0.057	0.062	0.060	0.054	0.051	~0.077
38	Ehime(Matsuyama)	0.048	0.048	0.048	0.048	0.048	0.047	0.048	0.047	0.047	0.047	0.047	0.048	0.049	0.049	0.049	0.045	~0.074
39	Kochi(Kochi)	0.026	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.026	0.026	0.026	0.026	0.019	~0.054
40	Fukuoka(Dazaifu)	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.034	~0.079
41	Saga(Saga)	0.040	0.040	0.040	0.040	0.040	0.039	0.039	0.039	0.039	0.039	0.040	0.040	0.040	0.040	0.040	0.037	~0.086
42	Nagasaki(Ohmura)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.027	~0.069
43	Kumamoto(Uto)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.021	~0.067
44	Oita(Oita)	0.049	0.050	0.050	0.049	0.049	0.049	0.050	0.049	0.049	0.049	0.049	0.049	0.049	0.050	0.050	0.048	~0.085
45	Miyazaki(Miyazaki)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.0243	~0.0664
46	Kagoshima(Kagoshima)	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.035	0.0306	~0.0943
47	Okinawa(Uruma)	0.021	0.021	0.021	0.020	0.020	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133	~0.0575

\*Figures for Miyagi Prefecture are measured by transportable monitoring post.

Moreover, the value of the fixed mount type monitoring post set up in Sendai City is described about the range of the value ordinary of the past.

\*In Fukushima Prefecture, the monitoring post in Futaba-gun is located at an evacuated area, since it is difficult to measure, figures were measured in Momijiyama (Fukushima City) as an alternative.

\*In Shimane Prefecture, readings are measured by alternative machine from 5pm on April 4 because of setting up the equipment.

\*These figures are estimated as  $1 \mu$  Gy/h= $1 \mu$  Sv/h.

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

Usual value band means a range of the maximum and minimum value observed before the earthquake.

\*The data, usual value band of Gunma Pref., Yamanashi Pref. and Kochi Pref., are corrected from the version released on April 9 19:00.

Reading of environmental radioactivity level by prefecture

2011.4.10 13:00

( $\mu$  Sv/h)

	Prefecture(City)	4/10									Usual Value Band
		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	
1	Hokkaido(Sapporo)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.02~0.105
2	Aomori(Aomori)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.017~0.102
3	Iwate(Morioka)	0.025	0.025	0.024	0.025	0.025	0.026	0.026	0.026	0.025	0.014~0.084
4	Miyagi(Sendai)	0.082	0.081	0.080	0.080	0.079	0.078	0.078	0.081	0.084	0.0176~0.0513
5	Akita(Akita)	0.035	0.035	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.022~0.086
6	Yamagata(Yamagata)	0.056	0.056	0.056	0.057	0.056	0.057	0.057	0.056	0.058	0.025~0.082
7	Fukushima(Fukushima)	2.200	2.200	2.200	2.100	2.100	2.200	2.200	2.200	2.200	0.037~0.046
8	Ibaraki(Mito)	0.147	0.147	0.149	0.147	0.148	0.150	0.149	0.150	0.149	0.036~0.056
9	Tochigi(Utsunomiya)	0.074	0.074	0.074	0.074	0.074	0.074	0.074	0.075	0.075	0.030~0.067
10	Gunma(Maebashi)	0.042	0.042	0.042	0.042	0.043	0.042	0.042	0.042	0.042	0.017~0.049
11	Saitama(Saitama)	0.066	0.065	0.065	0.065	0.064	0.064	0.064	0.065	0.064	0.031~0.060
12	Chiba(Ishihara)	0.057	0.057	0.057	0.059	0.058	0.058	0.058	0.057	0.057	0.022~0.044
13	Tokyo(Shinjuku)	0.083	0.083	0.083	0.083	0.083	0.083	0.082	0.083	0.083	0.028~0.079
14	Kanagawa(Chigasaki)	0.059	0.059	0.059	0.059	0.059	0.059	0.058	0.058	0.058	0.035~0.069
15	Niigata(Niigata)	0.047	0.048	0.048	0.048	0.048	0.048	0.047	0.048	0.047	0.031~0.153
16	Toyama(Imizu)	0.048	0.048	0.048	0.049	0.049	0.049	0.049	0.049	0.049	0.029~0.147
17	Ishikawa(Kanazawa)	0.048	0.047	0.048	0.047	0.048	0.047	0.048	0.048	0.047	0.0291~0.1275
18	Fukui(Fukui)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.032~0.097
19	Yamanashi(Kofu)	0.044	0.044	0.044	0.044	0.045	0.044	0.045	0.044	0.044	0.040~0.068
20	Nagano(Nagano)	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.0299~0.0974
21	Gifu(Kakamigahara)	0.061	0.060	0.061	0.061	0.061	0.062	0.061	0.062	0.062	0.057~0.110
22	Shizuoka(Shizuoka)	0.040	0.039	0.039	0.039	0.039	0.038	0.039	0.039	0.040	0.0281~0.0765
23	Aichi(Nagoya)	0.039	0.039	0.039	0.039	0.040	0.040	0.040	0.040	0.040	0.035~0.074
24	Mie(Yokkaichi)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0416~0.0789
25	Shiga(Otsu)	0.034	0.035	0.035	0.035	0.035	0.034	0.034	0.034	0.034	0.031~0.061
26	Kyoto(Kyoto)	0.038	0.038	0.038	0.038	0.038	0.038	0.039	0.039	0.039	0.033~0.087
27	Osaka(Osaka)	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.043	0.042	0.042~0.061
28	Hyogo(Kobe)	0.036	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.035~0.076
29	Nara(Nara)	0.048	0.048	0.048	0.049	0.048	0.049	0.049	0.048	0.048	0.046~0.080
30	Wakayama(Wakayama)	0.031	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.031~0.056
31	Tottori(Tohhaku)	0.063	0.063	0.064	0.064	0.063	0.063	0.063	0.063	0.063	0.036~0.110
32	Shimane(Matsue)	0.046	0.046	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.037~0.131
33	Okayama(Okayama)	0.049	0.049	0.050	0.050	0.051	0.051	0.051	0.051	0.050	0.043~0.104
34	Hiroshima(Hiroshima)	0.047	0.048	0.048	0.048	0.049	0.049	0.049	0.049	0.050	0.035~0.069
35	Yamaguchi(Yamaguchi)	0.092	0.093	0.093	0.094	0.094	0.094	0.094	0.095	0.095	0.084~0.128
36	Tokushima(Tokushima)	0.038	0.038	0.038	0.038	0.039	0.039	0.039	0.039	0.039	0.037~0.067
37	Kagawa(Takamastu)	0.058	0.063	0.062	0.055	0.061	0.068	0.065	0.058	0.059	0.051~0.077
38	Ehime(Matsuyama)	0.049	0.049	0.049	0.050	0.050	0.050	0.049	0.049	0.049	0.045~0.074
39	Kochi(Kochi)	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.019~0.054
40	Fukuoka(Dazaifu)	0.037	0.037	0.037	0.036	0.037	0.037	0.037	0.037	0.037	0.034~0.079
41	Saga(Saga)	0.040	0.040	0.040	0.041	0.041	0.041	0.041	0.041	0.040	0.037~0.086
42	Nagasaki(Ohmura)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.027~0.069
43	Kumamoto(Uta)	0.027	0.027	0.028	0.028	0.028	0.029	0.029	0.029	0.029	0.021~0.067
44	Oita(Oita)	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.051	0.051	0.048~0.085
45	Miyazaki(Miyazaki)	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.0243~0.0664
46	Kagoshima(Kagoshima)	0.035	0.035	0.035	0.035	0.035	0.036	0.036	0.036	0.035	0.0306~0.0943
47	Okinawa(Uruma)	0.021	0.021	0.021	0.022	0.021	0.021	0.021	0.021	0.021	0.0133~0.0575

\*Figures for Miyagi Prefecture are measured by transportable monitoring post.

Moreover, the value of the fixed mount type monitoring post set up in Sendai City is described about the range of the value ordinary of the past.

\*In Fukushima Prefecture, the monitoring post in Futaba-gun is located at an evacuated area, since it is difficult to measure, figures were measured in Momijiyama (Fukushima City) as an alternative.

\* In Shimane Prefecture, readings are measured by alternative machine from 5pm on April 4 because of setting up the equipment.

\*These figures are estimated as  $1 \mu$  Gy/h= $1 \mu$  Sv/h.

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

Usual value band means a range of the maximum and minimum value observed before the earthquake.

\*The data, usual value band of Gunma Pref., Yamanashi Pref. and Kochi Pref., are corrected from the version released on April 9 19:00.

## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 10:00 April 10, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Monitoring Outputs by MEXT \*Boldface and underlined readings are new.

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置			測定位置 の備考	Weather	Reading by
Reading Point 【1】 (About60kmNorth/West)	2011/4/9 16:27	1.0 * <sup>2</sup>	N: 37'	44'	12.6"	20110330 確認	Rain	MEXT
			E: 140'	28'	02.9"			
Reading Point 【1】 (About60kmNorth/West)	2011/4/9 8:35	0.8 * <sup>2</sup>	N: 37'	44'	12.6"	20110330 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	28'	02.9"			
Reading Point 【2】 (About55kmNorth/West)	2011/4/9 9:03	3.8 * <sup>2</sup>	N: 37'	41'	12.7"	20110330 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	33'	29.3"			
Reading Point 【3】 (About45kmNorth/West)	2011/4/9 9:54	3.0 * <sup>2</sup>	N: 37'	45'	40.5"	20110330 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	44'	19.9"			
Reading Point 【4】 (About50kmNorth/West)	2011/4/9 15:10	1.8 * <sup>2</sup>	N: 37'	39'	30.0"	20110330 確認	Rain	MEXT
			E: 140'	35'	54.0"			
Reading Point 【5】 (About45kmNorth)	2011/4/9 10:32	1.1 * <sup>2</sup>	N: 37'	47'	17.4"	20110330 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	55'	59.1"			
Reading Point 【6】 (About35kmNorth)	2011/4/9 10:49	1.2 * <sup>2</sup>	N: 37'	42'	09.5"	20110330 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	58'	04.6"			
Reading Point 【7】 (About35kmNorth)	2011/4/9 10:56	1.5 * <sup>2</sup>	N: 37'	41'	49.0"	20110330 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	57'	57.7"			
Reading Point 【10】 (About40kmNorth/West)	2011/4/9 14:54	1.7 * <sup>2</sup>	N: 37'	36'	02.9"	20110403 確認	No Rain	MEXT
			E: 140'	35'	07.3"			
Reading Point 【11】 (About40kmNorth/West)	2011/4/9 14:41	1.6 * <sup>2</sup>	N: 37'	34'	00.0"	20110330 確認	Rain	MEXT
			E: 140'	34'	48.0"			
Reading Point 【12】 (About40kmWest)	2011/4/9 12:15	1.2 * <sup>2</sup>	N: 37'	25'	53.6"	20110330 確認	Rain	MEXT
			E: 140'	35'	44.2"			
Reading Point 【13】 (About40kmWest)	2011/4/9 12:04	1.0 * <sup>2</sup>	N: 37'	26'	21.5"	20110330 確認	Rain	MEXT
			E: 140'	37'	20.7"			
Reading Point 【14】 (About35kmWest)	2011/4/9 11:54	0.3 * <sup>2</sup>	N: 37'	26'	09.4"	20110330 確認	Rain	MEXT
			E: 140'	38'	49.5"			
Reading Point 【15】 (About35kmWest)	2011/4/9 11:45	1.1 * <sup>2</sup>	N: 37'	26'	54.0"	20110330 確認	Rain	MEXT
			E: 140'	40'	53.2"			
Reading Point 【20】 (About45kmNorth/West)	2011/4/9 12:39	1.4 * <sup>2</sup>	N: 37'	29'	24.2"	20110330 確認	Rain	MEXT
			E: 140'	34'	54.2"			
Reading Point 【22】 (About35kmWest/North/West)	2011/4/9 12:55	1.5 * <sup>2</sup>	N: 37'	30'	41.3"	20110330 確認	Rain	MEXT
			E: 140'	39'	28.8"			
Reading Point 【23】 (About35kmWest/North/West)	2011/4/9 12:48	1.8 * <sup>2</sup>	N: 37'	30'	18.9"	20110330 確認	Rain	MEXT
			E: 140'	34'	40.6"			
Reading Point 【31】 (About30kmWest/North/West)	2011/4/9 10:23	10.7 * <sup>2</sup>	N: 37'	33'	03.2"	20110330 確認	Rain	MEXT
			E: 140'	44'	25.0"			
Reading Point 【32】 (About30kmNorth/West)	2011/4/9 10:43	26.1 * <sup>2</sup>	N: 37'	33'	03.2"	20110330 確認	Rain	MEXT
			E: 140'	44'	25.0"			

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置	測定位置 の備考	Weather	Reading by
Reading Point 【33】 (About30kmNorth/West)	2011/4/9 10:51	15.3 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330 確認	Rain	MEXT
Reading Point 【34】 (About30kmNorth/West)	2011/4/9 9:47	5.1 <sup>*2</sup>	N: 37° 33' 03.2" E: 140° 44' 25.0"	20110330 確認	Rain	MEXT
Reading Point 【36】 (About40kmNorth/West)	2011/4/9 11:38	3.1 <sup>*2</sup>	N: 37° 36' 20.6" E: 140° 37' 58.9"	20110331 確認	Rain	MEXT
Reading Point 【37】 (About50kmNorth/West)	2011/4/9 9:46	4.0 <sup>*2</sup>	N: 37° 45' 06.7" E: 140° 41' 29.2"	20110402 確認	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【38】 (About35kmSouth)	2011/4/9 11:26	0.7 <sup>*2</sup>	N: 37° 07' 18.4" E: 140° 57' 03.8"	20110401 確認	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【39】 (About45kmNorth)	2011/4/9 10:16	1.4 <sup>*2</sup>	N: 37° 45' 52.7" E: 140° 51' 47.1"	20110402 確認	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【41】 (About20kmWest)	2011/4/9 13:40	0.8 <sup>*2</sup>			Rain	Electric power company
Reading Point 【41】 (About20kmWest)	2011/4/9 9:55	0.8 <sup>*2</sup>			Rain	Electric power company
Reading Point 【42】 (About30kmWest)	2011/4/9 13:00	0.9 <sup>*2</sup>			Rain	Electric power company
Reading Point 【42】 (About30kmWest)	2011/4/9 9:43	0.9 <sup>*2</sup>			Rain	Electric power company
Reading Point 【43】 (About20kmSouth/West)	2011/4/9 15:00	0.5 <sup>*2</sup>			Rain	Electric power company
Reading Point 【43】 (About20kmSouth/West)	2011/4/9 11:00	0.4 <sup>*2</sup>			Rain	Electric power company
Reading Point 【44】 (About30kmSouth)	2011/4/9 13:00	0.8 <sup>*2</sup>			Rain	Electric power company
Reading Point 【44】 (About30kmSouth)	2011/4/9 10:00	0.8 <sup>*2</sup>			Rain	Electric power company
Reading Point 【45】 (About20kmSouth)	2011/4/9 13:07	1.1 <sup>*2</sup>			Rain	Electric power company
Reading Point 【45】 (About20kmSouth)	2011/4/9 10:07	1.2 <sup>*2</sup>			Rain	Electric power company
Reading Point 【46】 (About30kmNorth/West)	2011/4/9 13:55	4.7 <sup>*2</sup>			Rain	Electric power company
Reading Point 【46】 (About30kmNorth/West)	2011/4/9 10:30	4.8 <sup>*2</sup>			Rain	Electric power company
Reading Point 【51】 (About40kmSouth/West)	2011/4/9 13:58	0.2 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【51】 (About40kmSouth/West)	2011/4/9 10:48	0.3 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【52】 (About40kmWest)	2011/4/9 14:30	0.3 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【52】 (About40kmWest)	2011/4/9 11:16	0.3 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【61】 (About40kmNorth/West)	2011/4/9 14:20	3.9 <sup>*3</sup>			Rain	Fukushima Prefecture

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit: $\mu\text{Sv/h}$ )	測定位置	測定位置 の備考	Weather	Reading by
Reading Point 【61】 (About40kmNorth/West)	2011/4/9 12:16	1.1 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【62】 (About40kmNorth/West)	2011/4/9 14:31	6.0 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【62】 (About40kmNorth/West)	2011/4/9 12:06	6.4 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【63】 (About45kmNorth/West)	2011/4/9 14:57	2.1 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【63】 (About45kmNorth/West)	2011/4/9 11:03	1.7 <sup>*3</sup>			Rain	Fukushima Prefecture
Reading Point 【71】 (About25kmSouth)	2011/4/9 15:30	1.8 <sup>*2</sup>	N: 37' 12" 32.4" E: 140' 57" 08.2"	20110323 確認	Rain	Police ( counter NBC operations unit )
Reading Point 【71】 (About25kmSouth)	2011/4/9 12:43	0.9 <sup>*2</sup>	N: 37' 12" 32.4" E: 140' 57" 08.2"	20110323 確認	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【71】 (About25kmSouth)	2011/4/9 8:03	1.8 <sup>*2</sup>	N: 37' 12" 32.4" E: 140' 57" 08.2"	20110323 確認	Rain	Police ( counter NBC operations unit )
Reading Point 【72】 (About30kmSouth)	2011/4/9 16:05	0.6 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【72】 (About30kmSouth)	2011/4/9 12:30	0.7 <sup>*2</sup>			Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【72】 (About30kmSouth)	2011/4/9 8:36	1.0 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【73】 (About35kmSouth)	2011/4/9 16:23	0.9 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【73】 (About35kmSouth)	2011/4/9 12:11	1.2 <sup>*2</sup>			Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【73】 (About35kmSouth)	2011/4/9 9:01	1.2 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (About35kmSouth)	2011/4/9 12:53	0.3 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (About35kmSouth)	2011/4/9 11:04	0.5 <sup>*2</sup>			Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【75】 (About45kmSouth)	2011/4/9 17:20	0.2 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【75】 (About45kmSouth)	2011/4/9 10:39	0.7 <sup>*2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【75】 (About45kmSouth)	2011/4/9 7:13	0.0 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【76】 (About20kmSouth/West)	2011/4/9 11:41	0.0 <sup>*2</sup>	N: 37' 20" 25.3" E: 140' 48" 25.7"	20110402 確認	Rain	Police ( counter NBC operations unit )
Reading Point 【76】 (About20kmSouth/West)	2011/4/9 10:50	0.5 <sup>*2</sup>	N: 37' 20" 25.3" E: 140' 48" 25.7"	20110402 確認	Rain	MEXT
Reading Point 【77】 (About25kmSouth/West)	2011/4/9 12:01	1.7 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point 【78】 (About45kmNorth/West)	2011/4/9 18:27	1.3 <sup>*2</sup>			Rain	Police ( counter NBC operations unit )



- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置	測定位置 の備考	Weather	Reading by
Reading Point [78] (About45kmNorth/West)	2011/4/9 8:00	0.2 * <sup>2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point [79] (About30kmNorth/West)	2011/4/9 10:16	12.3 * <sup>2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	Rain	MEXT
Reading Point [79] (About30kmNorth/West)	2011/4/9 8:49	10.4 * <sup>2</sup>	N: 37' 33" 22.2" E: 140' 45" 46.9"	20110323 確認	Rain	Police ( counter NBC operations unit )
Reading Point [80] (About25kmNorth)	2011/4/9 14:35	0.5 * <sup>2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point [80] (About25kmNorth)	2011/4/9 11:24	1.2 * <sup>2</sup>	N: 37' 33" 22.2" E: 140' 45" 46.9"	20110323 確認	Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point [80] (About25kmNorth)	2011/4/9 11:05	0.5 * <sup>2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point [81] (About30kmNorth/West)	2011/4/9 8:41	24.2 * <sup>2</sup>			Rain	Police ( counter NBC operations unit )
Reading Point [83] (About20kmNorth/West)	2011/4/9 10:02	47.5 * <sup>2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	Rain	MEXT
Reading Point [83] (About20kmNorth/West)	2011/4/9 9:04	39.6 * <sup>2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	Rain	Police ( counter NBC operations unit )
Reading Point [84] (About40kmSouth/West)	2011/4/9 10:03	0.3 * <sup>2</sup>	N: 37' 33" 03.2" E: 140' 44" 25.0"	20110330 確認	Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point [85] (About50kmNorth/West)	2011/4/9 14:00	0.1 * <sup>2</sup>	N: 37' 42" 45.0" E: 140' 22" 59.0"	20110330 確認	No Rain	Ministry of Defense
Reading Point [85] (About50kmNorth/West)	2011/4/9 6:00	0.2 * <sup>2</sup>	N: 37' 42" 45.0" E: 140' 22" 59.0"	20110330 確認	No Rain	Ministry of Defense
Reading Point [86] (About55kmWest)	2011/4/9 14:00	0.9 * <sup>2</sup>	N: 37' 23" 57.0" E: 140' 19" 35.0"	20110330 確認	Rain	Ministry of Defense
Reading Point [86] (About55kmWest)	2011/4/9 6:00	1.2 * <sup>2</sup>	N: 37' 23" 57.0" E: 140' 19" 35.0"	20110330 確認	No Rain	Ministry of Defense
Reading Point [87] (About30kmWest/South/West)	2011/4/9 14:00	0.8 * <sup>2</sup>	N: 37' 21" 42.0" E: 140' 42" 54.0"	20110330 確認	Rain	Ministry of Defense
Reading Point [87] (About30kmWest/South/West)	2011/4/9 6:00	1.3 * <sup>2</sup>	N: 37' 21" 42.0" E: 140' 42" 54.0"	20110330 確認	Rain	Ministry of Defense
Reading Point [88] (About60kmWest/North/West)	2011/4/9 12:00	1.1 * <sup>2</sup>	N: 37' 41" 24.2" E: 140' 28" 17.4"	20110404 確認	Rain	Ministry of Defense
Reading Point [89] (About60kmWest)	2011/4/9 12:00	3.5 * <sup>2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	Rain	Ministry of Defense
Reading Point [101] (About55kmNorth/West)	2011/4/9 9:25	1.7 * <sup>2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point [102] (About50kmNorth/West)	2011/4/9 13:33	2.1 * <sup>2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point [103] (About20kmNorth)	2011/4/9 11:45	1.2 * <sup>2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point [104] (About20kmWest/North/West)	2011/4/9 7:30	2.3 * <sup>2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	Rain	MEXT
Reading Point [105] (About20kmWest)	2011/4/9 11:20	0.4 * <sup>2</sup>	N: 37' 23" 48.0" E: 140' 21" 50.7"	20110404 確認	Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit: $\mu\text{Sv/h}$ )	測定位置			測定位置 の備考	Weather	Reading by
Reading Point [106] (About 30km South/West)	2011/4/9 10:30	0.8 *2	N: 37'	23'	48.0''	20110404 確認	Rain	MEXT
			E: 140'	21'	50.7''			
Reading Point [107] (About 25km North/North/West)	2011/4/9 12:05	3.4 *2	N: 37'	23'	48.0''	20110404 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	21'	50.7''			
Reading Point [108] (About 30km North/North/West)	2011/4/9 12:43	4.2 *2	N: 37'	23'	48.0''	20110404 確認	Rain	JAEA (Japan Atomic Energy Agency)
			E: 140'	21'	50.7''			

## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 16:00 April 10, 2011  
Ministry of Education, Culture, Sports, Science and Technology (MEXT)

○Monitoring Outputs by MEXT

\*Boldface and underlined readings are new.

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu$ Sv / h)	測定位置			Weather	Reading by
			N:	E:	W:		
Reading Point 【1】 (About60kmNorth/West)	2011/4/10 8:30	0.3 *2	N: 37' 44' 12.6'' E: 140' 28' 02.9''	No Rain	JAEA (Japan Atomic Energy Agency)		
Reading Point 【2】 (About55kmNorth/West)	2011/4/10 8:53	2.6 *2	N: 37' 41' 12.7'' E: 140' 33' 29.3''	No Rain	JAEA (Japan Atomic Energy Agency)		
Reading Point 【3】 (About45kmNorth/West)	2011/4/10 9:47	2.9 *2	N: 37' 45' 40.5'' E: 140' 44' 19.9''	No Rain	JAEA (Japan Atomic Energy Agency)		
Reading Point 【4】 (About50kmNorth/West)	2011/4/10 9:14	1.9 *2	N: 37' 39' 30.0'' E: 140' 35' 54.0''	No Rain	MEXT		
Reading Point 【5】 (About45kmNorth)	2011/4/10 10:24	0.6 *2	N: 37' 47' 17.4'' E: 140' 55' 59.1''	No Rain	JAEA (Japan Atomic Energy Agency)		
Reading Point 【6】 (About35kmNorth)	2011/4/10 10:49	1.2 *2	N: 37' 42' 09.5'' E: 140' 58' 04.6''	No Rain	JAEA (Japan Atomic Energy Agency)		
<u>Reading Point 【7】 (About35kmNorth)</u>	<u>2011/4/10 11:01</u>	<u>0.7 *2</u>	N: 37' 41' 49.0'' E: 140' 57' 57.7''	No Rain	<u>JAEA (Japan Atomic Energy Agency)</u>		
Reading Point 【10】 (About40kmNorth/West)	2011/4/10 9:27	1.6 *2	N: 37' 36' 02.9'' E: 140' 35' 07.3''	No Rain	MEXT		
Reading Point 【11】 (About40kmNorth/West)	2011/4/10 9:35	1.9 *2	N: 37' 34' 00.0'' E: 140' 34' 48.0''	No Rain	MEXT		
<u>Reading Point 【12】 (About40kmWest)</u>	<u>2011/4/10 11:15</u>	<u>1.2 *2</u>	N: 37' 25' 53.6'' E: 140' 35' 44.2''	No Rain	<u>MEXT</u>		
<u>Reading Point 【13】 (About40kmWest)</u>	<u>2011/4/10 11:23</u>	<u>1.6 *2</u>	N: 37' 26' 21.5'' E: 140' 37' 20.7''	No Rain	<u>MEXT</u>		
<u>Reading Point 【14】 (About35kmWest)</u>	<u>2011/4/10 11:29</u>	<u>0.8 *2</u>	N: 37' 26' 09.4'' E: 140' 38' 49.5''	No Rain	<u>MEXT</u>		
<u>Reading Point 【15】 (About35kmWest)</u>	<u>2011/4/10 11:42</u>	<u>1.5 *2</u>	N: 37' 28' 54.0'' E: 140' 40' 53.2''	No Rain	<u>MEXT</u>		
Reading Point 【20】 (About45kmNorth/West)	2011/4/10 9:58	1.6 *2	N: 37' 29' 24.2'' E: 140' 34' 54.2''	No Rain	MEXT		
Reading Point 【21】 (About30kmWest/North/West)	2011/4/10 10:24	5.9 *2	N: 37' 30' 28.7'' E: 140' 42' 08.7''	No Rain	MEXT		
Reading Point 【22】 (About35kmWest/North/West)	2011/4/10 10:12	2.0 *2	N: 37' 30' 41.3'' E: 140' 39' 28.8''	No Rain	MEXT		
Reading Point 【23】 (About35kmWest/North/West)	2011/4/10 10:50	1.4 *2	N: 37' 30' 18.9'' E: 140' 34' 40.6''	No Rain	MEXT		

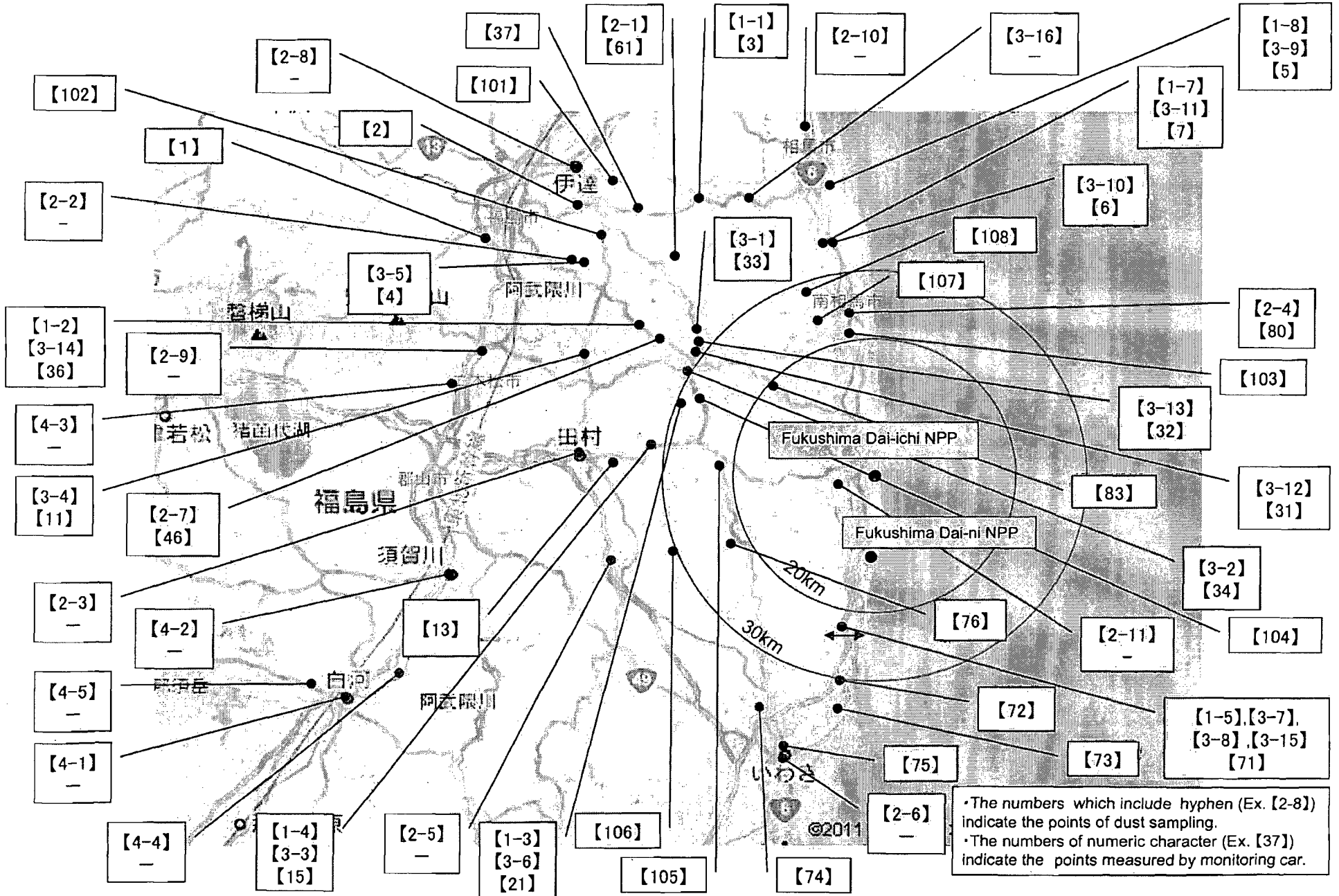
- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置	Weather	Reading by
Reading Point 【31】 (About30kmWest/North/West)	2011/4/10 10:00	12.8 *2	N: 37' 33' 03.2" E: 140' 44' 25.0"	No Rain	MEXT
Reading Point 【32】 (About30kmNorth/West)	2011/4/10 10:38	25.2 *2	N: 37' 33' 03.2" E: 140' 44' 25.0"	No Rain	MEXT
Reading Point 【33】 (About30kmNorth/West)	2011/4/10 11:08	18.7 *2	N: 37' 38' 34.6" E: 140' 45' 09.1"	No Rain	MEXT
Reading Point 【36】 (About40kmNorth/West)	2011/4/10 9:38	4.6 *2	N: 37' 36' 20.6" E: 140' 37' 58.9"	No Rain	MEXT
Reading Point 【37】 (About50kmNorth/West )	2011/4/10 9:40	3.0 *2	N: 37' 45' 06.7" E: 140' 41' 29.2"	No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【38】 (About35kmSouth)	2011/4/10 11:20	0.4 *2	N: 37' 07' 18.4" E: 140' 57' 03.8"	No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【39】 (About45kmNorth)	2011/4/10 10:10	0.9 *2	N: 37' 45' 52.7" E: 140' 51' 47.1"	No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【71】 (About25kmSouth)	2011/4/10 12:23	0.6 *2	N: 37' 12' 32.4" E: 140' 57' 08.2"	No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【71】 (About25kmSouth)	2011/4/10 7:50	0.8 *2	N: 37' 12' 32.4" E: 140' 57' 08.2"	No Rain	Police ( counter NBC operations unit )
Reading Point 【72】 (About30kmSouth)	2011/4/10 12:08	0.5 *2		No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【72】 (About30kmSouth)	2011/4/10 8:24	0.3 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【73】 (About35kmSouth)	2011/4/10 8:41	0.3 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (About35kmSouth)	2011/4/10 12:22	0.2 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【74】 (About35kmSouth)	2011/4/10 10:55	0.5 *2		No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【75】 (About45kmSouth)	2011/4/10 10:33	0.5 *2	N: 37' 33' 03.2" E: 140' 44' 25.0"	No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【75】 (About45kmSouth)	2011/4/10 7:00	0.2 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【76】 (About20kmSouth/West)	2011/4/10 12:17	0.9 *2	N: 37' 20' 25.3" E: 140' 48' 25.7"	No Rain	MEXT
Reading Point 【76】 (About20kmSouth/West)	2011/4/10 11:38	1.8 *2	N: 37' 20' 25.3" E: 140' 48' 25.7"	No Rain	Police ( counter NBC operations unit )
Reading Point 【77】 (About25kmSouth/West)	2011/4/10 11:18	0.2 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【78】 (About45kmNorth/West)	2011/4/10 7:00	1.0 *2		No Rain	Police ( counter NBC operations unit )
Reading Point 【80】 (About25kmNorth)	2011/4/10 11:29	0.9 *2	N: 37' 33' 22.2" E: 140' 45' 48.9"	No Rain	JAEA ( Japan Atomic Energy Agency )
Reading Point 【80】 (About25kmNorth)	2011/4/10 8:13	0.2 *2		No Rain	Police ( counter NBC operations unit )

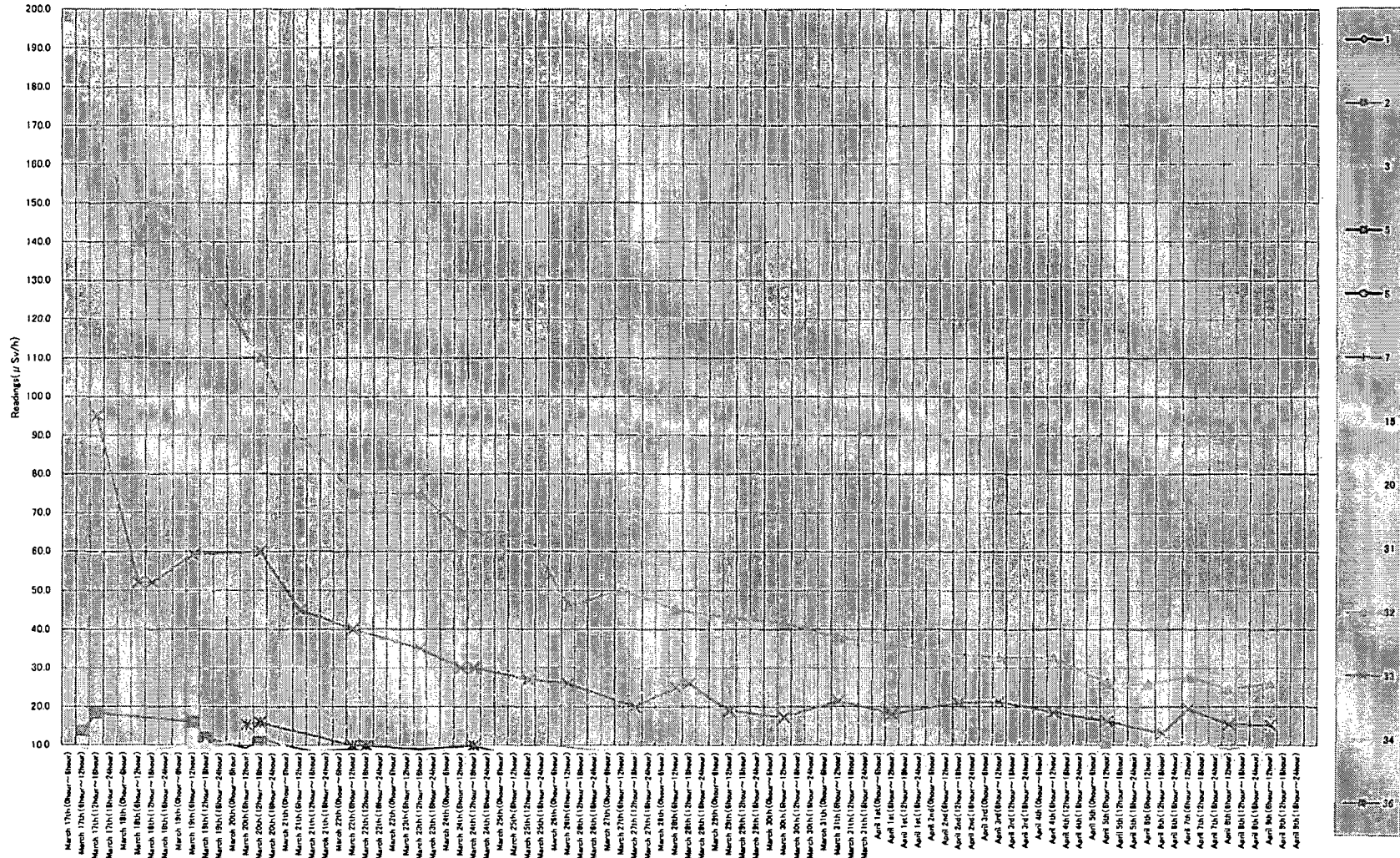
- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	測定位置	Weather	Reading by
Reading Point 【84】 (About40kmSouth/West)	2011/4/10 9:55	0.2 *2	N: 37° 33' 03.2" E: 140° 44' 25.0"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【85】 (About60kmNorth/West)	2011/4/10 6:00	0.4 *2	N: 37° 42' 45.0" E: 140° 22' 59.0"	No Rain	Ministry of Defense
Reading Point 【86】 (About55kmWest)	2011/4/10 6:00	0.9 *2	N: 37° 23' 57.0" E: 140° 19' 35.0"	No Rain	Ministry of Defense
Reading Point 【87】 (About30kmWest/South/West)	2011/4/10 6:00	1.6 *2	N: 37° 21' 42.0" E: 140° 42' 54.0"	Rain	Ministry of Defense
Reading Point 【101】 (About55kmNorth/West)	2011/4/10 9:19	1.5 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【102】 (About50kmNorth/West)	2011/4/10 13:49	1.2 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【103】 (About20kmNorth)	2011/4/10 12:19	0.5 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【105】 (About20kmWest)	2011/4/10 11:59	1.5 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	No Rain	MEXT
Reading Point 【106】 (About30kmSouth/West)	2011/4/10 12:45	1.2 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	No Rain	MEXT
Reading Point 【107】 (About25kmNorth/North/West)	2011/4/10 12:35	2.2 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【108】 (About30kmNorth/North/West)	2011/4/10 12:56	2.7 *2	N: 37° 23' 48.0" E: 140° 21' 50.7"	No Rain	JAEA (Japan Atomic Energy Agency)

# Sampling points out of Fukushima Dai-ichi NPP



# Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

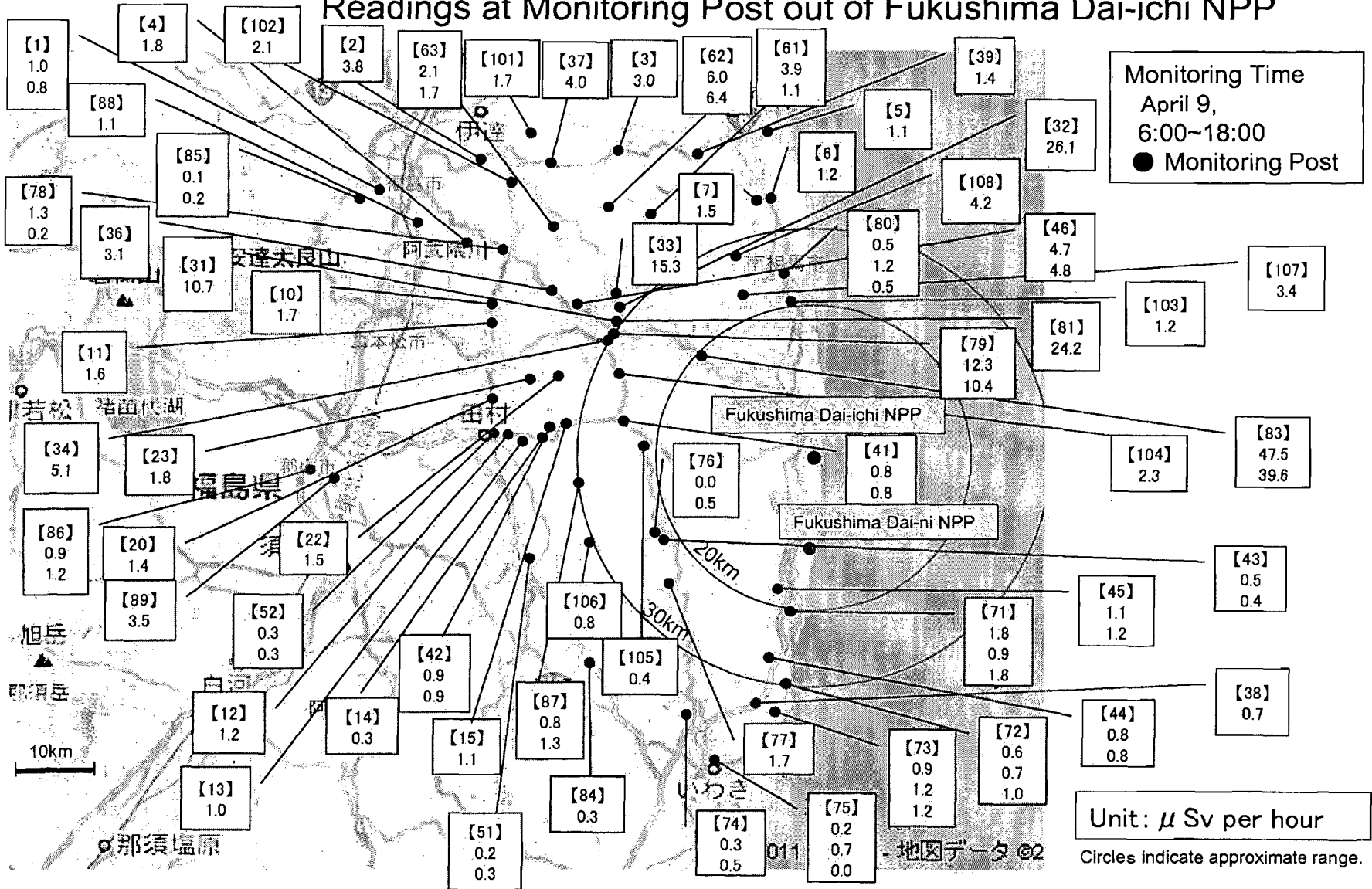


Note: The maximum data is plotted if there are more than one data in 4 hours.  
 Note: This graph only shows the dates over 10 μSv/h.

Monitoring Time [Date (time)]

Note: Data from MEXT, Japan Atomic Energy Agency, and, NUCLEAR Safety Technology Center

# Readings at Monitoring Post out of Fukushima Dai-ichi NPP





## Readings at Monitoring Post out of 20 Km Zone of Fukushima Dai-ichi NPP

As of 16:00 April 10, 2011

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

○Monitoring Outputs by MEXT

\*Boldface and underlined readings are new.

