

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 18, 2011 8:54 AM
To: Santiago, Patricia
Subject: Re: Protracted Event Staffing for Reactor Safety Team Staffing for Japanese Earthquake.doc

b7c
[Redacted]

From: Santiago, Patricia
To: Gibson, Kathy
Sent: Fri Mar 18 08:48:44 2011
Subject: RE: Protracted Event Staffing for Reactor Safety Team Staffing for Japanese Earthquake.doc

FYI

b7c
[Redacted]

From: Gibson, Kathy
Sent: Friday, March 18, 2011 8:47 AM
To: Santiago, Patricia
Subject: Fw: Protracted Event Staffing for Reactor Safety Team Staffing for Japanese Earthquake.doc
Importance: High

Pat

b7c
[Redacted]

Thx

From: Schaperow, Jason
To: RST01 Hoc
Cc: Santiago, Patricia; Gibson, Kathy; Scott, Michael
Sent: Fri Mar 18 08:43:14 2011
Subject: RE: Protracted Event Staffing for Reactor Safety Team Staffing for Japanese Earthquake.doc

Hi Greg,

b7c
[Redacted]

Thanks,
Jason

BC/70

From: RST01 Hoc

Sent: Thursday, March 17, 2011 7:05 PM

To: RST01 Hoc; Hiland, Patrick; Brown, Frederick; Skeen, David; Dudes, Laura; Ruland, William; Case, Michael; Alter, Peter; Hasselberg, Rick; Rini, Brett; Berry, Rollie; Collins, Frank; Morlang, Gary; Schoenebeck, Greg; Kowalczyk, Jeffrey; Sloan, Scott; Circle, Jeff; Esmaili, Hossein; Cheok, Michael; Ward, Leonard; Laur, Steven; Salay, Michael; Schaperow, Jason; Fuller, Edward; Marksberry, Don; Kolb, Timothy; Norton, Charles; Brown, Eva; Shea, James; Vick, Lawrence; Brown, Michael; Williams, Joseph; Hart, Ken; Bloom, Steven; Padovan, Mark; Williams, Donna; Isom, James; Dozier, Jerry; Thorp, John; Kugler, Andrew

Subject: Protracted Event Staffing for Reactor Safety Team Staffing for Japanese Earthquake.doc

All,

As you may be aware, the EOC is preparing extended EOC staffing. Attached is the most current draft of the watchbill which extends through 3/26/2011. We are a couple shy for this weekend, but more importantly there are significant gaps to fill for next week. Please review and if your schedule permits let an RST Coordinator know if you have availability to support. Thanks in advance for your help.

Greg Schoenebeck

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 18, 2011 11:14 AM
To: Wagner, Katie
Subject: Fw: Japanese TV request for Snadia video footage. FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

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

From: Sheron, Brian
To: Sangimino, Donna-Marie; Uhle, Jennifer; Gibson, Kathy
Cc: Lee, Richard; Valentin, Andrea; Kardaras, Tom; Dehn, Jeff; Weber, Michael
Sent: Fri Mar 18 11:13:18 2011
Subject: Re: Japanese TV request for Snadia video footage. FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

I have no objection, since OECD cooperative research program data is made available 3 years later.

Please notify OPA and IRC ET that we are releasing it.

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

From: Sangimino, Donna-Marie
To: Sheron, Brian; Uhle, Jennifer; Gibson, Kathy
Cc: Lee, Richard; Valentin, Andrea; Kardaras, Tom; Dehn, Jeff
Sent: Fri Mar 18 10:18:27 2011
Subject: FW: Japanese TV request for Snadia video footage. FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

All,

This is a request from NEA about video footage of an OECD/NEA program from ~10 years ago. It was NRC funded, Sandia hosted. The video is of a vessel being pressurized and heated until it fails. NEA wants to release the video to a Japanese TV station, and believes it is publically releasable at this point. They're looking to the NRC for a tacit approval at this point.

Jeff talked to Richard, and he believes there isn't a technical reason to decline the request. If you have an opinion on this, please forward as soon as possible. Jeff can provide the video or a link and password to view the video if desired.

We would propose forwarding this request to the Ops Center management with no objection to NEA's request.

Thank you,

BC/71

Donna-Marie Sangimino

From: Diane.JACKSON@oecd.org [mailto:Diane.JACKSON@oecd.org]
Sent: Friday, March 18, 2011 7:28 AM
To: Dehn, Jeff; Sangimino, Donna-Marie
Cc: Janice.DUNNLEE@oecd.org; Javier.REIG@oecd.org
Subject: Japanese TV request for Snadia video footage. FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

Hello Jeff -

A Japanese news station would like to obtain footage and report of the Oct 23 2000 experiment the OECD had requested Sandia to conduct. Please see below the news release from Sandia.

<http://www.sandia.gov/media/NewsRel/NR2000/vessel.htm>

In the e-mail below, the video is identified from the secure NEA website (and information to access it).

Bottom line, the data from the project is now publically available, but there is a question if video footage is included or not.

Before making any decision, the NEA would like to check with the NRC.

Best regards,

Diane Jackson, Nuclear Safety Specialist Nuclear Safety Division, OECD Nuclear Energy Agency (NEA)
Tel.: +33 (0)1 45 24 10 55, Diane.Jackson@oecd.org

From: GAS Serge, NEA/RE
Sent: Friday, March 18, 2011 12:03
To: DUNN LEE Janice, NEA; JACKSON Diane, NEA/SURN

Cc: CLAPPER Maureen [United States]; STANFORD Benjamin, NEA/RE
Subject: FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

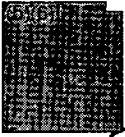
Hello Janice and Diane,

Please see below - I assume you can download the video from this link (Ben will otherwise advise how to proceed).

<http://www.oecd-nea.org/press/accredited/video/OLHF-2.mpg>

Please use the following username and password:

Username:



Password:

Could you please make sure that NRC has no objection to the release of the footage?

Thanks in advance.

Best regards,

Serge

From: GAS Serge, NEA/RE
Sent: Friday, March 18, 2011 11:56
To: 'KAMADA TOSHIHIKO'
Cc: DUNN LEE Janice, NEA; YOSHIMURA Uichiro, NEA/SRAN; REIG Javier, NEA/SURN
Subject: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

Dear Toshi,

I am being told that we could be entitled to send it but we don't want to do that without the Japanese government's green light and the US NRC's since they were the main funding organisation at the time. We are starting now to see with the US NRC is it is fine with them. If you could look on your side. Thanks a lot in advance.

Best regards,

Serge

From: KAMADA TOSHIHIKO [mailto:toshihiko.kamada@mofa.go.jp]
Sent: Friday, March 18, 2011 11:22
To: STANFORD Benjamin, NEA/RE; GAS Serge, NEA/RE
Cc: YOSHIMURA Uichiro, NEA/SRAN
Subject: RE: FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

Dear Mr. Benjamin Stanford and Serge,

Thank you very much for your information!

May I ask you a question?

Whose possession is the contents and data of this video and the report?

(member country?, project participants?, NEA? or others?)

Is it possible to think that NEA has right to decide whether this should be open or not?

Best regards,

Toshi

////////////////////////////////////
Toshihiko KAMADA

First Secretary (Science and Technology)

Permanent Delegation of Japan to the OECD

TEL: +33 (0)1 53 76 61 81

FAX: +33 (0)1 45 63 05 44

E-mail: toshihiko.kamada@mofa.go.jp <mailto:toshihiko.kamada@deljp-ocde.fr>

//

經濟協力開發機構日本政府代表部

一等書記官 (科学技術担当)

鎌 田 俊 彦

//

From: Benjamin.STANFORD@oecd.org [mailto:Benjamin.STANFORD@oecd.org]
Sent: Friday, March 18, 2011 10:50 AM
To: Serge.GAS@oecd.org; KAMADA TOSHIHIKO
Cc: Uichiro.YOSHIMURA@oecd.org
Subject: RE: FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

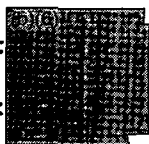
Dear Mr. Kamada,

You can download the video from this link.

<http://www.oecd-nea.org/press/accredited/video/OLHF-2.mpg>

Please use the following username and password:

Username:



Password:

Please do not share this username and password. We will provide a separate one to the journalists if the video is to be shared.

Please contact me should you have any technical difficulties.

Best regards,

Benjamin Stanford

Webmaster

OECD Nuclear Energy Agency (NEA)

Tel.: +33 (0)1 45 24 10 09

benjamin.stanford@oecd.org <mailto:benjamin.stanford@oecd.org>

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

From: GAS Serge, NEA/RE

Sent: Friday, March 18, 2011 10:41 AM

To: KAMADA Toshihiko [Company Name]

Cc: YOSHIMURA Uichiro, NEA/SRAN; STANFORD Benjamin, NEA/RE

Subject: FW: FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

Importance: High

Dear Toshi,

Please see the exchange of messages below. In fact we have found the footage but the video could have some impact on the public so I think you should have a look before we pass it to the TV channel. Our webmaster Ben Stanford is going to send it to you very soon.

Best regards,

Serge

From: yuhong hiro koh [mailto: (b) (6)]

Sent: Friday, March 18, 2011 10:15

To: GAS Serge, NEA/RE
Cc: HUERTA Alejandro, NEA/SURN; TURCHI Elodie, PAC/WASH; RUMPF Matthias, PAC/WASH; FISHER Helen, PAC/COM
Subject: Re: FW: NHK-TV, Japan - Sandia OECD Lower Head Failure Project - final report

Mr. Serge Gas,

Thank you very much for this.

Can you please tell me if you have a video footage of the experiment?

If you do, I would like to send someone from NHK Europe to retrieve it today.

I have contacted Sandia, but they unfortunately do not want to help in this matter and are not lifting a finger. Thank you again.

Hiro

On 3/18/2011 1:55 AM, Serge.GAS@oecd.org wrote:

Dear Hiro,

This is the final report of the OECD (Sandia) Lower Head Failure project run between 2000 and 2002.

The final report is available (downloadable) on our public website:

<http://www.oecd-nea.org/nsd/docs/2002/csni-r2002-27.pdf>

We cannot send it since it is 570 pages and about 40 Mbytes, without the appendices.

These experiments were to assess resistance of reactor vessel in case of core melt down.

Our expert Alejandro Huerta (copied, +33 1 45 24 10 57) can help you to understand the report if you need it.

Best regards,

Mr. Serge Gas

Head, Central Secretariat, External Relations and Public Affairs


OECD Nuclear Energy Agency

tel. : +33 1 45 24 10 10

Fax: +33 1 45 24 11 15

Le Seine Saint Germain, 12 Boulevard des Iles, 92130 Issy-les-Moulineaux, France

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

From: yuhong hiro koh [mailto:

Sent: Thursday, March 17, 2011 3:35 PM

To: TURCHI Elodie, PAC/WASH

Subject: NHK-TV, Japan

Dear Elodie,

Thank you for accommodating me over the phone just now.

We would like to obtain FOOTAGE and REPORT of the 2000, Oct 23 experiment the OECD had requested Sandia to conduct. Please see below the news release from Sandia.

<http://www.sandia.gov/media/NewsRel/NR2000/vessel.htm>

I don't have a name of the experiment, but it was to see how string the reactor vessels are to pressure and and blasts.

Again, we have a Friday night deadline for the special edition program we are putting together on the situation at Fukushima.

I would sincerely and greatly appreciate your help.

Thank you,

Hiro

--

Yuhong Hiro Koh

NHK, Science & Nature

Tel: US ++1 310-502-4506

Fax: US ++1 310-539-3021

E-mail: s02709-koh@nhk.or.jp



Homepage: <http://www.nhk.or.jp>

English: <http://www.nhk.or.jp/nhkworld/index.html>

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E-mail: s02709-koh@nhk.or.jp



Homepage: <http://www.nhk.or.jp>

English: <http://www.nhk.or.jp/nhkworld/index.html>

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Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 6:22 AM
To: Hoc, PMT12
Subject: Fw: Isotope data from air samples taken in Japan

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

From: Sheron, Brian
To: Gibson, Kathy; Carpenter, Cynthia
Sent: Sun Mar 20 22:52:46 2011
Subject: FW: Isotope data from air samples taken in Japan

FYI.

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

From: Koonin, Steven [mailto:Steven.Koonin@science.doe.gov]
Sent: Sunday, March 20, 2011 10:33 PM
To: Aoki, Steven; 'peterson@nuc.berkeley.edu'; (b)(6); SCHU; Adams, Ian; Binkley, Steve; 'RJBudnitz@lbl.gov'; Sheron, Brian; Brinkman, Bill; DAgostino, Thomas; (b)(6); 'rlg2@us.ibm.com'; 'phillip.finck@inl.gov'; 'john.grossenbacher@inl.gov'; Hurlbut, Brandon; Kelly, John E (NE); Lyons, Peter; 'harold.mcfarlane@inl.gov'; Owens, Missy; Poneman, Daniel; 'ronaldo.szilard@inl.gov'; (b)(6)
Subject: Re: Isotope data from air samples taken in Japan

My Japanese colleague tells me that the nuclear research labs (RIKEN and others) have spectrally resolved, calibrated time series. Earlier this week he told me they were seeking permission from MEXT to release, but I've not heard anything since.

Perhaps propose to MEXT a swap of datasets?

SEK

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

From: Aoki, Steven
To: peterson@nuc.berkeley.edu <peterson@nuc.berkeley.edu>; (b)(6); (b)(6); Koonin, Steven; SCHU; Adams, Ian; Binkley, Steve; RJBudnitz@lbl.gov <RJBudnitz@lbl.gov>; Brian.sheron@nrc.gov <Brian.sheron@nrc.gov>; Brinkman, Bill; DAgostino, Thomas; (b)(6); rlg2@us.ibm.com <rlg2@us.ibm.com>; Finck, Phillip <phillip.finck@inl.gov>; Grossenbacher, John (INL) <john.grossenbacher@inl.gov>; Hurlbut, Brandon; Kelly, John E (NE); Lyons, Peter; McFarlane, Harold <harold.mcfarlane@inl.gov>; Owens, Missy; Poneman, Daniel; ronaldo.szilard@inl.gov <ronaldo.szilard@inl.gov>; (b)(6); (b)(6)
Sent: Sun Mar 20 22:04:26 2011
Subject: Isotope data from air samples taken in Japan

Attached is a report on air sampler data taken by our team in Japan. Radioisotopes deposited on filters were counted with an ORTEC HPGe detector at the locations indicated. All of the measurements were very close to background levels.

BC/72

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 6:23 AM
To: Hoc, PMT12
Subject: Fw: Platts Nuclear News Flashes
Attachments: NNF_20110320.txt

Please forward to Jack foster.