\* 1 measured by Geiger-Müller counter

\* 2 measured by ionization chamber type survey meter

\* 3 measured by NaI scintillator detector

\* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【1】 (About60kmNorth/West)	2011/4/10 8:30	0.3 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【2】 (About55kmNorth/West)	2011/4/10 8:53	2.6 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【3】 (About45kmNorth/West)	2011/4/10 9:47	2.9 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【4】 (About50kmNorth/West)	2011/4/10 9:14	1.9 *2	No Rain	MEXT
Reading Point 【5】 (About45kmNorth)	2011/4/10 10:24	0.6 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【6】 (About35kmNorth)	2011/4/10 10:49	1.2 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【7】 ( <u>About35kmNorth</u> )	<u>2011/4/10 11:01</u>	<u>0.7 *2</u>	<u>No Rain</u>	<u>JAEA (Japan Atomic Energy Agency)</u>
Reading Point 【10】 (About40kmNorth/West)	2011/4/10 9:27	1.6 *2	No Rain	MEXT
Reading Point 【11】 (About40kmNorth/West)	2011/4/10 9:35	1.9 *2	No Rain	MEXT
Reading Point 【12】 ( <u>About40kmWest</u> )	<u>2011/4/10 11:15</u>	<u>1.2 *2</u>	<u>No Rain</u>	<u>MEXT</u>
Reading Point 【13】 ( <u>About40kmWest</u> )	<u>2011/4/10 11:23</u>	<u>1.6 *2</u>	<u>No Rain</u>	<u>MEXT</u>
Reading Point 【14】 ( <u>About35kmWest</u> )	<u>2011/4/10 11:29</u>	<u>0.8 *2</u>	<u>No Rain</u>	<u>MEXT</u>
Reading Point 【15】 ( <u>About35kmWest</u> )	<u>2011/4/10 11:42</u>	<u>1.5 *2</u>	<u>No Rain</u>	<u>MEXT</u>
Reading Point 【20】 (About45kmNorth/West)	2011/4/10 9:58	1.6 *2	No Rain	MEXT

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【21】 (About30kmWest/North/West)	2011/4/10 10:24	5.9 *2	No Rain	MEXT
Reading Point 【22】 (About35kmWest/North/West)	2011/4/10 10:12	2.0 *2	No Rain	MEXT
Reading Point 【23】 (About35kmWest/North/West)	2011/4/10 10:50	1.4 *2	No Rain	MEXT
Reading Point 【31】 (About30kmWest/North/West)	2011/4/10 10:00	12.8 *2	No Rain	MEXT
Reading Point 【32】 (About30kmNorth/West)	2011/4/10 10:38	25.2 *2	No Rain	MEXT
<u>Reading Point 【33】 (About30kmNorth/West)</u>	<u>2011/4/10 11:08</u>	<u>18.7 *2</u>	<u>No Rain</u>	<u>MEXT</u>
Reading Point 【36】 (About40kmNorth/West)	2011/4/10 9:38	4.6 *2	No Rain	MEXT
Reading Point 【37】 (About50kmNorth/West )	2011/4/10 9:40	3.0 *2	No Rain	JAEA (Japan Atomic Energy Agency)
<u>Reading Point 【38】 (About35kmSouth)</u>	<u>2011/4/10 11:20</u>	<u>0.4 *2</u>	<u>No Rain</u>	<u>JAEA (Japan Atomic Energy Agency)</u>
Reading Point 【39】 (About45kmNorth)	2011/4/10 10:10	0.9 *2	No Rain	JAEA (Japan Atomic Energy Agency)
<u>Reading Point 【71】 (About25kmSouth)</u>	<u>2011/4/10 12:23</u>	<u>0.6 *2</u>	<u>No Rain</u>	<u>JAEA (Japan Atomic Energy Agency)</u>
<u>Reading Point 【71】 (About25kmSouth)</u>	<u>2011/4/10 7:50</u>	<u>0.8 *2</u>	<u>No Rain</u>	<u>Police ( counter NBC operations unit )</u>
<u>Reading Point 【72】 (About30kmSouth)</u>	<u>2011/4/10 12:08</u>	<u>0.5 *2</u>	<u>No Rain</u>	<u>JAEA (Japan Atomic Energy Agency)</u>
<u>Reading Point 【72】 (About30kmSouth)</u>	<u>2011/4/10 8:24</u>	<u>0.3 *2</u>	<u>No Rain</u>	<u>Police ( counter NBC operations unit )</u>
<u>Reading Point 【73】 (About35kmSouth)</u>	<u>2011/4/10 8:41</u>	<u>0.3 *2</u>	<u>No Rain</u>	<u>Police ( counter NBC operations unit )</u>
<u>Reading Point 【74】 (About35kmSouth)</u>	<u>2011/4/10 12:22</u>	<u>0.2 *2</u>	<u>No Rain</u>	<u>Police ( counter NBC operations unit )</u>
Reading Point 【74】 (About35kmSouth)	2011/4/10 10:55	0.5 *2	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【75】 (About45kmSouth)	2011/4/10 10:33	0.5 *2	No Rain	JAEA (Japan Atomic Energy Agency)

- \* 1 measured by Geiger-Müller counter
- \* 2 measured by ionization chamber type survey meter
- \* 3 measured by NaI scintillator detector
- \* 4 variation range of the measuring data in measuring time

Monitoring Post (length from NPP)	Monitoring Time	Reading (unit : $\mu\text{Sv} / \text{h}$ )	Weather	Reading by
Reading Point 【75】 (About45kmSouth)	2011/4/10 7:00	0.2 <sup>*2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【76】 (About20kmSouth/West)	2011/4/10 12:17	0.9 <sup>*2</sup>	No Rain	MEXT
Reading Point 【76】 (About20kmSouth/West)	2011/4/10 11:38	1.8 <sup>*2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【77】 (About25kmSouth/West)	2011/4/10 11:18	0.2 <sup>*2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【78】 (About45kmNorth/West)	2011/4/10 7:00	1.0 <sup>*2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【80】 (About25kmNorth)	2011/4/10 11:29	0.9 <sup>*2</sup>	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【80】 (About25kmNorth)	2011/4/10 8:13	0.2 <sup>*2</sup>	No Rain	Police ( counter NBC operations unit )
Reading Point 【84】 (About40kmSouth/West)	2011/4/10 9:55	0.2 <sup>*2</sup>	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【85】 (About60kmNorth/West)	2011/4/10 6:00	0.4 <sup>*2</sup>	No Rain	Ministry of Defense
Reading Point 【86】 (About55kmWest)	2011/4/10 6:00	0.9 <sup>*2</sup>	No Rain	Ministry of Defense
Reading Point 【87】 (About30kmWest/South/West)	2011/4/10 6:00	1.6 <sup>*2</sup>	Rain	Ministry of Defense
Reading Point 【101】 (About55kmNorth/West)	2011/4/10 9:19	1.5 <sup>*2</sup>	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【102】 (About50kmNorth/West)	2011/4/10 13:49	1.2 <sup>*2</sup>	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【103】 (About20kmNorth)	2011/4/10 12:19	0.5 <sup>*2</sup>	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【105】 (About20kmWest)	2011/4/10 11:59	1.5 <sup>*2</sup>	No Rain	MEXT
Reading Point 【106】 (About30kmSouth/West)	2011/4/10 12:45	1.2 <sup>*2</sup>	No Rain	MEXT
Reading Point 【107】 (About25kmNorth/North/West)	2011/4/10 12:35	2.2 <sup>*2</sup>	No Rain	JAEA (Japan Atomic Energy Agency)
Reading Point 【108】 (About30kmNorth/North/West)	2011/4/10 12:56	2.7 <sup>*2</sup>	No Rain	JAEA (Japan Atomic Energy Agency)

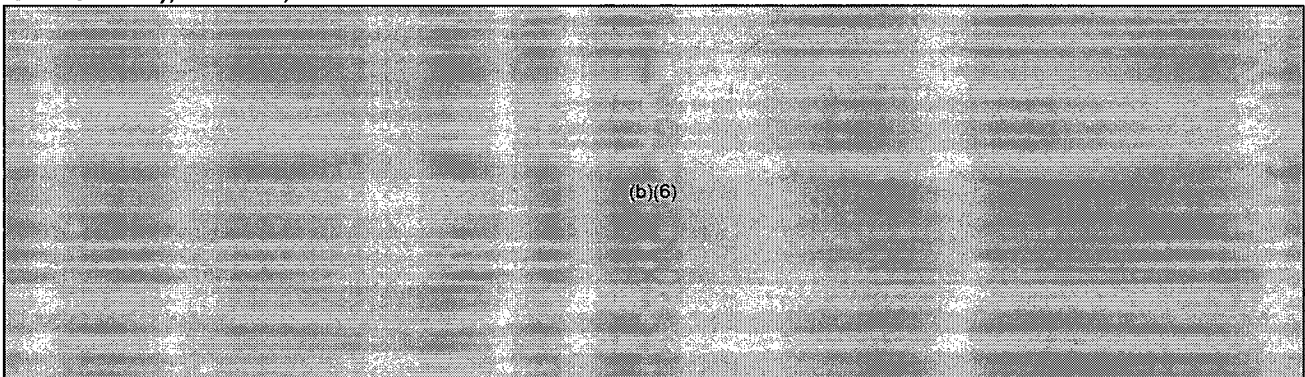
---

**From:** OST01 HOC  
**Sent:** Saturday, March 26, 2011 7:00 AM  
**To:** Hoc, PMT12; PMT11 Hoc; PMT02 Hoc  
**Cc:** FOIA Response.hoc Resource  
**Subject:** FW: 26MAR 1841 Speedi Data  
**Attachments:** FUKUSHIMA1 032618.zip; FUKUSHIMA1 air concentrationüi18-19hüj.gif; FUKUSHIMA1 air concentrationüi19-20hüj.gif; FUKUSHIMA1 air concentrationüi20-21hüj.gif; FUKUSHIMA1 air doseüi18-19hüj.gif; FUKUSHIMA1 air doseüi19-20hüj.gif; FUKUSHIMA1 air doseüi20-21hüj.gif; FUKUSHIMA1 wind(18hüj.gif

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

**From:** HOO Hoc [mailto:HOO.Hoc@nrc.gov]  
**Sent:** Saturday, March 26, 2011 5:51 AM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: 26MAR 1841 Speedi Data

-----  
**From:** JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]  
**Sent:** Saturday, March 26, 2011 5:48:41 AM



**Subject:** 26MAR 1841 Speedi Data  
Auto forwarded by a Rule

26MAR 1841 Speedi Data attached

This email is UNCLASSIFIED

on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

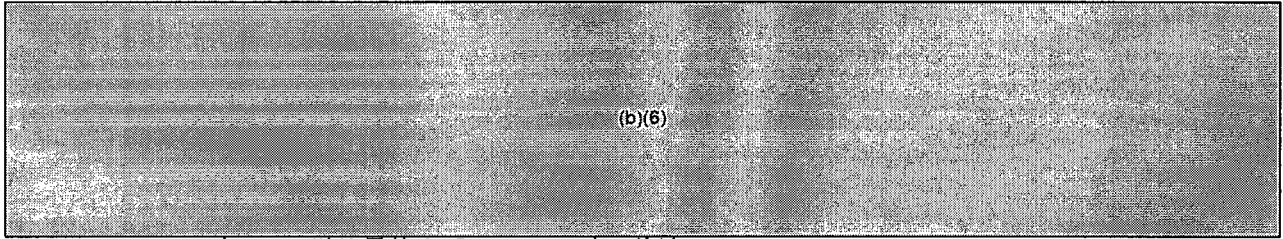
Lynda Hinds  
Staff Assistant to Ambassador John V. Roos U.S. Embassy  
1-10-5 Akasaka, Minato-ku  
Tokyo 107-8420  
Tel. (03) 3224- 5370

Twitter.com/AmbassadorRoos

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

From: nustec [mailto:spd01@nustec.or.jp]

Sent: Saturday, March 26, 2011 6:41 PM



Subject: 3/26 18時SPEEDI単位量放出図形イメージの送付

関係者各位

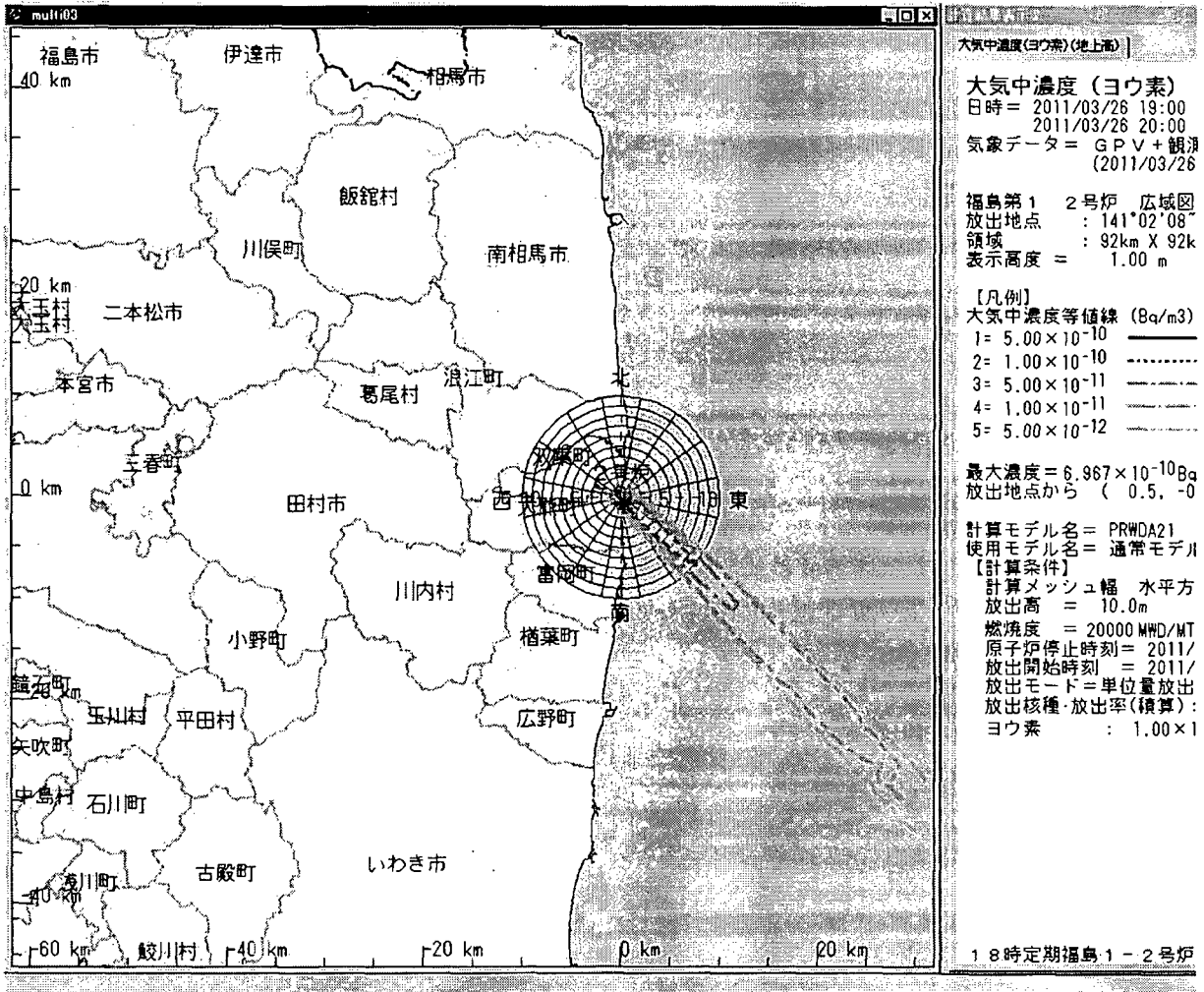
お世話になっております。

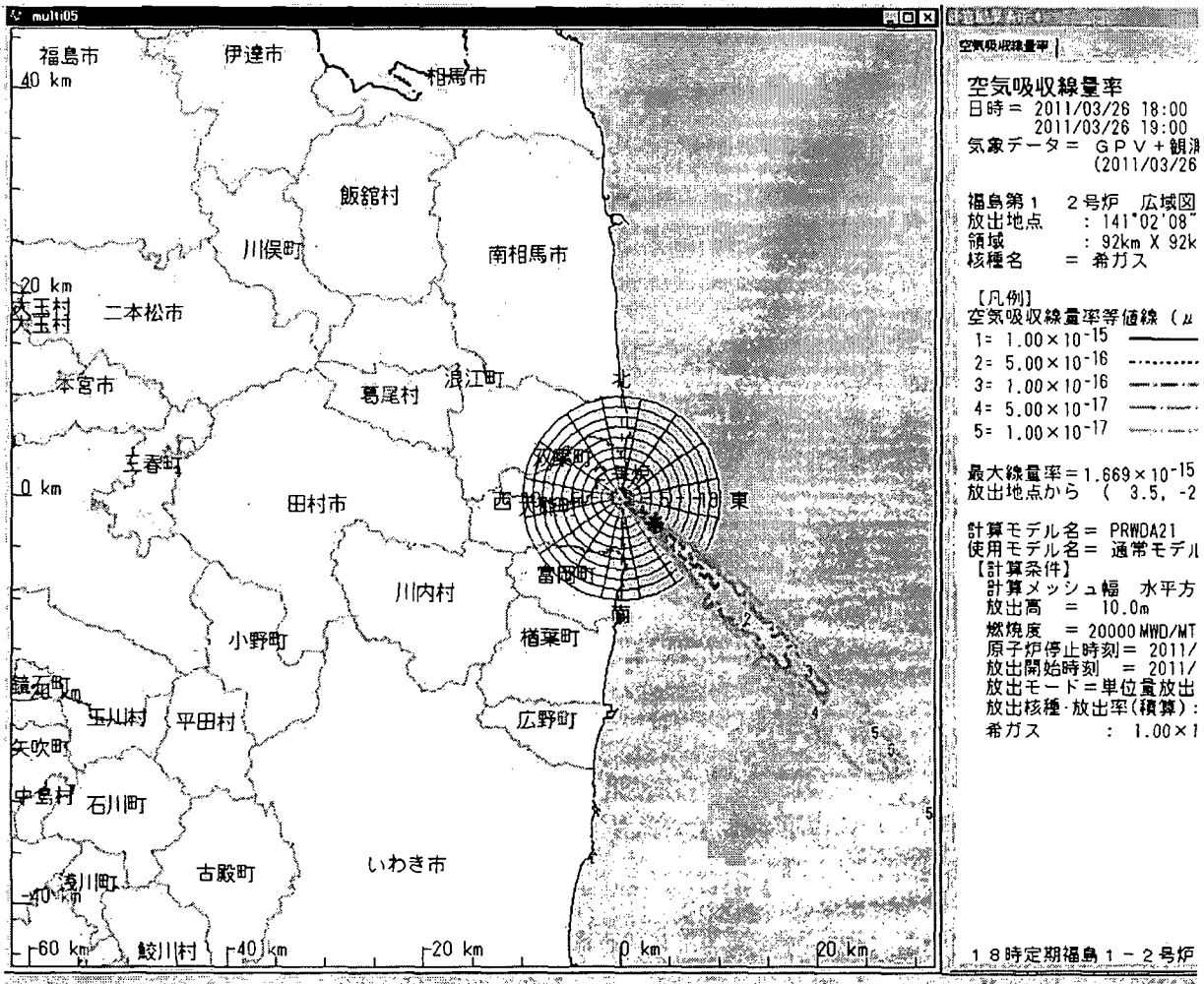
原子力安全技術センター SPEEDI担当です。

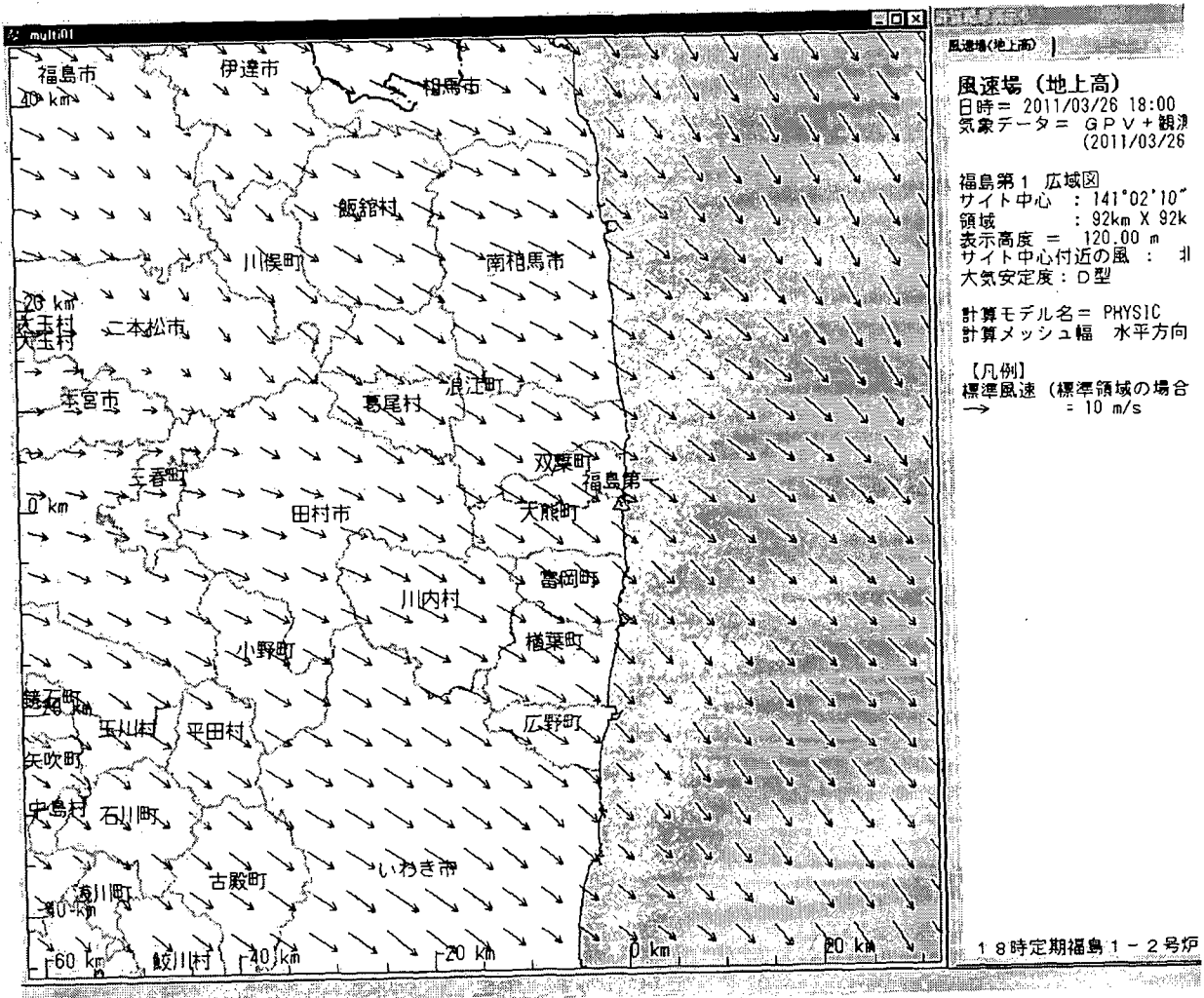
3/26 18時のSPEEDI単位量放出図形のイメージデータを送付致します。

ご確認のほど、よろしくお願い致します。

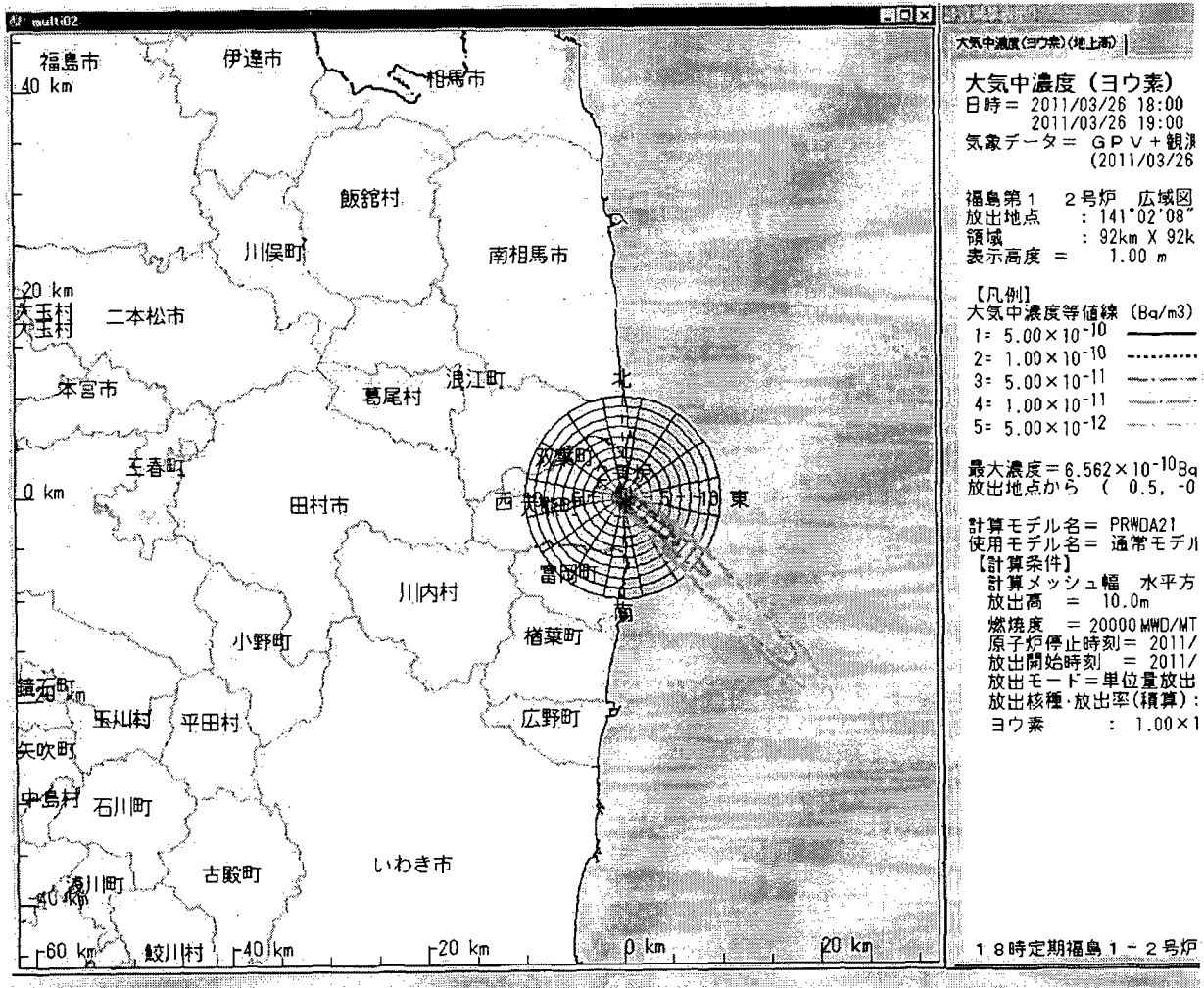
Please find attached 18:00[26-Mar] SPEEDI Data  
NUSTEC

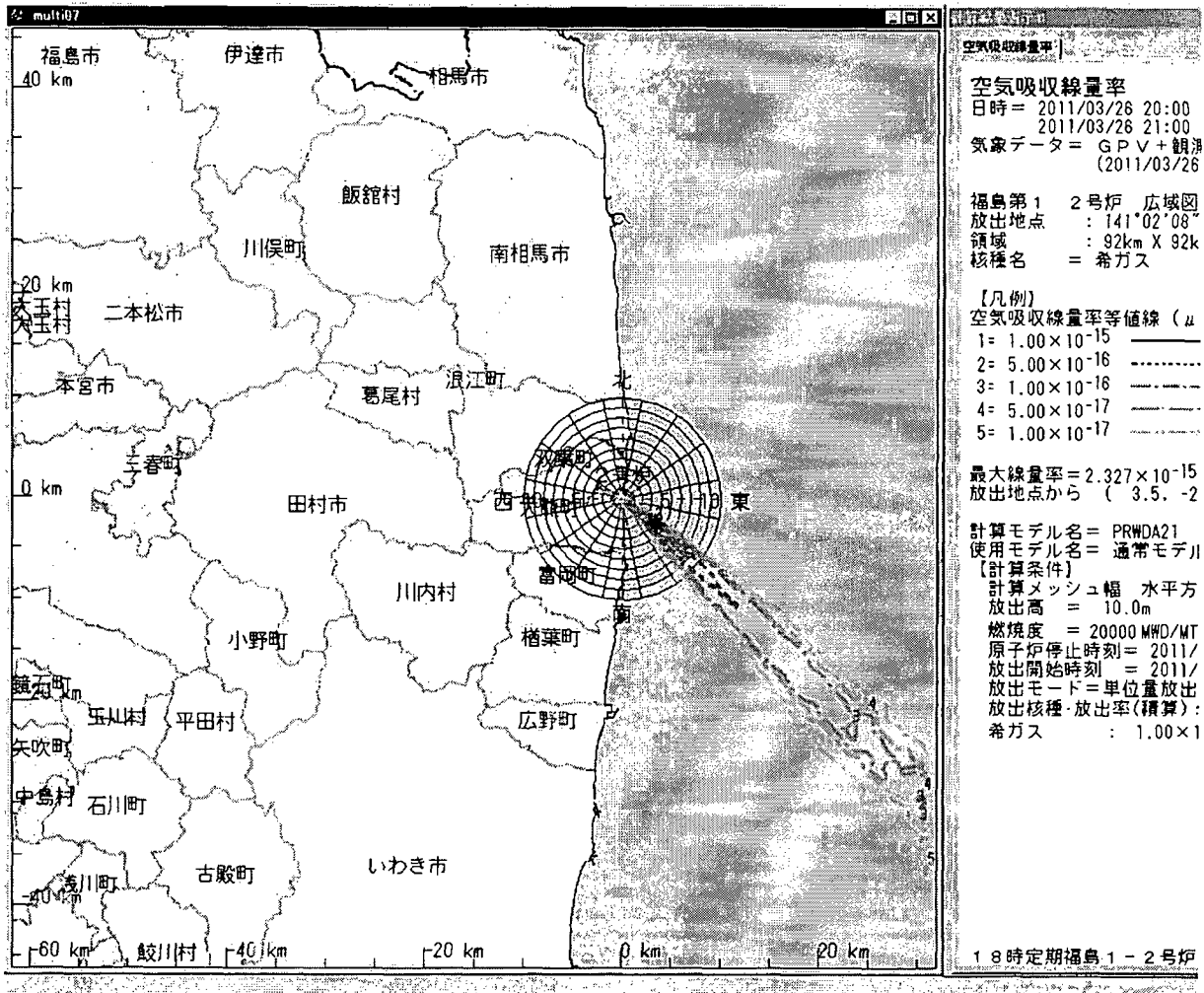


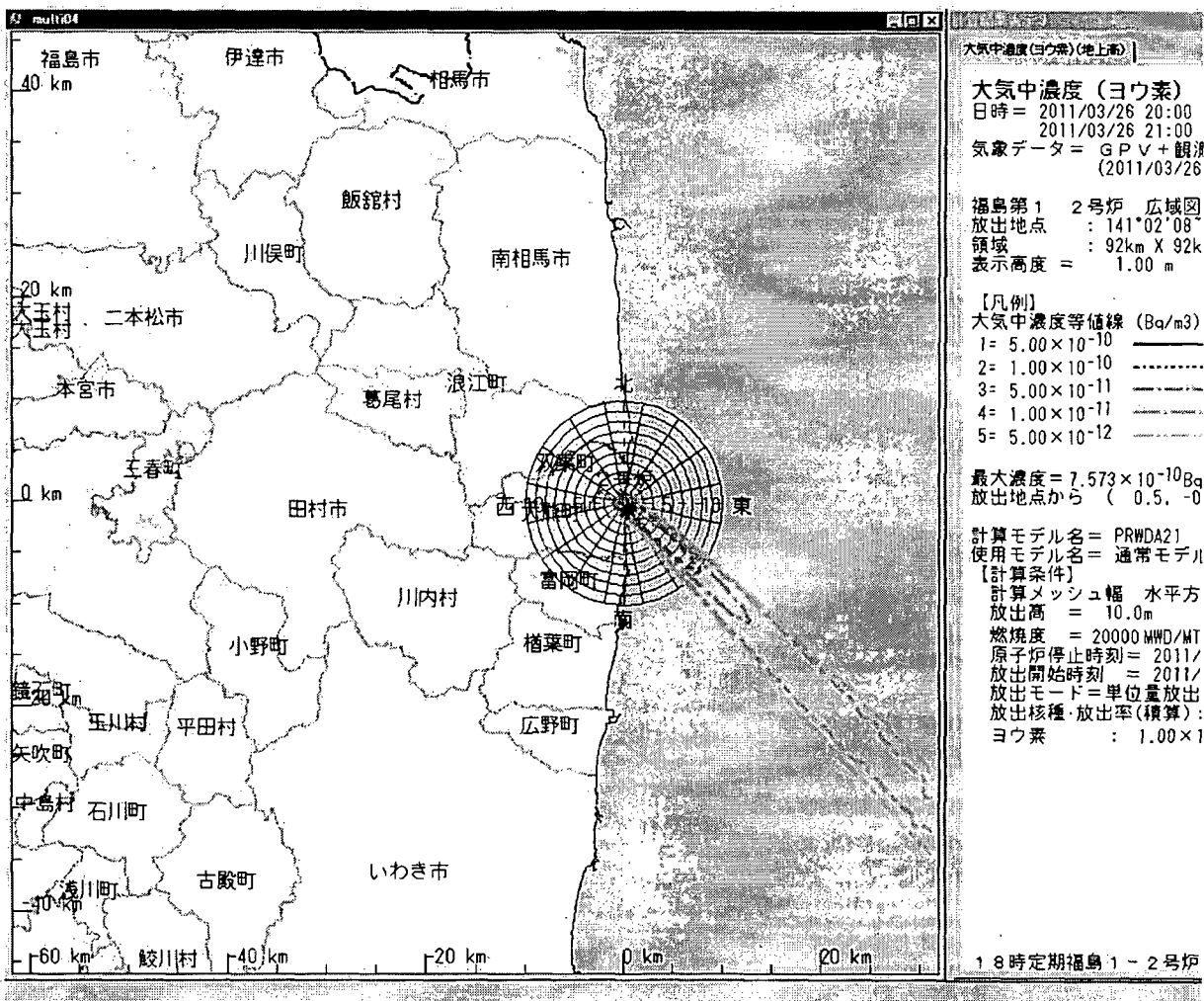




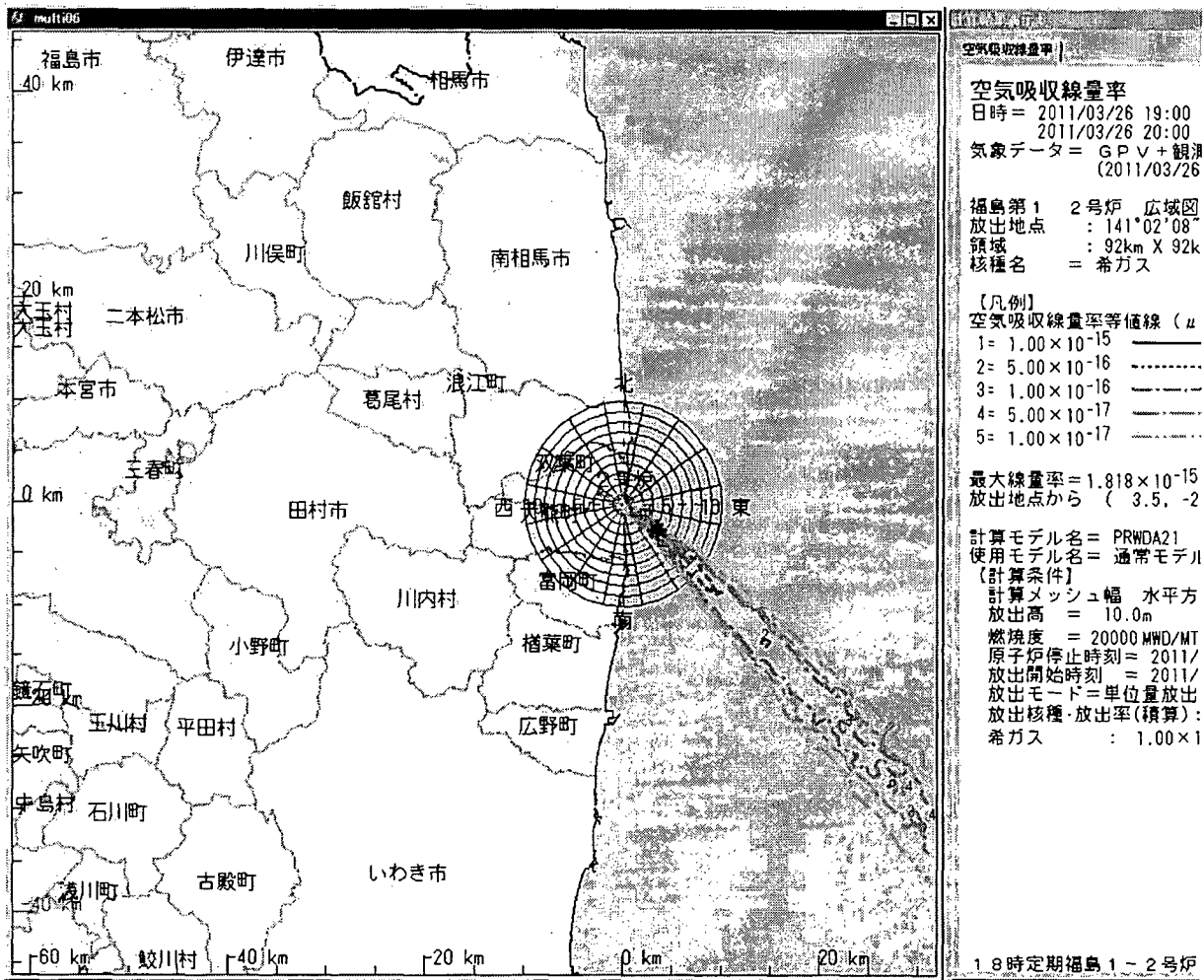








Attachment FUKUSHIMA1 032618.zip(457845 bytes ) cannot be converted to PDF format.



**From:** Shawn.Caza@international.gc.ca on behalf of vperm@international.gc.ca  
**To:** LIA02.Hoc; vperm@international.gc.ca; ExternalLiaisonOfficer.EOC2@cnscccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; peter.ford@hse.gsi.gov.uk; Anthony.Hinton@international.gc.ca; ShafferMr@state.gov  
**Cc:** HOO.Hoc; RST01.Hoc; PMT01.Hoc  
**Subject:** RE: ND Incident Suite - Contact arrangements  
**Date:** Tuesday, March 15, 2011 10:30:15 AM  
**Importance:** High

---

For document Integrity Inspection of Dry Storage Casks and Spent Fuel Storage at Fukushima Daiichi please use [http://www.nirs.org/reactorwatch/accidents/6-1\\_powerpoint.pdf](http://www.nirs.org/reactorwatch/accidents/6-1_powerpoint.pdf)

For IAEA Wet and Dry Storage Survey which uncludes Japan please see [http://www-pub.iaea.org/MTCD/publications/PDF/te\\_1100\\_prn.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/te_1100_prn.pdf)  
Shawn

Shawn Caza  
Counsellor and Alternative Permanent Representative  
Conseiller et représentant permanent suppléant  
Botschaftsrat und Stellvertreter  
Permanent Mission to the International Organizations in Vienna  
Mission permanente auprès des organisations internationales à Vienne  
Ständige Vertretung Kanadas bei den Internationalen Organisationen in Wien  
Laurenzerberg 2  
A-1010 Vienna  
Austria  
Tel: (+43-1) 531 38-38 03  
Fax: (+43-1) 531 38-39 03  
shawn.caza@international.gc.ca

---

**From:** LIA02.Hoc [mailto:LIA02.Hoc@nrc.gov]  
**Sent:** March 15, 2011 12:09 PM  
**To:** VPERM ( G); ExternalLiaisonOfficer.EOC2@cnscccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; peter.ford@hse.gsi.gov.uk; Hinton, Anthony -VPERM -GR; Caza, Shawn -VPERM -GR; ShafferMr@state.gov  
**Cc:** HOO.Hoc; RST01.Hoc; PMT01.Hoc  
**Subject:** RE: ND Incident Suite - Contact arrangements

Correction: please call 301-816-5100 for (b)(6) at 0930.

**From:** LIA02.Hoc  
**Sent:** Tuesday, March 15, 2011 4:56 AM  
**To:** 'vperm@international.gc.ca'; ExternalLiaisonOfficer.EOC2@cnscccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; 'peter.ford@hse.gsi.gov'  
**Cc:** Anthony.Hinton@international.gc.ca; Shawn.Caza@international.gc.ca; 'ShafferMr@state.gov'  
**Subject:** RE: ND Incident Suite - Contact arrangements

Hello All -

NRC can support another 0930 call (Washington time) with our colleagues from Canada and the UK. NRC plans to have an international liaison, reactor safety expert and protective measures

CCCC/77

expert on the call. Please call into the NRC Operations Center at 301-415-5100 and request to be connected to the "Canada-UK teleconference."

Please confirm your organization's availability.

Thanks

---

**From:** Anthony.Hinton@international.gc.ca [mailto:Anthony.Hinton@international.gc.ca] **On Behalf Of** vperm@international.gc.ca  
**Sent:** Tuesday, March 15, 2011 4:36 AM  
**To:** ExternalLiaisonOfficer.EOC2@cnscc-ccsn.gc.ca; NSD.EMERGENCY@hse.gsi.gov.uk; LIA02 Hoc  
**Cc:** vperm@international.gc.ca; Anthony.Hinton@international.gc.ca; Shawn.Caza@international.gc.ca  
**Subject:** RE: ND Incident Suite - Contact arrangements

Dear Colleagues,

We agree fully. Thank you for your assistance yesterday. We are looking forward to another call today, if possible.

With kind regards from Vienna,  
Anthony

Anthony HINTON  
Counsellor (Nuclear Affairs) | Conseiller (Affaires nucléaires)  
Permanent Mission of Canada to the International Organizations in Vienna |  
Mission permanente du Canada auprès des organisations internationales à Vienne  
Laurenzerberg 2, 1010 Vienna, Austria  
[Anthony.Hinton@international.gc.ca](mailto:Anthony.Hinton@international.gc.ca)  
+43 1 531 38 3212 - office | bureau  
+43 1 531 38 3903 - facsimile | télécopieur  
[REDACTED] mobile  
Government of Canada | Gouvernement du Canada

---

**From:** EOC2, External Liaison Officer [mailto:ExternalliaisonOfficer.EOC2@cnscc-ccsn.gc.ca]  
**Sent:** March 14, 2011 4:26 PM  
**To:** 'NSD.EMERGENCY@hse.gsi.gov.uk'; 'lia02.hoc@nrc.gov'  
**Cc:** VPERM ( G )  
**Subject:** RE: ND Incident Suite - Contact arrangements

All

Thanks very much for the informative discussion this morning. Much was clarified.

Regards

Richard Tennant  
CNSC External/International Liaison

---

**From:** NSD.EMERGENCY@hse.gsi.gov.uk [mailto:NSD.EMERGENCY@hse.gsi.gov.uk]  
**Sent:** Monday, March 14, 2011 10:47 AM  
**To:** EOC2, External Liaison Officer

**Subject:** FW: ND Incident Suite - Contact arrangements

Apologies - I incorrectly input your eMail address previously

ND Incident Suite  
[nsd.emergency@hse.gsi.gov.uk](mailto:nsd.emergency@hse.gsi.gov.uk)  
0044-151-951-4161

---

**From:** NSD EMERGENCY  
**Sent:** 14 March 2011 14:34  
**To:** 'vperm@international.gc.ca'; 'eoc@cnscccsn.gc.ca'; 'lia02.hoc@nrc.gov'  
**Subject:** ND Incident Suite - Contact arrangements

All

Further to your recent telecon with Dave Shepherd this is the contact address for eMails

ND Incident Suite  
[nsd.emergency@hse.gsi.gov.uk](mailto:nsd.emergency@hse.gsi.gov.uk)  
0044-151-951-4161

\*\*\*\*\*  
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[www.hse.gov.uk](http://www.hse.gov.uk)  
Or contact the HSE Infoline on 0845 345 0055 or email [hse.infoline@natbrit.com](mailto:hse.infoline@natbrit.com)  
\*\*\*\*\*

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\*\*\*\*\*



**Lee, Richard**

---

**From:** Gibson, Kathy  
**Sent:** Wednesday, March 16, 2011 8:06 AM  
**To:** RES\_DSA  
**Subject:** Fw: Follow-up from 4 pm teleconference on Ops Center Long Term Staffing  
**Attachments:** Japan Exercise Position Title March 15.docx; Japan Support.xlsx

**Importance:** High

More info on staffing the Ops Center.