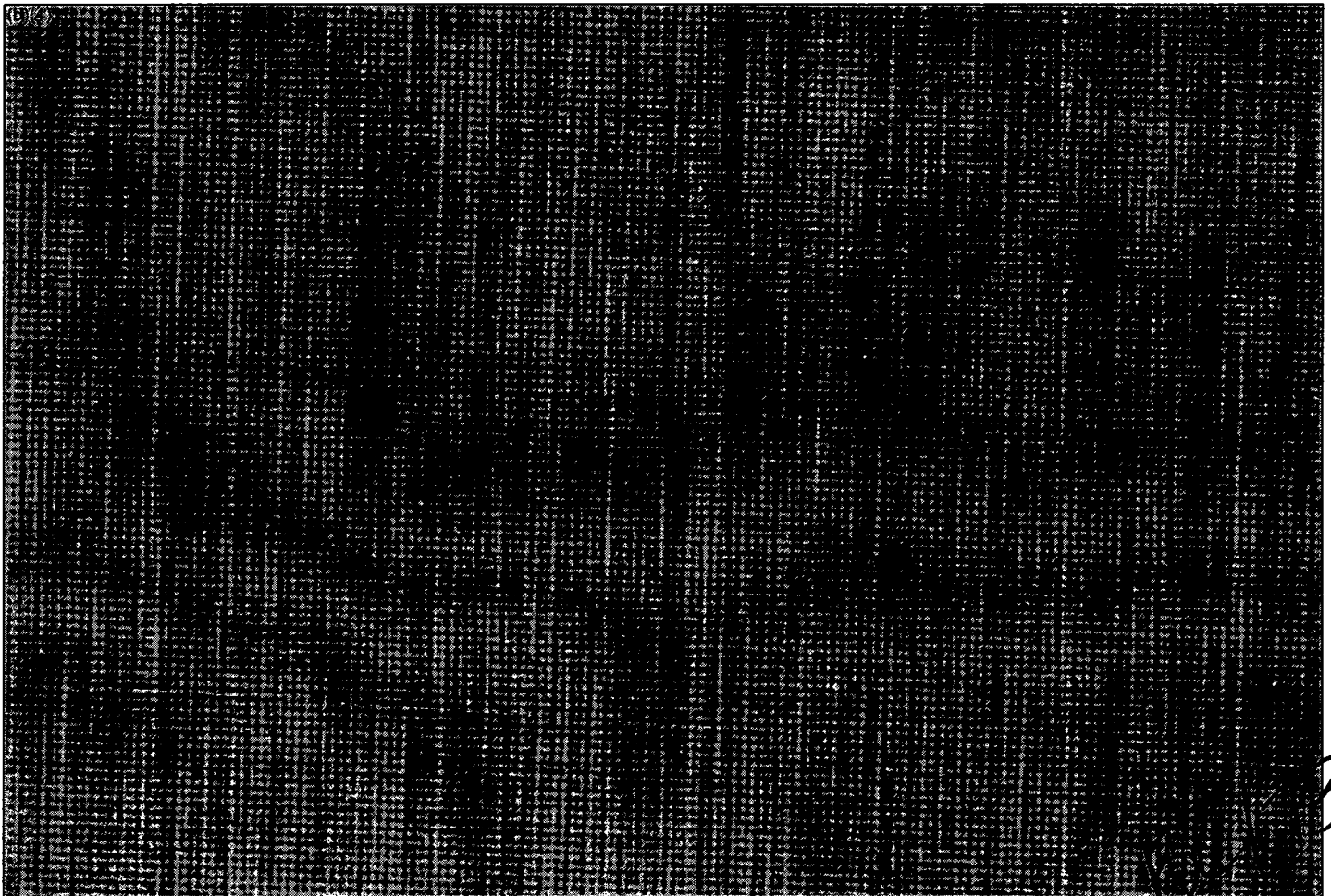
From: Carpenter, Cynthia
To: Gibson, Kathy
Sent: Sun Mar 20 23:36:20 2011
Subject: FW: Platts Nuclear News Flashes

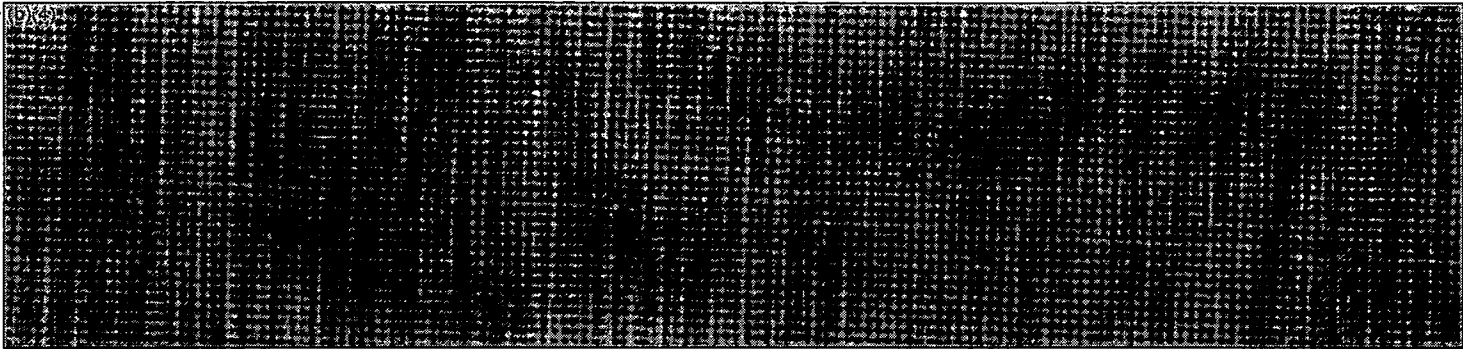
Kathy

Please forward to Jack Foster. Thank you.

From: Virgilio, Martin
Sent: Sunday, March 20, 2011 11:34 PM
To: Carpenter, Cynthia
Cc: Morris, Scott; Johnson, Michael
Subject: Platts Nuclear News Flashes