Please provide the information I requested previously on your willingness to help. If you are not interested, unavailable or don't have relevant expertise to work in the Ops Center or go to Japan, please send a negative reply so we have a full accounting for the division.

Thanks!

---

**From:** Sheron, Brian  
**To:** Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Lui, Christiana; Richards, Stuart; Sangimino, Donna-Marie; Scott, Michael; Uhle, Jennifer; Valentin, Andrea  
**Sent:** Wed Mar 16 07:41:18 2011  
**Subject:** FW: Follow-up from 4 pm teleconference on Ops Center Long Term Staffing

Here is the list of expertise the Op center is looking for.

---

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

Everyone,

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

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

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

Thanks for your support.

*Michele*

## Positions being staffed in the Operations Center as of March 15, 2011

### Liaison Team

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

### Protective Measures Team

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

### Reactor Safety Team

RST Director  
RST Coordinator  
Severe Accident / PRA  
BWR Expert  
RST Comm / ERDS Operator  
RST Support (Seismology Q&A)

SAMG

SRO/RI  
@BWR

Desc

	SAMG	SRO/RI @BWR	Desc	
Rudy Bernhard		SRO/RI @BWR	Senior Reactor Analyst, Senior Resident Inspector at Grand Gulf; GE SRO Certification at Dresden, Hatch and River Bend; General Electric Construction/Pre-op/Start-up Testing/ and Operations, Browns Ferry Restart support.	(b)(6)
Bruno Caballero		SRO/RI @BWR	Senior Operator Licensing Examiner, former SRO at Browns Ferry (BWR4/Mark	
Len Wert		SRO/RI @BWR	SRI Browns Ferry and Hatch (BWR4/Mark 1)	
Chuck Casto		SRO/RI @BWR	former licensed SRO at Browns Ferry (BWR4/Mark	
Joel Munday		SRO/RI @BWR	former licensed SRO at Brunswick ((BWR4/Mark 1) SRI at Hatch (BWR4/Mark 1)	
Tony Nakanishi		SRO/RI @BWR	BWR analysis guy, spent fuel pool criticality,	
Tony Mendiola		SRO/RI @BWR	BWR qualified examiner (dated), SRO certified by GE, Navy Nuke	
Lawrence Kokajko	SAMG	SRO/RI @BWR	licensed operator on this type of plant (SOP 3938). He also taught degraded core cooling post TMI.	
Aby Mohseni	SAMG		severe accident experience for this type of unit	
George Wilson - Chief, I&C Branch		SRO/RI @BWR	BS Nuclear/Electrical Engineering Navy ET/Reactor Operator TVA I&C Supervisor STA at Watts Bar NRC License Examiner RI/SRI at BWR 4/5 Mark 2s Electrical Branch Chief 2005-2011 Evaluated Forsmark event in Sweden	
Martin Murphy			Navy Nuke program - GE / Knolls Atomic Power Laboratory employee - 6 years operating prototype Calvert Cliffs nuclear power plant - 12 years system engineering (ECCS & containment spray), senior material engineer US NRC materials engineer licensing experience project engineering - special projects	

Roy Mathews - Electrical Engineer			thirty years nuclear power plant experience in the areas of design, maintenance and operation Expert in power plant electrical engineering design and operation Participated in the NRC, IIT, AITs and Team Inspections and a qualified NRC inspector Participated in international electrical design standards	
Jeff Circle		SRO/RI @BWR	Probabilistic risk assessments, including system modeling. ROP, SDP, and SERPs Licensing interface Maintenance rule Reactive inspection decision-making Outage management Mr. Circle is a member of the HQ Incident Response Reactor Safety Team. Prior to joining the NRC, Mr. Circle worked for Entergy for 6 years (2000-2006) and with the New York Power Authority for 7 years (1993-2000). He has significant experience with BWRs and PWRs.	
Harold Barrett		SRO/RI @BWR	significant BWR experience. He worked at Nine Mile Point on and off for about 15 years. He held a Senior Reactor Operator's license at Nine Mile Point Unit 1, including several positions in Operations Management (Assistant Operations Superintendent and General Supervisor Operations), was qualified in Emergency Plan Implementation and was involved with symptom-based procedure development and participated on the BWR Owner's Group Emergency Procedures Committee (responsible for the BWR Emergency Procedure Guidelines for all BWR product lines) in the mid-1980s.	
Tim Kolb		SRO/RI @BWR	BWR specialist	
Kristy Bucholtz		SRO/RI @BWR	Recently licensed SRO at Peach Bottom.	
Chuck Norton		SRO/RI @BWR	BWR expertise (shift manager for many years at a BWR 4, resident inspector at a BWR 6 (Grand Gulf)).	
Joe Giltter			source term, incident response	
Bill Cook	SAMG		severe accident mitigation. knowledgeable of SAMAs and B.5.b strategies. considerable BWR backgrounds. Region I Senior reactor analysts.	
Wayne Schmidt	SAMG		severe accident mitigation. knowledgeable of SAMAs and B.5.b strategies. considerable BWR backgrounds. Region I Senior reactor analysts.	

Chris Cahill	SAMG		severe accident mitigation. knowledgeable of SAMAs and B.5.b strategies. considerable BWR backgrounds. Region I Senior reactor analysts.
Ron Nimitz			radiological health effects and plume modeling
Jim Noggle			radiological health effects and plume modeling
Ray McKinley		SRO/RI @BWR	incident response, former BWR 4 SRO
Edward Fuller	SAMG		Ph.D. Nuclear Engineering, Expert: Severe Accident Analysis
Donald Dube	SAMG		Ph.D. Nuclear Engineering Expert: Severe Accident Analysis and Operational Experience
Charles Hinson			M.E. Nuclear Engineering/ Health Physics Expert: ALARA & Radiological Safety Programs
Reynaldo Jenkins			M.E. Nuclear Engineering/ Health Physics Expert: ALARA & Radiological Safety Programs
Mark Ring	SAMG	SRO/RI @BWR	Div of Reactor Projects Br Chief for many years. Responsible for Dresden and Quad, I consider him one of the agency's best on BWR 3 and 4's qual in our emerg response org in rst, pmt, and response coordination
Jim Mcghee		SRO/RI @BWR	SRI Quad, former SRO BWR and BWR examiner. Former licensee Ops and Maint mana at entergy BWRs.
Jack Foster	SAMG		HOO Protective Measure Team (PMT). Qualified as Reactor Safety Team/PMT Liaison and PMT Coordinator. RST/PMT skills need include Reactor background and health physics. PMT Coordinator skill include use and training on RASCAL, GIS, overall process of PMT. Branch Chief Materials Licensing Branch in FSME. Responsibilities include: Exempt Distribution Licensing, General Licensing, Web Based Licensing/Licensing Tracking System.Branch Chief - Generic Issues and OpE (RES). Included skills are GI-199 (Seismic) and Accident sequence precursor program (ASP)
Jason Schaperow	SAMG		Severe Accident (SA) Management Strategies (SAMGs), SA phenomena, source term chemical interaction, member of RST

(b)(6)

Richard Lee	SAMG		SAMGs, SA phenomena	current passport
Mark Leonard (Sandia)	SAMG	SRO/RI @BWR	BWR SAMGs, SA phenomena	(b)(6)
Randy Gauntt (Sandia)	SAMG	SRO/RI @BWR	SAMGs, SA phenomena, source term chemical interaction	
Annie Kammerer			Seismic, tsunami, works with Japanese through IAEA program	
Steve Garchow			Licensed as a BWR 6 (Perry) SRO. Went through construction and startup. While at Perry, I developed many of the initial safety related normal operating and abnormal operating procedures. This was a "from scratch" effort and, thus, involved a large amount of research with regard to system designs, capabilities, and interfaces with other systems. Perry was the lead plant for the development of the initial BWR EOPs following TMI. I was one of the licensed SRO's responsible for the initial validation and subsequent revisions of the draft EOP's. This effort was part of the BWR industry's EOP implementation plan following TMI. While an INPO employee, was a simulator evaluation team leader. This involved evaluating BWR operating crews across the country in "emergency" EOP simulated scenarios. As an NRC Chief Examiner, led many exams on BWR 4's, 5's, and 6's. This has included exams on MARK I, MARK II and MARK III containment designs. While at INPO was an accident/incident investigator and in this capacity investigated many nuclear industry events. Was a company spokesperson at First Energy and, as such, was responsible for the JPIC during emergency situations.	
Michael Hay			Bachelors/Masters in Health Physics NRC GE/BWR series course Resident Inspector at Cooper Nuclear Station: BWR 4/Mark 1 (approx 4 years) Extensive emergency planning and event response experiences	
Tony Vogel			RI/SRI at BWR's (Fermi, Perry) Knowledgeable of BWR Mark 1 Containment Lead RIV NRC response to Hurricane Katrina Extensive emergency planning and event response experiences, including Base Team Manager	
Art Howell			26 years NRC experience	





**From:** [Rickerson, Larry](#)  
**To:** [Baca, Bernadette](#)  
**Cc:** [Carson, Louis](#); [Graves, Chris](#); [Greene, Natasha](#); [Alfredge, Casey](#)  
**Subject:** FW: Protocol for Reporting Radiological Data from Fukushima to Industry Organizations and Federal Government Agencies  
**Date:** Tuesday, March 29, 2011 10:37:30 AM  
**Importance:** High

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FYI

**From:** Sejkora, Kenneth J J [<mailto:ksejkor@entergy.com>]  
**Sent:** Tuesday, March 29, 2011 9:59 AM  
**Subject:** FW: Protocol for Reporting Radiological Data from Fukushima to Industry Organizations and Federal Government Agencies  
**Importance:** High

Hello RETS-REMP peers,

Ellen Anderson at NEI asked me to forward this message out to the RETS-REMP Community. NEI has been requested to compile utility REMP data that indicate measurable radioactivity from the Fukushima event. The Radiation Protection Managers at your facilities will be emailed a password which your site will use to access the NEI database and input your data. Please consider contributing your site's results to NEI's data-gathering efforts, as such data-sharing is an important outreach tool that demonstrates the industry's interest in responding to stakeholder needs.

Thank you.

Ken Sejkora, RETS-REMP Steering Committee  
phone: 508-830-8469  
fax: 508-830-8939  
email: [ksejkor@entergy.com](mailto:ksejkor@entergy.com)



Please consider the environment before printing this email

**From:** PIETRANGELO, Tony  
**Sent:** Tuesday, March 29, 2011 9:05 AM  
**Subject:** Protocol for Reporting Radiological Data from Fukushima to Industry Organizations and Federal Government Agencies

March 29, 2011

**To:** Nuclear Strategic Issues Advisory Committee Steering Group  
**Subject:** Protocol for Reporting Radiological Data from Fukushima to Industry Organizations and Federal Government Agencies

NEI has been requested to collect and disseminate radiological data resulting from the Fukushima event from U.S. nuclear plant sites. This data will be made available (READ ONLY) to INPO, EPRI, NRC, EPA and the White House Office of Science of Technology and Policy (OSTP).

Today we will be launching a new website for your plant personnel to input any environmental data that you may have collected as a result of the events at Fukushima. Our objective is to provide data to federal government agencies and industry organizations in a manner that minimizes burden on individual plant personnel.

CCCC/79

Your plant Radiation Protection Manager will receive an email later today containing a User ID and password. Each site will have one User ID and password. We have asked your staff to populate the web page with any previous data that you may have collected since the events at Fukushima.

Should you have any questions or require any additional information, please contact me, Ralph Andersen at (b)(6) or [rla@nei.org](mailto:rla@nei.org), or Ellen Anderson at (b)(6) or [exa@nei.org](mailto:exa@nei.org).

Anthony R. Pietrangelo  
Senior Vice President and Chief Nuclear Officer

Nuclear Energy Institute  
1776 I Street NW, Suite 400  
Washington, DC 20006  
[www.nei.org](http://www.nei.org)

P: 202-739-8081

F: 202-533-0182

M: (b)(6)

E: [arp@nei.org](mailto:arp@nei.org)

Greenwood, Carol

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**From:** Gibson, Kathy  
**Sent:** Sunday, March 27, 2011 12:45 PM  
**To:** Tinkler, Charles; Schaperow, Jason  
**Cc:** Sheron, Brian; Uhle, Jennifer; Bush-Goddard, Stephanie  
**Subject:** Fw: Fukushima SFP Source Terms  
**Attachments:** Fukushima SFP Source Terms.xlsx

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**From:** Gauntt, Randall O <rogaunt@sandia.gov>  
**To:** Gibson, Kathy; Lee, Richard  
**Cc:** (b)(6) <(b)(6)>  
**Sent:** Sun Mar 27 12:23:08 2011  
**Subject:** FW: Fukushima SFP Source Terms

Richard,

As I mentioned on the phone this morning, Sandia generated early estimates of potential source terms from one of the reactors and from the unit-4 spent pool. We based on reactor source term on a SOARCA analysis case for the long-term station blackout for Peach Bottom where we scaled the core inventory to account for the smaller reactor power in Fukushima Unit 1 reactor. For the Unit-4 spent fuel pool, we used isotopic inventory for the pool based on an Origen inventory that we obtained from GE. We provided this to Jason Schaperow and Michelle Hart who were working with the Rascal people in the EOC on Friday evening March 18.

Reactor Source Term - All Fukushima Reactors Experience Variations of Long Term Station Blackout

The reactor source term has the following attributes: In the Peach Bottom long term station blackout, we assumed the batteries to have failed at 4 hours - they lasted longer in the Unit 1, perhaps 8 hours. It is normal in LTSBO that the operators will open SRV's manually to depressurize the vessel and allow for easier water injection. After battery depletion, the SRV's can no longer be opened manually and the reactor vessel pressure rises to the high setpoint of the SRV's. When the pressure in the reactor vessel exceeds the setpoint of the SRV's they automatically lift and vent steam to the suppression pool along with any hydrogen or fission products that have been produced in-vessel. For this accident, the fuel fission product releases do not enter the drywell containment because the SRV (safety relief valves) will vent through the wetwell. This provides effective scrubbing of fission products until the suppression pool reaches the boiling point. By then, the hydrogen gas accumulated in the suppression pool has subsequently been vented to the drywell along with any unscrubbed fission products (most are scrubbed except for Xe and Kr, and there are a lot of curies of these). After suppression pools have reached boiling temperatures, the drywell pressure will rise along with the wetwell, ultimately requiring venting of the containment in order to avoid catastrophic failure. The static overpressure failure pressure of the containment is about 150 psi unless the drywell head bolts are at elevated temperature when the failure pressure will be lower - perhaps something around 100 psi. There seem to have been several venting operations for Unit 1, one of which produced the hydrogen explosion that took off the roof of the reactor building. This venting operation also must have released some fraction of the scrubbed inventory in the drywell (assuming the vented the drywell and not the wetwell). Summary: the reactor source term is a scrubbed source term. The release to the environment should have been very low, lower than the approximate estimate provided in the attached Excel file.

Spent Fuel Pool Source Term

This estimate was re-rendered from pool water loss analyses that Sandia did a few years ago in the pool vulnerability work. The analysis involved a comparative larger Cs release - we estimate ~50%, but this release comes out over a period of 1 day and longer. In parallel, we have running presently more specific MELCOR analyses on the Unit 4 pool using more up to date information. I will see if I have preliminary results that I can send on. We provided the earlier estimates to the OP Center last Friday as well.

---

**From:** Gauntt, Randall O  
**Sent:** Friday, March 18, 2011 7:06 PM  
**To:** Gauntt, Randall O; 'michelle.hart@nrc.gov'; 'Charles.Tinkler@nrc.gov'; 'Schaperow, Jason'  
**Cc:** 'pmt09.hoc@nrc.gov'; 'pmt11.hoc@nrc.gov'; 'pmt12.hoc@nrc.gov'; Pickering, Susan Y; Orrell, Stanley A  
**Subject:** RE: Fukushima SFP Source Terms

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**From:** Gauntt, Randall O  
**Sent:** Friday, March 18, 2011 5:48 PM  
**To:** Gauntt, Randall O; 'michelle.hart@nrc.gov'; 'Charles.Tinkler@nrc.gov'; 'Schaperow, Jason'  
**Cc:** 'pmt09.hoc@nrc.gov'; 'pmt11.hoc@nrc.gov'; 'pmt12.hoc@nrc.gov'; Pickering, Susan Y; Orrell, Stanley A  
**Subject:** RE: Fukushima SFP Source Terms

Attached is the latest Excel sheet. See the tab marked Peach Bottom.

I have entered release fractions and recommend using .5 hr release duration since most comes out over that period and might better mimic the steam venting releases of the Fukushima reactors.

Randy

<< File: Fukushima SFP Source Terms.xlsx >>

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**From:** Gauntt, Randall O  
**Sent:** Friday, March 18, 2011 4:41 PM  
**To:** 'michelle.hart@nrc.gov'; 'Charles.Tinkler@nrc.gov'; 'Schaperow, Jason'  
**Cc:** 'pmt09.hoc@nrc.gov'; 'pmt11.hoc@nrc.gov'; 'pmt12.hoc@nrc.gov'; Pickering, Susan Y; Orrell, Stanley A  
**Subject:** Fukushima SFP Source Terms

I would recommend staggering these source terms out, perhaps 24 to 48 hrs apart, starting with Unit 4.

The inventory and released radioactivity is in CURIES.

I do not have a decay power for units 1, 2 or 3, but Unit 4 has a total decay power of ~3.5MW. You might use that for the plume energy for unit 4 pool.

I would very much like to see the results of the NARAC analysis.

Randall Gauntt  
505 284 3989

(b)(6) Cell

<< File: Randall O Gauntt Ph D .vcf >>

<< File: Fukushima SFP Source Terms.xlsx >>

Sandia National Labs  
From MACCS App.C

	Release Fraction	Duration (hr)	NucNam	CorInv(Bq)
Xe	0.978	0.5	Ba140	6.28E+18
Cs	0.018	0.5	Ce144	5.65E+18
Ba	0.006	0.5	Cs134	4.32E+17
I	0.037	0.5	Cs136	1.31E+17
Te	0.024	0.5	Cs137	2.41E+17
Ru	0	0.5	I131	3.20E+18
Mo	0.004	0.5	I132	4.72E+18
Ce	0.001	0.5	I133	6.77E+18
La	0	0.5	I134	7.44E+18
			I135	6.39E+18
			Kr85	2.47E+16
			Kr85m	1.15E+18
			Kr87	2.11E+18
			Kr88	2.86E+18
			La140	6.35E+18
			Mo99	6.09E+18
			Np239	6.46E+19
			Ru103	4.55E+18
			Ru106	1.03E+18
			Sb127	2.78E+17
			Sb129	9.87E+17
			Sr89	3.59E+18
			Sr90	1.93E+17
			Sr91	4.62E+18
			Sr92	4.80E+18
			Te129m	2.44E+17
			Te131m	4.68E+17
			Te132	4.65E+18
			Xe131m	
			Xe133	6.78E+18
			Xe133m	
			Xe135	1.27E+18
			Xe138	
			Yt91	4.47E+18

Release Fraction	Release Activity (Bq)	Release Activity (Ci)
0.006	3.77E+16	1.02E+06
0.001	5.65E+15	1.53E+05
0.018	7.78E+15	2.10E+05
0.018	2.36E+15	6.37E+04
0.018	4.34E+15	1.17E+05
0.037	1.18E+17	3.20E+06
0.037	1.75E+17	4.72E+06
0.037	2.50E+17	6.77E+06
0.037	2.75E+17	7.44E+06
0.037	2.36E+17	6.39E+06
0.978	2.42E+16	6.53E+05
0.978	1.12E+18	3.04E+07
0.978	2.06E+18	5.58E+07
0.978	2.80E+18	7.56E+07
0	0.00E+00	0.00E+00
0.004	2.44E+16	6.58E+05
0.001	6.46E+16	1.75E+06
0	0.00E+00	0.00E+00
0	0.00E+00	0.00E+00
0.001	2.78E+14	7.51E+03
0.001	9.87E+14	2.67E+04
0.006	2.15E+16	5.82E+05
0.006	1.16E+15	3.13E+04
0.006	2.77E+16	7.49E+05
0.006	2.88E+16	7.78E+05
0.024	5.86E+15	1.58E+05
0.024	1.12E+16	3.04E+05
0.024	1.12E+17	3.02E+06
0.978	0.00E+00	0.00E+00
0.978	6.63E+18	1.79E+08
0.978	0.00E+00	0.00E+00
0.978	1.24E+18	3.36E+07
0.978	0.00E+00	0.00E+00
0	0.00E+00	0.00E+00

Greenwood, Carol

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**From:** Gibson, Kathy  
**Sent:** Sunday, March 27, 2011 1:33 PM  
**To:** Tinkler, Charles; Schaperow, Jason; Bush-Goddard, Stephanie  
**Cc:** Sheron, Brian; Uhle, Jennifer; Lee, Richard  
**Subject:** Fw: NUREG-1465 Notes  
**Attachments:** Order of Magnitude Estimation of Dose Rate for an Accident[1].docx

I communicated this verbally to various folks in the Ops Center when I was on shift last weekend (including Charlie Miller, Bruce Watson, Marty Virgilio, Mike Johnson, Rob Lewis) however I think they are still using RASCAL source terms. We will have to figure out how to approach this in the Comm briefing.

---

**From:** Gauntt, Randall O <[rogaunt@sandia.gov](mailto:rogaunt@sandia.gov)>  
**To:** Gibson, Kathy  
**Cc:** Lee, Richard  
**Sent:** Sun Mar 27 13:11:28 2011  
**Subject:** NUREG-1465 Notes

RE: Dose Rate Estimates I sent earlier: Thought I sent them, but must have messed up.

In looking over the OP Center e-mails regarding Rascal - They are using NUREG-1465 source terms to the containment. This is totally wrong for Fukushima reactors. The NUREG-1465 Regulatory Containment Source term is very DBA LBLOCA centric - which for the BWR's is representative of a Main Steam Line Break (LBLOCA) that vents steam into the DRYWELL. The NUREG-1465 source term to the dry well is then used in Reg space to test against 10CFR100 boundary dose requirements assuming containment design leakage. NUREG-1654 is being misused in this sense.

Why? The releases from the fuel in the LTSBO are not going into the drywell as would be the case in a DBA-LBLOCA, they are going into the wetwell. So the discussion about depletion in the drywell using the Powers model is a bit off the mark. Such depletion could be applied to airborne particles that successfully escape suppression pools scrubbing through and find their way eventually into the wetwell.

Hope this helps. *rd*  
Randy

(b)(6)

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**From:** Gibson, Kathy [[Kathy.Gibson@nrc.gov](mailto:Kathy.Gibson@nrc.gov)]  
**Sent:** Sunday, March 27, 2011 10:46 AM  
**To:** Gauntt, Randall O  
**Subject:** Re: Dose Rate Estimates I sent earlier

Thanks Randy for the source term information. Would you resend the dose rate estimates? I don't think I've seen them.  
Thx

---

**From:** Gauntt, Randall O <[rogaunt@sandia.gov](mailto:rogaunt@sandia.gov)>  
**To:** Gibson, Kathy; Lee, Richard  
**Cc:** (b)(6)  
**Sent:** Sun Mar 27 12:33:01 2011  
**Subject:** Dose Rate Estimates I sent earlier

# Analysis of Radiation Dose Above Fukushima 4 Spent Fuel Pool

Randall O. Gauntt – Sandia National Laboratories - March 19, 2011

$$\text{Rad} := 100 \frac{\text{erg}}{\text{gm}} \quad \text{Curies} := 3.7 \cdot 10^{10} \text{ sec}^{-1} \quad \text{MeV} := 3.83 \cdot 10^{-14} \text{ cal}$$

$$\mu_a := 0.06 \frac{\text{cm}^2}{\text{gm}}$$

$$\rho_{\text{air}} := 1.2 \frac{\text{gm}}{1000 \text{ cm}^3} \quad \rho_{\text{concrete}} := 2.5 \frac{\text{gm}}{\text{cm}^3} \quad \rho_{\text{sand}} := 1 \frac{\text{gm}}{\text{cm}^3} \quad \rho_{\text{steel}} := 8 \frac{\text{gm}}{\text{cm}^3}$$

$$A_{\text{total}} := (0.7 \cdot 10)^9 \text{ Curies} \quad \text{Activity of Fukushima Pool 4}$$

Estimate of gamma dose

$$\mu := 0.03 \frac{\text{cm}^2}{\text{gm}} \quad \phi(r, \delta z_{\text{steel}}, \delta z_{\text{conc}}) := \left( \frac{A_{\text{total}}}{4 \cdot \pi \cdot r^2} \right) \cdot \left( e^{-\mu_a \cdot \rho_{\text{air}} \cdot r} \right) \cdot \left( e^{-\mu_a \cdot \rho_{\text{steel}} \cdot \delta z_{\text{steel}}} \right) \cdot \left( e^{-\mu_a \cdot \rho_{\text{concrete}} \cdot \delta z_{\text{conc}}} \right)$$

$$\text{Dose\_Rate}(r, \delta z_{\text{steel}}, \delta z_{\text{conc}}) := \phi(r, \delta z_{\text{steel}}, \delta z_{\text{conc}}) \cdot E_{\gamma} \cdot \mu$$

$$i := 1, 2, \dots, 1000$$

Dose rate attenuation by thicknesses of steel and concrete and distance x from point source

$$x_i := i \cdot r$$

$$\text{Dose\_Rate}(x_i, 0 \text{ m}, 0 \text{ m})$$

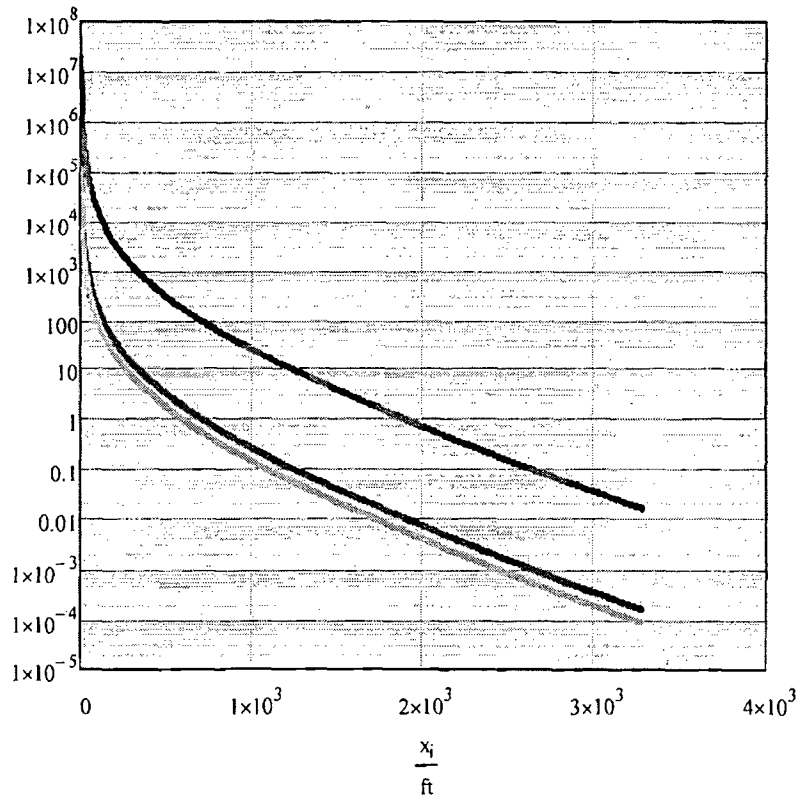
$$\frac{\text{Rad}}{\text{hr}}$$

$$\text{Dose\_Rate}(x_i, 0 \text{ m}, 1 \text{ ft})$$

$$\frac{\text{Rad}}{\text{hr}}$$

$$\text{Dose\_Rate}(x_i, 0.5 \text{ in}, 1 \text{ ft})$$

$$\frac{\text{Rad}}{\text{hr}}$$





**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Sunday, March 27, 2011 1:38 PM  
**To:** 'rogaunt@sandia.gov'  
**Cc:** Lee, Richard  
**Subject:** Re: NUREG-1465 Notes

For Unit 3 if in fact the RPV or suppression pool is damaged, then couldn't the 1465 source terms be used?

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**From:** Gauntt, Randall O <rogaunt@sandia.gov>  
**To:** Gibson, Kathy  
**Cc:** Lee, Richard  
**Sent:** Sun Mar 27 13:11:28 2011  
**Subject:** NUREG-1465 Notes

RE: Dose Rate Estimates I sent earlier: Thought I sent them, but must have messed up.

In looking over the OP Center e-mails regarding Rascal - They are using NUREG-1465 source terms to the containment. This is totally wrong for Fukushima reactors. The NUREG-1465 Regulatory Containment Source term is very DBA LBLOCA centric - which for the BWR's is representative of a Main Steam Line Break (LBLOCA) that vents steam into the DRYWELL. The NUREG-1465 source term to the dry well is then used in Reg space to test against 10CFR100 boundary dose requirements assuming containment design leakage. NUREG-1654 is being misused in this sense.

Why? The releases from the fuel in the LTSBO are not going into the drywell as would be the case in a DBA-LBLOCA, they are going into the wetwell. So the discussion about depletion in the drywell using the Powers model is a bit off the mark. Such depletion could be applied to airborne particles that successfully escape suppression pools scrubbing through and find their way eventually into the wetwell.

Hope this helps.

Randy

(b)(6)

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**From:** Gibson, Kathy [Kathy.Gibson@nrc.gov]  
**Sent:** Sunday, March 27, 2011 10:46 AM  
**To:** Gauntt, Randall O  
**Subject:** Re: Dose Rate Estimates I sent earlier

Thanks Randy for the source term information. Would you resend the dose rate estimates? I don't think I've seen them.  
Thx

---

**From:** Gauntt, Randall O <rogaunt@sandia.gov>  
**To:** Gibson, Kathy; Lee, Richard  
**Cc:** (b)(6)  
**Sent:** Sun Mar 27 12:33:01 2011  
**Subject:** Dose Rate Estimates I sent earlier

## Rihm, Roger

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**From:** Rihm, Roger  
**Sent:** Wednesday, March 30, 2011 7:32 AM  
**To:** Weber, Michael; Aissa, Mourad  
**Cc:** Sheron, Brian; Uhle, Jennifer; Powell, Amy; Andersen, James; Muessle, Mary; Bowman, Gregory; Frazier, Alan  
**Subject:** Re: Response - Question from the Chairman's Office (COB today)

Alan got something on mox to chmn last nite.

Sent from an NRC BlackBerry  
Roger S. Rihm

(b)(6)

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**From:** Weber, Michael  
**To:** Aissa, Mourad  
**Cc:** Sheron, Brian; Uhle, Jennifer; Rihm, Roger; Powell, Amy; Andersen, James; Muessle, Mary; Bowman, Gregory; Frazier, Alan  
**Sent:** Tue Mar 29 22:20:06 2011  
**Subject:** Response - Question from the Chairman's Office (COB today)

Thanks. Did someone deliver this Q&A to the Chairman's Office?

---

**From:** Aissa, Mourad  
**To:** Armstrong, Kenneth  
**Cc:** Lee, Richard; Hoxie, Chris; Bowman, Gregory; Frazier, Alan; Weber, Michael; Sheron, Brian; Gibson, Kathy  
**Sent:** Tue Mar 29 19:08:16 2011  
**Subject:** RE: Action: Question from the Chairman's Office (COB today)

Ken,

Attached is the requested information. After we iterated, the request has been clarified as having to do with a plutonium question to the EDO and the impact of MOX fuel. Attached is a summary of information on the impact of MOX. Thanks

Mourad

Mourad Aissa, PhD  
Senior Criticality Analysis and Reactor Physics Engineer  
Office of Nuclear Regulatory Research  
Mail Stop CSB-3A07M  
US Nuclear Regulatory Commission  
Washington, DC 20555-0001  
Phone: (301) 251-7511

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**From:** Armstrong, Kenneth  
**Sent:** Tuesday, March 29, 2011 3:04 PM  
**To:** Esmaili, Hossein; Salay, Michael; Aissa, Mourad; Hudson, Nathanael; Yarsky, Peter  
**Cc:** Algama, Don; Lee, Richard; Hoxie, Chris  
**Subject:** Action: Question from the Chairman's Office (COB today)  
**Importance:** High

Please let me know if you have any input into the request below?

---

**From:** Bowman, Gregory  
**Sent:** Tuesday, March 29, 2011 2:51 PM  
**To:** Armstrong, Kenneth  
**Subject:** Question from the Chairman's Office  
**Importance:** High

Like we discussed...

We got an information request to help prepare the Chairman for Congressional testimony tomorrow. The Chairman is interested in knowing how the isotopic composition of fuel changes over life of the core (from BOL, after each cycle, to EOL). The Chairman's office is looking for something by 5:30 this evening.

I realize this is difficult question with a lot of different variables. We're really looking for a more general response, and because the Chairman's office is using it to prepare for Congressional testimony, it would be better to avoid anything highly technical.

NMSS/SFST was also asked to help with a response, but we were thinking RES might have expertise in this area, as well, and might be better suited to help.

Greg

**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Wednesday, March 30, 2011 6:34 PM  
**To:** Cheok, Michael  
**Subject:** Re: Request for Ops Center RTS support

I'm not in (b)(6) - working from home via Bberry :-)

---

**From:** Cheok, Michael  
**To:** Gibson, Kathy; Correia, Richard  
**Cc:** Coe, Doug; Lee, Samson; Tate, Travis; Harrison, Donnie; Parillo, John  
**Sent:** Wed Mar 30 18:16:08 2011  
**Subject:** FW: Request for Ops Center RTS support

Kathy – thanks. I tried to call earlier, someone said you were not in.

Your plan sound good. NRR/DRA can support as you see fit. (Rich – please call if we can be of help)

Mike

---

**From:** Gibson, Kathy  
**Sent:** Wednesday, March 30, 2011 6:05 PM  
**To:** RST06 Hoc; Ruland, William; Arndt, Steven; Skeen, David; Cheok, Michael; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald; Correia, Richard  
**Subject:** Re: Request for Ops Center RTS support

First, I can't tell who "me" is. Suggest if you are using an HOC email address you first say who you are.

Second, RES has the lead for both items, DSA (me) for the first one and DRA (Doug Coe) for the second one. I added Rich Correia to the distribution as he is our new DRA division director and Doug Coe's father passed away so he is gone.

Richard Lee is our POC with the Ops Center. Charlie Tinkler is the staff person working the first item and Mary Druin is working the second item.

Let us know (preferably via Richard) if you need anything else.

---

**From:** RST06 Hoc  
**To:** Ruland, William; Arndt, Steven; Skeen, David; Cheok, Michael; Gibson, Kathy; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald  
**Sent:** Wed Mar 30 17:35:33 2011  
**Subject:** RE: Request for Ops Center RTS support

Just noticed that I'm not even on the distribution. Please add me. Thanks.

---

**From:** RST06 Hoc  
**Sent:** Wednesday, March 30, 2011 5:34 PM  
**To:** Ruland, William; Arndt, Steven; Skeen, David; Cheok, Michael; Gibson, Kathy; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald  
**Subject:** RE: Request for Ops Center RTS support

Thanks Bill. You must be a fan of other tired, old, acts too – Cher maybe?

Before responding, can I ask that whomever has stepped-up to take the lead for this do a respond-all to let us know?

Objective for first question (energetic release potential): this information is important to the Ambassador in Japan and the US military command that would be responsible for movement of US citizens who were ordered to be evacuated from any locations in the Pacific. In fact, the Pacific Command asked the same question of the NRC at today's Deputies Meeting that is attended by the Chairman. The answer to this question may also impact when we as the NRC ramp down our activities? **We should attempt to address this by Friday (4/1).**

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Of course, my request should be seen as the start of a process, and that others should add to it in order to shape into an end product that goes beyond, or corrects, the vision that I started with.

Fred

---

**From:** Ruland, William

**Sent:** Wednesday, March 30, 2011 10:36 AM

**To:** Arndt, Steven; Skeen, David; RST06 Hoc; Cheok, Michael; Gibson, Kathy

**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael

**Subject:** RE: Request for Ops Center RTS support

Great thinking! I've always been a Fred Brown fan! For my benefit, what is the objectives for this task and by when do we need to get the answers?

Regarding the core damage percentages, I understand that they were early numbers. Are we yet in a position to revise them?

Bill

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**To:** Skeen, David; RST06 Hoc; Cheok, Michael; Gibson, Kathy

**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael

**Subject:** Re: Request for Ops Center RTS support

I agree with Dave, this should be done out side of the Op Center. A group of RES folks are already doing some analysis in this area (DRA and DSA) to support the PMT. We should task them to do this and provide them with additional resources if needed.

Sent from a NRC blackberry

Steven Arndt

(b)(6)

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**From:** Skeen, David  
**To:** RST06 Hoc; Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; Arndt, Steven  
**Sent:** Tue Mar 29 23:43:46 2011  
**Subject:** Re: Request for Ops Center RTS support

Good thought, Fred.

I think this would be a worthwhile task, and I think we need a small group of severe accident experts to discuss the potential worst case outcomes for each scenario.

I believe this effort should be conducted outside of the RST, on the normal day shift, with either NRR or RES taking the lead to put a team together to develop the potential outcomes.

Please let me know if you need any support from NRR/DE. We could potentially offer Steve Arndt to support.

---

**From:** RST06 Hoc  
**To:** Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; Skeen, David; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; RST01 Hoc  
**Sent:** Tue Mar 29 23:01:43 2011  
**Subject:** RE: Request for Ops Center RTS support

Please see below.

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**From:** Brown, Frederick  
**Sent:** Tuesday, March 29, 2011 10:56 PM  
**To:** Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; Skeen, David; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; Brown, Frederick; RST01 Hoc  
**Subject:** Request for Ops Center RTS support  
**Importance:** High

Mike, Kathy

First, I'm not sure that you two are the right folks to ask, but I know that you'll know where this should go.

I'd like to have folks with the right skill set look at two issues (the two are inter-related, but the first may be easier to give a quick answer to without the work that the second will take):

- 1) Given the known, or assumed, status of the three units and four pools, what realistic scenarios exist for energetic dispersion of high quantities of radioactive material that would result in mobile plumes? The point of this question is that there are many clear scenarios that present significant near-area radiological challenges, but given the time since shutdown (for the operating units) and age of much of the fuel (in the SFPs) what are the remaining scenarios of concern with respect to more distant locations (Tokyo with a large concentration of US citizens, Alaska, Hawaii, etc).
- 2) Given the assumed condition of the three units and four pools, can we generate basic event trees for the coming weeks/months? The point would be to identify key success criteria and to help identify key decision points/risk factors to be balanced (qualitative not quantitative analysis). For instance, take two units, each with

significant core damage and prior release of volatile fission products, each with primary and secondary containment failure, but one with an intact RPV and the other with a breach of RPV - would there be a difference in potential releases that would lead to different strategies for flooding the primary containment of these two units? This question will make more sense if you look at the assumed conditions below and the attached assessment document where we recommend that TEPCO utilize the SAMG recommendation to flood all 3 units' containments.

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**Greenwood, Carol**

---

**From:** Gibson, Kathy  
**Sent:** Wednesday, March 30, 2011 6:09 PM  
**To:** RST06 Hoc; Cheok, Michael; Ruland, William; Arndt, Steven; Skeen, David; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald; Harrison, Donnie; Lee, Samson; Tate, Travis; Parillo, John; Brown, Frederick; Lee, Richard; Correia, Richard  
**Subject:** Re: Request for Ops Center RTS support

Suggest Mike Cheok and Rich Correia get together and agree on who has lead for item 2.

---

**From:** RST06 Hoc  
**To:** Cheok, Michael; Ruland, William; Arndt, Steven; Skeen, David; Gibson, Kathy; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald; Harrison, Donnie; Lee, Samson; Tate, Travis; Parillo, John; Brown, Frederick  
**Sent:** Wed Mar 30 18:06:31 2011  
**Subject:** RE: Request for Ops Center RTS support

Thanks Mike.

Mike Scott is in Japan.

Fred Brown  
RST on-shift Director

---

**From:** Cheok, Michael  
**Sent:** Wednesday, March 30, 2011 6:05 PM  
**To:** RST06 Hoc; Ruland, William; Arndt, Steven; Skeen, David; Gibson, Kathy; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald; Harrison, Donnie; Lee, Samson; Tate, Travis; Parillo, John  
**Subject:** RE: Request for Ops Center RTS support

The first question will need SOARCA/PRA Level II expertise – so RES/DSA (Kathy's staff) would be optimal (Kathy was not in the office today, and I will discuss this with her and/or Mike Scott tomorrow). NRR/DRA can support with John Parillo or someone else in our accident dose branch.

NRR/DRA (Donnie Harrison will be POC) can take the lead on Question 2 and will work with RES/DRA and RES/DSA on a response.

---

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**Sent:** Wednesday, March 30, 2011 5:34 PM  
**To:** Ruland, William; Arndt, Steven; Skeen, David; Cheok, Michael; Gibson, Kathy; Coe, Doug  
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(b)(6)

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**Greenwood, Carol**

---

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**Sent:** Wednesday, March 30, 2011 6:37 PM  
**To:** RST06 Hoc  
**Subject:** Re: Request for Ops Center RTS support

Let's hear you sing, just to be sure! ;-)

---

**From:** RST06 Hoc  
**To:** Gibson, Kathy  
**Sent:** Wed Mar 30 18:33:17 2011  
**Subject:** RE: Request for Ops Center RTS support

Thanks Kathy.

Its Cher, oops, no its Fred

---

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Richard Lee is our POC with the Ops Center. Charlie Tinkler is the staff person working the first item and Mary Druin is working the second item.

Let us know (preferably via Richard) if you need anything else.

---

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**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald  
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Thanks Bill. You must be a fan of other tired, old, acts too – Cher maybe?

Before responding, can I ask that whomever has stepped-up to take the lead for this do a respond-all to let us know?

Objective for first question (energetic release potential): this information is important to the Ambassador in Japan and the US military command that would be responsible for movement of US citizens who were ordered to be evacuated from any locations in the Pacific. In fact, the Pacific Command asked the same question of the NRC at today's Deputies Meeting that is attended by the Chairman. The answer to this question may also impact when we as the NRC ramp down our activities? **We should attempt to address this by Friday (4/1).**

Objective for the second question is to support multiple questions/actions. There have been many requests of the PMT for "realistic" dose models. The RST Assessment document (original e-mail was supposed to have it attached, but I've added to this incase it did not go out the first time) also contains recommended actions for the Japanese to consider. These recommendations are based on the SAMGS, which all are intended to protect primary containment. Since primary containment is damaged on at least two units, we need to assess whether there may be new considerations/priorities that are not captured by the SAMGs. Also, the product of this effort helps us better clarify the assessment of potential energetic releases, along with identifying the best strategies to ensure that they don't happen. **This item does not have as short a deliverable date unless the PMT has one that I'm not aware of, but is still very significant in terms of our recommendations. Can we complete by Monday (4/4)?**

Of course, my request should be seen as the start of a process, and that others should add to it in order to shape into an end product that goes beyond, or corrects, the vision that I started with.