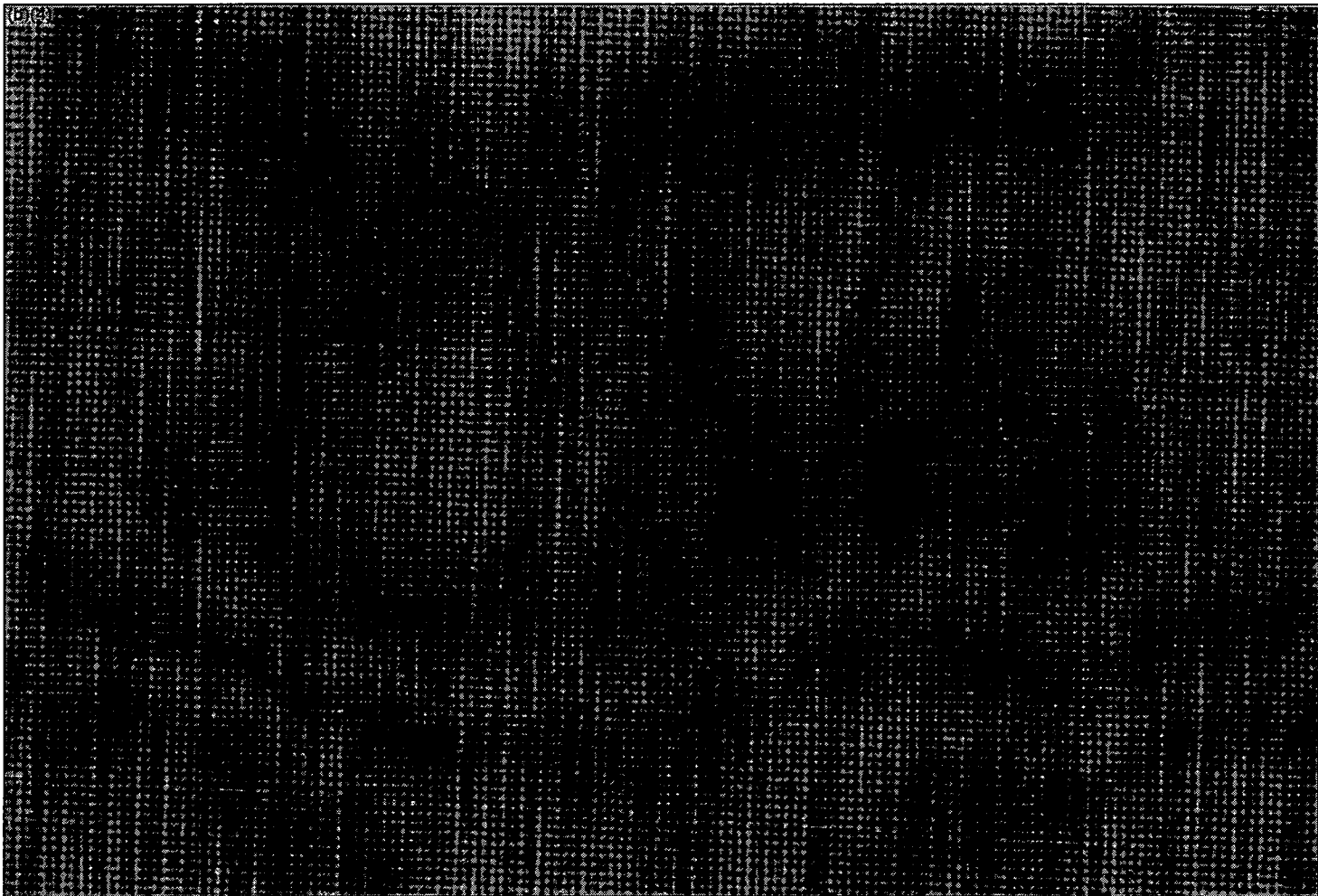
Suggest we sent this via PMT to Jack F



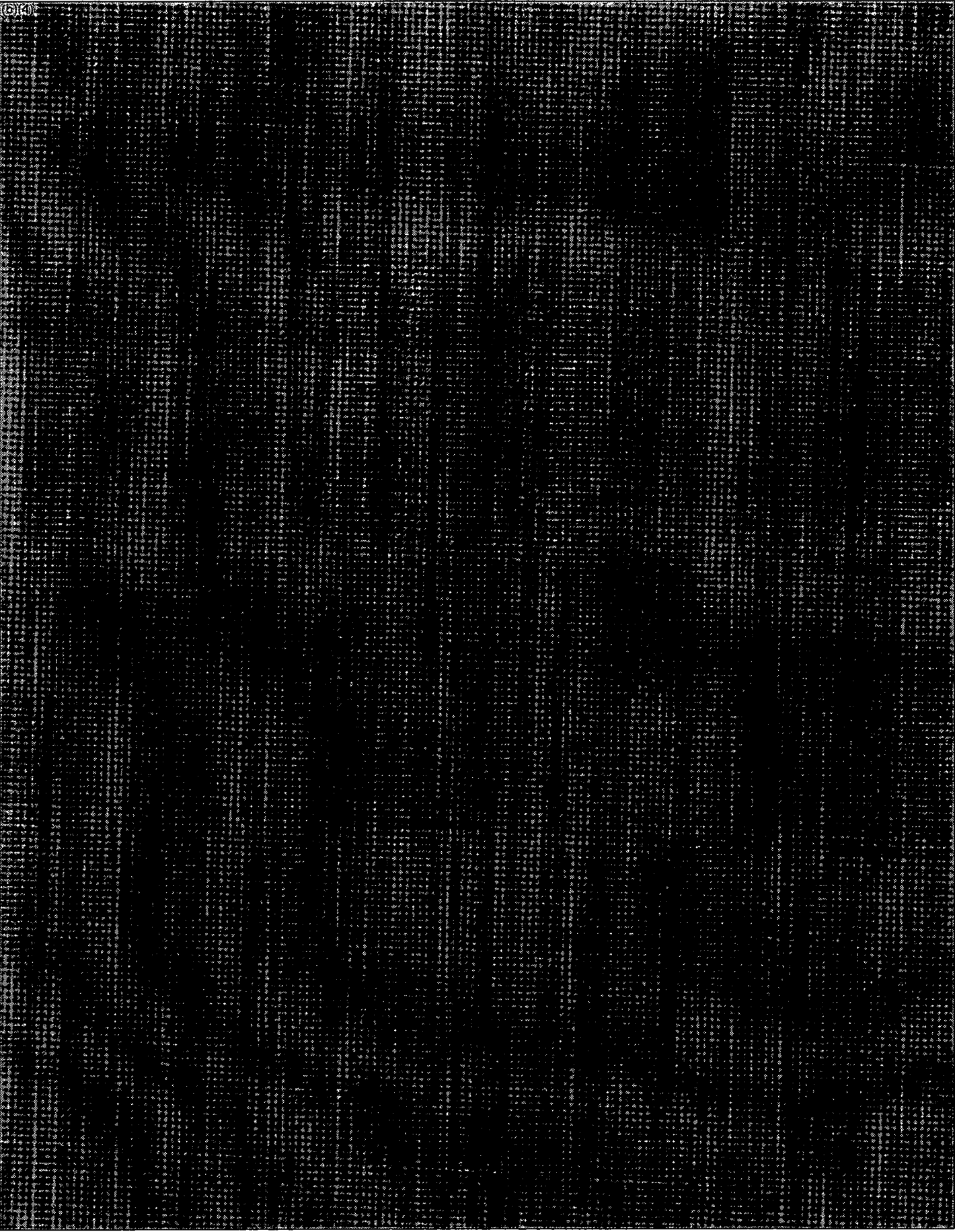


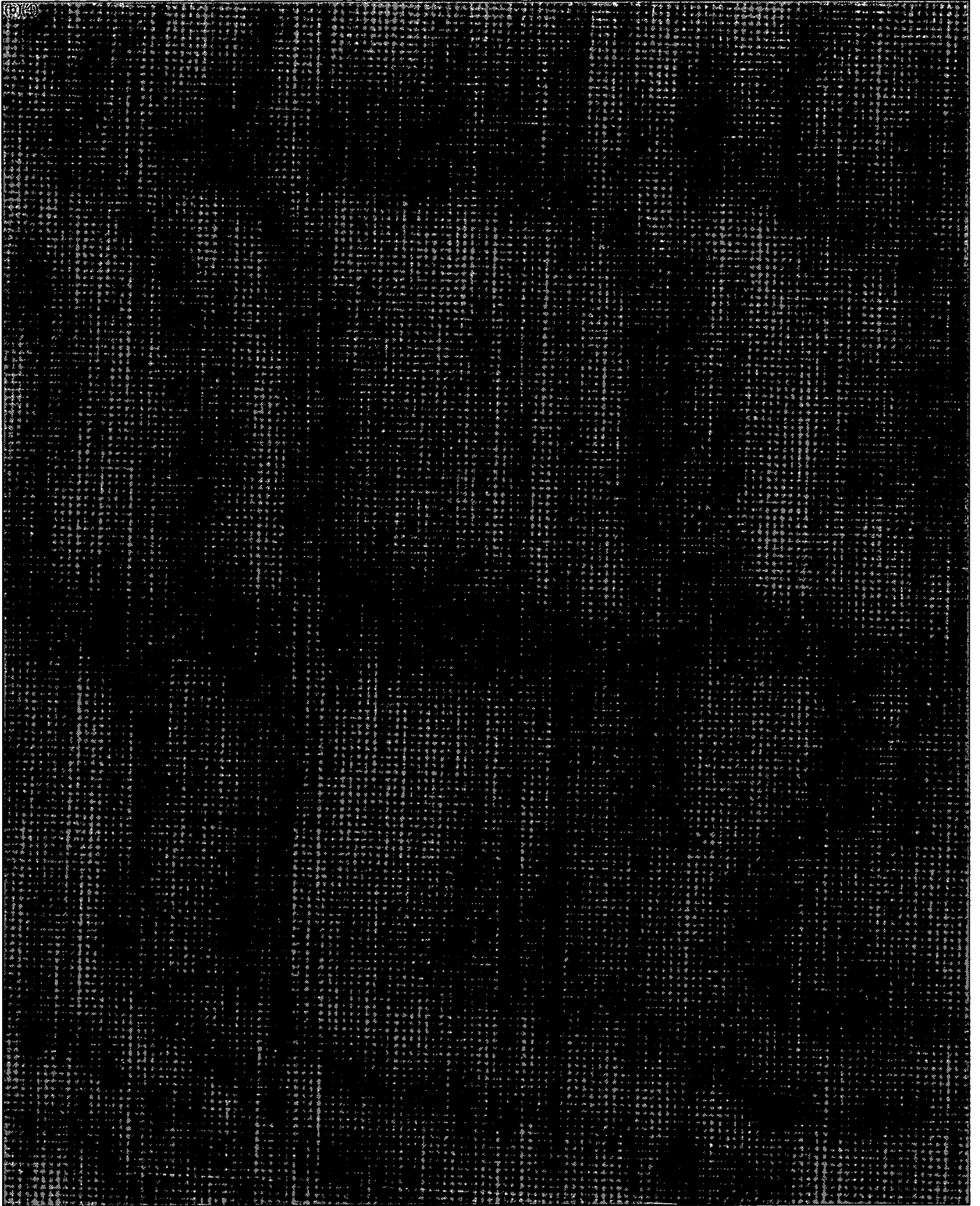
From: Library Resource [mailto:Library.Resource@nrc.gov]
Sent: Sunday, March 20, 2011 6:33 PM
To: EPUB - Nuclear News Flashes
Subject: FW: Platts Nuclear News Flashes

From: Platts[SMTP:SUPPORT@PLATTS.COM]
Sent: Sunday, March 20, 2011 6:33:02 PM
To: Library Resource
Subject: Platts Nuclear News Flashes
Auto forwarded by a Rule

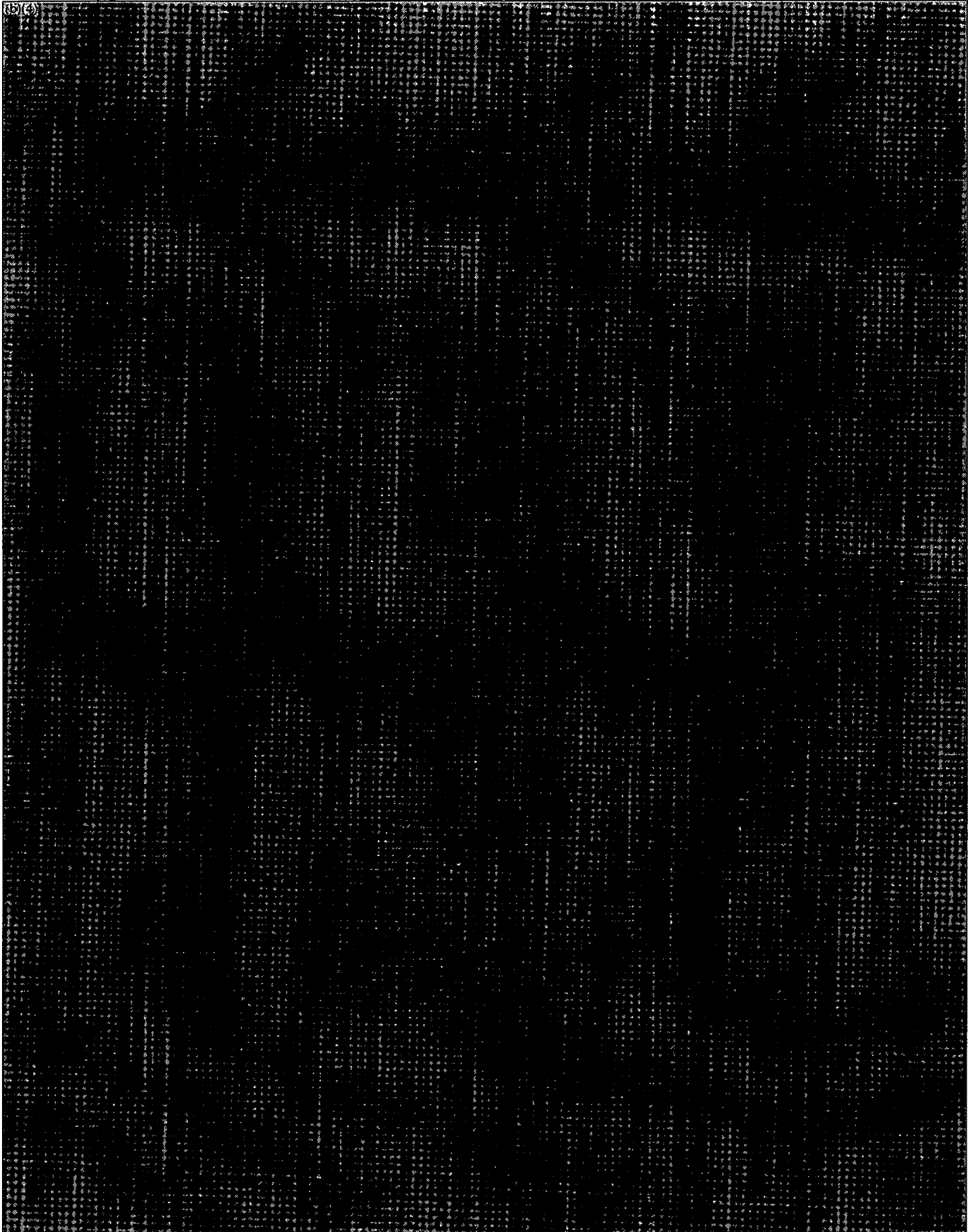


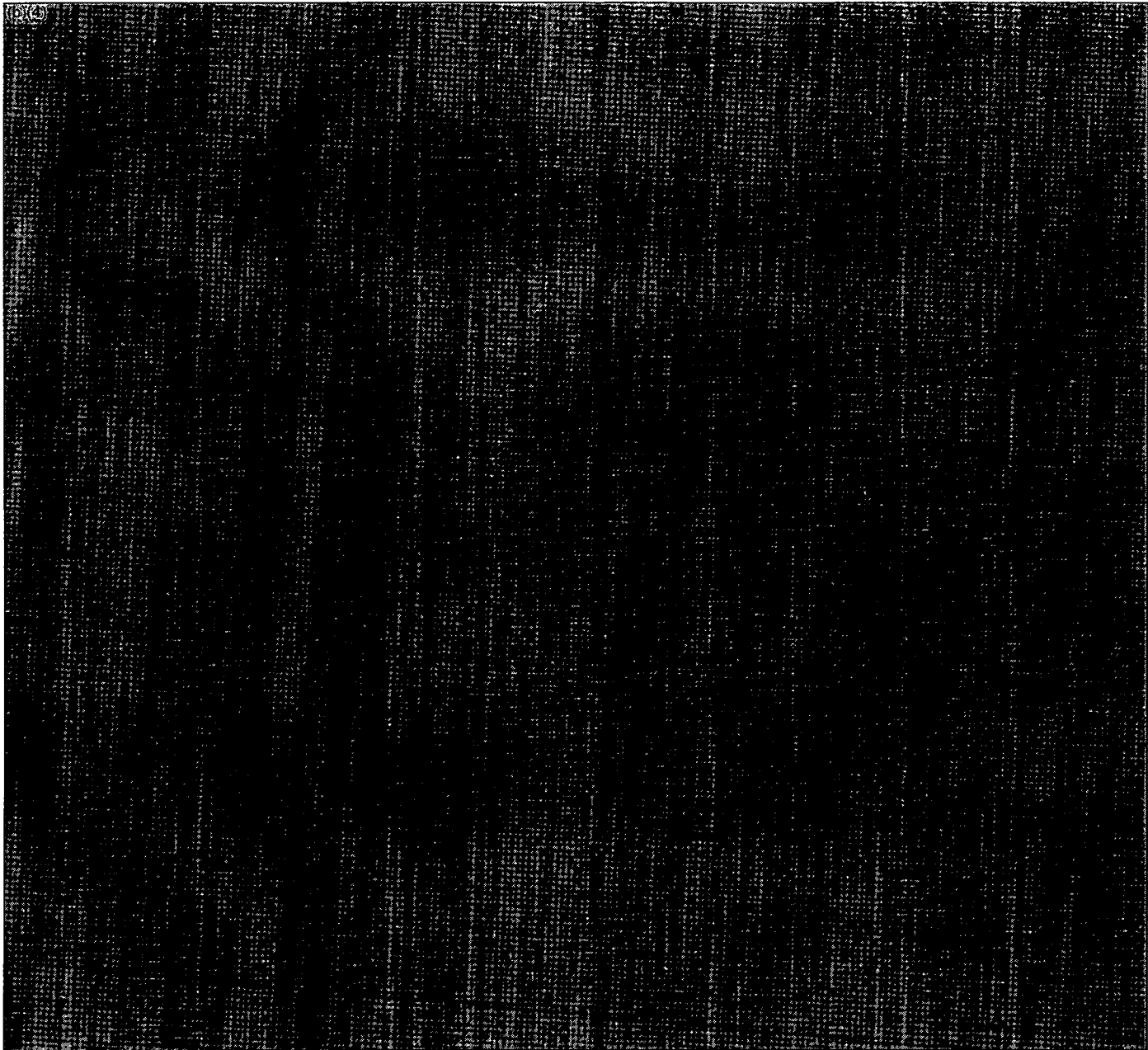
(b)(7)(C)





(b) (4)