Fred

---

**From:** Ruland, William  
**Sent:** Wednesday, March 30, 2011 10:36 AM  
**To:** Arndt, Steven; Skeen, David; RST06 Hoc; Cheok, Michael; Gibson, Kathy  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael  
**Subject:** RE: Request for Ops Center RTS support

Great thinking! I've always been a Fred Brown fan! For my benefit, what is the objectives for this task and by when do we need to get the answers?

Regarding the core damage percentages, I understand that they were early numbers. Are we yet in a position to revise them?

Bill

---

**From:** Arndt, Steven  
**Sent:** Wednesday, March 30, 2011 7:33 AM  
**To:** Skeen, David; RST06 Hoc; Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael  
**Subject:** Re: Request for Ops Center RTS support

I agree with Dave, this should be done out side of the Op Center. A group of RES folks are already doing some analysis in this area (DRA and DSA) to support the PMT. We should task them to do this and provide them with additional resources if needed.

Sent from a NRC blackberry  
Steven Arndt

(b)(6)

---

**From:** Skeen, David  
**To:** RST06 Hoc; Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; Arndt, Steven  
**Sent:** Tue Mar 29 23:43:46 2011  
**Subject:** Re: Request for Ops Center RTS support

Good thought, Fred.

I think this would be a worthwhile task, and I think we need a small group of severe accident experts to discuss the potential worst case outcomes for each scenario.

I believe this effort should be conducted outside of the RST, on the normal day shift, with either NRR or RES taking the lead to put a team together to develop the potential outcomes.

Please let me know if you need any support from NRR/DE. We could potentially offer Steve Arndt to support.

---

**From:** RST06 Hoc  
**To:** Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; Skeen, David; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; RST01 Hoc  
**Sent:** Tue Mar 29 23:01:43 2011  
**Subject:** RE: Request for Ops Center RTS support

Please see below.

---

**From:** Brown, Frederick  
**Sent:** Tuesday, March 29, 2011 10:56 PM  
**To:** Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; Skeen, David; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; Brown, Frederick; RST01 Hoc  
**Subject:** Request for Ops Center RTS support  
**Importance:** High

Mike, Kathy

First, I'm not sure that you two are the right folks to ask, but I know that you'll know where this should go.

I'd like to have folks with the right skill set look at two issues (the two are inter-related, but the first may be easier to give a quick answer to without the work that the second will take):

- 1) Given the known, or assumed, status of the three units and four pools, what realistic scenarios exist for energetic dispersion of high quantities of radioactive material that would result in mobile plumes? The point of this question is that there are many clear scenarios that present significant near-area radiological challenges, but given the time since shutdown (for the operating units) and age of much of the fuel (in the SFPs) what are the remaining scenarios of concern with respect to more distant locations (Tokyo with a large concentration of US citizens, Alaska, Hawaii, etc).
- 2) Given the assumed condition of the three units and four pools, can we generate basic event trees for the coming weeks/months? The point would be to identify key success criteria and to help identify key decision points/risk factors to be balanced (qualitative not quantitative analysis). For instance, take two units, each with significant core damage and prior release of volatile fission products, each with primary and secondary containment failure, but one with an intact RPV and the other with a breach of RPV - would there be a

difference in potential releases that would lead to different strategies for flooding the primary containment of these two units? This question will make more sense if you look at the assumed conditions below and the attached assessment document where we recommend that TEPCO utilize the SAMG recommendation to flood all 3 units' containments.

Note that the intent is to limit this activity to hours and days, not weeks or years. Once we validate the concept of this evaluation, we can turn it over to US industry for further action/development.

Assumed status (slightly different than the status in the attached assessment):

Unit 1 Rx: Shutdown 3/11. 70% core damage. Cooling with 30 gpm. Significant salt deposits in vessel, core spray plugged. Primary pressure 65 psig. Drywell pressure 25 psig. Secondary containment destroyed. Containment has been vented at least once since fuel damage occurred. Attempting to establish Nitrogen purge prior to resuming venting.

Unit 2 Rx: Shutdown 3/11. 30% core damage. Significant salt deposits in vessel/drywell. Assumed RPV breach, with at least some core ex-vessel that occurred approximately 3/15. Primary containment breached in the torus. Secondary containment breached. Significant release of volatile fission products has occurred through both airborne release and also via water drainage out of the Rx building.

Unit 3 Rx: same assumptions as Unit 2, but do not assume RPV failure and location of primary containment breach may be the drywell.

SFP 1: 292 bundles. Pool intact. All fuel at least 12 years old. No secondary containment. Rubble on top of pool. Water can be added through external spray. Now at saturation temperature.

SFP 2: 587 bundles. Pool intact. Water added to the point of pool over-flow. Pool had reached saturation temperature at one time.

SFP 3: 548 bundles. ¼ core offload previous refueling. No checker boarding of hotter fuel. Structural damage to pool area suspected. Pool leakage possible. External addition of water has been made repeatedly, but flooding of pool may not be possible due to damage.

SFP 4: 1331 bundles. Full core offload about 120 days ago. No checker boarding of hotter fuel. Structural damage to pool area is known to exist, and structure may not support a full pool weight load. Pool leakage likely, requiring addition of water periodically. Pool was likely dry enough to have cladding/water reaction which produced enough hydrogen to lead to catastrophic explosion that destroyed secondary containment.

**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Friday, April 01, 2011 1:28 PM  
**To:** Tinkler, Charles; Lee, Richard  
**Cc:** Wagner, Katie; Schaperow, Jason  
**Subject:** Re: Proposed Task Tracker

Ok I will ask.

---

**From:** Tinkler, Charles  
**To:** Gibson, Kathy; Lee, Richard  
**Cc:** Wagner, Katie; Schaperow, Jason  
**Sent:** Fri Apr 01 13:20:19 2011  
**Subject:** RE: Proposed Task Tracker

Correct ,,

it would be nice to have confirmation the PMT sent this source term to NARAC or have started to use it themselves with RASCAL

---

**From:** Gibson, Kathy  
**Sent:** Friday, April 01, 2011 1:14 PM  
**To:** Tinkler, Charles; Lee, Richard  
**Cc:** Wagner, Katie  
**Subject:** Re: Proposed Task Tracker

We are done with Task 1, correct?

---

**From:** Harrison, Donnie  
**To:** Correia, Richard; Coe, Doug; Cheok, Michael; Drouin, Mary; Demoss, Gary; Gibson, Kathy; Tinkler, Charles  
**Sent:** Fri Apr 01 13:04:02 2011  
**Subject:** Re: Proposed Task Tracker

I have been working with Mary Drouin et al on the second question. As I will be out next week, the plan going forward is for Mary to continue this activity with her team into Monday. These event sequence diagrams are coming along quite well due in large part to Mary and should be a good product for review Monday or Tuesday.

Sent from NRC blackberry  
Donnie Harrison

(b)(6)

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**From:** Correia, Richard  
**To:** Coe, Doug; Cheok, Michael; Drouin, Mary; Demoss, Gary; Gibson, Kathy; Tinkler, Charles; Harrison, Donnie  
**Sent:** Thu Mar 31 12:48:39 2011  
**Subject:** FW: Proposed Task Tracker

FYI

Richard Correia, PE  
Director, Division of Risk Analysis  
Office of Nuclear Regulatory Research  
US NRC



[richard.correia@nrc.gov](mailto:richard.correia@nrc.gov)

---

**From:** Brown, Frederick  
**Sent:** Thursday, March 31, 2011 9:35 AM  
**To:** RST01 Hoc  
**Cc:** RST06 Hoc; Ruland, William; Hackett, Edwin; Correia, Richard; Cheok, Michael; Gibson, Kathy; McDermott, Brian; Hoc, PMT12  
**Subject:** Proposed Task Tracker

Peter,

There are two items being worked outside the Ops Center for the RST. The ET is aware of both, but they are not currently being tracked (or were not last night).

You may want to add the following two items to the task tracker so that everyone knows what has actually been requested, and who is working it. Also, if the tasks are reshaped, there will be a way of making the redirection visible to the ET and others.

Background e-mails are on the RST01 and RST06 systems from the last two evenings, subject: "Request for Ops Center RTS support"

Fred

---

Task 1:

Given the known, or assumed, status of the three units and four pools, what realistic scenarios exist for energetic dispersion of high quantities of radioactive material that would result in mobile plumes? The point of this question is that there are many clear scenarios that present significant near-area radiological challenges, but given the time since shutdown (for the operating units) and age of much of the fuel (in the SFPs) what are the remaining scenarios of concern with respect to more distant locations (Tokyo with a large concentration of US citizens, Alaska, Hawaii, etc).

Objective for first question (energetic release potential): this information is important to the Ambassador in Japan and the US military command that would be responsible for movement of US citizens who were ordered to be evacuated from any locations in the Pacific. In fact, the Pacific Command asked the same question of the NRC at today's Deputies Meeting that is attended by the Chairman. The answer to this question may also impact when we as the NRC ramp down our activities? **We should attempt to address this by Friday (4/1).**

This task was accepted by RES, and I understand that Kathy Gibson's Division (RES/DSA) has the lead supported by NRR/DE.

---

Task 2:

Given the assumed condition of the three units and four pools, can we generate basic event trees for the coming weeks/months? The point would be to identify key success criteria and to help identify key decision points/risk factors to be balanced (qualitative not quantitative analysis). For instance, take two units, each with significant core damage and prior release of volatile fission products, each with primary and secondary containment failure, but one with an intact RPV and the other with a breach of RPV - would there be a difference in potential releases that would lead to different strategies for flooding the primary containment of these two units? This question will make more sense if you look at the assumed conditions below and the attached assessment document where we recommend that TEPCO utilize the SAMG recommendation to flood all 3 units' containments.

Objective for the second question is to support multiple questions/actions. There have been many requests of the PMT for "realistic" dose models. The RST Assessment document (original e-mail was supposed to have it attached, but I've added to this incase it did not go out the first time) also contains recommended actions for the Japanese to consider. These recommendations are based on the SAMGS, which all are intended to protect primary containment. Since primary containment is damaged on at least two units, we need to assess whether there may be new considerations/priorities that are not captured by the SAMGs. Also, the product of this effort helps us better clarify the assessment of potential energetic releases, along with identifying the best strategies to ensure that they don't happen. **This item does not have as short a deliverable date unless the PMT has one that I'm not aware of, but is still very significant in terms of our recommendations. Can we complete by Monday (4/4)?**

**Once NRC staff validates this concept, and creates a framework for the event trees, we may be able to turn it over to INPO/GEH for completion.**


This task has also been accepted by RES, and Rich Correia's Division (RES/DRA) has the lead, with support from NRR/DE.

Greenwood, Carol

---

**From:** Gibson, Kathy  
**Sent:** Monday, April 04, 2011 5:27 PM  
**To:** Lee, Richard  
**Subject:** RE: N2 inerting of the Fukushima drywell  
**Attachments:** Kathy Halvey Gibson2.vcf

Yes we should share with them any information we get – and the source. Thanks



**Kathy Halvey Gibson**  
Director  
Division of Systems Analysis

Kathy.Gibson@nrc.gov  
(301) 251-7499 Work  
(b)(6) Cell

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**From:** Lee, Richard  
**Sent:** Monday, April 04, 2011 4:26 PM  
**To:** Gibson, Kathy  
**Subject:** RE: N2 inerting of the Fukushima drywell


I did not inform Op Center formally. Should I?

Indirectly, I told Hossein, Mike Salay, Jason, Charlie, Don Helton and Don Marksberry. Hossein who will be on duty today (from 3:00-11:00pm) and will inform the RST.

---

**From:** Gibson, Kathy  
**Sent:** Monday, April 04, 2011 1:42 PM  
**To:** Lee, Richard  
**Subject:** RE: N2 inerting of the Fukushima drywell

Does the Ops Center know?



**Kathy Halvey Gibson**  
Director  
Division of Systems Analysis

Kathy.Gibson@nrc.gov  
(301) 251-7499 Work  
(b)(6) Cell

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---

**From:** Lee, Richard  
**Sent:** Monday, April 04, 2011 1:04 PM  
**To:** Esmaili, Hossein; Salay, Michael; Schaperow, Jason; Tinkler, Charles  
**Cc:** Marksberry, Don; Helton, Donald; Gibson, Kathy; Scott, Michael  
**Subject:** N2 inerting of the Fukushima drywell

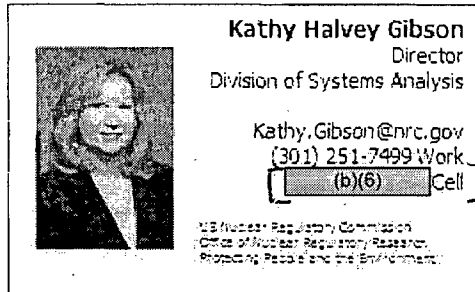
- This is to let you know that the N2 inerting system has been delivered to the Fukushima site, and that TEPCO will begin inerting the drywell of the Fukushima Unit 1 commencing Tuesday (Japanese time).

**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Monday, April 04, 2011 5:40 PM  
**To:** Milligan, Patricia  
**Subject:** RE: Trying to Nail an Issue Down  
**Attachments:** Kathy Halvey Gibson.vcf

There are McDonalds in Japan, you know, wouldn't that be so much easier???



---

**From:** Milligan, Patricia  
**Sent:** Monday, April 04, 2011 5:30 PM  
**To:** Gibson, Kathy  
**Subject:** FW: Trying to Nail an Issue Down

And yet something else to consider

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**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.

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

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**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 is for EAP service is 1-800-896-0276. More information is available on the EAP on the web at [www.eapconsultants.com](http://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](mailto:jeanne.dempsey@nrc.gov)

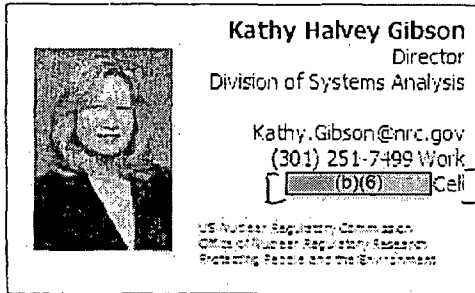


**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Wednesday, April 06, 2011 3:20 PM  
**To:** Sheron, Brian; Santiago, Patricia  
**Cc:** Uhle, Jennifer  
**Subject:** RE: Response - Tasker Item # 4125 -  
**Attachments:** Kathy Halvey Gibson2.vcf

yep



**Kathy Halvey Gibson**  
Director  
Division of Systems Analysis

Kathy.Gibson@nrc.gov  
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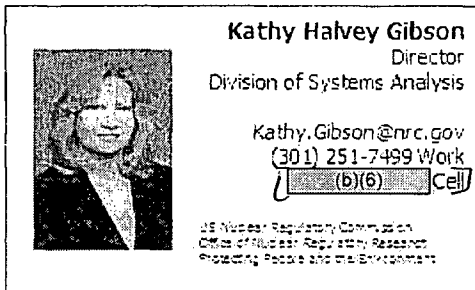
**From:** Sheron, Brian  
**Sent:** Wednesday, April 06, 2011 3:11 PM  
**To:** Gibson, Kathy; Santiago, Patricia  
**Cc:** Uhle, Jennifer  
**Subject:** RE: Response - Tasker Item # 4125 -

Supporting the Japan team is top priority. Once the dust starts to settle, we need to assess what all this means in SOARCA delay.

---

**From:** Gibson, Kathy  
**Sent:** Wednesday, April 06, 2011 3:00 PM  
**To:** Sheron, Brian; Santiago, Patricia  
**Cc:** Uhle, Jennifer  
**Subject:** RE: Response - Tasker Item # 4125 -

Pat and Richard Chang are verifying with Susan. I'd also like to point out that Randy Gauntt, Mark Leonard, and KC Wagner are SOARCA principles.



**Kathy Halvey Gibson**  
Director  
Division of Systems Analysis

Kathy.Gibson@nrc.gov  
(301) 251-7499 Work  
(b)(6) Cell

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**From:** Sheron, Brian  
**Sent:** Wednesday, April 06, 2011 10:03 AM  
**To:** Gibson, Kathy; Santiago, Patricia  
**Cc:** Uhle, Jennifer  
**Subject:** FW: Response - Tasker Item # 4125 -

CCCC/90

See below. Sounds like DOE is footing the analysis bill, but you might want to confirm with your SNL POCs. Also, are these efforts requiring SNL to pull people off of SOARCA?

---

**From:** Monninger, John  
**Sent:** Wednesday, April 06, 2011 9:42 AM  
**To:** Collins, Elmo; Sheron, Brian  
**Cc:** Weber, Michael; Virgilio, Martin  
**Subject:** RE: Response - Tasker Item # 4125 -

DOE supported bringing the 2 SNL staff (Randy Gantt and Jeff LaChance) out. We asked DOE (Ron Sherry - DOE embassy attached) to confirm that any and all MELCOR runs and any other work that the SNL staff would perform would be covered by DOE. Ron indicated that was his understanding, but was going to confirm. I hadn't heard back from Ron, but he didn't indicate any need for concern. He mentioned Pete Lyons as being the advocate for pulling them in.

The SNL staff at the embassy are working closely with SNL staff back in Albuquerque in conducting their analysis. They also pulled in one of their prime subcontractors (Mark Leonard) who runs many of the MELCOR analyses. I believe KC Wagner (back in SNL Albuquerque) will be running the MACCS piece. So all the MELCOR/MACCS pieces being conducted either at the embassy or Albuquerque should be coordinated.

---

**From:** Collins, Elmo  
**Sent:** Wednesday, April 06, 2011 8:47 AM  
**To:** Sheron, Brian  
**Cc:** Monninger, John; Weber, Michael; Virgilio, Martin  
**Subject:** Re: Response - Tasker Item # 4125 -

DOE Brought them out - seems like a positive contribution to the US Govt response.  
John M was in the process of sorting out  
John - how did we land?  
Elmo

---

**From:** Sheron, Brian  
**To:** Johnson, Michael; Weber, Michael; Wiggins, Jim; Morris, Scott; Dudes, Laura; Lubinski, John; Carpenter, Cynthia  
**Cc:** Virgilio, Martin; Uhle, Jennifer; Casto, Chuck; Collins, Elmo  
**Sent:** Wed Apr 06 08:30:11 2011  
**Subject:** RE: Response - Tasker Item # 4125 -

Chuck, Elmo, the answer is?

---

**From:** Johnson, Michael  
**Sent:** Wednesday, April 06, 2011 8:28 AM  
**To:** Sheron, Brian; Weber, Michael; Wiggins, Jim; Morris, Scott; Dudes, Laura; Lubinski, John; Carpenter, Cynthia  
**Cc:** Virgilio, Martin; Uhle, Jennifer; Casto, Chuck; Collins, Elmo  
**Subject:** RE: Response - Tasker Item # 4125 -

I don't know who is paying. Great questions for the site team. They were on the RST call at 3:00 earlier today. Can ask them tomorrow.

---

**From:** Sheron, Brian  
**Sent:** Wednesday, April 06, 2011 7:44 AM  
**To:** Weber, Michael; Wiggins, Jim; Johnson, Michael; Morris, Scott; Dudes, Laura; Lubinski, John; Carpenter, Cynthia  
**Cc:** Virgilio, Martin; Uhle, Jennifer; Casto, Chuck; Collins, Elmo  
**Subject:** RE: Response - Tasker Item # 4125 -

Do we know who is paying SNL to do these calculations? Is it SNL staff in Albuquerque or is it the 2 SNL staff embedded with the site team? The SNL staff embedded with the site team and being funded by DOE, not NRC. If the site team is directing SNL at Albuquerque to do the calculations, whose contract is it?

---

**From:** Weber, Michael  
**Sent:** Wednesday, April 06, 2011 6:42 AM  
**To:** Wiggins, Jim; Johnson, Michael; Morris, Scott; Dudes, Laura; Lubinski, John; Carpenter, Cynthia  
**Cc:** Virgilio, Martin; Sheron, Brian; Uhle, Jennifer; Casto, Chuck; Collins, Elmo  
**Subject:** Response - Tasker Item # 4125 -

We should also recognize that the SNL employees embedded with the site team in Embassy-Tokyo are also conducting MELCOR/MACCS runs. Whoever we have running codes, should be communicating and coordinating with the site team to make sure we are all pulling in the same and correct direction.

Thanks

---

**From:** Wiggins, Jim  
**Sent:** Wednesday, April 06, 2011 5:59 AM  
**To:** Johnson, Michael; Morris, Scott; Dudes, Laura; Lubinski, John; Carpenter, Cynthia  
**Cc:** Virgilio, Martin; Weber, Michael  
**Subject:** RE: Response - Tasker Item # 4125 -

I had green-lighted the assessment on Monday based on it being used internally by NRC to judge whether it should adjust its Protective Action Recommendation. It would support us going thru the relaxation criteria that we developed a couple of weeks ago that had been brokered around the USG and with the Chairman. Should have been in the PMT turnover. Cyndi Jones suggested we do this, given that the source term used in the initial PAR dose assessment may now look like it has excess conservatism in it. Anticipated that current MELCORE runs would show whether this is true.

Saw this as a legitimate exception to the policy that has NSS/control all dose assessment activities..

I'll beg forgiveness on this one since I didn't get prior permission.....

---

**From:** Johnson, Michael  
**Sent:** Wednesday, April 06, 2011 5:44 AM  
**To:** Morris, Scott; Dudes, Laura; Lubinski, John; Wiggins, Jim; Carpenter, Cynthia  
**Subject:** FW: Response - Tasker Item # 4125 -

Fyi.

---

**From:** Weber, Michael  
**Sent:** Wednesday, April 06, 2011 5:18 AM  
**To:** Johnson, Michael  
**Cc:** Virgilio, Martin; ET01 Hoc; ET05 Hoc; OST02 HOC  
**Subject:** Response - Tasker Item # 4125 -

It still exists, but we've discussed the MELCOR/MACCS runs with the Chairman and have the green light to proceed. Our focus in these calculations is on the source term, primarily, which is under our control.

If we wanted NARAC to use this source term for one or more additional in country or transpacific plume projections, we would need WH/NSS approval.

**From:** Johnson, Michael  
**To:** Weber, Michael  
**Cc:** Virgilio, Martin  
**Sent:** Wed Apr 06 03:01:53 2011  
**Subject:** Tasker Item # 4125 -

Mike,

Cindy turned over to me that the Site team is requesting Sandia to develop a refined source term based on current understanding of the plant and run MELCOR. They will then request that we the run the MACCS codes using up-to-date data to show what the codes might indicate now.

I discussed this with Elmo. It will be a part of the "current state" overall assessment.

Cindy and I recollect that we (USG) carefully controlled who did these types of analyses (NARAC) and the assumptions were also carefully controlled (approved by the Chairman and agreed to by DOE, OSTP, etc.) Elmo believes that the situation that existed then is different and that the MELCOR run will provide meaningful insights regarding what can still occur.

Do you know if this previous sensitivity still exists.

Mike

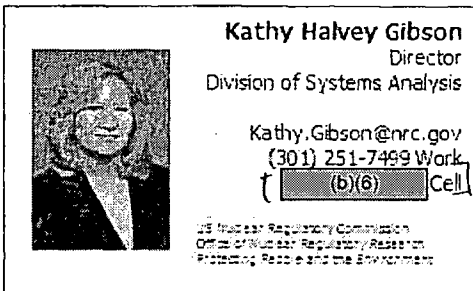
**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Wednesday, April 06, 2011 5:15 PM  
**To:** Santiago, Patricia; Wagner, Katie; Lee, Richard  
**Cc:** Scott, Michael; Chang, Richard  
**Subject:** RE: Need some talking points  
**Attachments:** Kathy Halvey Gibson.vcf

I want to see the responses before they go to OPA. Scott's responses need revision/correction.

Thanks



---

**From:** Santiago, Patricia  
**Sent:** Wednesday, April 06, 2011 4:53 PM  
**To:** Wagner, Katie; Lee, Richard  
**Cc:** Gibson, Kathy; Scott, Michael  
**Subject:** FW: Need some talking points  
**Importance:** High

Katie  
Please assign this to Richard Chang.  
Thanks

---

**From:** Burnell, Scott  
**Sent:** Wednesday, April 06, 2011 4:47 PM  
**To:** Chang, Richard; Santiago, Patricia  
**Cc:** Hayden, Elizabeth  
**Subject:** Need some talking points  
**Importance:** High

Pat, Richard;

I'll be out of the office tomorrow through Tuesday, and OPA will need some talking points to handle questions on this. I spoke to a USA Today reporter and focused on:

- a) The difference between SOARCA and "straight" PRA, that the SRAs were complaining they didn't have the kinds of reliability data they'd need to plug B.5.b into their PRA. SOARCA covers the "either/or" case without worrying about probabilities. I left it that the ongoing internal review process would address the SRA concerns.
- b) The second document rang a bell as a peer review issue, so I pointed out the ongoing review of SOARCA had appropriately resolved most peer review comments, including that one.

Please feel free to revise and extend those as necessary. Please work with Beth Hayden on providing the talking points as soon as possible. Thanks.

Scott

**From:** Sarah Goldberg [mailto:Sgoldberg@ucsusa.org]  
**Sent:** Wednesday, April 06, 2011 11:37 AM  
**To:** Malone, Scott (M Edit Ops)  
**Subject:** UCS: Internal NRC docs show doubts about US nuke safety

FOR IMMEDIATE RELEASE  
CONTACT: Elliott Negin, 202-331-5439

## INTERNAL NRC DOCUMENTS REVEAL DOUBTS ABOUT MEASURES TO ENSURE U.S. PLANTS SURVIVE FUKUSHIMA-TYPE EVENTS

WASHINGTON (April 6, 2011) – In the weeks following the Fukushima accident, Nuclear Regulatory Commission (NRC) and nuclear industry officials have been asserting that U.S. nuclear plants are better prepared to withstand a catastrophic event like the March 11 earthquake and tsunami than Japanese plants because they have additional safety measures in place.

However, according to internal NRC documents (links provided below) released today by the Union of Concerned Scientists (UCS), there is no consensus within the NRC that U.S. plants are sufficiently protected. The documents indicate that technical staff members doubt the effectiveness of key safety measures adopted after the September 11, 2001, terrorist attacks.

UCS obtained the documents on March 25 from a Freedom of Information Act (FOIA) request it made a month before the Japanese disaster.

"While the NRC and the nuclear industry have been reassuring Americans that there is nothing to worry about -- that we can do a better job dealing with a nuclear disaster like the one that just happened in Japan -- it turns out that privately NRC senior analysts are not so sure," said Edwin Lyman, a physicist with the UCS Global Security Program and an expert in nuclear plant design.

NRC and industry officials recently testified before Congress that U.S. reactors are fully prepared for the worst. For example, at a hearing hosted by the Senate Energy and Water Appropriations Subcommittee on March 30, NRC Chairman Gregory Jaczko testified: "As a result of the events of September 11, 2001, we identified important pieces of equipment, that regardless of the cause of a significant fire or explosion at a plant, the NRC requires licensees to have available and staged in advance, as well as new procedures and policies to help deal with a severe situation."

Likewise, William Levis, the president and COO of the Public Service Enterprise Group, which owns two nuclear plants in New Jersey, told the subcommittee that "U.S. nuclear plant designs and operating practices since 9/11 are designed to mitigate severe accident scenarios such as aircraft impact, which include the complete loss of off-site power and all on-site emergency power sources and loss of large areas of the plant."

NRC calls these post-9/11 procedures "B.5.b measures," referencing the section of the compensatory-measures order the agency issued in 2002 to all reactor licensees. The agency codified them in its regulations in 2009 in a document titled CFR 50.54(hh)(2), but because their details are security-related, they are not publicly available.

At the March 30 hearing, both Jaczko and Levis sounded confident that B.5.b measures would protect U.S. reactors from the kind of disaster that befell the Fukushima Daiichi nuclear complex, which lost off-site and on-site power for an extended period, eventually leading to the loss of all cooling. Internal NRC documents obtained by UCS tell a different story.

In February 2011, UCS filed a FOIA request for all information associated with a secretive NRC program known as the "State of the Art Reactor Consequence Analyses." SOARCA, according to the NRC, is "a research effort to realistically estimate the outcomes of postulated severe accident scenarios that might cause a nuclear power plant to release radioactive material into the environment. The SOARCA project applies many years of national and international nuclear safety research, and incorporates the improvements in plant design, operation and accident management to achieve a

more realistic evaluation of the consequences associated with such accidents." The NRC also stated that SOARCA takes into account enhancements required by NRC after 9/11 -- the B.5.b measures.

The SOARCA program, which the agency initiated in 2006, focused on two plants: Surry in Virginia and Peach Bottom in Pennsylvania. Coincidentally, Peach Bottom is a Mark I boiling water reactor (BWR) like Fukushima Daiichi reactors 1 through 4. One of the hypothetical accidents that the SOARCA program analyzed was a station blackout at Peach Bottom where the plant failed to recover power before the backup batteries ran out -- the very situation that occurred at Fukushima. That analysis would be extremely useful to understand what happened at Fukushima. However, the NRC has withheld nearly all documents related to SOARCA from the public.

In most Mark I BWRs experiencing a station blackout, Lyman explained, a cooling system that runs on battery power, known as the Reactor Core Isolation Cooling system, or RCIC, is available. But when the battery runs down -- after eight hours or less -- the RCIC will stop operating. If plant workers do not restore alternating current power by then, no cooling systems will be available and the fuel in the reactor will overheat and eventually begin to melt. Most experts believe that is what happened at Fukushima Daiichi units 1 through 3.

According to the documents obtained by UCS, NRC's B.5.b measures contain unspecified strategies to continue operating the RCIC even after battery power is lost. However, the documents make clear that there are disagreements between NRC senior reactor analysts who work in NRC's regional offices under the Office of Nuclear Reactor Regulation and the staff conducting the SOARCA project, who are in the agency's Office of Research.

In particular, one NRC staff email exchange, dated July 28, 2010, described senior analysts' objections to SOARCA as follows: "One concern has been that SOARCA credits certain B5b mitigating strategies (such as RCIC operation w/o DC power) that have really not been reviewed to ensure that they will work to mitigate severe accidents. Generally, we have not even seen licensees credit these strategies in their own [probabilistic risk assessments] but for some reason the NRC decided we should during SOARCA. My recollection is that [Region I senior reactor analysts] in particular have been vocal with their concerns on SOARCA for several years, probably because Peach Bottom is one of the SOARCA plants."

In other words, senior reactor analysts who work directly with the Peach Bottom Mark I BWR apparently do not have faith in the effectiveness of the very B.5.b measures that the NRC and nuclear industry officials are touting as a reason why the United States is better prepared to deal with a Fukushima-like event than Japan.

Another (undated) document reinforces this concern: "The application of 10 CFR 50.54(hh) [2009 regulations] mitigation measures still concerns a number of staff in [the Office of Nuclear Reactor Regulation]. The concern involves the manner in which credit is given to these measures such that success is assumed.... 10 CFR 50.54(hh) mitigation measures are just equipment on-site that can be useful in an emergency when used by knowledgeable operators if post-event conditions allow. If little is known about these post-event conditions, then assuming success is speculative."

"If we are going to have any confidence that U.S. plants are safe, the NRC and the industry has to be completely open and honest about what they know and what they don't know," said Lyman. "They are doing Americans a disservice if they are saying publicly that these untested measures are effective when privately they are expressing doubts that they will work."

Note: UCS also released another NRC email today that briefly discusses the schedule of the SOARCA analysis.

###

The Union of Concerned Scientists is the leading U.S. science-based nonprofit organization working for a healthy environment and a safer world. Founded in 1969, UCS is headquartered in Cambridge, Massachusetts, and also has offices in Berkeley, Chicago and Washington, D.C. For more information, go to [www.ucsusa.org](http://www.ucsusa.org).

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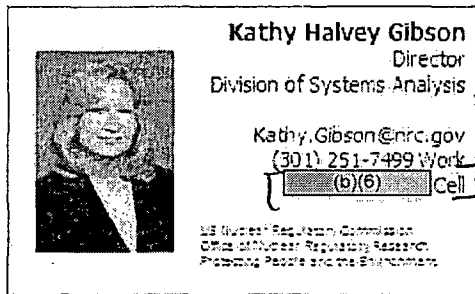
**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Wednesday, April 06, 2011 5:28 PM  
**To:** Uhle, Jennifer  
**Subject:** RE: SOW for Sandia called Analysis and Technical Assistance for Japan Event Response  
**Attachments:** Kathy Halvey Gibson.vcf

I discussed this with Brian this morning. The intent of the two paragraphs that you revised was to be broad and position us to be prepared to respond to requests from the ops center, site team (currently being done under SOARCA), and potentially eventually the task force. The language in the paragraphs is directly from the SRM establishing the task force (with the appropriate caveats that no work is done unless directed by PM). Your words were included as examples. Brian was ok with this approach. The broader language would also allow us to do the SFP comparative assessment (fuel in pool or casks) that Brian wants.

I hope this helps. Sorry, I wasn't able to get you and Brian in a room at the same time to talk together.



---

**From:** Uhle, Jennifer  
**Sent:** Wednesday, April 06, 2011 4:32 PM  
**To:** Gibson, Kathy; Greenwood, Carol  
**Subject:** SOW for Sandia called Analysis and Technical Assistance for Japan Event Response

Kathy, I think you guys disagreed with my comments but I don't see an explanation. Brian and my concern with the two tasks that go into the external events is that it sounds like a PRA or SOARCA so I tried to focus it on whatever the initiating event is, it is still long duration SBO. It is on my desk. Provide the justification for not taking the comments and I can attach it to the document.

CCCC/92

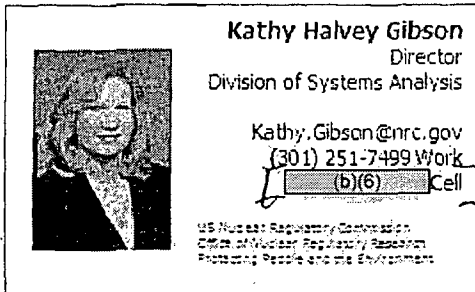


**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Wednesday, April 06, 2011 5:32 PM  
**To:** Huffert, Anthony  
**Cc:** Bush-Goddard, Stephanie  
**Subject:** RE: ACTION: Identify 4th wave of NRC staff to Japan  
**Attachments:** Kathy Halvey Gibson2.vcf

Thanks, Tony. I will keep you informed as the decision on who goes gets made.



---

**From:** Huffert, Anthony  
**Sent:** Wednesday, April 06, 2011 3:56 PM  
**To:** Gibson, Kathy  
**Cc:** Bush-Goddard, Stephanie  
**Subject:** RE: ACTION: Identify 4th wave of NRC staff to Japan

Kathy,

Yes, I'm interested and willing to be offered up for the next group of NRC representatives.

I would not be able to fill one of the four severe accident staff slots (my rx experience focused on design basis accident analysis).

My skill set would match the protective measures positions. I've served on the PMT for 15 years and have been involved with the Japan response since the beginning (March 11<sup>th</sup>). In addition to plume modeling, I've also worked many of the ongoing "untraditional" PMT issues (soil, air and water sample analyses from various US and Japanese data sets; correlating plume deposition characteristics to estimates of fuel damage; establishing clearance thresholds for contaminated cargo entering the US; beta skin contamination dose assessment of Japanese workers; providing technical advice to the PMT on HP-related issues, etc.

My official and personal passports are up to date.

Thanks for considering me for this assignment.

Tony

---

**From:** Gibson, Kathy  
**Sent:** Wednesday, April 06, 2011 3:25 PM  
**To:** Huffert, Anthony; Bush-Goddard, Stephanie; Lee, Richard; Bajorek, Stephen  
**Subject:** FW: ACTION: Identify 4th wave of NRC staff to Japan  
**Importance:** High

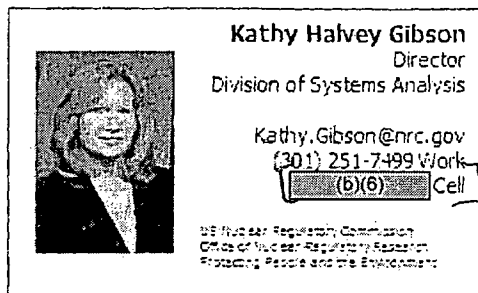
CCCC/93

Tony, see below, are you interested/willing to be offered up for a free trip to Japan?

Steph, Richard,  
Anybody else you would suggest? If so, check with them first and then let me know.

Steve, you expressed interest, do you fit any of the skills sets they list below?

Thanks all.



---

**From:** Sheron, Brian  
**Sent:** Wednesday, April 06, 2011 3:09 PM  
**To:** Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Richards, Stuart; Scott, Michael; Uhle, Jennifer; Valentin, Andrea  
**Subject:** FW: ACTION: Identify 4th wave of NRC staff to Japan

See below. Please let me know if you have anyone that meets the technical and interpersonal skill sets needed. Due date is this Friday.

---

**From:** Evans, Michele  
**Sent:** Wednesday, April 06, 2011 2:58 PM  
**To:** Howell, Art; McCree, Victor; Dean, Bill; Satorius, Mark; Haney, Catherine; Moore, Scott; Sheron, Brian; Johnson, Michael; Leeds, Eric  
**Cc:** Pederson, Cynthia; Lew, David; Wiggins, Jim; Ordaz, Vonna; Uhle, Jennifer; Ruland, William; Boger, Bruce; Virgilio, Martin; Weber, Michael; Flanders, Scott; Lewis, Robert; Muessle, Mary; Mamish, Nader  
**Subject:** ACTION: Identify 4th wave of NRC staff to Japan

ODs and RAs:

There is discussion of potentially sending an additional 6 or so staff to Japan.

These individuals would likely depart the USA on April 12 or 13, with a return date of about April 27. (For awareness, this time period spans religious holidays)

Specifically Chuck is looking for 4 individuals with severe accident experience. Lots of EOP/SAMG experience. He is looking for two protective measures staff. Specifically an ingestion pathway person and a "plume" person.

As always, looking for these skill sets combined with the best interpersonal skills.

**OD/RA ACTION:**

1. Please confirm that you received this email.
2. Please identify potential candidates to me by COB Friday April 8.

If you have any questions or need any clarification, please call me. Thank you.

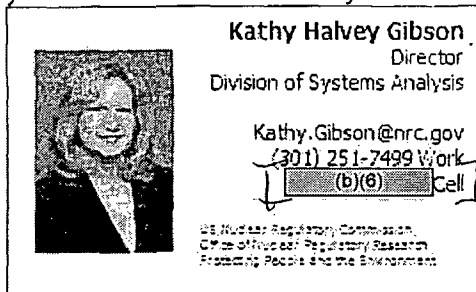
*Michele Evans*  
**Acting Deputy OD, NSIR**  
301-415-3236

**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Wednesday, April 06, 2011 6:24 PM  
**To:** Uhle, Jennifer  
**Subject:** RE: ACTION: Identify 4th wave of NRC staff to Japan  
**Attachments:** Kathy Halvey Gibson.vcf

Jason does not want to go. Tony Huffert wants to go so I will offer him for protective measures. We already sent Mike Scott and Mike Salay, so maybe we've done enough. I haven't heard from Richard yet if he wants to offer anyone else.



---

**From:** Uhle, Jennifer  
**Sent:** Wednesday, April 06, 2011 3:51 PM  
**To:** Gibson, Kathy  
**Subject:** FW: ACTION: Identify 4th wave of NRC staff to Japan

Jason??

---

**From:** Sheron, Brian  
**Sent:** Wednesday, April 06, 2011 3:09 PM  
**To:** Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Richards, Stuart; Scott, Michael; Uhle, Jennifer; Valentin, Andrea  
**Subject:** FW: ACTION: Identify 4th wave of NRC staff to Japan

See below. Please let me know if you have anyone that meets the technical and interpersonal skill sets needed. Due date is this Friday.

---

**From:** Evans, Michele  
**Sent:** Wednesday, April 06, 2011 2:58 PM  
**To:** Howell, Art; McCree, Victor; Dean, Bill; Satorius, Mark; Haney, Catherine; Moore, Scott; Sheron, Brian; Johnson, Michael; Leeds, Eric  
**Cc:** Pederson, Cynthia; Lew, David; Wiggins, Jim; Ordaz, Vonna; Uhle, Jennifer; Ruland, William; Boger, Bruce; Virgilio, Martin; Weber, Michael; Flanders, Scott; Lewis, Robert; Muessle, Mary; Mamish, Nader  
**Subject:** ACTION: Identify 4th wave of NRC staff to Japan

ODs and RAs:

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**OD/RA ACTION:**

- 1. Please confirm that you received this email.**
- 2. Please identify potential candidates to me by COB Friday April 8.**

If you have any questions or need any clarification, please call me. Thank you.

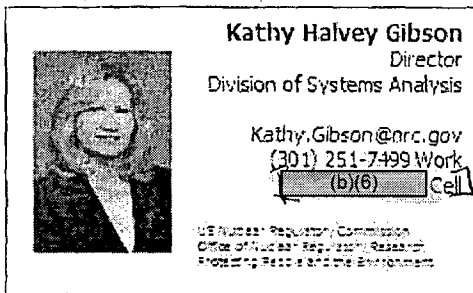
*Michele Evans*  
**Acting Deputy OD, NSIR**  
301-415-3236

**Greenwood, Carol**

---

**From:** Gibson, Kathy  
**Sent:** Thursday, April 07, 2011 10:22 AM  
**To:** Lee, Richard; Zigh, Ghani  
**Cc:** Wagner, Katie; Navarro, Carlos; Santiago, Patricia; Tinkler, Charles; Schaperow, Jason  
**Subject:** RE: Request for clearance to release data  
**Attachments:** Kathy Halvey Gibson2.vcf

Brian wants us to call congressional affairs and see if we (OCA) should contact the Senator's office and tell them they need to make the request through NRC and not through our contractor. Then we will provide the response to the senator's office through OCA.



---

**From:** Lee, Richard  
**Sent:** Thursday, April 07, 2011 10:12 AM  
**To:** Zigh, Ghani  
**Cc:** Wagner, Katie; Navarro, Carlos; Santiago, Patricia; Tinkler, Charles; Schaperow, Jason; Gibson, Kathy  
**Subject:** RE: Request for clearance to release data

Thanks, will let SNL knows to proceed with providing the info.  
Richard

---

**From:** Zigh, Ghani  
**Sent:** Thursday, April 07, 2011 9:50 AM  
**To:** Lee, Richard; Gibson, Kathy; Tinkler, Charles; Schaperow, Jason  
**Cc:** Wagner, Katie; Navarro, Carlos; Santiago, Patricia  
**Subject:** RE: Request for clearance to release data

We already shared these information and more with other people like NEI, DOE/NE, and commissioner Magwood.  
You have my vote to share these two attachments with the senator.

---

**From:** Lee, Richard  
**Sent:** Thursday, April 07, 2011 9:23 AM  
**To:** Zigh, Ghani; Gibson, Kathy; Tinkler, Charles; Schaperow, Jason  
**Cc:** Wagner, Katie; Navarro, Carlos; Santiago, Patricia  
**Subject:** RE: Request for clearance to release data

I have provided printout of the 2 attachments to Ghani.

---

**From:** Zigh, Ghani  
**Sent:** Thursday, April 07, 2011 8:37 AM

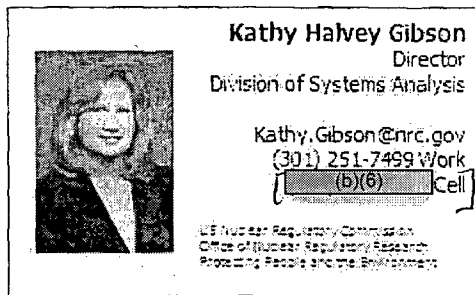
o: Gibson, Kathy; Lee, Richard; Tinkler, Charles; Schaperow, Jason  
**Cc:** Wagner, Katie; Navarro, Carlos; Santiago, Patricia  
**Subject:** RE: Request for clearance to release data

Where are the attachments that they want to send?

---

**From:** Gibson, Kathy  
**Sent:** Thursday, April 07, 2011 8:34 AM  
**To:** Lee, Richard; Tinkler, Charles; Schaperow, Jason; Zigh, Ghani  
**Cc:** Wagner, Katie; Navarro, Carlos; Santiago, Patricia  
**Subject:** RE: Request for clearance to release data

What do you advise?