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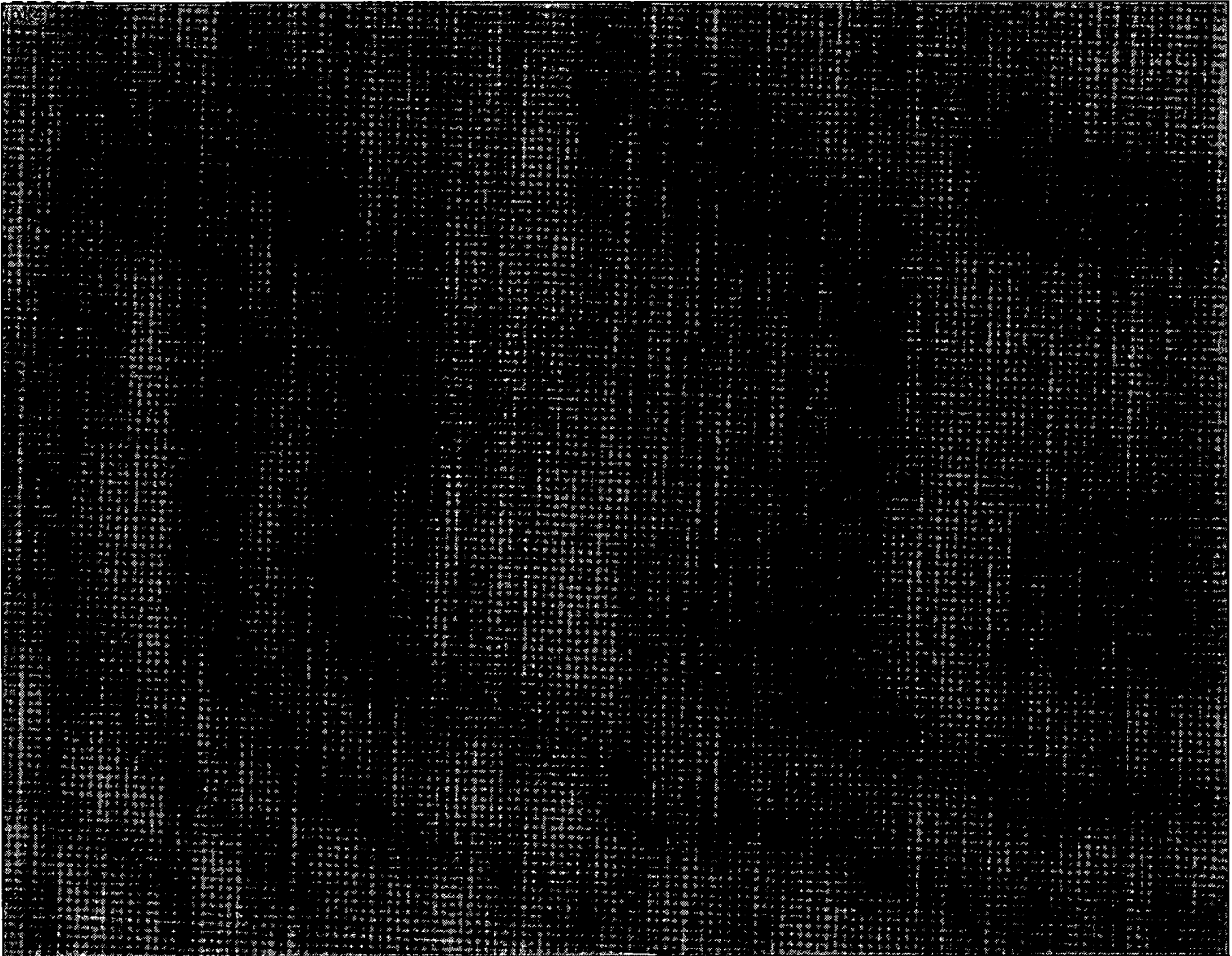
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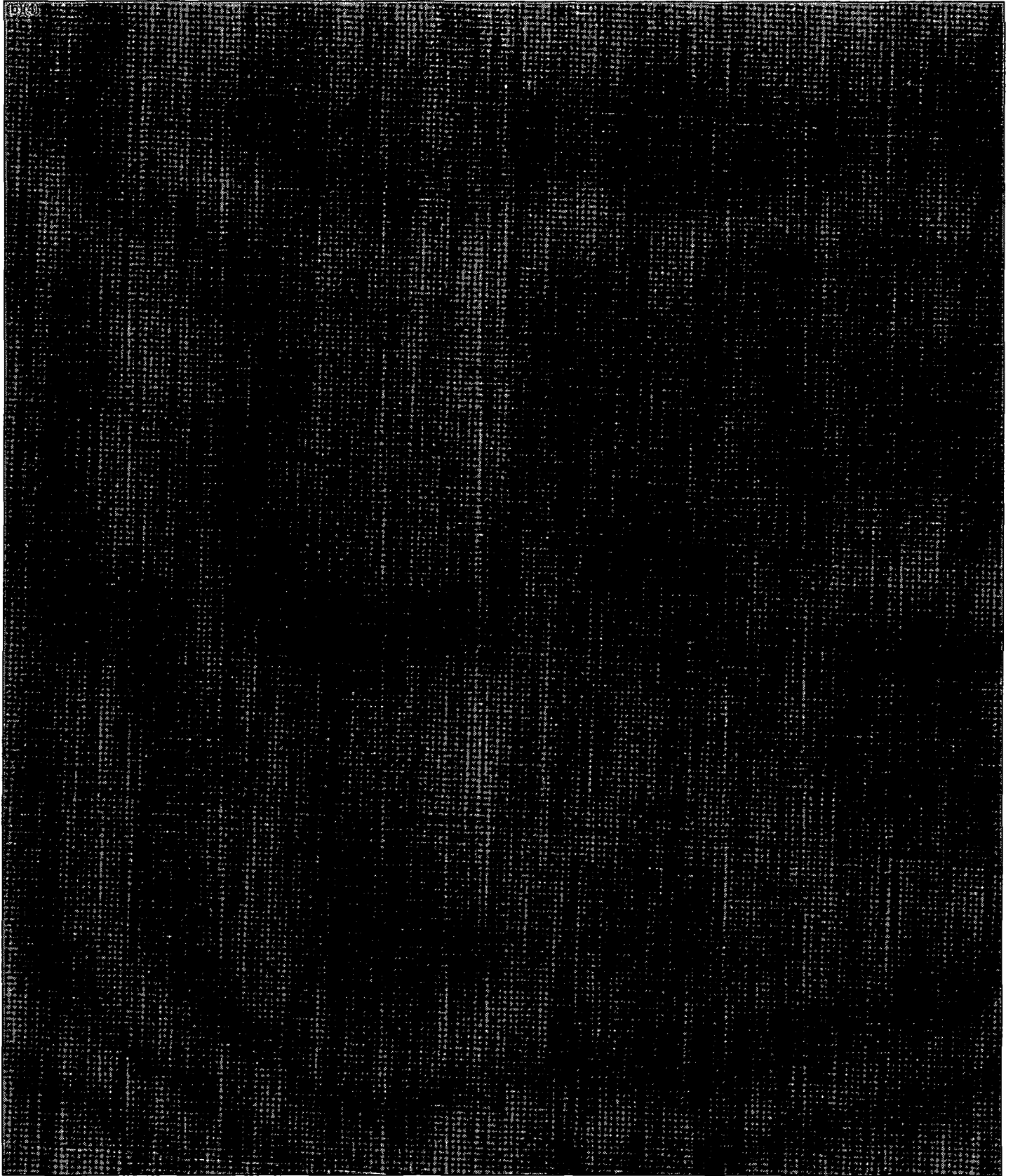
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Sunday, Mar 20, 2011