---

**From:** Lee, Richard  
**Sent:** Thursday, April 07, 2011 8:03 AM  
**To:** Tinkler, Charles; Schaperow, Jason; Gibson, Kathy  
**Cc:** Wagner, Katie  
**Subject:** FW: Request for clearance to release data  
**Importance:** High

We should give a reply as soon as possible on this request.

---

**From:** Burns, Shawn [mailto:spburns@sandia.gov]  
**Sent:** Thursday, April 07, 2011 2:19 AM  
**To:** Wagner, Katie; Lee, Richard  
**Cc:** Sorenson, Ken B; Lindgren, Eric; Pickering, Susan Y; Orrell, Stanley A  
**Subject:** [WARNING: MESSAGE ENCRYPTED]Request for clearance to release data  
**Importance:** High

Katie and Richard,

Sandia received a request from U.S. Senator Jeff Bingaman's personal staff relating to the spent nuclear fuel fire experiments and associated analyses conducted by Sandia for the NRC in 2007. I have attached two files which contain the information that we would like to forward to Senator Bingaman's office. Sandia handles this information as Official Use Only and as such the files are encrypted. You should already have received a separate e-mail containing a link which will allow you to obtain the password required to open these files. Please be aware that the password website will only remain open until 2:00 a.m. Saturday morning Washington time.

As per the process that Sandia and NRC have established, the purpose of this e-mail is to formally request NRC permission to release this information to Senator Bingaman's office for the purpose of allowing the Senator and his staff to understand one aspect of the ongoing event at the Fukushima Dai-Ichi nuclear power reactor site in Japan.

please let me know if you have any questions regarding this request or if you have any difficulty obtaining the password or opening the attached files. As is often the case with the Fukushima event, there is some urgency associated with this request as we are trying to respond to the Senator's office in a timely manner.

Best regards,

Shawn

~~~~~  
Shawn P. Burns, Ph.D., P.E.  
Manager, Risk and Reliability Analysis  
Department 6761

Sandia National Laboratories  
P.O. Box 5800  
Albuquerque, NM 87185-0748

Phone: (505)844-6200  
Mobile: (b)(6)  
Fax: (505)844-2829

e-mail: [sburns@sandia.gov](mailto:sburns@sandia.gov)

Web: <http://www.sandia.gov/ERN/nuclear-energy/index.html>

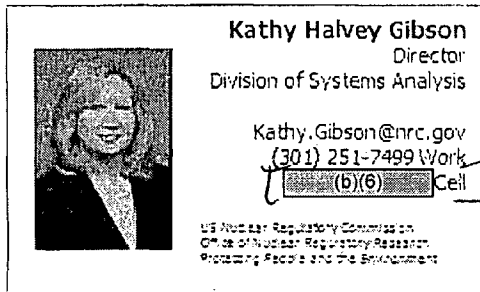


**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Thursday, April 07, 2011 12:01 PM  
**To:** Sheron, Brian  
**Subject:** RE: ACTION: Identify 4th wave of NRC staff to Japan  
**Attachments:** Kathy Halvey Gibson.vcf

Yes (b)(6)



---

**From:** Sheron, Brian  
**Sent:** Thursday, April 07, 2011 11:47 AM  
**To:** Gibson, Kathy  
**Subject:** FW: ACTION: Identify 4th wave of NRC staff to Japan

Is Tony your nominee? If so, I'll forward Tony's and John's names to Michele.

---

**From:** Correia, Richard  
**Sent:** Thursday, April 07, 2011 11:33 AM  
**To:** Sheron, Brian; Case, Michael; Coe, Doug; Gibson, Kathy; Richards, Stuart; Scott, Michael; Uhle, Jennifer; Valentin, Andrea  
**Cc:** Coe, Doug; Ibarra, Jose  
**Subject:** RE: ACTION: Identify 4th wave of NRC staff to Japan

Brian,

John Lane is available as a severe accident type. (b)(6)

Richard Correia, PE  
Director, Division of Risk Analysis  
Office of Nuclear Regulatory Research  
US NRC

[richard.correia@nrc.gov](mailto:richard.correia@nrc.gov)

---

**From:** Sheron, Brian  
**Sent:** Wednesday, April 06, 2011 3:09 PM  
**To:** Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Richards, Stuart; Scott, Michael; Uhle, Jennifer; Valentin, Andrea  
**Subject:** FW: ACTION: Identify 4th wave of NRC staff to Japan

See below. Please let me know if you have anyone that meets the technical and interpersonal skill sets needed. Due date is this Friday.

**From:** Evans, Michele

**Sent:** Wednesday, April 06, 2011 2:58 PM

**To:** Howell, Art; McCree, Victor; Dean, Bill; Satorius, Mark; Haney, Catherine; Moore, Scott; Sheron, Brian; Johnson, Michael; Leeds, Eric

**Cc:** Pederson, Cynthia; Lew, David; Wiggins, Jim; Ordaz, Vonna; Uhle, Jennifer; Ruland, William; Boger, Bruce; Virgilio, Martin; Weber, Michael; Flanders, Scott; Lewis, Robert; Muesle, Mary; Mamish, Nader

**Subject:** ACTION: Identify 4th wave of NRC staff to Japan

ODs and RAs:

There is discussion of potentially sending an additional 6 or so staff to Japan.

These individuals would likely depart the USA on April 12 or 13, with a return date of about April 27. (For awareness, this time period spans religious holidays)

Specifically Chuck is looking for 4 individuals with severe accident experience. Lots of EOP/SAMG experience. He is looking for two protective measures staff. Specifically an ingestion pathway person and a "plume" person.

As always, looking for these skill sets combined with the best interpersonal skills.

**OD/RA ACTION:**

- 1. Please confirm that you received this email.**
- 2. Please identify potential candidates to me by COB Friday April 8.**

If you have any questions or need any clarification, please call me. Thank you.

*Michele Evans*

**Acting Deputy OD, NSIR**

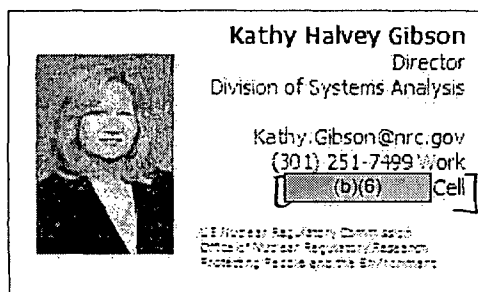
301-415-3236

## Greenwood, Carol

---

**From:** Gibson, Kathy  
**Sent:** Thursday, April 14, 2011 4:40 PM  
**To:** Zigh, Ghani  
**Cc:** Scott, Michael  
**Subject:** RE: NEI Used Fuel Management Conference  
**Attachments:** Kathy Halvey Gibson.vcf

Did you run this by OGC, John Szabo? If he indicates that you can do it (no ethical concerns), then I will raise it with Brian and Jennifer (for technical/policy approval).



---

**From:** Zigh, Ghani  
**Sent:** Wednesday, April 13, 2011 2:56 PM  
**To:** Gibson, Kathy; Scott, Michael  
**Subject:** FW: NEI Used Fuel Management Conference

What do you think about this invitation?

---

**From:** NICHOL, Marcus [mailto:mrn@nei.org]  
**Sent:** Wednesday, April 13, 2011 2:52 PM  
**To:** Zigh, Ghani  
**Subject:** NEI Used Fuel Management Conference

Ghani,

NEI extended an invitation to Sam Durbin of Sandia to speak at NEI's Used Fuel Management Conference. He indicated that, while he would like to participate, he was otherwise unable. He indicated that you would also be capable of presenting the same material. NEI would like to extend to you the invitation to speak at the conference. Below are the details previously provided to Sam. Please let me know if you would be willing to speak. Thank you for your consideration.

As we discussed, NEI is hosting a Used Fuel Management conference from May 3<sup>rd</sup> to 5<sup>th</sup> in Baltimore, MD. We will be having a session titled "Used Fuel Management in the Aftermath of Fukushima Daiichi", on May 3<sup>rd</sup> at 1:30pm. We were thinking that it might be valuable to have a speaker for the topic of Zr fires in spent fuel pools, or also other low probability spent fuel pool accidents, such as what may have been experienced in Japan. The idea would be to link that with how it may change our perspective on how spent fuel pools are kept safe in the US.

Other speakers on the panel will discuss: 1) overview of events at Fukushima Daiichi, 2) research started to better understand how the events in Japan affect management of spent fuel pools in the US, and 3) utility's response to events in Japan and perspective on future impacts to management of spent fuel pools.

Please let me know if you or another designee may be able to present. We are hoping to hear back soon, which would give us time to find another speaker if you or your designee is unable to participate.

Thank you,

Marcus Nichol  
Senior Project Manager  
Used Fuel Storage & Transportation

Nuclear Energy Institute  
1776 I Street NW, Suite 400  
Washington, DC 20006  
[www.nei.org](http://www.nei.org)

Office: 202-739-8031  
Mobile: (b)(6)  
Fax: 202-533-0171  
Email: [mrn@nei.org](mailto:mrn@nei.org)

Marcus Nichol  
Senior Project Manager  
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Email: [mrn@nei.org](mailto:mrn@nei.org)

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✉ Sent through mail.messaging.microsoft.com

**Miller, Geoffrey**

---

**From:** Long, Chris  
**Sent:** Saturday, April 02, 2011 11:11 AM  
**To:** Miller, Geoffrey; Deese, Rick; Reinert, Dustin; Groom, Jeremy; Peabody, Charles; Dumbacher, David; Makris, Nestor; Uselding, Lara  
**Subject:** FYI - WC detected I-131 likely from Japan

Geoff,

WC gave me a call today stating that they have sampled outdoor locations (oil waste discharge, Town of New Strawn water, and environmental air samples) and detected low E-8 microCi/ml I-131. The Turbine Building sump did not show I-131 so that makes WC think it's fallout from Japan. A CR will be written stating that it's not from WC. WC will be making an email statement to employees regarding the discovery and that the low level is not a threat to human health and is consistent with the readings seen by other plants. WC will also make a call to the county and Kansas Dept of Health and Environment.

VR,  
Chris Long

WC SRI

cell: (b)(6)

**Greenwood, Carol**

---

**From:** Gibson, Kathy  
**Sent:** Friday, April 01, 2011 3:41 PM  
**To:** Burnell, Scott; Wagner, Katie; Ott, William  
**Subject:** Re: Media - Yale Environment 360-Question

Its Bill Ott

---

**From:** Burnell, Scott  
**To:** Wagner, Katie  
**Cc:** Gibson, Kathy  
**Sent:** Fri Apr 01 15:24:09 2011  
**Subject:** FW: Media - Yale Environment 360-Question

Katie;

Would Bob or another person in RES have any relevant info for the reporter's request? Thanks.

Scott

---

**From:** Garry, Steven  
**Sent:** Friday, April 01, 2011 3:23 PM  
**To:** Burnell, Scott  
**Subject:** RE: Media - Yale Environment 360-Question

Scott,

I suggest calling research, maybe Bob Ott.

Steve

---

**From:** Burnell, Scott  
**Sent:** Friday, April 01, 2011 3:22 PM  
**To:** Garry, Steven; Nash, Harriet; Milligan, Patricia  
**Cc:** Nelson, Robert  
**Subject:** FW: Media - Yale Environment 360-Question  
**Importance:** High

Folks;

This reporter's trying to find information, studies, etc on how contamination would behave in a marine environment – she's made it clear she wants to understand the topic as opposed to ask us about Fukushima directly. I don't know if our environmental monitoring requirements would cover this in any way. The reporter's on a Monday deadline. Thoughts? Thanks.

Scott

Elizabeth Grossman  
Yale Environment 360

(b)(6)

Re: Science on how radiation behaves in the water from Japan

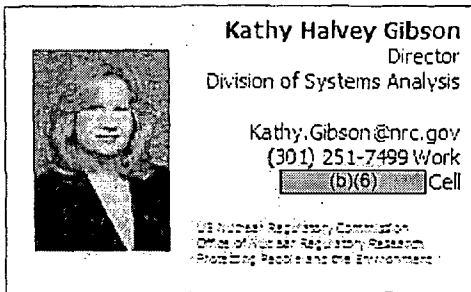


## Greenwood, Carol

---

**From:** Gibson, Kathy  
**Sent:** Monday, April 04, 2011 1:42 PM  
**To:** Lee, Richard  
**Subject:** FW: Task 2  
**Attachments:** japan accident progression for cont flooding REV 2 8x14.pptx; Kathy Halvey Gibson.vcf

fyi



---

**From:** Correia, Richard  
**Sent:** Monday, April 04, 2011 1:06 PM  
**To:** Brown, Frederick; RST01 Hoc  
**Cc:** RST06 Hoc; Ruland, William; Hackett, Edwin; Cheok, Michael; Gibson, Kathy; McDermott, Brian; Hoc, PMT12; Drouin, Mary; Demoss, Gary; Tinkler, Charles; Coe, Doug  
**Subject:** Task 2

Fred et al.,

Attached are the results of Task 2 (described below) in three slides: two contain the requested basic event tree diagrams; one has information about the diagrams, assumptions and considerations.

Several folks in RES & NRR contributed. Mary Drouin (RES) is the primary POC should there any questions or a need for a meeting/discussion to assist in anyway.

Regards,

Rich

Richard Correia, PE  
Director, Division of Risk Analysis  
Office of Nuclear Regulatory Research  
US NRC

[richard.correia@nrc.gov](mailto:richard.correia@nrc.gov)

---

**From:** Brown, Frederick  
**Sent:** Thursday, March 31, 2011 9:35 AM  
**To:** RST01 Hoc  
**Cc:** RST06 Hoc; Ruland, William; Hackett, Edwin; Correia, Richard; Cheok, Michael; Gibson, Kathy; McDermott, Brian; Hoc, PMT12  
**Subject:** Proposed Task Tracker

Peter,

There are two items being worked outside the Ops Center for the RST. The ET is aware of both, but they are not currently being tracked (or were not last night).

You may want to add the following two items to the task tracker so that everyone knows what has actually been requested, and who is working it. Also, if the tasks are reshaped, there will be a way of making the redirection visible to the ET and others.

Background e-mails are on the RST01 and RST06 systems from the last two evenings, subject: "Request for Ops Center RTS support"

Fred

---

#### Task 1:

Given the known, or assumed, status of the three units and four pools, what realistic scenarios exist for energetic dispersion of high quantities of radioactive material that would result in mobile plumes? The point of this question is that there are many clear scenarios that present significant near-area radiological challenges, but given the time since shutdown (for the operating units) and age of much of the fuel (in the SFPs) what are the remaining scenarios of concern with respect to more distant locations (Tokyo with a large concentration of US citizens, Alaska, Hawaii, etc).

Objective for first question (energetic release potential): this information is important to the Ambassador in Japan and the US military command that would be responsible for movement of US citizens who were ordered to be evacuated from any locations in the Pacific. In fact, the Pacific Command asked the same question of the NRC at today's Deputies Meeting that is attended by the Chairman. The answer to this question may also impact when we as the NRC ramp down our activities? **We should attempt to address this by Friday (4/1).**

This task was accepted by RES, and I understand that Kathy Gibson's Division (RES/DSA) has the lead supported by NRR/DE.

---

#### Task 2:

Given the assumed condition of the three units and four pools, can we generate basic event trees for the coming weeks/months? The point would be to identify key success criteria and to help identify key decision points/risk factors to be balanced (qualitative not quantitative analysis). For instance, take two units, each with significant core damage and prior release of volatile fission products, each with primary and secondary containment failure, but one with an intact RPV and the other with a breach of RPV - would there be a difference in potential releases that would lead to different strategies for flooding the primary containment of these two units? This question will make more sense if you look at the assumed conditions below and the attached assessment document where we recommend that TEPCO utilize the SAMG recommendation to flood all 3 units' containments.

Objective for the second question is to support multiple questions/actions. There have been many requests of the PMT for "realistic" dose models. The RST Assessment document (original e-mail was supposed to have it attached, but I've added to this incase it did not go out the first time) also contains recommended actions for the Japanese to consider. These recommendations are based on the SAMGS, which all are intended to protect primary containment. Since primary containment is damaged on at least two units, we need to assess whether there may be new considerations/priorities that are not captured by the SAMGs. Also, the product of this effort helps us better clarify the assessment of potential energetic releases, along with identifying the best strategies to ensure that they don't happen. **This item does not have as short a deliverable date unless the PMT has one that I'm not aware**

of, but is still very significant in terms of our recommendations. Can we complete by Monday (4/4)?

Once NRC staff validates this concept, and creates a framework for the event trees, we may be able to turn it over to INPO/GEH for completion.

This task has also been accepted by RES, and Rich Correia's Division (RES/DRA) has the lead, with support from NRR/DE.

# Accident Sequence Diagrams For Containment/Vent Flooding

Two diagrams for two sets of initial conditions

- Path 1: There is inadequate core cooling, no breach of the RPV, no core outside of reactor vessel
- Path 2: There is inadequate core cooling, breach of the RPV, and some degraded core outside of reactor vessel on DW floor

Development of diagrams primarily focused on impact of containment flooding

No consideration of impact of possible H2 events

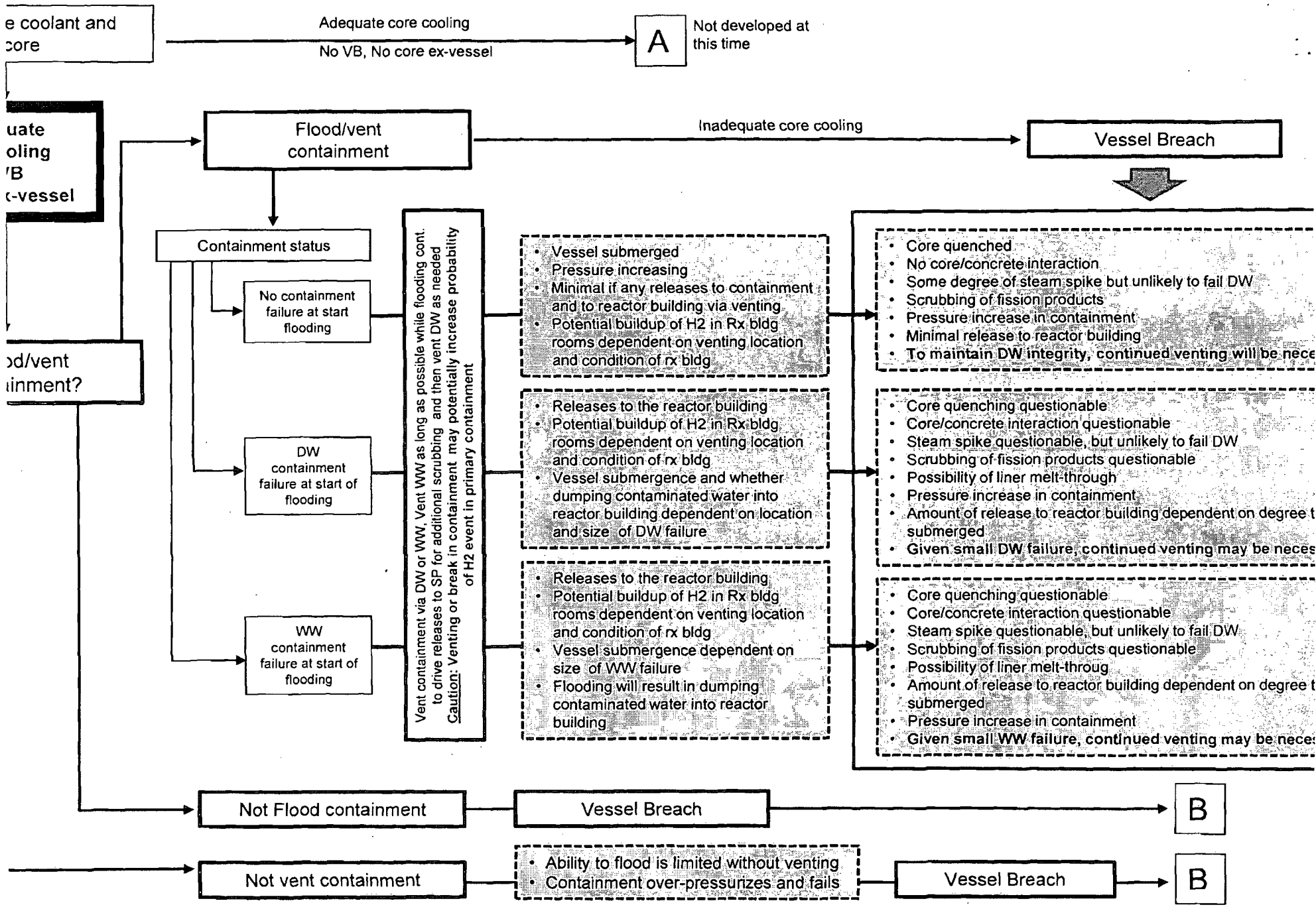
Containment flooding assumed from flooding into the SP, impacts of flooding containment via different pathways not considered

No consideration of impact of nitrogen purging containment

No development for initial conditions for adequate core cooling (with or without breach of RPV): no development of containment heat removal, venting, nitrogen purging containment

Color Coded:

- Green: decision box
- Red: key event
- Blue: consequences of event



of  
N

Water on DW floor when VB occurs and degraded core ejected from vessel

Flood/vent containment?

Flood containment

Additional core relocate drywell while flooding containment

Sufficient water to initially quench core

- Some degree of a steam spike but unlikely to fail containment
- initially no core/ concrete interaction,
- releases to DW
- releases still occurring from SP to WW and DW

Insufficient water to quench core

- Some degree of a steam spike (dependent on amount of core and water)
- Initially core/ concrete interaction
- Potential liner melt-through causing DW failure
- Releases to DW
- releases still occurring from SP to WW and DW

Not Flood containment

Additional core relocated to drywell because on inadequate cooling to vessel

Adverse conditions intensify

Containment status

No containment failure at VB

DW containment failure at VB

WW containment failure at VB

Vent containment via DW or WW, Vent WW as long as possible while flooding cont. to drive releases to SP for additional scrubbing and then vent DW as needed  
**Caution: Venting or break in containment may potentially increase probability of H2 event in primary containment**

- Core and vessel submerged
- Pressure increasing
- Minimal if any releases to and to environment via venting

- Releases to the environment
- Dependent on location and determine if able to submerge and bottom of vessel to maintain quenching, and whether contaminated water into reactor building

- Releases to the environment
- Dependent on size and break will determine if able to submerge core and bottom to maintain quenching
- To inject sufficient water dumping contaminated water reactor building

Not vent containment

- Ability to flood is limited without venting
- Containment over-pressurizes and fails

- Core/ concrete interaction continues, fission product and non-condensable gases generated
- Pressure and temperature in containment continues to increase at a more rapid rate
- Potential over-pressurization / temperature failure of DW
- Liner melt-through occurs causing DW failure
- Releases of fission products and non-condensable gases to reactor building via venting (if vented) or via containment failure
- No scrubbing via SP

- Core/ concrete interaction continues, fission product and non-condensable gases generated
- Liner melt-through occurs
- Releases of fission products and non-condensable gases to reactor building via containment failure
- No scrubbing via SP

**Greenwood, Carol**

---

**From:** Gibson, Kathy  
**Sent:** Tuesday, April 05, 2011 6:00 PM  
**To:** RES\_DSA  
**Subject:** FW: Japan Incident Resources and Updates

Especially for those supporting the Ops Center.

---

**From:** Correia, Richard  
**Sent:** Tuesday, April 05, 2011 2:54 PM  
**To:** Gibson, Kathy; Case, Michael; Barnes, Valerie; Sheron, Brian; Uhle, Jennifer  
**Subject:** FW: Japan Incident Resources and Updates

FYI

Richard Correia, PE  
Director, Division of Risk Analysis  
Office of Nuclear Regulatory Research  
US NRC

[richard.correia@nrc.gov](mailto:richard.correia@nrc.gov)

---

**From:** Cronin, Kevin (CTR) [mailto:Kevin.Cronin@associates.dhs.gov]  
**Sent:** Tuesday, April 05, 2011 1:09 PM  
**To:** Adam, Nabil; Aherne, Jack; djallard@state.pa.us; (b)(6); Baird, John; Bernard.Bogdan@IC.FBI.GOV; bondj@nv.doe.gov; rick.boyle@dot.gov; (b)(6); rbrown@citofeastprov.com; Brooks, Marc; Bunch, Robert; Nicholas.Butler@nnsa.doe.gov; dclarke@tceq.state.tx.us; Conklin, Craig W; Cooper, David; Correia, Richard; Cox, Charles R; Creese, Matthew; Cronin, Kevin A; Cubellis, Louis; abigail.cuthbertson@nnsa.doe.gov; cutlerkb@state.gov; Daly, Patrick; Debra.Decker@ic.fbi.gov; (b)(6); Del Monico, Timothy; Andrew.Dillon@ic.fbi.gov; Erlanger, Craig; frieda.fisher-tyler@state.de.us; Kenneth Friedman; Gainor, Tim; robert.gallagher@state.ma.us; Galmiche, John E; Gervais, Carlene; Debbie\_Gilley@doh.state.fl.us; Larry.Hamilton@ic.fbi.gov; Mark.E.Hammond@uscg.dhs.gov; (b)(6); Ioanna.Iliopoulos@nnsa.doe.gov; Jackson, Gerard; Garet.Johnson@nnsa.doe.gov; (b)(6); Keller, Fernando H; Kish, James; Konialianm@state.gov; Layton, Michael; Lewis, Robert; Liang, Rachel; Ronald.manning@hhs.gov; Martin, David W; melanie.may@hq.doe.gov; Mayo, Ben; rmcburney@crccd.org; metzpj@state.gov; Miller, Charles; Jeff.Morgan@ic.fbi.gov; paul.moskowitz@inl.gov; jeffrey.muller@ic.fbi.gov; Olabode, Olatokunbo; bill\_passetti@doh.state.fl.us; Passow, Richard A; Pederson, Perry; Perrin.alan@epa.gov; Pamela.Piersanti@ic.fbi.gov; Plapp, Brendan B; Quinn, Vanessa; ramosg@tswg.gov; Bryan.Reed@nnsa.doe.gov; Reed, Elizabeth; (b)(6); Reis, Terrence; Reves, Nicholas (CTR); ribaudoc@ors.od.nih.gov; Richeson, Jonathan; alice.rogers@dshs.state.tx.us; Betsy.Rogers@ic.fbi.gov; Ross-Lee, MaryJane; rubinw@mail.nih.gov; Ken.Sheely@nnsa.doe.gov; Sheinbaum, Charlotte B; Shropshire, Alan; Patrick.Starke@ic.fbi.gov; Swain, Patricia; Peter.tensmeyer@nnsa.doe.gov; brian.tse@hhs.gov; douglas.tynan@nnsa.doe.gov; VandenBerghe, John; Mike.Wangler@em.doe.gov; Wastler, Sandra; Wiggins, Jim; Kenneth.Wilber@ic.fbi.gov; Bwright@security.state.ny.us; Yin, Xiaosong; Wayne.Young@hhs.gov; Zabko, John; garrett.zito@ic.fbi.gov  
**Cc:** tch@nei.org; Sims, Andrew (CTR)  
**Subject:** Japan Incident Resources and Updates

Nuclear Government and Sector Coordinating Council partners,

Provided for your situational awareness, please see below websites for your consideration:

USA.gov: [Japan 2011 Earthquake/Tsunami – U.S. Government Information](#).

Additional information may be obtained from the following resources:

- U.S. Environmental Protection Agency - Japanese Nuclear Emergency: EPA's Radiation Air Monitoring.
- U.S. Department of Energy – Energy Blog: The Situation in Japan
- U.S. Nuclear Regulatory Commission website and its NRC Blog
- U.S. Customs and Border Protection - CBP Statement Concerning Radiation Monitoring of Travelers, Goods from Japan
- U.S. Food and Drug Administration - Radiation Safety
- U.S. Centers for Disease Control and Prevention – Radiation Dispersal from Japan
- U.S. Department of State - Japan's Earthquake and Tsunami
- U.S. Agency for International Development - USAID Responds to the Earthquake and Tsunami in Japan
- International Atomic Energy Agency --Fukushima Nuclear Accident Update Log

Lastly, please feel free to provide the Nuclear SSA with recommended websites/related materials in an effort to maintain situational awareness, as this incident continues to evolve.

Thanks,

Kevin

Kevin Cronin  
Nuclear Sector Specific Agency  
Office of Infrastructure Protection  
Department of Homeland Security  
Office: (703) 603-5170  
Cell: (b)(6)

Email: [Kevin.Cronin@associates.dhs.gov](mailto:Kevin.Cronin@associates.dhs.gov)

Blackberry: (b)(6)



## Greenwood, Carol

---

**From:** Gibson, Kathy  
**Sent:** Tuesday, April 05, 2011 6:41 PM  
**To:** Blount, Tom; Santiago, Patricia  
**Cc:** Golla, Joe  
**Subject:** RE: questions from the WSJ

Tom,  
My blackberry is dead, so I am now at a touchdown station in TWFN catching up on email. Sorry.

By copy of this email I am asking Pat Santiago to see tomorrow whether her staff (Tina or Jason/Charlie) can answer these questions. We are not SAMA experts so I am reluctant to offer our staff, but we will see what we feel comfortable doing. If we can't help, I suggest you refer them to NEI or the BWROG.

---

**From:** Blount, Tom  
**Sent:** Tuesday, April 05, 2011 11:45 AM  
**To:** Gibson, Kathy  
**Cc:** Golla, Joe  
**Subject:** RE: questions from the WSJ

Hi Kathy – Hope all is well with you and you're not spending too much time on shift at the Ops Center...I know you're in a meeting all day today so I'm hoping you see this on a break...

We have some questions raised by a reporter over in Japan for the Wall Street Journal regarding SAMGs. I just learned that NRR no longer has an "in-house" expert in this area since Bob Palla retired. I was wondering, (hoping actually) if Charlie Tinkler or Jason Schaperow could give us (OPA actually) a hand with these background basis type questions....?

Would you let us know....

Thanks,  
Tom  
415-5710

---

**From:** Golla, Joe  
**Sent:** Tuesday, April 05, 2011 10:25 AM  
**To:** Blount, Tom  
**Subject:** FW: questions from the WSJ  
**Importance:** High

Tom- please see below. Should I follow up on this?? -or someone in EP?

---

**From:** Bailey, Stewart  
**Sent:** Tuesday, April 05, 2011 10:14 AM  
**To:** Golla, Joe  
**Cc:** Nelson, Robert; Burnell, Scott; Dennig, Robert  
**Subject:** FW: questions from the WSJ

I'm forwarding this to Joe Golla, BWROG lead PM, hoping he can help with the historic information on the generic operating procedures.

My branch doesn't really have information on these issues.

**From:** Burnell, Scott  
**Sent:** Tuesday, April 05, 2011 10:10 AM  
**To:** Dennig, Robert; Bailey, Stewart  
**Cc:** Nelson, Robert  
**Subject:** FW: questions from the WSJ  
**Importance:** High

Gentlemen;

Are we in a position to provide substantive answers (or the requested excerpts) on these questions? The letter in question is ML003678152. The reporter's in Tokyo, so I'm hoping we can reply one way or another by COB so that the reporter will have it first thing tomorrow. Thanks.

Scott

---

**From:** Dvorak, Phred [mailto:Phred.Dvorak@wsj.com]  
**Sent:** Tuesday, April 05, 2011 9:51 AM  
**To:** Burnell, Scott  
**Subject:** questions from the WSJ

Scott, hi --

It's Phred Dvorak at the Wall Street Journal in Tokyo, with those questions about BWR accident guidelines.

As I mentioned, I'm looking into the idea that some actions that are required by the "generic" BWR severe accident guidelines in the U.S. don't seem to have been performed by the Fukushima Daiichi operators in Japan. So to follow up, I'm trying to first pin down what those standard protocols are in the U.S. -- specifically with regard to venting the primary containment vessel and injecting water.

- I'm told that the latest version of those protocols is this: "BWR Owners' Group Emergency Procedure and Severe Accident Guidelines - Rev 2, 2001 - 03". Can you confirm that's true? And are they publically available?

- If they're not, could I obtain excerpts from the parts concerning venting the primary containment vessel (when, how and how long to vent, venting philosophy -- how to factor in risk of radiation release etc, who's responsible for the decision) and injecting water (similarly: when it's absolutely necessary to inject, who's responsible for the decision).

- Further to the "venting philosophy" question, I found in your public documents database a Jan. 28, 2000 letter from the BWR Operators' Group to the NRC expressing some concerns about wording in the (then) proposed Revision 2. The wording in question was that vents should be opened "irrespective of the offsite radioactivity release rate." The BWROG asked the wording be softened. Can you tell me how this issue was resolved? (What was the final wording?)

- The same letter also noted the need for guidance that "clearly established responsibilities within the licensee's management organization for authorizing containment venting under accident conditions." Could you please tell me whether that happened, and what the resulting guidance was?

- In the venting and water injection instructions, are there parts of the generic SAG (the BWROG Severe Accident Guidelines referred to above) that are modifiable by the operators and parts that are not? What are the NRC rules concerning how such SAGs can or should be modified with plant-specific information?

Many thanks in advance for your help!  
Phred

---

Phred Dvorak  
Wall Street Journal  
(b)(6) (cellphone)  
[phred.dvorak@wsj.com](mailto:phred.dvorak@wsj.com)

**Greenwood, Carol**

---

**From:** Gibson, Kathy  
**Sent:** Friday, April 08, 2011 2:33 AM  
**To:** Uhle, Jennifer  
**Subject:** RE: RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

Funds are an issue, we will brief you and Brian next week. More Jimi issues - no \$ budgeted for uncertainty analysis and SOARCA contract nearly at ceiling. Poor Pat is really trying to get SPB house in order. Good news is office has \$ so we should ultimately be ok, but need to go through the processes to raise ceiling and it won't be pretty. BTW Richard Lee has really stepped up and is doing a great job taking all the incoming requests and running them to ground. He also seems excited to have severe accident work focused back in FSTB (vs SPB).

Thanks for your support, I just didn't want Brian over reacting. :-)

---

**From:** Uhle, Jennifer  
**Sent:** Friday, April 08, 2011 2:12 AM  
**To:** Gibson, Kathy; Sheron, Brian  
**Cc:** Lee, Richard; Wagner, Katie  
**Subject:** RE: RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

The only calibration is that you spelled calibrate wrong. ☺ Did not mean to sound like I am over reacting. Just trying to make sure everyone is on the same page that we should support the Ops Center but in an orderly fashion using the system you set with sharepoint and Richard and Katie. And if funds are an issue, provide advice on where some funding may be available. The impetus for the email was to forward the email that Scott Morris sent to Wiggins et al., see below. You guys are doing a great job supporting the NRC and the US as a whole. J

---

**From:** Gibson, Kathy  
**Sent:** Friday, April 08, 2011 1:52 AM  
**To:** Uhle, Jennifer; Sheron, Brian  
**Cc:** Lee, Richard; Wagner, Katie  
**Subject:** RE: RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

No need to over-react. Support for Japan has been and continues to be our highest priority. The work was done and sent to PMT, but apparently Cindy was not aware of it. We have gotten numerous requests from PMT (and others) for various source terms that we paid Sandia to create which were then not used. I told my staff not to run anymore source terms for PMT (or anyone else) without checking with me first. That is the message that Jason relayed to Cindy today concerning the source term requested on 3/30 and provided on 3/31 (that Cindy was not aware of). We don't have unlimited funds or staff to run analyses that are not used. This is a lesson-learned from this experience. Also note that the Sandia MELCOR staff are in Japan, and they are also creating versions of source terms and consequence analysis. This should all be better coordinated so that US funds are not wasted. I have put controls in place so that requests are vetted, understood, and completed after being verified that they are necessary and will be used. You guys can calabrate me if I am misguided.

---

**From:** Uhle, Jennifer  
**Sent:** Friday, April 08, 2011 12:00 AM  
**To:** Gibson, Kathy; Sheron, Brian  
**Cc:** Lee, Richard; Wagner, Katie  
**Subject:** FW: RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

FYI. I realize the contract for SOARCA is running out of ceiling. The contract for SNL to support NRC for Japan is being put in place. Urgent funding of that contract should be used. There should be CSARP funds available. Use of NRC staff should also be pursued and if we need to slip deliverable dates, then we just need to contact the user offices. Japan event should remain the highest priority. Brian, if you disagree, please align me.

Thanks,

J

---

**From:** Morris, Scott  
**Sent:** Thursday, April 07, 2011 11:56 PM  
**To:** McDermott, Brian; Wiggins, Jim; Evans, Michele  
**Subject:** RE: RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

It is my understanding from Kathy Gibson and Jennifer Uhle (both on the midnight shift with me now) that the 3/30 requested run was completed by RES on 3/31 and provided to the PMT on that date ... not sure what the disconnect is??

If more MELCOR runs are needed, Richard Lee and Katie Wagner are the appropriate RES POCs ...

RES indicates that they are more than willing to support any future PMT requests ... my sense is that they are looking for a better tracking mechanism to ensure that everyone remains cognizant of these types of requests and responses ...

Scott

---

**From:** McDermott, Brian  
**Sent:** Thursday, April 07, 2011 9:27 PM  
**To:** Wiggins, Jim; Evans, Michele  
**Cc:** Morris, Scott  
**Subject:** Fw: RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

We need to discuss Cyndi's activities...

Brian

Brian J. McDermott  
(b)(6) (mobile)

---

**From:** Hoc, PMT12  
**To:** McDermott, Brian  
**Sent:** Thu Apr 07 20:29:14 2011  
**Subject:** FW: RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

As discussed. We will not be using MELCOR to back validate RASCAL- per Chairman/Marty/Roy

**From:** Jones, Cynthia

**Sent:** Thursday, April 07, 2011 5:08 PM

**To:** Virgilio, Martin

**Cc:** Hoc, PMT12; Evans, Michele; Wiggins, Jim

**Subject:** RES will be unable to perform MELCOR run that PMT requested last week to support validation of NRC run V3

Marty-

As a follow-up to our discussion, I have just been informed by the PMT that the request that we had in the PMT chronology for RES to perform a MELCOR run of NRC's "plausible realistic case PRC-V3" (70%/33%/33% core damage- see attached sheet) cannot be performed by RES tomorrow and staff in RES indicated they also had funding issues with performing this request. I am not sure why at this late of stage RES is notifying us today since the request was originally sent in 3/30, and again on 4/4 with additional supplemental info provided this week by PMT staff to RES on Tuesday and Wed. This request had been approved by ET (initially Jennifer Uhle the evening of 3/23) and most recently this week with Jim Wiggins as ET director) and sent to RES (Richard Lee and Cathy G) on Monday with a due date of 4/8.

The reason for this run is that there is not agreement amongst the PMT Dose assessors and several PMT directors (myself included) that the technical basis (RASCAL run) performed as the basis for a 50 mile EPZ, or the subsequent run PRC-V3 was valid or correct. Based on the data, and with input from several dose assessors, I believe the RASCAL runs to be overly conservative. We also received questions on the validity of this data on 3/26 from Dr. Steve Fetter, White House NSS, also documented by the PMT. Consequently, the initial request on 3/30 to RES by the PMT to run MELCOR to validate the V3 March 24 RASCAL run was to provide assurance (or not) that the RASCAL run provided to the White House' NSS (justifying our EPZ) was correct. In having some validation of the previous source term, combined with new environmental and air monitoring data, I believed that the NRC would be in a much stronger position to recommend a decrease in our initial 50 mile EPZ, which I envisioned would be forthcoming this week or the weeks ahead. As we discussed today, that request appears to be in the very near term. In addition, with the TEPCO information provided today of a 70%/30%/25% core damage (which is nearly identical to what we initially thought), it would be good to know if the initial RASCAL run was an overly conservative, and if it was, would only continue to support a relaxation of the EPZ.

I have asked the PMT to contact the RES mgmt to understand the reason for not being able to complete the PMT request, to document this in the PMT chronology, and to inform you of the results. I have been working this issue since Sat 3/23 without resolution (I had thought we would hear from RES tomorrow to put this issue to rest), but it still remains a serious concern to me from a technical standpoint, and don't understand why we wouldn't resolve this quickly. I have asked the PMT to close the loop with you via email once they discuss the status with RES.

Cyndi

Cynthia G. Jones, Ph.D.,  
Sr. Technical Advisor for Nuclear Security  
U.S. Nuclear Regulatory Commission  
Office of Nuclear Security & Incident Response  
Mail Stop T4-D22A, Washington, D.C. 20555  
[cynthia.jones@nrc.gov](mailto:cynthia.jones@nrc.gov)  
[cgi@nrc.gov](mailto:cgi@nrc.gov)  
Work: 301-415-0298  
Blackberry: (b)(6)



**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Thursday, April 14, 2011 8:25 PM  
**To:** Scott, Michael  
**Subject:** Re: NEI Used Fuel Management Conference

You are probably right. I'm not thinking straight. I was more thinking about Fukushima, our spent fuel fire stuff is OUC, and coordination about what we say with the program offices, OPAn etc. I guess not an OGC thing.

---

**From:** Scott, Michael  
**To:** Gibson, Kathy  
**Sent:** Thu Apr 14 18:35:41 2011  
**Subject:** Re: NEI Used Fuel Management Conference


If he's not being comped, why do we need ogc? We speak at industry conferences in official capacity a lot.

Sent from my NRC blackberry  
Michael Scott  
301-873-3289

---

**From:** Gibson, Kathy  
**To:** Zigh, Ghani  
**Cc:** Scott, Michael  
**Sent:** Thu Apr 14 16:40:13 2011  
**Subject:** RE: NEI Used Fuel Management Conference

Did you run this by OGC, John Szabo? If he indicates that you can do it (no ethical concerns), then I will raise it with Brian and Jennifer (for technical/policy approval).

|                                                                                                                                       |                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
|                                                    | <b>Kathy Halvey Gibson</b><br>Director<br>Division of Systems Analysis |
|                                                                                                                                       | Kathy.Gibson@nrc.gov<br>(301) 251-7499 Work<br>(b)(6) Cell             |
| <small>U.S. Nuclear Regulatory Commission<br/>Office of Nuclear Regulatory Research<br/>Protecting People and the Environment</small> |                                                                        |

---

**From:** Zigh, Ghani  
**Sent:** Wednesday, April 13, 2011 2:56 PM  
**To:** Gibson, Kathy; Scott, Michael  
**Subject:** FW: NEI Used Fuel Management Conference

What do you think about this invitation?

---

**From:** NICHOL, Marcus [mailto:mrn@nei.org]  
**Sent:** Wednesday, April 13, 2011 2:52 PM

CCCC/104

**To:** Zigh, Ghani  
**Subject:** NEI Used Fuel Management Conference

Ghani,

NEI extended an invitation to Sam Durbin of Sandia to speak at NEI's Used Fuel Management Conference. He indicated that, while he would like to participate, he was otherwise unable. He indicated that you would also be capable of presenting the same material. NEI would like to extend to you the invitation to speak at the conference. Below are the details previously provided to Sam. Please let me know if you would be willing to speak. Thank you for your consideration.

As we discussed, NEI is hosting a Used Fuel Management conference from May 3<sup>rd</sup> to 5<sup>th</sup> in Baltimore, MD. We will be having a session titled "Used Fuel Management in the Aftermath of Fukushima Daiichi", on May 3<sup>rd</sup> at 1:30pm. We were thinking that it might be valuable to have a speaker for the topic of Zr fires in spent fuel pools, or also other low probability spent fuel pool accidents, such as what may have been experienced in Japan. The idea would be to link that with how it may change our perspective on how spent fuel pools are kept safe in the US.

Other speakers on the panel will discuss: 1) overview of events at Fukushima Daiichi, 2) research started to better understand how the events in Japan affect management of spent fuel pools in the US, and 3) utility's response to events in Japan and perspective on future impacts to management of spent fuel pools.

Please let me know if you or another designee may be able to present. We are hoping to hear back soon, which would give us time to find another speaker if you or your designee is unable to participate.

Thank you,

Marcus Nichol  
Senior Project Manager  
Used Fuel Storage & Transportation

Nuclear Energy Institute  
1776 I Street NW, Suite 400  
Washington, DC 20006  
[www.nei.org](http://www.nei.org)

Office: 202-739-8031  
Mobile: (b)(6)  
Fax: 202-533-0171  
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Sent through mail.messaging.microsoft.com



**Greenwood, Carol**

---

**From:** Gibson, Kathy  
**Sent:** Friday, April 15, 2011 1:37 PM  
**To:** Lee, Richard  
**Cc:** Scott, Michael  
**Subject:** Fw: HOC Transition Plan - Japanese Event Task Tracking Process - POC Roles & Responsibilities  
**Attachments:** Transition Plan.docx; Japanese Event Task Tracking (JETT) Process.doc

---

**From:** Dudek, Michael  
**To:** Deegan, George; Lewis, Robert; Weaver, Doug; Ciocco, Jeff; Kevern, Thomas; Kevern, Thomas; Hiland, Patrick; Skeen, David; Dudek, Michael; Powell, Amy; Brown, Milton; Bloom, Steven; Emche, Danielle; Gibson, Kathy; Case, Michael; White, Bernard; Lee, Richard; Burns, Stephen; Rothschild, Trip; Itzkowitz, Marvin; Schmidt, Rebecca  
**Cc:** Evans, Michele; Morris, Scott; Marshall, Jane; Brenner, Eliot; Uhle, Jennifer; Tracy, Glenn; McDermott, Brian; Dyer, Jim; Zimmerman, Roy; OST01 HOC; Wiggins, Jim  
**Sent:** Fri Apr 15 13:36:36 2011  
**Subject:** HOC Transition Plan - Japanese Event Task Tracking Process - POC Roles & Responsibilities

Office POCs:

Good afternoon! As a follow-up to yesterday's discussion on the planned realignment for the functions of the Japan Earthquake and Tsunami response, I have attached (a) the Transition Plan, and (b) the Japanese Event Task Tracking (JETT) Process above. These documents provide the planning basis for the orderly transition to a six-person agency watch staff that will better serve the changing information needs of stakeholders.

The attached Transition Plan includes provisions for NRC line organizations to handle incoming requests and the subsequent reduction of products delivered by the agency watch team. In order to do this effectively, the Transition Plan identifies central points of contact (POCs) for each NRC Office that will be responsible for processing and distributing assignments identified by the HQ Fukushima Response Team. The identified POCs for each Office are:

- FSME – FSME Rids box, George Deegan, and Robert Lewis
- NMSS – Doug Weaver
- NRO – Jeff Ciocco (backup: Tom Kevern)
- NRR – Pat Hiland (backup: Dave Skeen)
- NSIR – Michael Dudek
- OCA - Amy Powell (backup: Rebecca Schmidt)
- OCFO – Milton Brown (backup: Jim Dyer)
- OGC – Stephen Burns (backup: Trip Rothschild or Marv Itzkowitz)
- OIP – Steve Bloom (backup: Danielle Emche)
- OPA – Eliot Brenner
- RES – Kathy Gibson (backup: Mike Case)

Additionally, to help aid POCs in their duties, I have listed several items below that may be useful:

- All needed Japanese event information (SITREPS, One-Pagers, Q&As, and JETT Assignments) can be found on the <http://nsir-ops.nrc.gov/default.aspx> SharePoint site.
- Specifically, JETT assignments can be found at <http://nsir-ops.nrc.gov/Lists/HOC%20Red%20Tickets/AllItems.aspx>. All JETT assignments will be designated with a tracking number and include expectations for the date and time of completion.
- The completion of JETT assignments should be given a high priority, but should not detract from the NRC's mission to protect the U.S. public health and safety and the environment or the promotion of the common defense and security associated with nuclear facilities and materials that are regulated by the NRC.

- To obtain clarifications on specific JETT assignments, POCs should contact the HQ Fukushima Response Team (301-816-5111), as necessary.
- POCs and technical staff should direct all questions regarding priorities to their supervisors.
- POCs can obtain after-hours contact information for quick-turnaround JETT assignments from the Headquarters Operations Officers at 301-816-5100.

If you have any other comments or concerns regarding the Transition Plan or the JETT Process, please do not hesitate to call me.

Respectfully,  
Michael I. Dudek

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

Cell ☎: [REDACTED] (b)(6)

## **Operations Center Transition Plan to a More Sustainable Staffing Level for the Fukushima Dai-ichi Event**

Based on the Chairman's April 8, 2011 memorandum to the EDO with approval of Operations Center staffing for the NRC's response to the events in Japan, staff is beginning to transition current staffing levels to a six-person team as described in the memorandum. Staff will continue to evaluate staffing levels as conditions in Japan change.

This document provides the planning basis to effect an orderly transition to the six-person agency watch staff. The plan includes provisions for NRC line organizations to handle incoming requests and the subsequent reduction of products delivered by the agency watch team and participation in conferences or calls regarding the event. Each NRC Office has a central point of contact and a distribution network to properly process and distribute the requests to available staff members as HQ continues to support the needs of the Site Team in Japan. The principal roles of the team in the Operations Center are to provide a point of contact for the site team and to ensure that site team needs are met in a timely manner. The reduced Operations Center team is not expected to provide support directly, but rather to coordinate that support from the line organizations. The Operations Center team will provide direct support consistent with the resources and available skill sets of the new team.

### **Messaging on Transition**

NRC is realigning the functions for the Japan Earthquake and Tsunami response to better serve the changing information needs for stakeholders. The following realignment began on Monday April 11, 2011:

1. The NRC Site Team in Japan will continue to be staffed at the current level. The site team will continue to be refreshed with additional members of the NRC staff to allow some of the current Japan team members to return to the U.S.
2. NRC's line organizations are being leveraged to perform detailed technical analyses previously performed by the full Reactor Safety and Protective Measures Teams in the NRC HQ Operations Center.
3. The Headquarters Operations Center will continue to have enhanced staffing around the clock dedicated to this response, but will have fewer individuals per shift in the Operations Center. Their focus will be coordination and communications while shifting most of the technical work associated with this response to NRC's regular line organizations.

Actions by Team to facilitate the transition:

### **Executive Team**

The Executive Team will consist of one SES director, supported by appropriate staff. The ET will define the roles and skills needed for each response position as conditions change throughout the response, including temporary augmentation of the responding staff if needed.

The ET director will continue to keep the Commission informed through scheduled and emergent Commissioners' Assistants (CA) briefings, as necessary.

The ET director is also responsible for directing and conducting the review of information from the site team, other U.S. agencies, IAEA, and other credible sources to develop an integrated understanding of conditions and issues related to the response.

The ET director will be responsible for ensuring that the documents developed in response to requests to the NRC by the team in Japan or other stakeholders are consistent with NRC's understanding of the events, NRC policy, and are responsive to the request.

#### ET Support Team

The ET Support Team (EST) responder will coordinate with the HQ team to facilitate the completion of actions and tracking of progress on tasks. The EST responder will also facilitate emergent CA briefing calls and other ET communications as necessary. Issues with equipment in the NRC HQ Operations Center will be addressed by NSIR staff and will be resolved during regular work hours to the extent possible.

#### Protective Measures Team

The Protective Measures Team (PMT) responder will coordinate with the Japan team and other NRC staff serving in liaison roles to other organizations as well as external stakeholders. The PMT responder will ensure that tasks that are normally performed by the full PMT are addressed by the appropriate line organization in a timely manner, and ensure that the line organization Point of Contact (POC) understands the needs the task is addressing. In addition, the PMT responder will provide expertise to the ET director when needed.

#### Reactor Safety Team

The Reactor Safety Team (RST) responders will maintain cognizance of the events in Japan through periodic calls with the consortium and Japan team and continuity of tasks being coordinated through the response team. The RST responders will also provide BWR and Severe Accident expertise to support the ET director. The RST responders will coordinate tasks that result from requests to the Ops Center that previously would have been performed within the Ops Center with the appropriate line organization POC.

#### Liaison Team

The Liaison Team (LT) member is responsible for providing liaison support to the Japan team and the Operations Center team consistent with normal Liaison Team responsibilities. The LT member will work with the POCs identified in each supporting office to ensure that tasks, deliverables, and schedules are understood by the appropriate line organization. The LT member will also be responsible for updating the NRC's daily SitRep based on input collected from other response team members.

The LT member will provide continuity and coordination through periodic conference calls with internal and external stakeholders, including line organization staff when appropriate.

Line Organization POCs:

- a. FSME – FSME Rids box, George Deegan, and Robert Lewis
- b. NMSS – Doug Weaver
- c. NRO – Jeff Ciocco (backup: Tom Kevern)
- d. NRR – Pat Hiland (backup: Dave Skeen)
- e. NSIR – Michael Dudek
- f. OCA - Amy Powell (backup: Rebecca Schmidt)
- g. OCFO – Milton Brown (backup: Jim Dyer)
- h. OGC – Stephen Burns (backup: Trip Rothschild or Marv Itzkowitz)
- i. OIP – Steve Bloom (backup: Danielle Emche)
- j. OPA – Eliot Brenner
- k. RES – Kathy Gibson (backup: Mike Case)

## Japanese Event Task Tracking (JETT) Process

### Background:

NRC is realigning the functions of the Japan Earthquake and Tsunami response to better serve the changing information needs of stakeholders. The Headquarters Response Team will continue to have enhanced staffing around the clock dedicated to this response, but will have fewer individuals per shift in the Headquarters Operations Center (HOC). The primary focus of the Response Team will be coordination and communications. Most of the technical assessment work associated with this response will shift to NRC's regular line organizations. To facilitate this goal, the Japanese Event Task Tracking (JETT) Process has been established to assign and track technical work performed outside of the HOC.

### Objective:

The objective of the JETT Process is to provide a consistent approach for assigning and tracking technical work performed outside of the HOC for high-priority short and medium term actions. Longer term actions in support of the HOC will be tasked through the normal OEDO Green Ticket process or other mechanisms (e.g., NSIR's lessons learned process).

### Responsibilities:

Responsibilities of key individuals of the realigned functions of the Japan Earthquake and Tsunami response are as follows:

- **Headquarters Response Team** – The Headquarters Response Team under the direction of the Executive Team Director is responsible for reviewing tasks and assigning them within the HOC via the Task Tracker or outside the HOC through the HOC Task Assignment Process (or initiation of an alternative tracking mechanism).