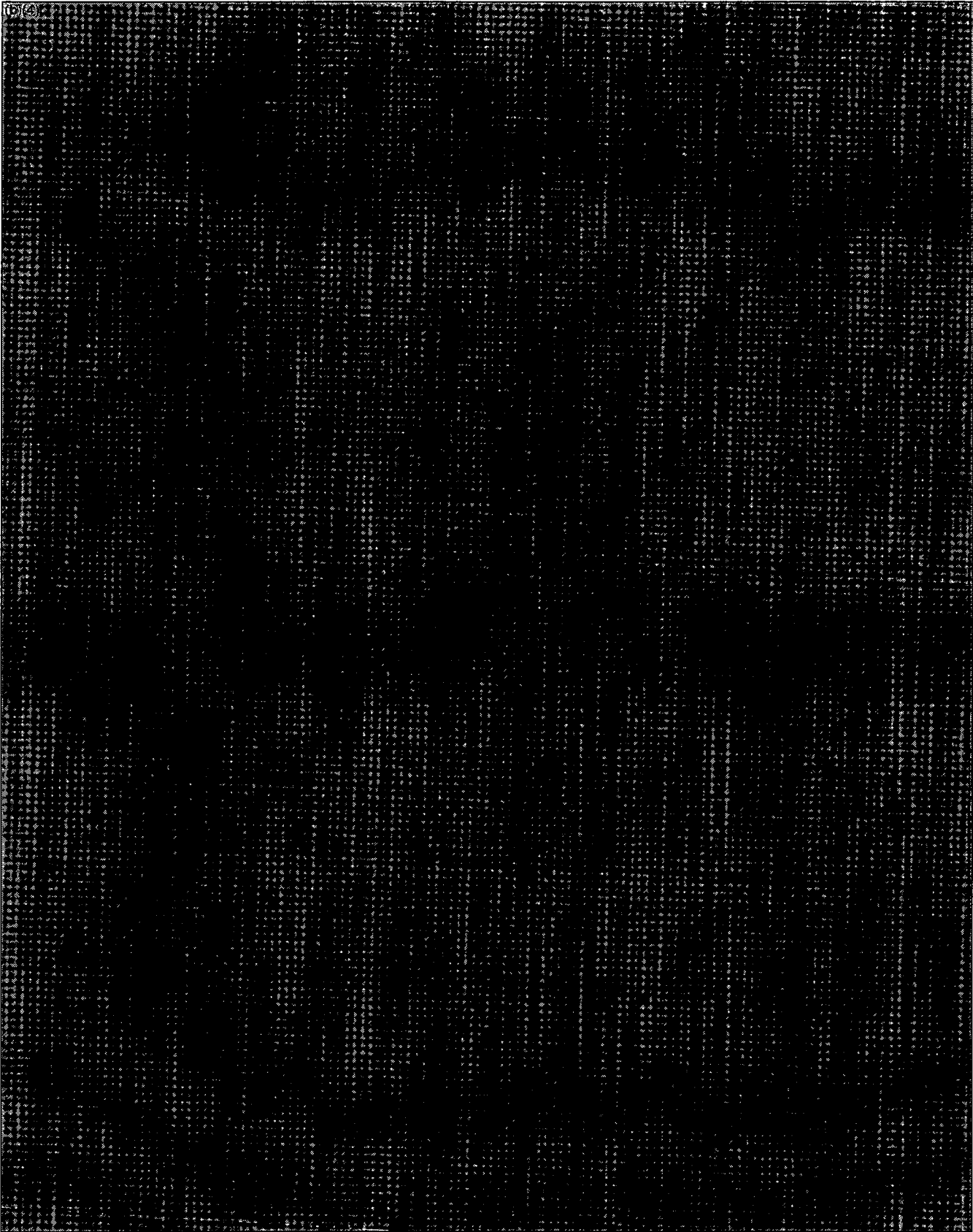
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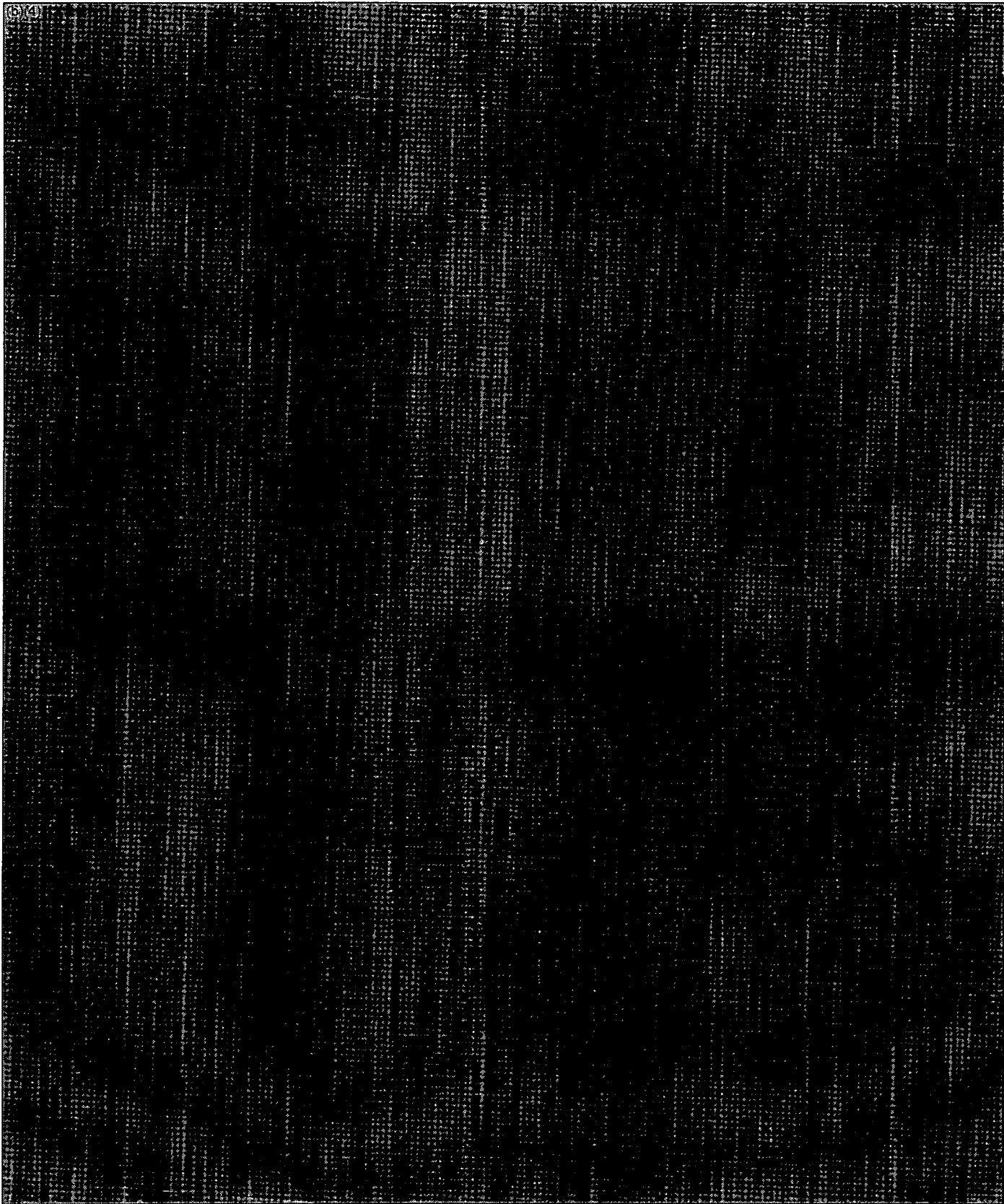
[Inside This Issue:]

- ** Recovery efforts continue at Fukushima nuclear power plant
 - ** Fukushima units remain in 'precarious' situation: ASN
 - ** Food contamination around Fukushima requires countermeasures: ASN
 - ** Focus must remain on cooling Fukushima's damaged reactors: Jaczko
 - ** US nuclear power plants safe: Energy secretary Chu
-
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NNF_20110320 (2).txt

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Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 6:25 AM
To: PMT09 Hoc
Subject: Fw: Platts Nuclear News Flashes
Attachments: NNF_20110320.txt

From: Carpenter, Cynthia
To: Gibson, Kathy
Sent: Mon Mar 21 03:01:32 2011
Subject: FW: Platts Nuclear News Flashes