- **OEDO** – OEDO is responsible for supervising the assignment of tasks and supporting the agency's overall response.
- **Office Points of Contact (POC)** – Office POCs are responsible for receiving JETT assignments from the HOC, identifying the technical staff responsible for the task, and providing that information to the HOC.
- **Technical Staff** – NRC technical staff are responsible for providing support for the completion of assigned HOC tasks within the appropriate timeframe and scope of the assignment. Completion of these tasks should be given a high priority, but should not detract from the NRC's mission to protect the U.S. public health and safety and the environment or the promotion of the common defense and security associated with nuclear facilities and materials that are regulated by the NRC. NRC Technical Staff should contact the Headquarters Response Team (301-816-5111), as necessary, to obtain clarification on specific JETT assignments. The staff should direct all questions regarding priorities to their supervision.
- **Managers and Supervisors** – Managers and supervisors are responsible for supporting technical staff in timely and high quality completion of HOC actions (including through the approval of overtime) while accomplishing the NRC's mission of licensing and regulating the U.S.'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.

### **JETT Process Overview:**

Tasks initiated through the HOC in support of Fukushima Daiichi response efforts will be evaluated by the Headquarters Response Team to determine if the task involves technical work that should be performed outside of the HOC. If the Headquarters Response Team identifies a need for work to be performed outside of the HOC, the staff will initiate a JETT assignment with approval from the ET Director. The following process will be followed for JETT assignments:

- A JETT assignment will include specific expectations for the date and time of completion. A JETT assignment will also include a priority (High, Medium, Low).
- All assignments will be tracked via the <http://nsir-ops.nrc.gov/default.aspx> SharePoint site and will be designated with a tracking number that corresponds with the WEBOEC Task Tracker record number associated with the task.
- Office POCs are strongly encouraged to subscribe to the SharePoint HOC assignment list via the "Alert Me" feature.
- Once a JETT assignment is entered into the SharePoint site, an Adobe PDF assignment sheet will be transmitted electronically to the assigned Office POC(s) for facilitation. JETT assignments will be sent out via e-mail and will arrive from [OST01.HOC@nrc.gov](mailto:OST01.HOC@nrc.gov).
- Work on the task should begin as soon as possible after assignment to meet the assigned due date and time, as well as the requested level of coordination and concurrence.
- Supervisors are advised to authorize overtime work as needed to support timely completion of these tasks. If the technical staff need more information on the task, or if they cannot meet the assigned due date, the assigned lead office point of contact should promptly contact the Response Team at 301-816-5111 for discussion of the assignment.
- All completed JETT assignments should be provided back to the Headquarters Response Team via [OST01.HOC@nrc.gov](mailto:OST01.HOC@nrc.gov) for close-out. All deliverables should have requested levels of internal coordination and concurrence.

### **Effective Date:**

Friday, April 15, 2011

**Bano, Mahmooda**

---

**From:** Aviles, Armando LT USN ([REDACTED] (b)(6))  
**Sent:** Saturday, April 02, 2011 11:25 PM  
**To:** Scott, Michael  
**Subject:** RE: Request for Information

Sure does, thank you sir.

v/r

Armando

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

**From:** Scott, Michael [<mailto:Michael.Scott@nrc.gov>]  
**Sent:** Sunday, April 03, 2011 12:17 PM  
**To:** Aviles, Armando LT USN  
**Cc:** Mercer, Robert LCDR USN USFJ J3; Spencer, Julie A. CDR USN; Worthy Kenneth L CDR USN USFJ J6; Young, Samuel E LCDR USN SJFHQ  
**Subject:** RE: Request for Information

1. Evidently the trenches are for electric cable runs. TEPCO is working on various plans to drain the water, including using the onsite radwaste facility and provision of temporary tanks.
2. Minimum debris retention injection rates: TEPCO 56, 89, 89 l/min. GEH 72, 125, 125 l/min, for Units 1, 2, and 3, respectively.
3. Unknown. Requires high-level JG decision. Unlikely until inerting successful, which MAY occur for Unit 1 about 5 April, for other two up to a week after Unit 1. Those dates have a history of slipping.

Hope that helps.

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

**From:** Aviles, Armando LT USN [[mailto:\[REDACTED\] \(b\)\(6\)](mailto:[REDACTED] (b)(6))]  
**Sent:** Saturday, April 02, 2011 10:51 PM  
**To:** Scott, Michael  
**Cc:** Mercer, Robert LCDR USN USFJ J3; Spencer, Julie A. CDR USN; Worthy Kenneth L CDR USN USFJ J6; Young, Samuel E LCDR USN SJFHQ  
**Subject:** Request for Information

Mr. Scott,

As per our phone conversation this morning, the following information is respectfully requested:

1. What is the purpose/function of the trenches at the Daiichi site? And where is TEPCO pumping the contaminated water contained within the trench to?
2. Based on the calculated decay heat currently being generated at each of the Units, request the NRC's and TEPCO's calculated minimum required Freshwater flow rates for Units 1, 2 and 3.
3. When does NRC anticipate TEPCO will begin to flood the Drywell



and Torus cavities with Freshwater in Unit 1? How or what system will be used to vent the atmosphere in containment as it is filled with freshwater?

v/r

LT Armando Aviles  
USFJ CAT RCMT  
DSN: 315-225-7345/4169

**Bano, Mahmooda**

---

**From:** Cherry, Ronald C [CherryRC@state.gov]  
**Sent:** Sunday, March 27, 2011 8:15 AM  
**To:** Duncan, Aleshia; (b)(6) Simmers, Keith MAJ USA  
**Cc:** Casto, Chuck; Dorman, Dan; Monninger, John; Scott, Michael; Giessner, John; Taylor, Robert; Wall, Marc M  
**Subject:** Fukushima Daiichi Robotics Meeting/Conference Call -- Monday March 28 1100  
**Attachments:** RemoCon PT Mtg2.doc  
**Importance:** High

All:

Please note METI is organizing an 1100 meeting/conference call on Monday March 28, re: robots for Fukushima Daiichi. Agenda is below and attached.

Please advise who will attend.

CC'ing NRC folks though I expect you'll be busy preparing for the VIP visit. Participation is welcome.

Thanks.

Ron

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

**From:** hatada-hiroyuki@meti.go.jp [mailto:hatada-hiroyuki@meti.go.jp]  
**Sent:** Sunday, March 27, 2011 8:26 PM  
**To:** hatada-hiroyuki@meti.go.jp  
**Cc:** (b)(6); a-kumada0303@docomo.ne.jp; bannai-toshihiro@meti.go.jp; Cherry, Ronald C; Duncan, Aleshia D; fujiki-toshimitsu@meti.go.jp; funaki-kentaro@meti.go.jp; hirosisanomura@docomo.ne.jp; hiroschi.sanomura@mofa.go.jp; hiroschi\_yoshinada@komatsu.co.jp; horiguchi-shin@meti.go.jp; Howard, E. Bruce; koyama-masaomi@meti.go.jp; kumada@yb3.so-net.ne.jp; mikihay@mod.go.jp; mitsumata-hiroki@meti.go.jp; mitsunori\_ozaki@komatsu.co.jp; mori-daisuke@meti.go.jp; okuda-shuji@meti.go.jp; osamu.maekawa@toshiba.co.jp; ozawa-noriaki@meti.go.jp; (b)(6); sakuma-yasuhiro@meti.go.jp; satouyosh@mod.go.jp; takashi.hatori@mofa.go.jp; tsuyoshi.hagiwara@toshiba.co.jp; y4023@ce.taisei.co.jp; yagi.n@tepco.co.jp; yano.komei@tepco.co.jp; yasushi.horimizu@jnfl.co.jp; yojiro.hatakeyama@kantei.go.jp; yoshiko.kijima@mofa.go.jp; yoshinada.h.aa@m.titech.ac.jp; watanabe-m2x7@mlit.go.jp; mishima-o2rk@mlit.go.jp; watanabe-k2ar@mlit.go.jp; nikaidou-y2kg@mlit.go.jp; mikihay@mod.go.jp ; mori-daisuke@meti.go.jp  
**Subject:** [Fukushima NPP:Remote Control PT](vol.6) PT#2 room/location at METI decided (not Embassy)

Members:

各位:

(1) New participants from MLIT have been added to the email addressee.  
国土交通省の方のメールアドレスを宛先に追加しました。

(2) Draft agenda for the meeting #2 is attached for your referense.  
第2回会合のアジェンダ (ドラフト) を添付します。

(3) Meeting #2 logistics:

第2回会合のロジは以下のとおりです。

When : 1100 on Mon 28th of March

Where : "Int'l Conference Room" at 17th fllow West-2 METI.

How to get there: Tell the guard that you are attending the "Remote Control Project Team" so that your reception process is facilitated.

3月28日11:00~

経産省17階西2「国際会議室」

守衛に「リモートコントロール・プロジェクトチーム」に出席する旨伝えていただく  
と入館手続きがスムーズになります。

(See attached file: RemoCon PT Mtg2.doc)

Hiroyuki Hatada Deputy Director, Aerospace and Defense Industry  
Division, Ministry of Economy, Trade and Industry / +81-3-3501-1692 / hatada-  
hiroyuki@meti.go.jp

畑田 浩之 経済産業省 製造産業局 航空機武器宇宙産業課 課長補佐 /  
03-3501-1692

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| 送信元: |  
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| hatada-hiroyuki/MITI-LAN  
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| hatada-hiroyuki/MITI-LAN@MITI-LAN  
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| [REDACTED] (b)(6) |, a-kumada0303@docomo.ne.jp, bannai-toshihiro@meti.go.jp,  
cherryrc@state.gov, duncanad@state.gov, |  
| fujiki-toshimitsu/MITI-LAN@MITI-LAN, funaki-kentaro/MITI-LAN@MITI-LAN,  
hiroshisanomura@docomo.ne.jp, hiroschi.sanomura@mofa.go.jp, |  
| hiroschi\_yoshinada@komatsu.co.jp, horiguchi-shin/MITI-LAN@MITI-LAN, howardeb@state.gov,  
koyama-masaomi@meti.go.jp, mikihay@mod.go.jp, |  
| mitsumata-hiroki/MITI-LAN@MITI-LAN, mitsunori\_ozaki@komatsu.co.jp, mori-daisuke/MITI-  
LAN@MITI-LAN, okuda-shuji/MITI-LAN@MITI-LAN, |

|osamu.maekawa@toshiba.co.jp, ozawa-noriaki/MITI-LAN@MITI-LAN, (b)(6),  
sakuma-yasuhiro@meti.go.jp, satouyosh@mod.go.jp, |  
|takashi.hatori@mofa.go.jp, tsuyoshi.hagiwara@toshiba.co.jp, y4023@ce.taisei.co.jp,  
yagi.n@tepco.co.jp, yano.komei@tepco.co.jp, |  
|yasushi.horimizu@jfnfl.co.jp, yojiro.hatakeyama@kantei.go.jp, yoshiko.kijima@mofa.go.jp,  
yoshinada.h.aa@m.titech.ac.jp, |  
|kumada@yb3.so-net.ne.jp

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| [[Fukushima NPP:Remote Control PT](vol.5) CHANGE OF PLACE! RemoCon PT#2 at METI, NOT  
Embassy. |  
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(Addressees are the same as the previous email)

Members:  
Meeting #2 planned at 1100 Mon 28th will be held at METI, NOT Embassy as previously planned.  
Room# will follow. This email is to let you know that it's not Embassy.  
Thanks.

各位:  
28日(月)1100に予定しておりますPT第2回会合は、経産省で開催します。  
(当初予定の大使館はスペースが見つからないため)  
経産省のどの会議室か、は追って御連絡します。取り急ぎ変更の御連絡まで。

Hiroyuki Hatada Deputy Director, Aerospace and Defense Industry  
Division, Ministry of Economy, Trade and Industry / +81-3-3501-1692 / hatada-  
hiroyuki@meti.go.jp  
畑田 浩之 経済産業省 製造産業局 航空機武器宇宙産業課 課長補佐 /  
03-3501-1692

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| hatada-hiroyuki/MITI-LAN  
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| hatada-hiroyuki/MITI-LAN@MITI-LAN  
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| [REDACTED] (b)(6) ], a-kumada0303@docomo.ne.jp, bannai-toshihiro@meti.go.jp,  
cherryrc@state.gov, duncanad@state.gov, |  
| fujiki-toshimitsu/MITI-LAN@MITI-LAN, funaki-kentaro/MITI-LAN@MITI-LAN,  
hiroshisanomura@docomo.ne.jp, hiroschi.sanomura@mofa.go.jp, |  
| hiroschi\_yoshinada@komatsu.co.jp, horiguchi-shin/MITI-LAN@MITI-LAN, howardeb@state.gov,  
koyama-masaomi@meti.go.jp, mikihay@mod.go.jp, |  
| mitsumata-hiroki/MITI-LAN@MITI-LAN, mitsunori\_ozaki@komatsu.co.jp, mori-daisuke/MITI-  
LAN@MITI-LAN, okuda-shuji/MITI-LAN@MITI-LAN, |  
| osamu.maekawa@toshiba.co.jp, ozawa-noriaki/MITI-LAN@MITI-LAN, [REDACTED] (b)(6) ],  
sakuma-yasuhiro@meti.go.jp, satouyosh@mod.go.jp, |  
| takashi.hatori@mofa.go.jp, tsuyoshi.hagiwara@toshiba.co.jp, y4023@ce.taisei.co.jp,  
yagi.n@tepco.co.jp, yano.komei@tepco.co.jp, |  
| yasushi.horimizu@jfnfl.co.jp, yojiro.hatakeyama@kantei.go.jp, yoshiko.kijima@mofa.go.jp,  
yoshinada.h.aa@m.titech.ac.jp, kumada@minshu.jp |  
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| [[Fukushima NPP:Remote Control PT](vol.4) adding new addressee and some administratives for  
Japanese |  
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(Addressees are the same as the previous email)

I am sharing with all the members the information that METI received from DOE right after the meeting that started at 2000 yesterday.

昨日 20 時からの日米会議の直後、DOE 側から受領した資料を共有いたします。  
日本側が提供を要請し、また詳細を質問している装備品等についての追加情報で  
す。

この「追加情報」は日本側から「詳細を質問」している点に直接応えるものではありません。

回答すべく DOE が引き続き作業してくれている状況です。

[添付ファイル "Site Mapping and Surveillance Assistance to the Government of Japan (25 March 2011)-FINAL (2) (2).doc" は hatada-hiroyuki/MITI-LAN が  
削除しました]

Hiroyuki Hatada Deputy Director, Aerospace and Defense Industry  
Division, Ministry of Economy, Trade and Industry / +81-3-3501-1692 / hatada-  
hiroyuki@meti.go.jp

畑田 浩之 経済産業省 製造産業局 航空機武器宇宙産業課 課長補佐 /  
03-3501-1692

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| 送信元: |
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|hatada-hiroyuki/MITI-LAN
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| 宛先: |
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|hatada-hiroyuki/MITI-LAN@MITI-LAN
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(b)(6), bannai-toshihiro@meti.go.jp, cherryrc@state.gov,  
duncanad@state.gov, fujiki-toshimitsu/MITI-LAN@MITI-LAN, |  
|funaki-kentaro/MITI-LAN@MITI-LAN, hiroschisanomura@docomo.ne.jp,  
hiroschi\_yoshinada@komatsu.co.jp, horiguchi-shin/MITI-LAN@MITI-LAN, |  
|howarddeb@state.gov, koyama-masaomi@meti.go.jp, koyama-masaomi/MITI-LAN@MITI-LAN,  
mikihay@mod.go.jp, mitsumata-hiroki/MITI-LAN@MITI-LAN, |  
|mitsunori\_ozaki@komatsu.co.jp, mori-daisuke/MITI-LAN@MITI-LAN, okuda-shuji/MITI-LAN@MITI-  
LAN, osamu.maekawa@toshiba.co.jp, |  
|ozawa-noriaki/MITI-LAN@MITI-LAN, pekodx@state.gov, (b)(6), sakuma-  
yasuhiro@meti.go.jp, |  
|sakuma-yasuhiro/MITI-LAN@MITI-LAN, satouyosh@mod.go.jp, takashi.hatori@mofa.go.jp,  
tsuyoshi.hagiwara@toshiba.co.jp, yagi.n@tepcoco.jp, |  
|yoshiko.kijima@mofa.go.jp, yoshinada.h.aa@m.titech.ac.jp, hiroschi.sanomura@mora.go.jp,  
yoshiko.kijima@mofa.go.jp, |  
|a-kumada0303@docomo.ne.jp, yojiro.hatakeyama@kantei.go.jp, yasushi.horimizu@jfnfl.co.jp,  
yano.komei@tepcoco.jp, y4023@ce.taisei.co.jp |

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| [[Fukushima NPP:Remote Control PT](vol.3) adding new addressee and some administratives for  
Japanese |  
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(addressees)

- |                                   |                        |
|-----------------------------------|------------------------|
| 衆議院議員                             | 熊田先生                   |
| 外務省                               | 貴島様、佐野村様               |
| 経産省                               | 藤木様、奥田様                |
| 経産省資源エネルギー庁                       | 堀口様、舟木様 (→朝日様、三又様)     |
| 経産省保安院                            | 坂内様、小山様、佐久間様 (→根井様)    |
| 防衛省                               | 佐藤 3 佐 (→岩池様、米倉様)      |
| 東京電力                              | 堀水様、矢野様、八木様 (→佐藤様、原田様) |
| 東芝                                | 萩原様                    |
| コマツ                               | 吉灘様、尾崎様                |
| US Embassy                        | Mr. Cherry, Ms. Duncan |
| CC : 経産省 小澤様                      |                        |
| (カッコ内の方はメールアドレスに入っていないので適宜共有願います) |                        |

To the US participants:

Primary objective of this email is to get new participants (or new addresses) included in the addressees.  
Reply to this email when you want to reach the Remote Control PT members.

日本側参加者の方へ：  
(To the Japanese participants)

【0】連絡先アドレスの追加依頼がありましたので、追加しました。  
本メールは、このアドレスをお知らせする意味もあって、お送りしています。

【1】米側から以下の問い合わせを受けています。  
PT # 1 で配布した2枚紙ノンペーパーにある機材を要請された点は理解したが、以下について確認したい  
(1) DOEは「オーダー済み」のものについては特段のアクションは取らない予定だが、DOE-owned/DOE-enabledのものなど、コマーシャルベースでは上手く手配出来るのか心配なものがある。もしどこかで引っかかるなど、DOEとしてアクションすべき事があれば、教えて欲しい。(→八木さん確認お願いします)  
(2) カメラについて、希望台数をお願いします(→八木さん確認お願いします。四台ですか?)

【2】PT # 2について  
第2回PTを、明日28日11:00 (P) から、米国大使館で開催する方向で調整中です。  
米側に対して、出席者を登録する必要があります。  
特段御連絡なければ、以下の方を登録しようと思っております。修正あれば御連絡下さい。

Special Assistant to Prime Minister Mr. Goshi Hosono Diet Member Mr. Atsushi Kumada

Cabinet Secretariat Yojiro Hatakeyama  
MOFA Yoshiko Kijima, Hiroshi Sanomura  
METI Hiroshi Asahi, Hiroki Mitsumata, Kentaro Funaki, Toshimitsu Fujiki, Shuji Okuda,  
Noriaki Ozawa, Hiroyuki Hatada, NISA Hisanori Nei,  
MOD Masayuki Iwaike, Kazuya Yonekura  
MLIT (TBD)

TEPCO Yasushi Horimizu, Komei Yano, Naoto Yagi TAISEI CORP Yoji Tateishi TOSHIBA Tsuyoshi  
Hagiwara KOMATSU Mitsunori Ozaki, Hiroshi Yoshinada

Hiroyuki Hatada Deputy Director, Aerospace and Defense Industry  
Division, Ministry of Economy, Trade and Industry / +81-3-3501-1692 / hatada-  
hiroyuki@meti.go.jp  
畑田 浩之 経済産業省 製造産業局 航空機武器宇宙産業課 課長補佐 /  
03-3501-1692

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| 送信元: |  
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| hatada-hiroyuki/MITI-LAN  
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| 宛先: |  
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| hatada-hiroyuki/MITI-LAN@MITI-LAN  
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| (b)(6), bannai-toshihiro@meti.go.jp, cherryrc@state.gov,  
duncanad@state.gov, funaki-kentaro/MITI-LAN@MITI-LAN, |  
|hiroshi\_yoshinada@komatsu.co.jp, horiguchi-shin/MITI-LAN@MITI-LAN, howardeb@state.gov,  
koyama-masaomi/MITI-LAN@MITI-LAN, |  
|mikihay@mod.go.jp, mitsumata-hiroki/MITI-LAN@MITI-LAN, mitsunori\_ozaki@komatsu.co.jp,  
mori-daisuke/MITI-LAN@MITI-LAN, |  
|okuda-shuji/MITI-LAN@MITI-LAN, osamu.maekawa@toshiba.co.jp, ozawa-noriaki/MITI-LAN@MITI-  
LAN, pekodx@state.gov, (b)(6), |  
|satouyosh@mod.go.jp, takashi.hatori@mofa.go.jp, tsuyoshi.hagiwara@toshiba.co.jp,  
yagi.n@tepcoco.jp, yoshinada.h.aa@m.titech.ac.jp, |  
|sakuma-yasuhiro/MITI-LAN@MITI-LAN, fujiki-toshimitsu/MITI-LAN@MITI-LAN, bannai-  
toshihiro@meti.go.jp, koyama-masaomi@meti.go.jp, |  
|sakuma-yasuhiro@meti.go.jp, yoshiko.kijima@mofa.go.jp, hirosanomura@docomo.ne.jp,  
satouyosh@mod.go.jp |  
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| [[Fukushima NPP:Remote Control PT](vol.2) Memorandum on Today's RemoCon PT meeting 1500 at  
METI 12F romm West-1 |  
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(addressees)

外務省 貴島様、佐野様  
経産省 藤木様、奥田様  
経産省資源エネルギー庁 堀口様、舟木様 (→三又様)  
経産省保安院 坂内様、小山様、佐久間様 (→根井様)  
防衛省 佐藤 3 佐 (→岩池様、米倉様)

東京電力 八木様 (→佐藤様、原田様)  
東芝 萩原様  
コマツ 吉灘様、尾崎様

US Embassy Mr. Cherry, Ms. Duncan

CC : 経産省 小澤様

(カッコ内の方はメールアドレスに入っていないので適宜共有願います)

Dear attendees to the Remote Control Project Team Meeting #1,

Please find attached a memorandum that will be used in Today's meeting.  
(Page 1 in Japanese and Page 2 in English) For those who have not seen the previous communication, please see the last email attached below.

Very respectfully,

Hiroyuki Hatada

[添付ファイル "RemoCon PT Mtg1.doc" は hatada-hiroyuki/MITI-LAN が削除しました]

Hiroyuki Hatada Deputy Director, Aerospace and Defense Industry  
Division, Ministry of Economy, Trade and Industry / +81-3-3501-1692 / hatada-  
hiroyuki@meti.go.jp  
畑田 浩之 経済産業省 製造産業局 航空機武器宇宙産業課 課長補佐 /  
03-3501-1692

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| 送信元: |  
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| hatada-hiroyuki/MITI-LAN  
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| 宛先: |  
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|hiroshi\_yoshinada@komatsu.co.jp, mitsunori\_ozaki@komatsu.co.jp,  
osamu.maekawa@toshiba.co.jp, tsuyoshi.hagiwara@toshiba.co.jp, |  
|yagi.n@tepcoco.jp, yoshinada.h.aa@m.titech.ac.jp, takashi.hatori@mofa.go.jp,  
mikihay@mod.go.jp, satouyosh@mod.go.jp, |  
|bannai-toshihiro@meti.go.jp, koyama-masaomi/MITI-LAN@MITI-LAN, cherryc@state.gov,  
duncanad@state.gov, pekodx@state.gov, |  
|howardeb@state.gov, (b)(6), (b)(6)  
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|ozawa-noriaki/MITI-LAN@MITI-LAN, okuda-shuji/MITI-LAN@MITI-LAN, funaki-kentaro/MITI-  
LAN@MITI-LAN, horiguchi-shin/MITI-LAN@MITI-LAN, |  
|mori-daisuke/MITI-LAN@MITI-LAN, mikihay@mod.go.jp, mitsumata-hiroki/MITI-LAN@MITI-LAN  
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|[[Fukushima NPP:Remote Control PT] logistics for the meeting #1 1500 26th Mar  
(TODAY) 【原発・NRC】リモコンPT第1回ロジ連絡 |  
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To the invited participants to the Remote Control PT:  
(For Japanese, please see below)

<< to the US participants >>

Please be advised on the logistics for the meeting #1 of the Remote Control Project Team,  
that was mentioned in yesterday's bilateral meeting:

When: 1500 on Saturday March 26th (TODAY)  
Where: Shougi-room located West-1 on the 12th floor of the METI Main Building How to get  
there:  
- Use the gate located on the north edge (facing toward the royal

residence)

- at the entrance of the main building, tell the guard that you are attending "Remote Control Project Team Meeting, hosted by Soumu-ka (ext.2111)".
- use the red elevator to 12th floor and proceed to the door marked West-1
- call me at cell (b)(6) if needed

Please send me a list of US participants with Name, Job title, phone# and email address.

Thank you.

<<日本側参加者の皆様へ>>

お世話になっております。  
リモコンPTのロジについて御連絡します。

○リモートコントロール・プロジェクトチーム第1回会合

日時：3月26日（土）15：00～

場所：経済産業省本館12階西1 省議室（12階西1）

入館方法：

- ・土曜日のため、経済産業省の敷地北側の門（農林水産省側、皇居の方角）から入構下さい。
- ・役所のIDをお持ちでない方は、本館入り口にて、守衛所に「官房総務課（内線2111）の会議（リモコンPT）に出席する」旨、お伝え下さい。
- ・赤いエレベーターで12階西1の会場までお越し下さい。

出席者登録がまだの方は、お送りしたメールのフォーマットにて回答願います。  
（東芝、コマツ、原子力産業課からは既に出席登録を頂いております。）

よろしく願い申し上げます。

（以上）

Hiroyuki Hatada Deputy Director, Aerospace and Defense Industry  
Division, Ministry of Economy, Trade and Industry / +81-3-3501-1692 / hatada-  
hiroyuki@meti.go.jp  
畑田 浩之 経済産業省 製造産業局 航空機武器宇宙産業課 課長補佐 /  
03-3501-1692

SBU

This email is UNCLASSIFIED

(DRAFT)

第2回リモートコントロール・プロジェクトチーム会合  
Remote Control Project Team Meeting #2

(平成23年3月28日(月) 11:00～ 経済産業省17階西2 国際会議室)  
(2011 Mar. 28 (Mon.) 11:00- METI (17F West-2) Int'l Conf Room)

アジェンダ

Agenda

1. DOEから提供を受けることとした物品の詳細について  
(提出した質問に対するDOE側回答等)  
Details on the items that Japan has decided to receive from DOE  
(Incl. DOE response to Japan's previous inquiry)
2. 上記物品の輸送、受取り、教育等の周辺事項について  
Discussion on logistics for the above-mentioned items, such as  
transportation, delivery PoC and training
3. 今後のニーズについて (東京電力から説明)  
Discussion on future needs and requirements (TEPCO brief)

(参加省庁・企業)

経済産業省、原子力安全・保安院、外務省、国土交通省、防衛省  
東京電力、東芝、コマツ、大成建設  
米国政府

(Participant organizations)

METI, NISA, MOFA, MLIT, MOD

TEPCO, Toshiba, Komatsu, Taisei

US Government

**Bano, Mahmooda**

**From:** Mercer, Robert LCDR USN USFJ J3 (b)(6)  
**Sent:** Sunday, April 03, 2011 2:06 AM  
**To:** Scott, Michael  
**Cc:** Young, Samuel E LCDR USN SJFHQ; Aviles, Armando LT USN  
**Subject:** RE: Request for Information  
**Attachments:** The following questions are related to the status of the reactor fuel for reactor number 1A.doc

Mr. Scott,

I have attached a set of questions that we have developed here over the last few days.

We come up with some ideas here on the possible answers to a few of these questions but we would appreciate You expert thought on them.

Additional we are getting asked quite about the first question in this document. We believe that the difference in temperature is due to the bottom head instrument being in essence detached from the cooling loop and the higher heat from the core (due to distance, salt providing insulation, and minimal flow to the bottom of the vessel). If it all possible it would be very helpful to get your thoughts on this question by midday tomorrow.

Please reply to all on this email as I am heading out to go back to the states this evening.

We appreciate all of your support and assistance.

Thanks

Sincerely,  
LCDR Rob Mercer

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

**From:** Scott, Michael [<mailto:Michael.Scott@nrc.gov>]  
**Sent:** Sunday, April 03, 2011 12:17 PM  
**To:** Aviles, Armando LT USN  
**Cc:** Mercer, Robert LCDR USN USFJ J3; Spencer, Julie A. CDR USN; Worthy Kenneth L CDR USN USFJ J6; Young, Samuel E LCDR USN SJFHQ  
**Subject:** RE: Request for Information

1. Evidently the trenches are for electric cable runs. TEPCO is working on various plans to drain the water, including using the onsite radwaste facility and provision of temporary tanks.

2. Minimum debris retention injection rates: TEPCO 56, 89, 89 l/min. GEH 72, 125, 125 l/min, for Units 1, 2, and 3, respectively.

3. Unknown. Requires high-level JG decision. Unlikely until inerting successful, which MAY occur for Unit 1 about 5 April, for other two up to a week after Unit 1. Those dates have a history of slipping.

Hope that helps.

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

From: Aviles, Armando LT USN [mailto: (b)(6)]  
Sent: Saturday, April 02, 2011 10:51 PM  
To: Scott, Michael  
Cc: Mercer, Robert LCDR USN USFJ J3; Spencer, Julie A. CDR USN; Worthy Kenneth L CDR USN USFJ J6; Young, Samuel E LCDR USN SJFHQ  
Subject: Request for Information

Mr. Scott,

As per our phone conversation this morning, the following information is respectfully requested:

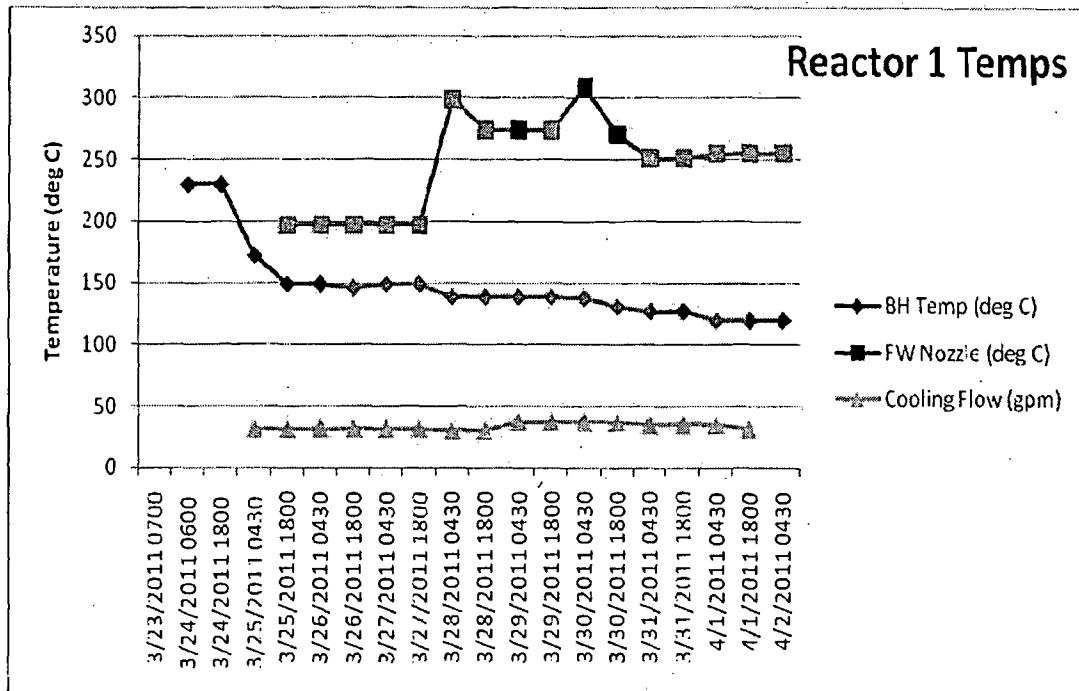
1. What is the purpose/function of the trenches at the Daiichi site? And where is TEPCO pumping the contaminated water contained within the trench to?
2. Based on the calculated decay heat currently being generated at each of the Units, request the NRC's and TEPCO's calculated minimum required Freshwater flow rates for Units 1, 2 and 3.
3. When does NRC anticipate TEPCO will begin to flood the Drywell and Torus cavities with Freshwater in Unit 1? How or what system will be used to vent the atmosphere in containment as it is filled with freshwater?

v/r

LT Armando Aviles  
USFJ CAT RCMT  
DSN: 315-225-7345/4169

The following questions are related to the status of the reactor cooling for reactor number 1:

1. What is the NRC's assessment as the cause of the Feedwater Nozzle temperature (where injection of cooling water is occurring) being higher than the Bottom Head temperature reading. What type of detector (RTD, thermocouple) is being used for FW inlet? What type of detector is being used for Bottom Head temp?
2. What is the NRC's assessment on the cause of the large temperature difference between the Feedwater Nozzle temperature and the bottom head temperature? Relative to where the core used to be, what is the distance from the FW inlet temp (feet or meters)? And Bottom head temp reading?
3. Where is the bottom head temperature reading being measured relative to the baffle plates inside the reactor vessel?



The following questions are related to the current proposed recommendations to place reactor cores into a stable state:

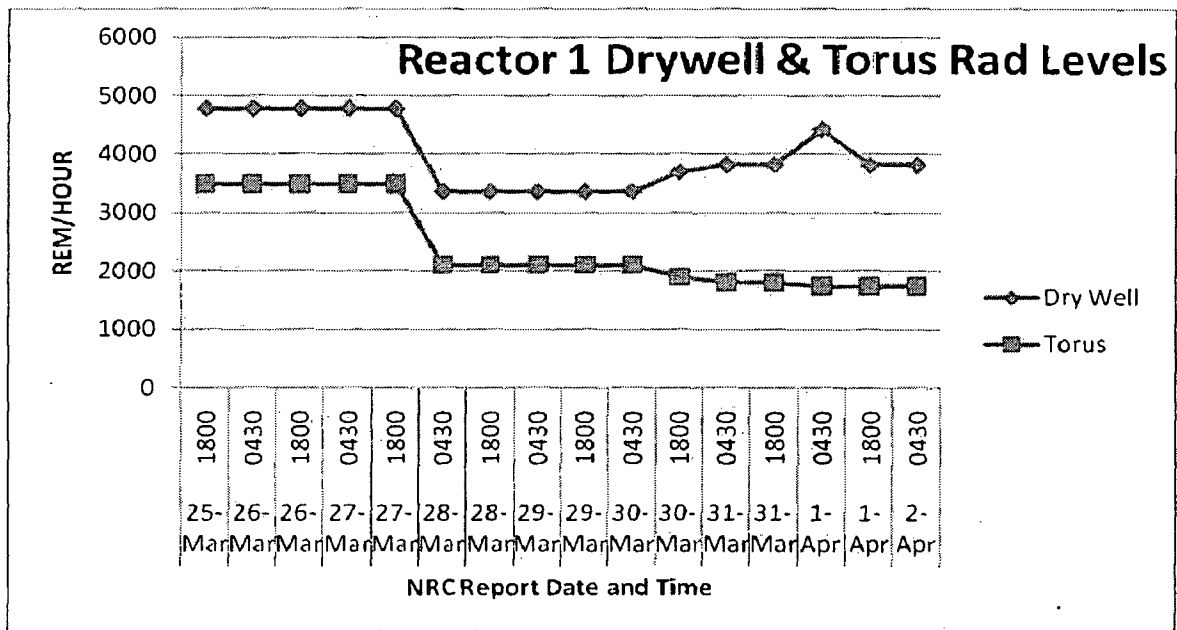
1. What is risk/probability of hydrogen explosion during flooding of the drywell cavity for Reactor number 1?
2. During flooding of the drywell cavity for Reactor Number 1 what is the likelihood for venting to be required
3. If the above mentioned venting does occur what would be the possible activity/radionuclide concentrations for a possible resulting plume from venting

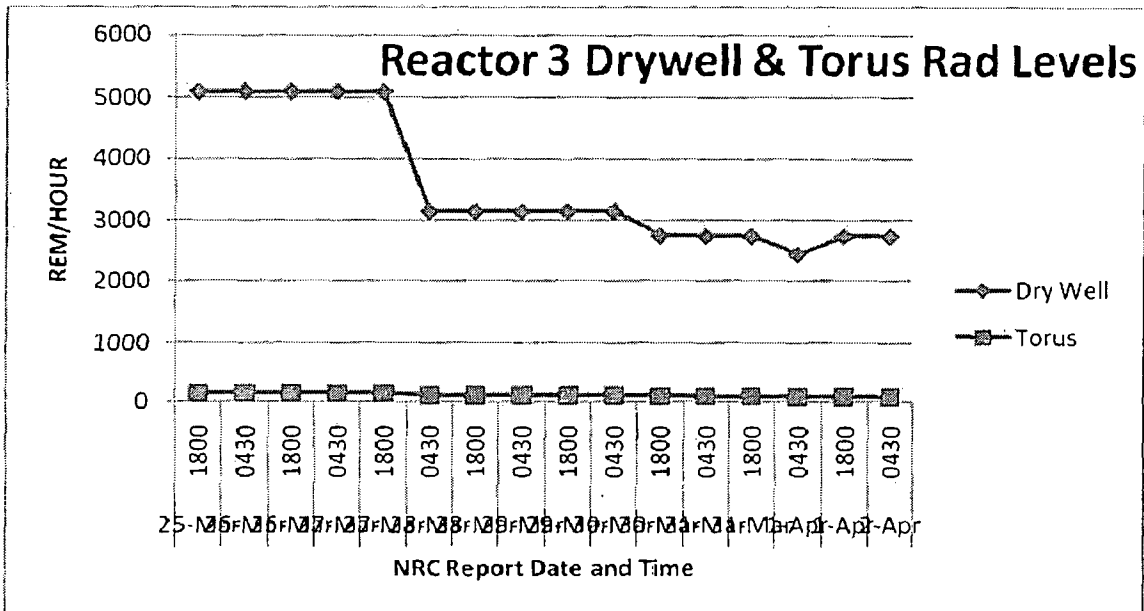
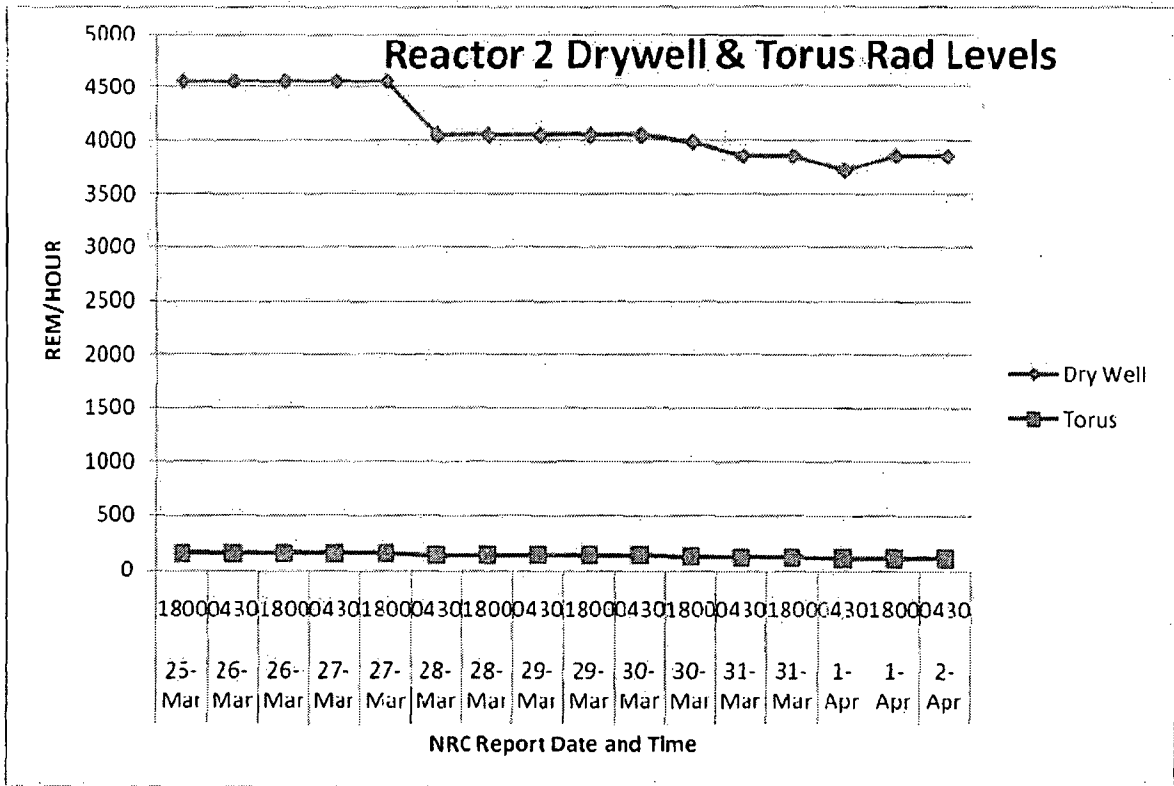
The following questions are related to the status of the reactor fuel for reactor number 1, 2, and 3:

1. What is the NRC's current assessment of the extent of damage to the fuel in reactor number 1, 2, and 3?
2. What is the NRC's current assessment on the location (locations) of the fuel material (or slump) in reactor number 1, 2 and 3?



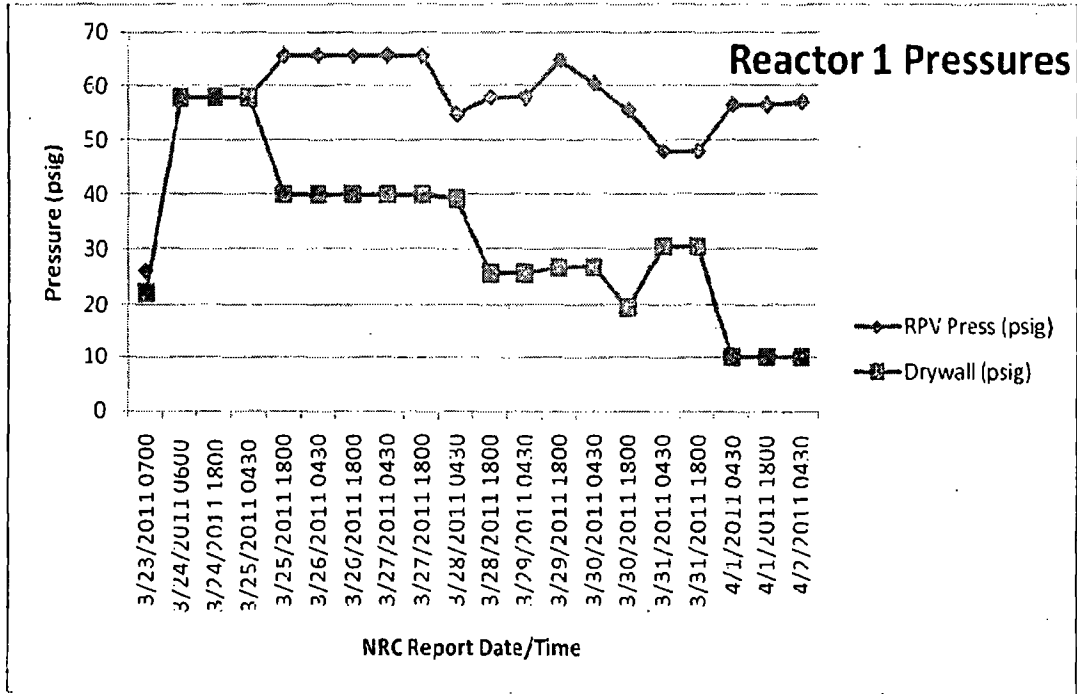
3. What is the NRC's current assessment on the radiation readings (please see graphs below) from the drywell and torus of reactor number 1, 2, and 3? Specifically do these indications provide any insight into the locations of the fuel material or any possible damage to primary containment (either drywell or wetwell)?
4. What is the NRC's current assessment of the difference in Torus Radiation levels between unit 1 and units 2 and 3?
5. What is the NRC's current assessment on recent trend for drywell radiation levels in reactor number? Specifically what event could be the cause(s) of these values to increase over a period of time? Could it be contaminated water leaking by the stub tubes for the control rods? Could it be caused by increased feedwater flow pushing more debris in the bottom of the vessel?





The following questions are related to the status of the reactor containment for reactor number 1:

1. What is the NRC's current assessment on large drop in pressure for reactor number 1's drywell pressure (please see graph below) over the ten hour reporting period of 1800 31 MAR 2011 to 0430 01 APR 2011?
2. What is the NRC's current assessment on divergent, almost mirror opposite, trend in reactor number 1's reactor pressure vessel pressure and drywell pressure? Is this the normal pressure trend for a reactor with proper reactor pressure vessel and primary containment integrity?



**Coyne, Kevin**

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**From:** Coyne, Kevin  
**Sent:** Monday, March 21, 2011 6:46 PM  
**To:** Coe, Doug  
**Subject:** RE: QUERY: Funding Needs for Japan Follow-up  
**Attachments:** FW: Funding Needs for Japan Follow-up - Resent to provide Attachment

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Doug –

That would be reasonable, but they just killed the request...

Kevin

---

**From:** Coe, Doug  
**Sent:** Monday, March 21, 2011 6:45 PM  
**To:** Coyne, Kevin  
**Subject:** Re: QUERY: Funding Needs for Japan Follow-up

Ok thanks

For long term res we might suggest a level III site pra?

Sent from an NRC BlackBerry  
Doug Coe  
(b)(6)

---

**From:** Coyne, Kevin  
**To:** Coe, Doug  
**Sent:** Mon Mar 21 18:22:50 2011  
**Subject:** RE: QUERY: Funding Needs for Japan Follow-up

Yes ...

This was kicked around last week and Mike Case blasted a 1 million/3-5 FTE estimate for the office without knowing anything further

Given the below list, this amount could easily be consumed by the Division. So, I'd vote for the \$1million, 3 FTE for DRA (but obviously we can't magically make FTE appear for a short term effort). We'll obviously need to shed other work or rely on contract support and it's also unlikely in the PRA arena our labs could pick the work without dropping other ongoing work. But, this is a really odd request, given that nobody has asked for any specific research product yet – there really should be an overall coordinator for this effort to first scope out what should be done before we waste too much time on estimating resource needs...

If we are just counting resources to support IRC operations and media/congressional inquiries, ~1 FTE for the Division (10-15 people running full time for a month) probably captures it...

Kevin

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**From:** Coe, Doug  
**Sent:** Monday, March 21, 2011 6:13 PM

**To:** Coyne, Kevin

**Subject:** RE: QUERY: Funding Needs for Japan Follow-up

Kevin – you and I can give this a ‘thumb-in-the-wind’ estimate (it’s just an order of magnitude type of input) – without going to the BCs. Agree?

---

**From:** Rini, Brett

**Sent:** Monday, March 21, 2011 4:44 PM

**To:** Case, Michael; Richards, Stuart; Coe, Doug; Coyne, Kevin; Scott, Michael; Gibson, Kathy; Elkins, Scott

**Cc:** Sheron, Brian; Uhle, Jennifer; Valentin, Andrea; Grancovitz, Teresa; Rivera-Lugo, Richard; Armstrong, Kenneth; Ibarra, Jose; Hudson, Daniel; RidsResPmdaMail Resource

**Subject:** QUERY: Funding Needs for Japan Follow-up

**Importance:** High

Division Directors,

We have received a quick turnaround OEDO request to estimate resources (\$ and FTE) required for a near term effort and longer term review related to the recent events in Japan. Brian brainstormed a list of possible research areas that I've listed below, and I will reach out to our customer offices to find out in what areas they anticipate asking us for help. Please review the list below, think about what areas of research you anticipate for your division, and estimate how much effort these projects will require.

- Spent fuel analyses – SFPs vs ISFSIs?
- Severe accident analyses
- Exceeding seismic design basis
- Response to aftershocks following a design or beyond-design basis earthquake
- Tsunami/storm surge impacts
- Protection from hurricane winds, tornadoes, etc.

Please send me your inputs by noon tomorrow, and I will review the list with Brian before responding to OEDO. We weren't given much time to reply, so a rough estimate is all that's required at this time. I appreciate your help during this time of significant competing priorities.

Thanks,

Brett

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**From:** Kasputys, Clare

**Sent:** Monday, March 21, 2011 4:18 PM

**To:** RidsNroOd Resource; RidsNrrOd Resource; RidsNsirOd Resource; RidsResOd Resource; RidsFsmeOd Resource; RidsNmssOd Resource; RidsOgcMailCenter Resource; RidsCsoMailCenter Resource; RidsRgn1MailCenter Resource; RidsRgn2MailCenter Resource; RidsRgn3MailCenter Resource; RidsRgn4MailCenter Resource; RidsOipMailCenter Resource

**Cc:** RidsNrrPmda Resource; RidsNroPmda Resource; RidsNsirPmda Resource; RidsResPmdaMail Resource; RidsFsmePbpaFmb Resource; RidsNmssTa Resource; Golder, Jennifer; Smolik, George; Muessle, Mary; Andersen, James; Jacobs-Baynard, Elizabeth; Allwein, Russell; Peterson, Gordon; Peterson, Gordon; Virgilio, Martin; Virgilio, Martin; Weber, Michael; Weber, Michael; Ash, Darren; Ash, Darren

**Subject:** Funding Needs for Japan Follow-up - Resent to provide Attachment

Resent to provide the Attachment

All,

The Chairman has requested for the NRC to conduct a Near-term (90 day effort) and a longer-term review (as discussed by Bill B at the Commission meeting today) of regulatory issues affecting U.S. operating reactors based on the events in Japan. The Chairman is interested in seeking supplemental funding to support our efforts for the above effort, in addition to NRC's costs associated with emergency response and

technical experts sent to Japan. OCFO is preparing cost data associated with emergency response and technical support to Japan.

On Friday, the OCFO requested some initial estimates to support the reviews (see attached). At this time, we are requesting the offices to review these initial estimates and include some information concerning the work that is envisioned to support these reviews. Listed below are some initial thoughts about the scope of the near-term and long-term reviews. Also, consider what on-going efforts related to the development of our regulatory program could benefit with supplemental funding. For example, it was mentioned in the Commission meeting that NRC is currently working on GSI-199. Should funding be accelerated for this effort and others of this nature.

Near Term Review (90 day effort):

- Evaluate currently available technical and operational information from the Japan event to identify near-term (or immediate) operational or regulatory issues affecting U.S. operating reactors of all designs in areas such as protection against earthquakes, tsunami, flooding, hurricanes, station blackout and a degraded ability to restore power; severe accident mitigation and emergency preparedness
- Develop recommendations for generic communications, orders, changes to inspection procedures and licensing review guidance, etc.
- Possibly prepare a 30 day quick look report

Longer-Term Review (Following obtaining sufficient technical information from the Japan event)

- Evaluate all technical and policy issues related to the event to identify additional research, generic issues, changes to the reactor oversight process, rulemakings and adjustments to the regulatory framework that should be conducted by the NRC.
- Evaluate interagency issues such as emergency preparedness.
- Applicability of the lessons learned to non-operating reactor and non-reactor facilities.

It is recognized that the full scope of the reviews has yet to be determined or the size of the group that will be conducting the analysis. Therefore, we are looking only for rough cost estimates. You are requested to send the level of funding (dollars and FTE) that is anticipated that could be obligated in FY 2011 for both the near-term and long-term efforts. We are asking the business line leads to coordinate with supporting offices and submit a response by business line and by office. Please send your responses to me and Liz Jacobs-Baynard and copy Jennifer Golder and George Smolik, OCFO NLT than Noon on Tuesday.

If you have any questions, please let me know.

Thank you for your support.

**Bano, Mahmooda**

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**From:** Kazuhiko KUNITOMI [kunitomi.kazuhiko@jaea.go.jp]  
**Sent:** Tuesday, March 29, 2011 5:49 AM  
**To:** Gibson, Kathy; Scott, Michael  
**Cc:** Uhle, Jennifer; Valentin, Andrea; Zaki, Tarek; Rubin, Stuart; Sangimino, Donna-Marie; Carlson, Donald; 'Ogawa Masuro'; 'Ohashi Hirofumii'; 'Tachibana Yukio'; 'iyoku.tatsuo'  
**Subject:** RE: JAEA/NRC collaboration  
**Attachments:** image001.jpg

Kathy

Thank you very much for your support. Also, we appreciate very much the USNRC delegation came to Fukushima and works very hard to keep the reactor safe condition. Yesterday it was found that puddles of radioactive water remain in the reactor building and some of them leaked into the trenches outside the buildings. If the water overflows and goes into the sea, contamination will expand very badly. And the large amount of the high radiation level water points to the RPV failure. If so, it take a long time to fix the RPV and CV or add a shielding wall outside the buildings.

Regarding the HTGR collaboration, I will wait for Mike's response.

Best regards,  
Kazu


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**From:** Gibson, Kathy [mailto:Kathy.Gibson@nrc.gov]  
**Sent:** Friday, March 25, 2011 9:48 PM  
**To:** Kazuhiko KUNITOMI; Scott, Michael  
**Cc:** Uhle, Jennifer; Valentin, Andrea; Zaki, Tarek; Rubin, Stuart; Sangimino, Donna-Marie; Carlson, Donald; Ogawa Masuro; Ohashi Hirofumii; Tachibana Yukio; 'iyoku.tatsuo'  
**Subject:** RE: JAEA/NRC collaboration

Kazu,

It is good to hear from you. We are so sad about the situation in Japan and doing our best to support your efforts. Mike Scott is in Japan presently with our NRC delegation at the embassy. We would be happy to have you come to Washington in April, however it is likely that Mike will be going to the NNGP meeting in Albuquerque so it may be more convenient for you to meet with him there. Mike will be in touch with you next week after we finalize travel approvals for the Albuquerque meeting. Either way, we look forward to the HTTR cooperation and we are happy that, despite the tragedy in your country, this project can still proceed.

My very best wishes to you, your colleagues and families,  
Kathy

|                                                                                                                                       |                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
|                                                    | <b>Kathy Halvey Gibson</b><br>Director<br>Division of Systems Analysis |
|                                                                                                                                       | Kathy.Gibson@nrc.gov<br>(301) 251-7499 Work<br>(b)(6) Cell             |
| <small>U.S. Nuclear Regulatory Commission<br/>Office of Nuclear Regulatory Research<br/>Protecting People and the Environment</small> |                                                                        |

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**From:** Kazuhiko KUNITOMI [mailto:kunitomi.kazuhiko@jaea.go.jp]  
**Sent:** Friday, March 25, 2011 12:15 AM

**To:** Scott, Michael  
**Cc:** Uhle, Jennifer; Valentin, Andrea; Zaki, Tarek; Rubin, Stuart; Sangimino, Donna-Marie; Gibson, Kathy; Carlson, Donald; Ogawa Masuro; Ohashi Hirofumii; Tachibana Yukio; 'iyoku.tatsuo'  
**Subject:** JAEA/NRC collaboration

Dear Dr. Scott,  
CC Dr. Jennifer, Kathy, Stu, Don

We still have big aftershocks with the magnitude of 5 to 6. But electricity and water returned to normal. Now gasoline shortage is the biggest problem around here. Also, roads and train rails were damaged so badly that we have trouble commuting and going to Tokyo.

In Oarai, about 4 meter high tsunami hit the downtown. Some trucks and containers parked in the Oarai port were flown to the inland side. Fortunately, residents in the downtown managed to escape from the seaside to a hill or buildings and no casualties are reported so far because the tsunami hit Oarai about half an hour later than the tsunami in Tohoku area. The left lane of the route 51 along the sea coast (the road to JAEA) was collapsed and has been closed since the earthquake. Can you imagine this size of earthquake and tsunami? We Japanese get used to the earthquake. But nobody has experienced this magnitude. It was really scary.

Regarding the Fukushima LWRs, the situation is becoming better. However, it is still difficult to measure reactor internal condition. There are still the possibility that things will turn for the worse. The day before yesterday, after the electricity was restored into the No. 1 unit, some of the instruments showed the RPV temperatures were more than 400C that is in the creep range. Sea water was immediately pumped into the core to cool the RPV, and the temperature was stabilized under 370C. But the sea water injection would make the inside pressure of the RPV and CV higher than the limit. So it is very difficult to keep the LWRs a stable condition. Meanwhile, many engineers are working very hard to fix the cooling pumps, electricity equipments once drenched with the tsunami. If they finished repairing and restart the cooling system, cooling condition will be much better.

The radiation tainted milk and spinach in Fukushima, and Iodine contaminated water in Tokyo area made average people very nervous. All TV broadcasted this level of contamination will not pose a threat to health. On the other hand, they reported that many people rushed to denude bottled waters in all supermarkets and convenience stores, and now no bottled waters are left in there. I am afraid very much that this kind of bad rumors will make normal people much more nervous, and panic buying will happen. Actually, after this kinds of information, famers in Fukushima and Ibaraki got in a big trouble and are forced to dispose of all dairy products and vegetables. It's too bad.

It is not a good timing to sell the advantage of the HTGR. Yet, I think we should prepare for questions on the safety of the HTGR. I plan to attend the NGNP conference to be held at Albuquerque in April 26-29. Before that week, if possible April 22, I and my colleague Dr. Ohashi will visit to NRC to discuss on the HTGR safety. Of course we will discuss how to run the OECD/NEA LOFC project and how to use this project for not only V&V of safety codes but also examination of the safety standard of the HTGR.

I would appreciate very much if you could accept our visit proposal.

Best regards,  
Kazu KUNITOMI

\*\*\*\*\*  
Kazuhiko KUNITOMI Ph.D  
Division Leader  
Small-sized HTGR Reseach and Development Division  
Nuclear Hydrogen and Heat Application Research Center  
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FAX +81-29-266-7608  
E-mail : kunitomi.kazuhiko@jaea.go.jp  
\*\*\*\*\*



## Coyne, Kevin

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**From:** Coyne, Kevin  
**Sent:** Friday, April 15, 2011 6:09 AM  
**To:** 'Abdallah.AMRI@oecd.org'  
**Cc:** Siu, Nathan; 'Greg.LAMARRE@oecd.org'  
**Subject:** Re: CAPS on Fukushima event

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Abdallah-

I will try to finalize the CAPS today ( though getting it back to you by this afternoon Paris time may be difficult depending on how the morning goes). However, I will definately get the final version to you and Greg Lamarre this weekend. Thank you again for your help in distributing the CAPS the WGRisk and collecting comments.

I also have a few minor updates to the data project caps based on the wgrisk mtg - I will provide the final version of this caps also.

Have a good weekend!

Best regards,

Kevin

Sent from an NRC Blackberry

Kevin Coyne

(b)(6)

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**From:** [Abdallah.AMRI@oecd.org](mailto:Abdallah.AMRI@oecd.org) <[Abdallah.AMRI@oecd.org](mailto:Abdallah.AMRI@oecd.org)>  
**To:** Coyne, Kevin  
**Cc:** Siu, Nathan; [Greg.LAMARRE@oecd.org](mailto:Greg.LAMARRE@oecd.org) <[Greg.LAMARRE@oecd.org](mailto:Greg.LAMARRE@oecd.org)>  
**Sent:** Fri Apr 15 03:34:29 2011  
**Subject:** CAPS on Fukushima event

Dear Kevin,

As I will be out of the office all next week, I would like to ask you either to send me the final draft CAPS today by the afternoon (Paris time) or to send it by Monday to my colleague Greg Lamarre who is responsible for the PRG Secretariat. In both cases, Greg will distribute the CAPS to PRG members.

Thank you very much for your understanding and cooperation.

With my best regards.

**Lee, Richard**

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**From:** Lee, Richard  
**Sent:** Monday, March 28, 2011 9:34 AM  
**To:** Gibson, Kathy  
**Cc:** Tinkler, Charles  
**Subject:** RE: Fukushima BWR simulation using PCTRAN

Kathy:

Thanks. The PCTRAN was one of the projects NRC funded under a Small Business development type grant.

Richard

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

**From:** Gibson, Kathy  
**Sent:** Monday, March 28, 2011 9:30 AM  
**To:** Lee, Richard; Tinkler, Charles  
**Subject:** Fw: Fukushima BWR simulation using PCTRAN

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

**From:** Bajorek, Stephen  
**To:** Gibson, Kathy  
**Sent:** Mon Mar 28 08:39:27 2011  
**Subject:** FW: Fukushima BWR simulation using PCTRAN

Kathy,

I received this from a Professor I know. It's a tool that might be of use eventually.

Steve

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

**From:** M. Kawaji [mailto:kawaji@me.cuny.cuny.edu]  
**Sent:** Friday, March 25, 2011 4:08 PM  
**To:** Bajorek, Stephen  
**Cc:** Sanjoy Banerjee  
**Subject:** Re: Fukushima BWR simulation using PCTRAN

Dear Steve,

As I mentioned in my voice mail, here is a quick simulation of Fukushima BWRs using the simulation software, PCTRAN.

We can run different scenarios using the BWR Mark 1 and Mark 2 models as shown, as well as the boiloff in a spent fuel pool shown at the end.

If you have any questions, please give me a call.  
Best regards,

Masahiro Kawaji  
Professor  
The Energy Institute

CCCC/112

City College of New York  
Tel: 212-650-8584  
[redacted] (cell)

## Kauffman, John

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**From:** Hayden, Elizabeth  
**Sent:** Thursday, March 24, 2011 5:12 PM  
**To:** Hiland, Patrick  
**Cc:** Burnell, Scott; Kammerer, Annie; Kauffman, John  
**Subject:** FW: NextEra Energy Questions  
**Attachments:** image001.jpg; image002.jpg; image003.jpg

Pat,

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

*Beth Hayden*

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

Beth:

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

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

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

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

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

Mike

**US NRC to check seismic risk of 27 nuke units;**

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

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

Hayden said Tuesday.

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

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

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

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

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

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

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

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

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

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

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

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**Nextera**  
**ENERGY** Nuclear Communications

Michael Waldron | Director  
Nuclear Communications

Office: 561.694.3618 [Mobile: (b)(6)]  
Email: [Michael.Waldron@fpl.com](mailto:Michael.Waldron@fpl.com)

Lee, Richard

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**From:** Feltus, Madeline [MADELINE.FELTUS@nuclear.energy.gov]  
**Sent:** Monday, March 14, 2011 5:04 PM  
**To:** Basu, Sudhamay; Lee, Richard  
**Cc:** (b)(6)  
**Subject:** Fw: Information Sheet regarding the Tohoku Earthquake  
**Attachments:** Update to Information Sheet Regarding the Tohoku Earthquake(3).doc

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**From:** Goldner, Frank  
**To:** Feltus, Madeline  
**Sent:** Mon Mar 14 15:40:52 2011  
**Subject:** Fw: Information Sheet regarding the Tohoku Earthquake

FYI. Frank

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**From:** Gillespie, Mary  
**To:** McGinnis, Edward; Boudreau, Robert; Scott, Michelle; Duskas, Andrea; Gebert, Lee; Bisconti, Giulia; Lahneman, William; Kelly, John E (NE); Golub, Sal; Smith-Kevern, Rebecca; Miller, Tom; Regalbutto, Monica; Herczeg, John; Goldner, Frank; Bresee, James; Duncan, Aleshia (State Dept); Duncan, Aleshia; Peko, Damian; Brownstein, Alan; Tyson, Sean; Brown, Colette; Wong, Frank (CONTR)  
**Sent:** Mon Mar 14 15:33:58 2011  
**Subject:** Fw: Information Sheet regarding the Tohoku Earthquake

Please find attached the Update to Information Sheet Regarding the Tohoku Earthquake from The Federation of Electric Power Companies of Japan (FEPC) Washington DC Office As of 1:00PM (EST), March 14, 2011

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**From:** Kazuhiko Hiruta <Hiruta@denjiren.com>  
**To:** Kazuhiko Hiruta <Hiruta@denjiren.com>  
**Sent:** Mon Mar 14 14:16:11 2011  
**Subject:** Information Sheet regarding the Tohoku Earthquake

Dear Friends,

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

With best regards,  
Kazu

=====  
**Kazuhiko HIRUTA**  
**FEPC Washington Office**  
"The Federation of Electric Power Companies of Japan"  
1901 L Street NW Suite 600 Washington, DC 20036  
tel: 202-466-3507  
cell: (b)(6)  
fax: 202-466-6758  
=====

**Lee, Richard**

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**From:** Gibson, Kathy  
**Sent:** Friday, March 18, 2011 2:39 PM  
**To:** Lee, Richard  
**Subject:** Fw: SFP Recommendations -- Update  
**Attachments:** NRC RST Spent Fuel Pool Fukushima Daiichi Cooling Recommendations for mitigation of dose rates rev1.docx

???

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**From:** Gibson, Kathy  
**To:** Tinkler, Charles  
**Sent:** Fri Mar 18 14:38:35 2011  
**Subject:** Fw: SFP Recommendations -- Update

I thought we didn't think sand was a good idea????

---

**From:** Lee, Richard  
**To:** Wagner, Katie  
**Cc:** Gibson, Kathy; Scott, Michael  
**Sent:** Fri Mar 18 14:33:59 2011  
**Subject:** FW: SFP Recommendations -- Update

Please enter this (if you have not) to our share point site. This documented the option paper that Op Center will forward to the NRC teams at the U.S. Embassy in Tokyo to provide U.S. advice to the Japanese team on managing the Fukushima crisis.

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**From:** RST01 Hoc  
**Sent:** Friday, March 18, 2011 1:13 PM  
**To:** Modeen, David  
**Cc:** Tinkler, Charles; Lee, Richard; Gordon, Matthew; RST07 Hoc  
**Subject:** RE: SFP Recommendations -- Update

Please send to members of the phone group

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**From:** Modeen, David [<mailto:dmodeen@epri.com>]  
**Sent:** Friday, March 18, 2011 10:45 AM  
**To:** RST01 Hoc; Edsinger, Kurt  
**Subject:** RE: SFP Recommendations -- relative to criticality concerns

Joe, working on it. When we have some insights, we'll pass along.  
Dave

**Director, External Affairs**  
**EPRI Nuclear Power Sector**  
**704-595-2670 (work)**  
**(b)(6) (cell)**  
**[dmodeen@epri.com](mailto:dmodeen@epri.com)**

CCCC/115



**From:** RST01 Hoc [<mailto:RST01.Hoc@nrc.gov>]  
**Sent:** Friday, March 18, 2011 10:23 AM  
**To:** Modeen, David  
**Subject:** RE: SFP Recommendations -- relative to criticality concerns

Dave,

We are trying to get up to speed on that issue, so any thoughts you have will be appreciated.

Joe Williams  
RST Coordinator

---

**From:** Modeen, David [<mailto:dmodeen@epri.com>]  
**Sent:** Friday, March 18, 2011 10:05 AM  
**To:** RST01 Hoc  
**Subject:** RE: SFP Recommendations

I will distribute, Joe. Thanks.

I didn't want to complicate the call, but would like to know if NRC staff has an assessment (not a calculation of the actual SFPs at 1F) as to the potential risk of a criticality configuration resulting from any of those strategies. Seems very unlikely but that is just a judgment. Any work done on your end on that?

Dave

**Director, External Affairs**  
**EPRI Nuclear Power Sector**  
**704-595-2670 (work)**  
**(b)(6) (cell)**  
**[dmodeen@epri.com](mailto:dmodeen@epri.com)**

---

**From:** RST01 Hoc [<mailto:RST01.Hoc@nrc.gov>]  
**Sent:** Friday, March 18, 2011 10:00 AM  
**To:** Modeen, David  
**Cc:** Wall, James; Edsinger, Kurt; RST07 Hoc  
**Subject:** RE: SFP Recommendations

Dave,

Here is NRC recommendation summary. Please ensure all phone call participants receive a copy.

Joe Williams  
RST Coordinator

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**From:** Modeen, David [<mailto:dmodeen@epri.com>]  
**Sent:** Friday, March 18, 2011 8:55 AM  
**To:** RST01 Hoc  
**Cc:** Wall, James; Edsinger, Kurt  
**Subject:** SFP Recommendations

Following up from the morning telcon, EPRI Contacts are:

David Modeen – [dmodeen@epri.com](mailto:dmodeen@epri.com)

Kurt Edsinger – [kedsinge@epri.com](mailto:kedsinge@epri.com)  
James (Joe) Wall – [jwall@epri.com](mailto:jwall@epri.com)

FYI, I am coordinating EPRI's response. Any requests for information or discussion on any other technical topic, the NRC Operations Center duty officer should feel free to contact me any time.

Dave

Director, External Affairs  
EPRI Nuclear Power Sector  
704-595-2670 (work)  
(b)(6) (cell)  
[dmodeen@epri.com](mailto:dmodeen@epri.com)

3/18/2011 (1306 EDST)

NRC Reactor Safety Team Spent Fuel Pool Fukushima Daiichi Cooling Recommendations for mitigation of dose rates

All options assume addition of boron or other poison, if available.

**If Pool is Not Dry**

Quench/ Deluge – whatever means possible

**If Pool is Dry**

1. If the temperature can be verified below <650 degrees Celsius (1200 degrees Fahrenheit) then Quench/ Deluge Fuel using whatever water source possible
  
2. If the temperature can be verified to be greater > than 650C (1200F) or if the temperature is unknown, perform either option as soon as possible based on available equipment and resources (the following is not listed in order of preference)
  - slurry of sand (use of sand slurry should be monitored; sand slurry can be stopped once dose rate reaches acceptable levels)
    - Benefit of sand is shielding; may assist with existing leaks
    - Additional loading on the spent fuel pool structures should be considered
    - Fill from the bottom of the spent fuel pool is preferred using existing plant piping or flood the refueling floor to get the same effect (i.e., to mitigate thermal shock)
  - water
    - Misting can reduce airborne fission products
    - Fill from the bottom of the spent fuel pool is preferred using existing plant piping or flood the refueling floor to get the same effect (i.e., to mitigate thermal shock)

**Greenwood, Carol**

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**From:** Gibson, Kathy  
**Sent:** Sunday, March 27, 2011 11:19 AM  
**To:** Lee, Richard  
**Cc:** Uhle, Jennifer; Sheron, Brian; Santiago, Patricia  
**Subject:** Fw: source term question

I'm happy to see the Ops Center finally questioning the RASCAL source term.

Richard, does your staff or contractors have any insights to add to this question or realistic source terms in general for Fukushima?

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

**From:** Santiago, Patricia  
**To:** Gibson, Kathy; Elkins, Scott  
**Sent:** Sun Mar 27 10:51:07 2011  
**Subject:** Fw: source term question

Sent from an NRC BlackBerry  
Patricia Santiago

(b)(6)

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

**From:** Schaperow, Jason  
**To:** Schaperow, Jason; Tinkler, Charles  
**Cc:** (b)(6); Santiago, Patricia  
**Sent:** Sun Mar 27 07:49:38 2011  
**Subject:** source term question

I received a call this morning at 0600 from Lou Brandon from the NRC Operations Center. He asked whether it was reasonable to have a reduction in environmental release from 22% to 1% by delaying the start of drywell leakage by 23 hours. He gave the following background: They have done multiple RASCAL runs since the Fukushima accident started. They provided source terms for these runs to the White House. A White House adviser asked about the reduction from 22% to 1%.

Two of the calculations were as follows:

Case 1. Release NUREG-1465 source term into the drywell. Leak it from drywell to environment at 100%/day. The drywell leakage starts at the same time as core damage starts. Environmental release of cesium is 22%.

Case 2. Release NUREG-1465 source term into the drywell. Leak it from drywell to environment at 100%/day. The drywell leakage starts 23 hours after core damage starts. Environmental release of cesium is 1%. The 23-hour delay was the time between the start of core damage at one of the Fukushima reactors and the time of the hydrogen burn in its reactor building.

NUREG-1150, App. B, page 53 states that "a release that starts a day or more after onset of core damage or 10 hours or more after vessel breach would be expected to have small releases. For a late release, the release fractions are noble gases (1.0), iodine (4.4E-3), cesium (8.6E-8)."

The RASCAL model for deposition in containment is as follows:

For  $t=0$  to 1.75 hours,  $\exp(-1.2t)$  - corresponds to a multiplication of the release of 0.12  
For  $t=1.75$  to 2.25 hours,  $\exp(-0.64t)$  - corresponds to a multiplication of the release by .76  
After 2.25 hours,  $\exp(-0.15t)$  - corresponds to a multiplication of release by 0.038

F said that a reduction from 22% to 1% was not unreasonable for 23 hours delay in containment failure.

I asked whether the RASCAL model was based on NUREG/CR-6189, "A Simplified Model of Aerosol Removal by Natural Processes in Reactor Containments," D.A. Powers, July 1996. He said that it was based on NUREG-1150.

I said that that the time of the release from the containment is not necessarily the time of the hydrogen burn. The operators may have vented the containment into the reactor building much earlier. We would have a better basis for our release start time, if we could find out when the operators vented the containment.

**From:** Coe, Doug  
**To:** Harrison, Donnie; Demoss, Gary  
**Cc:** Drouin, Mary; Cheek, Michael; Correia, Richard  
**Subject:** RE: Request for Ops Center RTS support  
**Date:** Thursday, March 31, 2011 12:36:10 PM

---

Gary – thanks for the coordination.

Donnie – thanks very much for your help –

I'd suggest shooting for an initial rough product on Monday (present to Fred Brown and/or the RST Director on shift) to get feedback on whether our approach could be helpful and to get any mid-course correction for further refining the product.

Thanks all,

Doug

**From:** Harrison, Donnie  
**Sent:** Thursday, March 31, 2011 12:18 PM  
**To:** Demoss, Gary; Cheek, Michael; Coe, Doug; Correia, Richard  
**Cc:** Drouin, Mary  
**Subject:** RE: Request for Ops Center RTS support

Sorry for being out of pocket. I would ask Mary to continue her efforts and I will engage with her. I agree that ESDs are probably a better tool for this than an event tree.

I will call Mary immediately to coordinate.

**From:** Demoss, Gary  
**Sent:** Thursday, March 31, 2011 12:14 PM  
**To:** Cheek, Michael; Coe, Doug; Correia, Richard  
**Cc:** Drouin, Mary; Harrison, Donnie  
**Subject:** FW: Request for Ops Center RTS support

Doug, Mike, Rich,

We are confused about who is doing what here, and have been unable to track Donnie down. We are ready to support or lead this work, as necessary. In fact, Mary has gotten a good start at drawing Event Sequence Diagrams, which are a similar but probably a bit more useful tool than Event Trees.

I'm hoping we can establish a clear lead and roles, and I suggest that we define a 'customer' so that we can make sure the work is useful. Please help us out here to avoid duplication or conflicting work.

Gary

**From:** Drouin, Mary  
**Sent:** Thursday, March 31, 2011 12:02 PM  
**To:** Demoss, Gary  
**Subject:** FW: Request for Ops Center RTS support

CCCC/117

**From:** Drouin, Mary  
**Sent:** Thursday, March 31, 2011 10:44 AM  
**To:** Coe, Doug  
**Subject:** RE: Request for Ops Center RTS support

Doug,

Email says Donnie is taking the lead for #2, should I stop and wait to see what helps he needs? Should both he and I be working on this "independently" right now?

Tks, mary

---

**From:** Coe, Doug  
**Sent:** Thursday, March 31, 2011 10:42 AM  
**To:** Drouin, Mary  
**Subject:** FW: Request for Ops Center RTS support

Mary – here's the email regarding Donnie's engagement on this

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**From:** Cheok, Michael  
**Sent:** Wednesday, March 30, 2011 6:05 PM  
**To:** RST06 Hoc; Ruland, William; Arndt, Steven; Skeen, David; Gibson, Kathy; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald; Harrison, Donnie; Lee, Samson; Tate, Travis; Parillo, John  
**Subject:** RE: Request for Ops Center RTS support

The first question will need SOARCA/PRA Level II expertise – so RES/DSA (Kathy's staff) would be optimal (Kathy was not in the office today, and I will discuss this with her and/or Mike Scott tomorrow). NRR/DRA can support with John Parillo or someone else in our accident dose branch.

NRR/DRA (Donnie Harrison will be POC) can take the lead on Question 2 and will work with RES/DRA and RES/DSA on a response.

---

**From:** RST06 Hoc  
**Sent:** Wednesday, March 30, 2011 5:34 PM  
**To:** Ruland, William; Arndt, Steven; Skeen, David; Cheok, Michael; Gibson, Kathy; Coe, Doug  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Scott, Michael; Tinkler, Charles; Cool, Donald  
**Subject:** RE: Request for Ops Center RTS support

Thanks Bill. You must be a fan of other tired, old, acts too – Cher maybe?

Before responding, can I ask that whomever has stepped-up to take the lead for this do a response all to let us know?

Objective for first question (energetic release potential): this information is important to the Ambassador in Japan and the US military command that would be responsible for movement of US

citizens who were ordered to be evacuated from any locations in the Pacific. In fact, the Pacific Command asked the same question of the NRC at today's Deputies Meeting that is attended by the Chairman. The answer to this question may also impact when we as the NRC ramp down our activities? **We should attempt to address this by Friday (4/1).**

Objective for the second question is to support multiple questions/actions. There have been many requests of the PMT for "realistic" dose models. The RST Assessment document (original e-mail was supposed to have it attached, but I've added to this incase it did not go out the first time) also contains recommended actions for the Japanese to consider. These recommendations are based on the SAMGS, which all are intended to protect primary containment. Since primary containment is damaged on at least two units, we need to assess whether there may be new considerations/priorities that are not captured by the SAMGs. Also, the product of this effort helps us better clarify the assessment of potential energetic releases, along with identifying the best strategies to ensure that they don't happen. **This item does not have as short a deliverable date unless the PMT has one that I'm not aware of, but is still very significant in terms of our recommendations. Can we complete by Monday (4/4)?**

Of course, my request should be seen as the start of a process, and that others should add to it in order to shape into an end product that goes beyond, or corrects, the vision that I started with.

Fred

---

**From:** Ruland, William  
**Sent:** Wednesday, March 30, 2011 10:36 AM  
**To:** Arndt, Steven; Skeen, David; RST06 Hoc; Cheok, Michael; Gibson, Kathy  
**Cc:** Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael  
**Subject:** RE: Request for Ops Center RTS support

Great thinking! I've always been a Fred Brown fan! For my benefit, what is the objectives for this task and by when do we need to get the answers?

Regarding the core damage percentages, I understand that they were early numbers. Are we yet in a position to revise them?

Bill

---

**From:** Arndt, Steven  
**Sent:** Wednesday, March 30, 2011 7:33 AM  
**To:** Skeen, David; RST06 Hoc; Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael  
**Subject:** Re: Request for Ops Center RTS support

I agree with Dave, this should be done out side of the Op Center. A group of RES folks are already doing some analysis in this area (DRA and DSA) to support the PMT. We should task them to do this and provide them with additional resources if needed.

Sent from a NRC blackberry



Steven Arndt

(b)(6)

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**From:** Skeen, David  
**To:** RST06 Hoc; Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; Arndt, Steven  
**Sent:** Tue Mar 29 23:43:46 2011  
**Subject:** Re: Request for Ops Center RTS support

Good thought, Fred.

I think this would be a worthwhile task, and I think we need a small group of severe accident experts to discuss the potential worst case outcomes for each scenario.

I believe this effort should be conducted outside of the RST, on the normal day shift, with either NRR or RES taking the lead to put a team together to develop the potential outcomes.

Please let me know if you need any support from NRR/DE. We could potentially offer Steve Arndt to support.

---

**From:** RST06 Hoc  
**To:** Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; Skeen, David; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; RST01 Hoc  
**Sent:** Tue Mar 29 23:01:43 2011  
**Subject:** RE: Request for Ops Center RTS support

Please see below.

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**From:** Brown, Frederick  
**Sent:** Tuesday, March 29, 2011 10:56 PM  
**To:** Cheok, Michael; Gibson, Kathy  
**Cc:** Ruland, William; Dudes, Laura; Uhle, Jennifer; Hiland, Patrick; Hackett, Edwin; Skeen, David; RST01 Hoc; Hoc, PMT12; McDermott, Brian; Coe, Doug; Scott, Michael; Brown, Frederick; RST01 Hoc  
**Subject:** Request for Ops Center RTS support  
**Importance:** High

Mike, Kathy

First, I'm not sure that you two are the right folks to ask, but I know that you'll know where this should go.

I'd like to have folks with the right skill set look at two issues (the two are inter-related, but the first may be easier to give a quick answer to without the work that the second will take):

- 1) Given the known, or assumed, status of the three units and four pools, what realistic scenarios exist for energetic dispersion of high quantities of radioactive material that would result in mobile plumes? The point of this question is that there are many clear scenarios that present significant near-area radiological challenges, but given the time since shutdown (for the operating units) and age of much of the fuel (in the SFPs) what are the

remaining scenarios of concern with respect to more distant locations (Tokyo with a large concentration of US citizens, Alaska, Hawaii, etc).

- 2) Given the assumed condition of the three units and four pools, can we generate basic event trees for the coming weeks/months? The point would be to identify key success criteria and to help identify key decision points/risk factors to be balanced (qualitative not quantitative analysis). For instance, take two units, each with significant core damage and prior release of volatile fission products, each with primary and secondary containment failure, but one with an intact RPV and the other with a breach of RPV - would there be a difference in potential releases that would lead to different strategies for flooding the primary containment of these two units? This question will make more sense if you look at the assumed conditions below and the attached assessment document where we recommend that TEPCO utilize the SAMG recommendation to flood all 3 units' containments.

**Note that the intent is to limit this activity to hours and days, not weeks or years. Once we validate the concept of this evaluation, we can turn it over to US industry for further action/development.**

Assumed status (slightly different than the status in the attached assessment):

Unit 1 Rx: Shutdown 3/11. 70% core damage. Cooling with 30 gpm. Significant salt deposits in vessel, core spray plugged. Primary pressure 65 psig. Drywell pressure 25 psig. Secondary containment destroyed. Containment has been vented at least once since fuel damage occurred. Attempting to establish Nitrogen purge prior to resuming venting.

Unit 2 Rx: Shutdown 3/11. 30% core damage. Significant salt deposits in vessel/drywell. Assumed RPV breach, with at least some core ex-vessel that occurred approximately 3/15. Primary containment breached in the torus. Secondary containment breached. Significant release of volatile fission products has occurred through both airborne release and also via water drainage out of the Rx building.

Unit 3 Rx: same assumptions as Unit 2, but do not assume RPV failure and location of primary containment breach may be the drywell.

SFP 1: 292 bundles. Pool intact. All fuel at least 12 years old. No secondary containment. Rubble on top of pool. Water can be added through external spray. Now at saturation temperature.

SFP 2: 587 bundles. Pool intact. Water added to the point of pool over-flow. Pool had reached saturation temperature at one time.

SFP 3: 548 bundles. ¼ core offload previous refueling. No checker boarding of hotter fuel. Structural damage to pool area suspected. Pool leakage possible. External addition of water has been made repeatedly, but flooding of pool may not be possible due to damage.

SFP 4: 1331 bundles. Full core offload about 120 days ago. No checker boarding of hotter fuel.

Structural damage to pool area is known to exist, and structure may not support a full pool weight load. Pool leakage likely, requiring addition of water periodically. Pool was likely dry enough to have cladding/water reaction which produced enough hydrogen to lead to catastrophic explosion that destroyed secondary containment.

*HOC*

**From:** LIA07 Hoc  
**To:** Hipschman, Thomas; Marshall, Michael; Batkin, Joshua; Castleman, Patrick; Snodderly, Michael; Orders, William; Bubar, Patrice; Franovich, Mike; Wittick, Brian; Andersen, James; Trapp, James; (b)(6); Leeds, Eric; Brenner, Eliot; Miller, Charles; Wiggins, Jim; Johnson, Michael; Sheron, Brian; Schmidt, Rebecca; Haney, Catherine; Pace, Patti; Sosa, Belkys; Nieh, Ho; Sharkey, Jeffrey; Harrington, Holly; Jaczko, Gregory; Coggins, Angela; Loyd, Susan; Monninger, John; Pearson, Laura; Warren, Roberta; Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Miller, Chris; Anderson, Joseph; Kahler, Robert; Williams, Kevin; McNamara, Nancy; Tiff, Doug; Trojanowski, Robert; Woodruff, Gena; Logaras, Harral; Barker, Allan; Droqitis, Spiros; Decker, David; (b)(6); Maier, Bill; Howell, Linda; Dorman, Dan; McDermott, Brian; Quinn, Vanessa; Ralston, Michelle; albert.coons@dhs.gov; Sherwood, Harry; james.kish@dhs.gov; seamus.o'boyle@dhs.gov; timothy.greten@dhs.gov; (b)(6); (b)(6); cmc-01@dot.gov; peter.lyons@hq.doe.gov; (b)(6); veal.lee@epa.gov; poppell.sam@epa.gov; (b)(6); hss.soc@hhs.gov; Berkey, Johanna; Burnside, Conrad; Calhoun, Nan; Colman, Steve; Feighert, Dan; Hammond, Lisa; Hammons, Darrell; Hlavaty-Laposa, Jan; King, William; McCabe, Ron; Thomson, Rebecca; Webb, William L; Horwitz, Steve; (b)(6)  
**Cc:** HQO Hoc  
**Subject:** 1830 EST (March 12, 2011) USNRC Earthquake/Tsunami SitRep  
**Date:** Saturday, March 12, 2011 6:40:36 PM  
**Attachments:** USNRC Earthquake-Tsunami Update.031211.1830EST.docx

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Attached, please find a 1830 EST situation report from the US Nuclear Regulatory Commission's Emergency Operations Center regarding the impacts of the earthquake/tsunami on March 12, 2011. Please note that this information is "Official Use Only" and is only being shared within the federal family. Please call the Headquarters Operations Officer at 301-816-5100 with questions.  
-Sara

Sara K. Mroz  
Communications and Outreach  
Office of Nuclear Security and Incident Response  
US Nuclear Regulatory Commission  
[sara.mroz@nrc.gov](mailto:sara.mroz@nrc.gov)  
[LIA07.HOC@nrc.gov](mailto:LIA07.HOC@nrc.gov) (Operations Center)

CCCC/118

**Wittick, Brian**

**From:** Wittick, Brian  
**Sent:** Saturday, April 02, 2011 11:11 AM  
**To:** ET05 Hoc  
**Subject:** Re: Inerting and Drywell Pressure

Will do.

Sent from NRC BlackBerry  
 Brian Wittick

(b)(6)

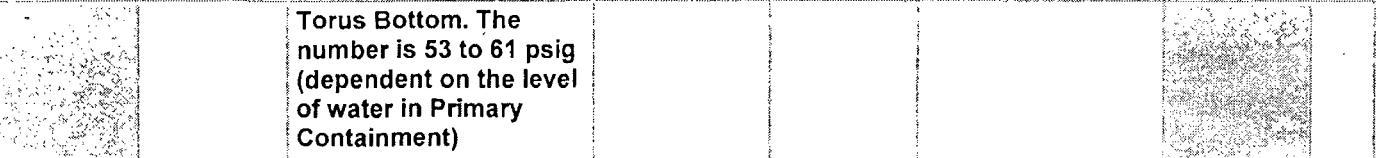
**Ffrom:** ET05 Hoc  
**To:** Wittick, Brian  
**Sent:** Sat Apr 02 11:09:30 2011  
**Subject:** Inerting and Drywell Pressure

Brian,

This was raised at a previous briefing, can you provide it up to the CA's?

| Priority    | Originator Date/Time Requested                             | Description/Response                                                                                                                                                                                                                                                     | Assigned To Date/Time        | Time Due/Completed     | Requestor                | Status      | Edit |
|-------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------|--------------------------|-------------|------|
| 2<br>Medium | Record #: <u>3611</u><br>EST Actions Officer<br>Wendy Reed | Desc: Regarding inerting of containment: process will increased dry wall containment pressure. At what pressure value do you need to stop inerting? Provide by next CA meeting.                                                                                          | RST (All)<br>RST Coordinator | 04/02/2011<br>08:30:00 | Commissioners Assistants | 7: Complete | Edit |
|             | 04/01/2011<br>10:25:02                                     | Response: SAMGs recommend Inerting WHILE Venting if Drywell/Torus H2 & O2 is Unknown (or > 6%). All actions that can increase pressure inside Primary Containment are stopped before exceeding Primary Containment Pressure Limit [(in SAMGs) or Design Pressure] at the | 04/01/2011<br>10:25:02       | 04/02/2011<br>10:57:39 |                          |             |      |

CCCC/119



**Torus Bottom. The number is 53 to 61 psig (dependent on the level of water in Primary Containment)**

Regards,

Melissa Ralph

[Melissa.Ralph@nrc.gov](mailto:Melissa.Ralph@nrc.gov)

ET Actions Officer ([et05.hoc@nrc.gov](mailto:et05.hoc@nrc.gov))

NRC Headquarters Operation Center

## Kumana, Rayomand

---

**From:** Smith, Rich  
**Sent:** Wednesday, April 06, 2011 11:05 AM  
**To:** Gaddy, Vincent  
**Cc:** Hagar, Bob; Kumana, Rayomand  
**Subject:** GG Air Samples show low level I-131 believed to be from Japan

Vince,

FYI

The following information was provide to me from GG chemistry about weekly air samples they take offsite. If you have any question call or email.

At Grand Gulf:

Weekly Radiological Environmental Monitoring Program (REMP) Air samples (cartridges) indicated detectable amounts of I-131. The three (3) samples locations are AS-1 (Port Gibson- collection period 3/22/11-3/29/11) measuring 0.1254 pCi/m<sup>3</sup>, AS-3 (Vicksburg Area- collection period 3/21/11-3/30/11) measuring 0.07245 pCi/m<sup>3</sup>, and AS-7 (Union Hall- collection period 3/22/11-3/29/11) measuring 0.08018 pCi/m<sup>3</sup>.

All samples are below the Reporting Level to required agencies (0.9 pCi/m<sup>3</sup>) and met the required Lower Limits of Detection (LLD) values (0.07 pCi/m<sup>3</sup>). Reporting Levels and LLD values are listed in ODCM Tables 6.12.1-2 and 6.12.1-3.

These sample locations previously had only naturally occurring isotopes (with no Iodine above detection limit). It should be noted that other nuclear plants in the United States have reported low levels of Iodine being seen on recent Radiological Environmental Samples since the events at the Fukushima Daiichi site in Japan.

Additional information from the Mississippi Dept of Radiological Health (These are results from their air samplers and analyzed by their lab):

AS-7 (Arnold Acres): 0.069 +/- 0.024 pCi/ m<sup>3</sup>  
AS-9 (Trimble Property): 0.094 +/- 0.024 pCi/m<sup>3</sup>  
AS-10 (McGee Property): 0.073 +/- 0.019 pCi/m<sup>3</sup>  
AS-12 (Grand Gulf Military Park): 0.107 +/- 0.024 pCi/m<sup>3</sup>  
AS-13 (Point Lookout): 0.096 +/- 0.028 pCi/m<sup>3</sup>  
AS-14 (Jackson): 0.091 +/- 0.024 pCi/m<sup>3</sup>

Richard L. Smith  
SRI at Grand Gulf  
(w) 601-437-4620  
(c) (b)(6)  
(h) 601-630-8252  
email [Rich.Smith@nrc.gov](mailto:Rich.Smith@nrc.gov)

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**From:** OST01 HOC  
**Sent:** Thursday, April 07, 2011 7:34 PM  
**To:** Zimmerman, Roy; LIA02 Hoc; LIA03 Hoc  
**Subject:** FW: URGENT:NISA Press Release issued at 23:50, Thursday, 0:35 and 1:00, Friday  
**Attachments:** image001.jpg

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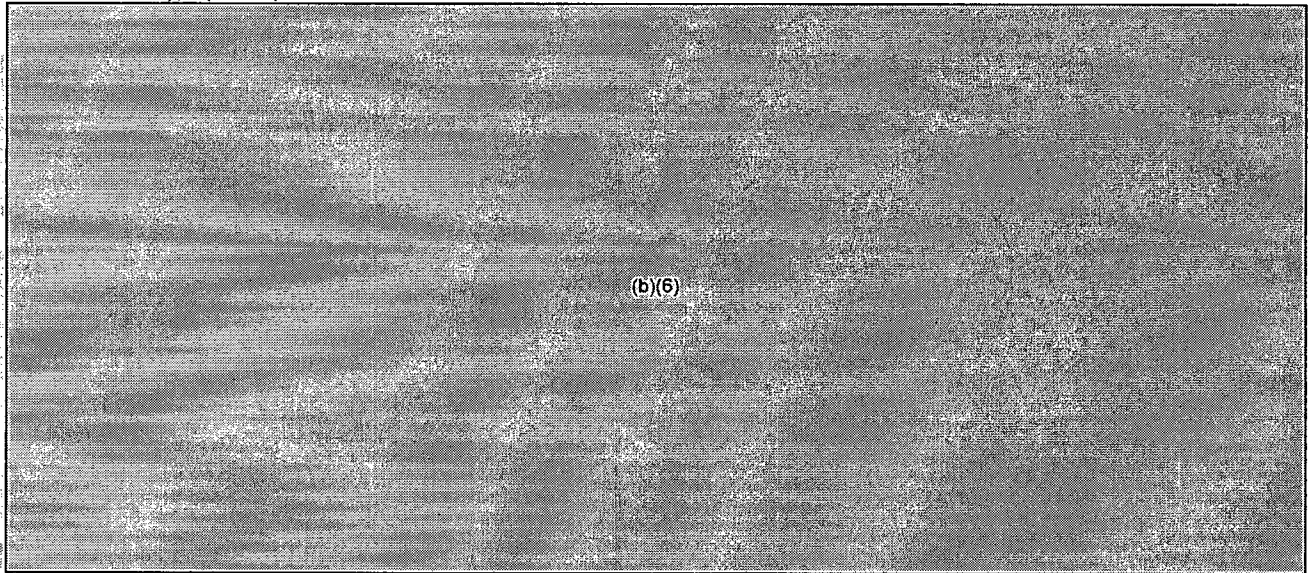
**From:** HOO Hoc  
**Sent:** Thursday, April 07, 2011 7:11 PM  
**To:** LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
**Subject:** FW: URGENT:NISA Press Release issued at 23:50, Thursday, 0:35 and 1:00, Friday

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



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**From:** Hinds, Lynda J [mailto:[HindsLJ@state.gov](mailto:HindsLJ@state.gov)] **On Behalf Of** Tokyo Staff Assistant  
**Sent:** Thursday, April 07, 2011 7:06 PM



**Subject:** FW: URGENT:NISA Press Release issued at 23:50, Thursday, 0:35 and 1:00, Friday

Lynda Hinds

CCCC/121



Staff Assistant  
(03) 3224- 5370

**From:** PROTOCOLOFFICE-EM [mailto:protocoloffice-em@mofa.go.jp]  
**Sent:** Friday, April 08, 2011 2:06 AM  
**To:** PROTOCOLOFFICE-EM  
**Subject:** URGENT:NISA Press Release issued at 23:50, Thursday, 0:35 and 1:00, Friday

**URGENT**  
**(1:45) Friday, 8 April 2011**

To All Missions (Embassies, Consular posts and International Organizations in Japan)

According to the NISA press release issued at 23:50, 0:35 and 1:00:

- The spent fuel reprocessing plant at Rokkasho-mura, Aomori Prefecture is in test operation and the uranium enrichment plant is NOT IN OPERATION. The Higashi-dori (Aomori Prefecture), Onagawa (Miyagi Prefecture), Fukushima Dai-ichi and Fukushima Dai-ni nuclear power plants are NOT IN OPERATION after the Tohoku-Pacific earthquake of March 11. Tokai Dai-ni nuclear power plant (Ibaraki Prefecture) is NOT IN OPERATION.
- The spent fuel reprocessing plant and the uranium enrichment plant at Rokkasho-mura keep power supply by the emergency diesel generator as the power supply from outside has been cut after the earthquake.
- The Higashi-dori nuclear power plant keeps power supply by the emergency diesel generator as the power supply from outside has been cut after the earthquake, and the cooling of the spent fuel rods continues. There is no fuel rod in the core of the plant.
- The Onagawa nuclear power plant keeps power supply from outside though two power lines out of the three have been cut. There is no significant change in the readings of the monitoring posts. The cooling of the spent fuel rods continues.
- There is no significant change in the readings of the monitoring posts of the Fukushima Dai-ichi nuclear power plant. Water injection into the reactor continues.
- There is no significant change of the parameters of the Fukushima Dai-ni nuclear power plant.
- There is no trouble seen with the Tokai Dai-ni nuclear power plant.

Contact: International Nuclear Energy Cooperation Division, Tel 03-5501-8227

**Bozin, Sunny**

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**From:** LIA07 Hoc.  
**Sent:** Saturday, March 12, 2011 6:41 PM  
**To:** Hipschman, Thomas; Marshall, Michael; Batkin, Joshua; Castleman, Patrick; Snodderly, Michael; Orders, William; Bubar, Patrice; Franovich, Mike; Wittick, Brian; Andersen, James; Trapp, James; (b)(6); Leeds, Eric; Brenner, Eliot; Miller, Charles; Wiggins, Jim; Johnson, Michael; Sheron, Brian; Schmidt, Rebecca; Haney, Catherine; Pace, Patti; Sosa, Belkys; Nieh, Ho; Sharkey, Jeffrey; Harrington, Holly; Jaczko, Gregory; Coggins, Angela; Loyd, Susan; Monninger, John; Pearson, Laura; Warren, Roberta; Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Miller, Chris; Anderson, Joseph; Kahler, Robert; Williams, Kevin; McNamara, Nancy; Tiff, Doug; Trojanowski, Robert; Woodruff, Gena; Logaras, Harra; Barker, Allan; Droggitis, Spiros; Decker, David; (b)(6); Maier, Bill; Howell, Linda; Dorman, Dan; McDermott, Brian; Quinn, Vanessa; Ralston, Michelle; albert.coons@dhs.gov; Sherwood, Harry; james.kish@dhs.gov; seamus.o'boyle@dhs.gov; timothy.greten@dhs.gov; (b)(6); (b)(6); cmc-01@dot.gov; peter.lyons@hq.doe.gov; (b)(6); (b)(6); veal.lee@epa.gov; poppell.sam@epa.gov; (b)(6); hss.soc@hhs.gov; Berkey, Johanna; Burnside, Conrad; Calhoun, Nan; Colman, Steve; Feighert, Dan; Hammond, Lisa; Hammons, Darrell; Hlavaty-Laposa, Jan; King, William; McCabe, Ron; Thomson, Rebecca; Webb, William L; Horwitz, Steve; (b)(6)  
**Cc:** HOO Hoc  
**Subject:** 1830 EST (March 12, 2011) USNRC Earthquake/Tsunami SitRep  
**Attachments:** USNRC Earthquake-Tsunami Update.031211.1830EST.docx

Attached, please find a 1830 EST situation report from the US Nuclear Regulatory Commission's Emergency Operations Center regarding the impacts of the earthquake/tsunami on March 12, 2011.  
Please note that this information is "Official Use Only" and is only being shared within the federal family.  
Please call the Headquarters Operations Officer at 301-816-5100 with questions.  
-Sara

Sara K. Mroz  
Communications and Outreach  
Office of Nuclear Security and Incident Response  
US Nuclear Regulatory Commission  
[sara.mroz@nrc.gov](mailto:sara.mroz@nrc.gov)  
[LIA07.HOC@nrc.gov](mailto:LIA07.HOC@nrc.gov) (Operations Center)

CCCC/122

**Bozin, Sunny**

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**From:** LIA07 Hoc  
**Sent:** Monday, March 14, 2011 2:07 PM  
**To:** Al Coons; Andersen, James; Anderson, Joseph; Barker, Allan; Batkin, Joshua; Bill King; Bill King 2; Brenner, Eliot; Bubar, Patrice; Castleman, Patrick; Charles Donnell; Coggins, Angela; Collins, Elmo; Conrad Burnside; D Feighert; D Hammons; Dean, Bill; Decker, David; DIA; DIA2; Dorman, Dan; DOT; Droggitis, Spiros; DTRA; Dudek; EOP; EPA; EPA2; Franovich, Mike; Hahn, Matthew; Haney, Catherine; Harrington, Holly; Harry Sherwood; HHS; Hipschman, Thomas; HOO Hoc; Howell, Linda; J H-L; Jaczko, Gregory; Jim Kish; Johanna Berkey; Johnson, Michael; Kahler, Robert; L Hammond; Leeds, Eric; Logaras, Herral; Loyd, Susan; Maier, Bill; Marshall, Michael; McCree, Victor; McDermott, Brian; McNamara, Nancy; Michelle Ralston; Miller, Charles; Miller, Chris; Monninger, John; Nan Calhoun; Navy; Nieh, Ho; NOC; Orders, William; Pace, Patti; Pearson, Laura; Peter Lyons; R McCabe; R Thomson; S Horwitz; Satorius, Mark; Schmidt, Rebecca; Seamus O'Boyle; Sharkey, Jeffry; Sheron, Brian; Snodderly, Michael; Sosa, Belkys; Steve Colman; Thomas Zerr; Tift, Doug; Timothy Greten; Trapp, James; Trojanowski, Robert; Vanessa Quinn; W Webb; Warren, Roberta; Wiggins, Jim; Williams, Kevin; Wittick, Brian; Woodruff, Gena; Schmidt, Rebecca; Powell, Amy; Loyd, Susan; Coggins, Angela; Batkin, Joshua; taskforce-1@state.gov; NOC; Charles  
(b)(6)  
(b)(6)  
NSIR\_DDSP\_ILTAB\_Distribution; nitops@nnsa.doe.gov; (b)(6)  
Michelle Ralston; nuclearssa@hq.dhs.gov; Ostendorff, William  
**Cc:** LIA09 Hoc; LIA11 Hoc  
**Subject:** 1330 EDT (March 14, 2011) USNRC Earthquake/Tsunami SitRep  
**Attachments:** USNRC Earthquake-Tsunami Update.031411.1330EDT.docx

Attached, please find a 1330 EDT situation report from the US Nuclear Regulatory Commission's Emergency Operations Center regarding the impacts of the earthquake/tsunami on March 14, 2011. This Update includes information on the Japanese request for US Assistance in cooling Fukushima Daiichi Units 1, 2, and 3. Please note that this information is "Official Use Only" and is only being shared within the federal family. Please call the Headquarters Operations Officer at 301-816-5100 with questions.

Yen Chen  
US Nuclear Regulatory Commission  
[LIA07.HOC@nrc.gov](mailto:LIA07.HOC@nrc.gov) (Operations Center)

CCCC/123

**Bozin, Sunny**

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**From:** LIA07 Hoc  
**Sent:** Monday, March 14, 2011 10:34 PM  
**To:** Holdren, John P.; maceck@state.gov; Al Coons; Andersen, James; Anderson, Joseph; Barker, Allan; Batkin, Joshua; Bill King; Bill King 2; Brenner, Eliot; Bubar, Patrice; Castleman, Patrick; Coggins, Angela; Collins, Elmo; Conrad Burnside; D Feighert; D Hammons; Dean, Bill; Decker, David; DIA; DIA2; Dorman, Dan; DOT; Droggitis, Spiros; DTRA; Dudek; EOP; EPA2; EPA; Franovich, Mike; Haney, Catherine; Harrington, Holly; Harry Sherwood; HHS; Hipschman, Thomas; HOO Hoc; Howell, Linda; J H-L; Jaczko, Gregory; Jim Kish; Johanna Berkey; Johnson, Michael; Kahler, Robert; L Hammond; Leeds, Eric; Logaras, Haral; Loyd, Susan; Maier, Bill; Marshall, Michael; McCree, Victor; McDermott, Brian; McNamara, Nancy; Michelle-Ralston; Miller, Charles; Miller, Chris; Monninger, John; Nan Calhoun; Navy; Nieh, Ho; Orders, William; Pace, Patti; Pearson, Laura; Peter Lyons; Peter.Lyons@Nuclear.Energy.gov; R McCabe; R Thomson; S Horwitz; Satorius, Mark; Schmidt, Rebecca; Seamus O'Boyle; Sharkey, Jeffrey; Sheron, Brian; Snodderly, Michael; Sosa, Belkys; Steve Colman; Thomas Zerr; Tift, Doug; Timothy Greten; Trapp, James; Trojanowski, Robert; Vanessa Quinn; W Webb; Warren, Roberta; Wiggins, Jim; Williams, Kevin; Wittick, Brian; Woodruff, Gena; taskforce-1@state.gov; NOC; Charles Donnell; nuclearssa@hq.dhs.gov; RMTPACTSU\_ELNRC; Bradford, Anna; Gibbs, Catina; Speiser, Herald; Holdren, John P.; maceck@state.gov; (b)(6)  
**Subject:** 2200 EDT (March 14 2011) USNRC Earthquake/Tsunami SitRep  
**Attachments:** NRC Status Update 3-14 10.10pm.pdf

Attached, please find a 2200 EDT situation report from the US Nuclear Regulatory Commission's Emergency Operations Center regarding the impacts of the earthquake/tsunami on March 14, 2011. This Update includes information related to NRC's evaluation of radiation measurements from the USS Ronald Reagan.

Please note that this information is "Official Use Only" and is only being shared within the federal family.

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

-Sara

Sara K. Mroz  
Office of Nuclear Security & Incident Response  
US Nuclear Regulatory Commission  
[Sara.mroz@nrc.gov](mailto:Sara.mroz@nrc.gov)  
[Lia07.HOC@nrc.gov](mailto:Lia07.HOC@nrc.gov) (Operations Center)

**From:** [ANS.HOC@nrc.gov](mailto:ANS.HOC@nrc.gov)  
**Subject:** ACTION: Commissioners Assistants Briefing Notification  
**Date:** Monday, March 28, 2011 7:11:09 PM  
**Attachments:** [USNRC Earthquake-Tsunami Update\\_032811\\_1800EDT.pdf](#)

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

CCCC/125

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**Subject:** NARAC / NIT conference call on plausible and realistic modeling scenario  
**Location:** Call-in number 877-437-1680, pass code (b)(6)  
**Start:** Mon 3/28/2011 3:00 PM  
**End:** Mon 3/28/2011 3:30 PM  
**Recurrence:** (none)  
**Meeting Status:** Meeting organizer  
**Organizer:** PMT03 Hoc  
**Required Attendees:** Hoc, PMT12; PMT07 Hoc; PMT09 Hoc

NIT proposing a conference call with NARAC tomorrow (3/28/11) at 3:00pm to discuss gridded deposition output fields from plausible and realistic modeling scenario. NRC requested to participate on Conference Call

Call-in number 877-437-1680, pass code (b)(6)

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**From:** Brandon, Lou  
**Sent:** Wednesday, April 06, 2011 4:34 AM  
**To:** PMT03 Hoc; Hoc, PMT12  
**Subject:** FW: NEWS: Japan sets safety limit for radiation in fish (2,000 Bq/kg for radioactive iodine in seafood)

**From:** Jablonowski.Eugene@epamail.epa.gov [mailto:Jablonowski.Eugene@epamail.epa.gov]  
**Sent:** Tuesday, April 05, 2011 2:46 PM  
**To:** Graham, Ron; albert.wiley@orise.orau.gov; Ansari, Armin J. (CDC); (b)(6); Brennan, Inga; Whitcomb, Robert (CDC); Maher, Carmen; Connell, Carol (ATSDR); cmht@nnsa.doe.gov; cmw6@CDC.GOV; Miller, Charles W. (CDC); Liles.Darrell@epamail.epa.gov; Dixon, Teri; Tupin.Edward@epamail.epa.gov; Morrison, Ellen F; EOC\_Environmental\_Unit@epamail.epa.gov; Hornsby-Myers, Jennifer L. (CDC); Ferris.John@dol.gov; Brozowski.George@epamail.epa.gov; Allen Jr, George T; Evans, Donna L. (CDC); gordon.s.cleveland@aphis.usda.gov; Dixon, John E. (CDC); ira.s.reese@cbp.dhs.gov; Cherniack, James; james.williams@dot.gov; Nemhauser, Jeffrey B. (CDC); john.jensen@dm.usda.gov; john.pavek@wdc.usda.gov; (b)(6); Anderson, Jeri L. (CDC); Smallwood, Karen R; Keith, Sam (ATSDR); Veal.Lee@epamail.epa.gov; LIA11 Hoc; Brandon, Lou; Causgrove.Maggie@epamail.epa.gov; Russo, Mark; Matthews, Denise - OSHA; Brooks, Michael D. (ATSDR); menarm@nv.doe.gov; Menon.Ramesh@dol.gov; michael.howe@dhs.gov; Noska, Michael A; Buzzell, Jennifer J. (CDC); Charp, Paul (ATSDR); Hansen, Patricia A; patrick.simmons@dhs.gov; paul.ward@fema.gov; pemberwj@nv.doe.gov; peter.a.petch@aphis.usda.gov; Hoc, PMT12; Evans, Rachel T; Funk, Renee H. (CDC); Goodman.Roger@epamail.epa.gov; DeCair.Sara@epamail.epa.gov; Hudson.Scott@epamail.epa.gov; Hargrave, Scotty L; Scott.Lough@ams.usda.gov; stephen.chase@dhs.gov; Jones, Terri; Timothy.Greten@dhs.gov; Radke, Vincent J. (CDC); Howard King, Vinetta; Lotz, William G. (CDC); Cunningham, William C  
**Subject:** NEWS: Japan sets safety limit for radiation in fish (2,000 Bq/kg for radioactive iodine in seafood)

This article states: "On Tuesday, government chief spokesman Yukio Edano announced a legal limit of 2,000 becquerels per kilogram for radioactive iodine in seafood, the first time it has imposed such a restriction on fish."

### **Japan sets safety limit for radiation in fish (via Nuclear Headlines for ANS Members)**

[http://www.channelnewsasia.com/stories/afp\\_asiapacific/view/t120835/1.html](http://www.channelnewsasia.com/stories/afp_asiapacific/view/t120835/1.html)

TOKYO - Japan imposed a legal limit Tuesday for radioactive iodine in fish, as the operator of the stricken Fukushima nuclear plant pumped toxic water into the Pacific Ocean for a second day.

The government also said it would look at widening its testing to cover a larger area after raised levels of radioactive iodine were discovered in a small fish caught off Ibaraki prefecture, south of the plant.

The move came as shares in Tokyo Electric Power Co. plunged to a new low of 362 yen -- their lowest ever level -- amid concerns the operator of Japan's crippled nuclear plant will face huge compensation bills.

The embattled company has lost more than 80 percent of its value since the March 11 quake and tsunami knocked out reactor cooling systems at the Fukushima nuclear plant, triggering explosions and releasing radiation.

On Monday, its operators began releasing low-level radioactive water into the sea to free up urgently needed safe storage space for water so toxic that it is halting crucial repair work.

The company has said it needs to dump 11,500 tonnes, or more than four Olympic pools' worth, of the radioactive liquid, raising concerns about marine life in the island nation, where seafood is a key source of protein.

Some radioactive runoff has already leaked into the Pacific Ocean, raising levels of iodine-131 to over 4,000 times the legal limit in one measurement.

On Tuesday, government chief spokesman Yukio Edano announced a legal limit of 2,000 becquerels per kilogram for radioactive iodine in seafood, the first time it has imposed such a restriction on fish.

"As there is no limit set for radioactive iodine in fish, the government has decided to temporarily adopt the same limit as for vegetables," he told a press conference.

The move came after radioactive iodine of more than double that concentration was detected in a variety of small fish known as konago, or sand lance, caught off Ibaraki prefecture, south of the plant.

Fishing of the species was stopped locally, media reports said, but no wider ban was issued.

Radioactive iodine above legal limits has been detected in vegetables, dairy products and mushrooms, triggering shipping bans, but officials had said seafood was less at risk because ocean currents and tides dilute the dangerous isotopes.

Fishermen in the area expressed outrage over the decision to dump radioactive water into the ocean, saying they had not been consulted.

"We were notified... Can you believe it?" said Yoshihiro Niizuma of the Fukushima Fisheries cooperative. "We heard radioactive material was leaking into the sea. Now they are dumping contaminated water on purpose."

Seoul also questioned the decision to pump radioactive water into the ocean, saying the proximity of the two neighbours made Japan's action "a pressing issue" for South Korea.

Fishing has been banned within 20 kilometres (12 miles) of the stricken plant, matching the radius of the evacuation zone on land, where tens of thousands of residents have been moved out.

The Yomiuri Shimbun on Tuesday reported TEPCO has decided to offer provisional damage payments to residents and farmers near the plant before official damage amounts are estimated later.

But the dumping into the sea of radioactive water has also cast concerns on the earnings of the fishery industry, and some analysts estimate TEPCO could face compensation claims of more than 10 trillion yen (US\$120 billion).

The company last week said it had secured 2 trillion yen in funding but warned that this would not be enough.

The wider economic fallout from Japan's triple calamity -- the massive March 11 earthquake, giant tsunami and the nuclear crisis -- is likely to drive the country into recession in coming months, said a survey of economists.

The disaster, which has left more than 12,000 dead and over 15,000 missing, has also hit exports, business confidence and consumer spending, the Nikkei daily said in the survey of 11 major private economic institutions.

On Tuesday, Tokyo police arrested two people for selling a drug they claimed would protect people from the radiation leaking from the plant.

The pair, a 50-year-old health food trader and his 29-year-old assistant, were charged with the unlicensed sale of a medicine, a police spokesman said.

- AFP/ir

Eugene Jablonowski, Health Physicist  
U.S. EPA Region 5 Emergency Response  
77 W. Jackson Blvd. (SM-5J)



Chicago, IL 60604  
(312) 886-4591 office  
[REDACTED] cell <--- NEW  
(312) 692-2466 fax  
jablonowski.eugene@epa.gov

---

**From:** RST01 Hoc  
**Sent:** Friday, April 01, 2011 12:10 PM  
**To:** RST01A Hoc  
**Subject:** FW: Additinal information

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

From: Versluis, Rob [mailto:ROB.VERSLUIS@nuclear.energy.gov]  
Sent: Friday, April 01, 2011 11:59 AM  
To: RST01 Hoc; RST01B Hoc  
Subject: Fw: Additinal information

Rob Versluis +1-301-903-1890(o) (b)(6) m)

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

From: Peltz, James  
To: DL-NERT-All  
Sent: Fri Apr 01 11:24:26 2011  
Subject: FW: Additinal information

Camera on SFP 4.

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

From: Shunsuke KONDO [mailto:shunsuke.kondo@gmail.com]  
Sent: Friday, April 01, 2011 11:22 AM  
To: 矢作 公利  
Cc: 尾本 彰; Lyons, Peter; SCHU; Binkley, Steve; Kelly, John E (NE); Aoki, Steven; Adams, Ian; Kondo Shunsuke.; ichii-naoto@meti.go.jp  
Subject: Re: Additinal information

Dear All

At this site, you can see the top-down view of SFP of 1F4 taken by video camera mounted on the head of a water injector Ziraph

<http://www.nikkei.com/news/headline/archive/article/g=96958A9C93819695E1E3E2E68B8DE1E3E2E1E0E2E3E3E2E2E2E2E2E2E2>

--

Regards,  
Shunsuke Kondo

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**From:** Hoc, PMT12  
**Sent:** Sunday, March 27, 2011 12:04 PM  
**To:** PMT03 Hoc  
**Subject:** Closeout of Task/Record #2969  
**Attachments:** Response to Dr. Fetter.docx

The attached file is the response that was provided to Dr. Fetter on 3/27/2011 at 11:54 a.m. regarding Task/Record #2969. Please update the PMT log to reflect this action.

Thanks,

Kevin

CCCC/129

Dr. Fetter,

This email follows up on the exchanges last night regarding the differences in postulated radionuclide releases from Units 1, 2 and 3 reactors using RASCAL. There are other factors that reduce releases to the atmosphere if radionuclides are held up in containment for sufficient time.

In comparing the source terms for Units 1, 2 and 3, the relatively smaller release from Unit 3 is attributed primarily to a 23-hour delay between the start of core uncover and melting, and the hydrogen explosion that we assume caused the start of the release. This delay interval is based on our understanding of the event chronology for Unit 3. While the radionuclides were held-up within the containment structure before being released to the atmosphere, there was significant plate out, gravitational settling, and deposition of radionuclides within the primary containment, except for noble gases. Research sponsored by the NRC indicates that releases that commence a day or more after the offset of core damage would be expected to have reduced releases, except for noble gases (NUREG-1150 Appendix B, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants," and NUREG/CR-6189, "A Simplified Model of Aerosol Removal by Natural Processes in Reactor Containments"). The noble gas releases for Unit 3 are consistent with Units 1 and 2, whereas other radionuclide groups are significantly lower, as expected.

For Units 1 and 2, we assumed that atmospheric releases started within an hour of the start of core damage, so there was not a significant hold up and corresponding plate out, gravitational settling, and deposition of radionuclides before release to the atmosphere.

There are additional factors that were taken into account when we developed the source term estimates. In particular, to estimate a longer term (twelve day) release from Unit 1 using RASCAL, atmospheric releases were initially increased by a factor of six from a two-day RASCAL release model. After further discussion between NRC and NARAC, the Unit 1 release estimate was subsequently reduced to account for reduction in core inventory as the release continued for the extended period. For Unit 2, a two-day release was assumed because containment pressure would be reduced from 60 psi to atmospheric levels within two days, assuming a hole in containment of five square inches. Also, atmospheric releases from Unit 3 and 4 spent fuel pools were not specifically addressed in the source term because we thought that atmospheric releases from the reactors would be large in comparison to the spent fuel pool releases, based on information available at the time the RASCAL runs were conducted.

In summary, we believe that our RASCAL runs are accurate based on information available at the time they were conducted. Please do not hesitate to call or email me if you have questions about this email.

Protective Measures Team  
NRC operations Center

(b)(6)

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**From:** OST02 HOC  
**Sent:** Tuesday, April 05, 2011 10:53 PM  
**To:** PMT02 Hoc; PMT11 Hoc; Hoc, PMT12; RST01 Hoc  
**Subject:** FW: URGENT:Radioactive water leaking has stopped  
**Attachments:** image001.jpg

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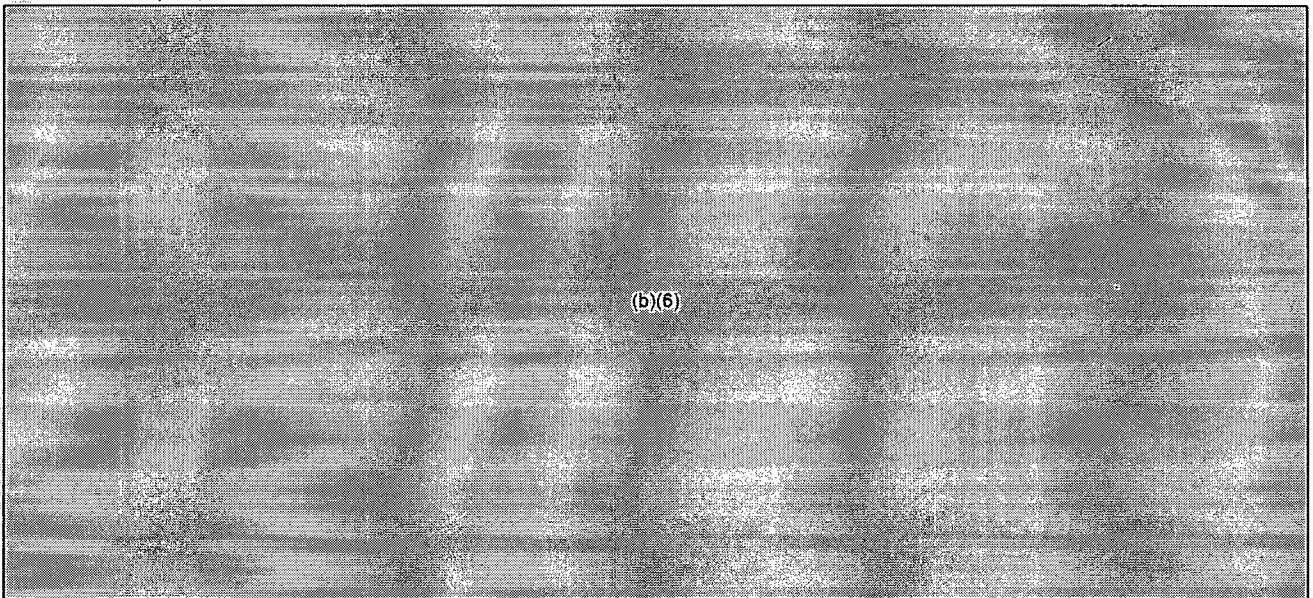
**From:** HOO Hoc  
**Sent:** Tuesday, April 05, 2011 10:51 PM  
**To:** ET07 Hoc; ET02 Hoc; ET05 Hoc  
**Subject:** FW: URGENT:Radioactive water leaking has stopped

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



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**From:** Hinds, Lynda J [<mailto:HindsLJ@state.gov>] **On Behalf Of** Tokyo Staff Assistant  
**Sent:** Tuesday, April 05, 2011 10:47 PM



**Cc:** Angelov, Bonnie A; Alexander, Kathleen J  
**Subject:** FW: URGENT:Radioactive water leaking has stopped

CCCC/130

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