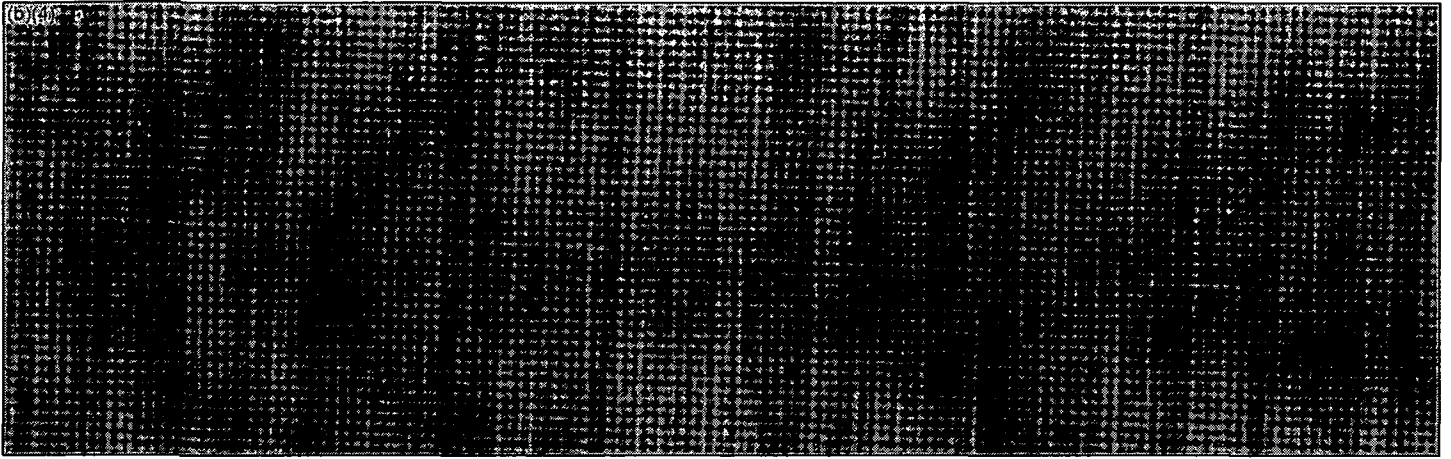
Kathy

Is Jack Foster looking into additional detail on the information below with respect to reported contamination in spinach and milk, what actions the Japanese are taking and also, are these actions consistent with what the NRC would recommend?

From: Virgilio, Martin
Sent: Sunday, March 20, 2011 11:34 PM
To: Carpenter, Cynthia
Cc: Morris, Scott; Johnson, Michael
Subject: Platts Nuclear News Flashes



BC 14



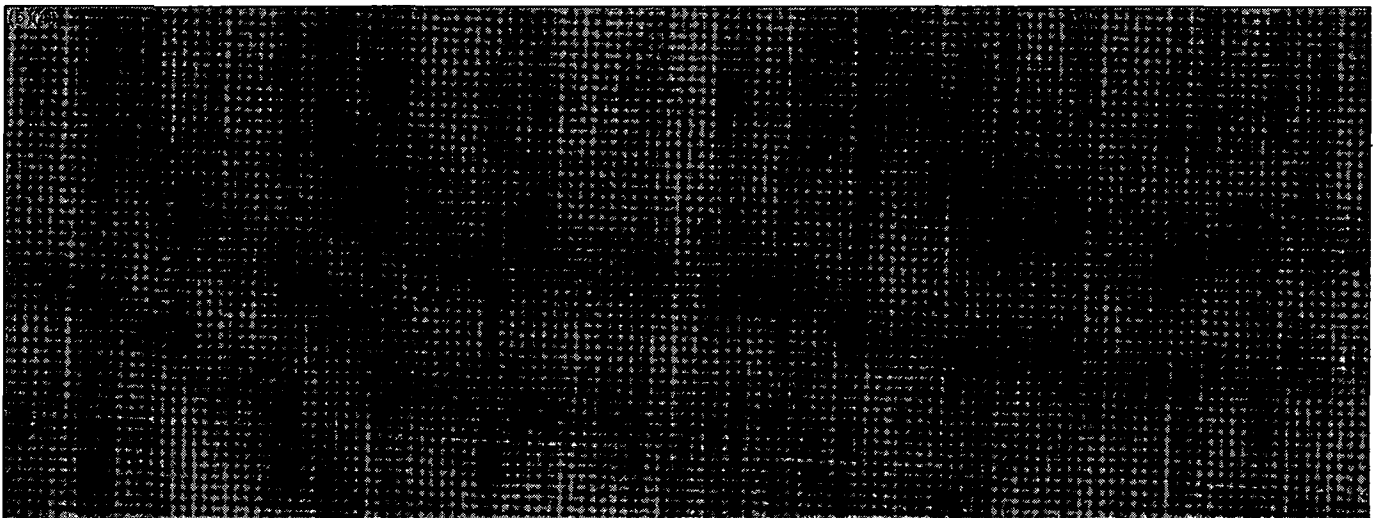
From: Library Resource [mailto:Library.Resource@nrc.gov]
Sent: Sunday, March 20, 2011 6:33 PM
To: EPUB - Nuclear News Flashes
Subject: FW: Platts Nuclear News Flashes

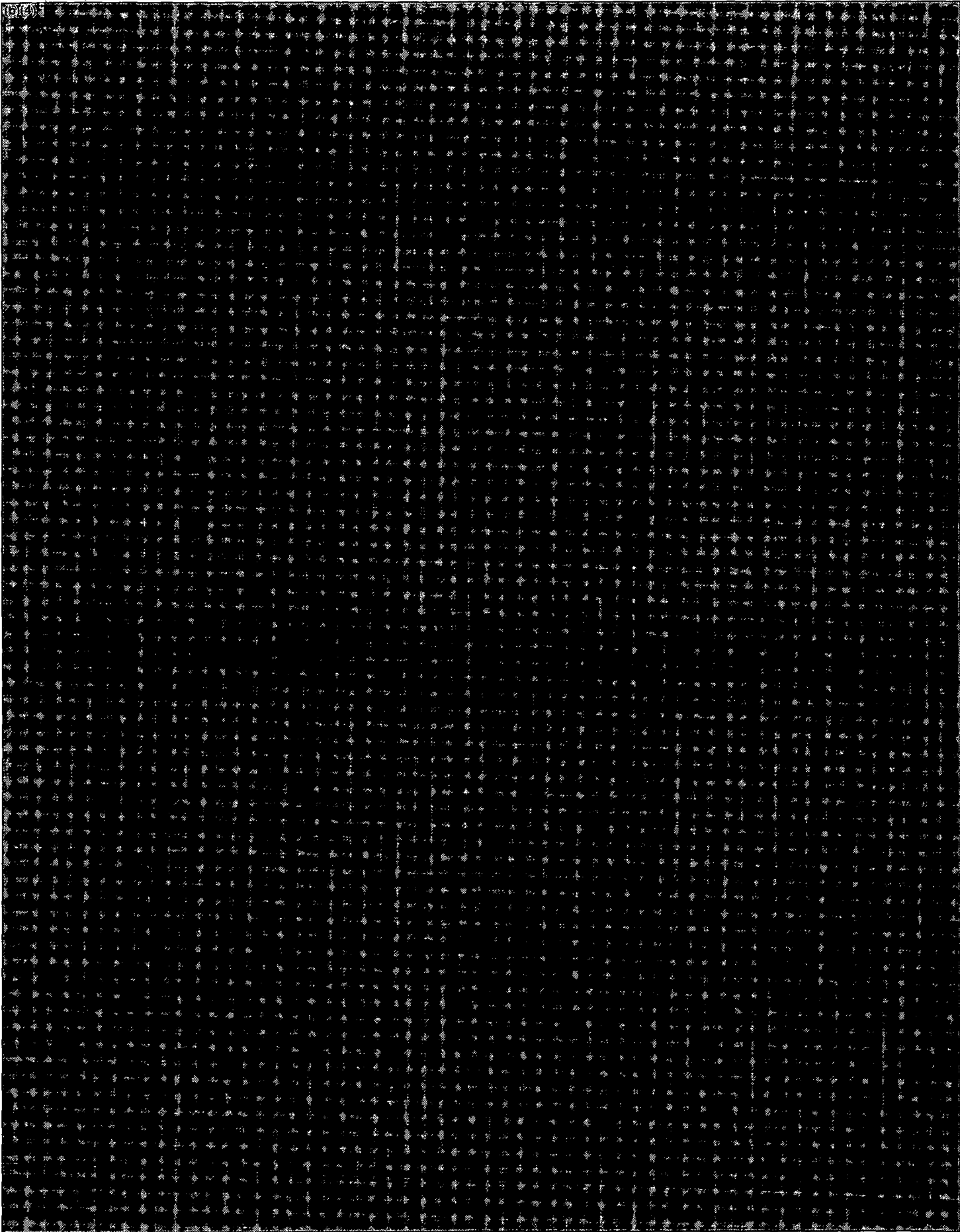
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To: Library Resource
Subject: Platts Nuclear News Flashes
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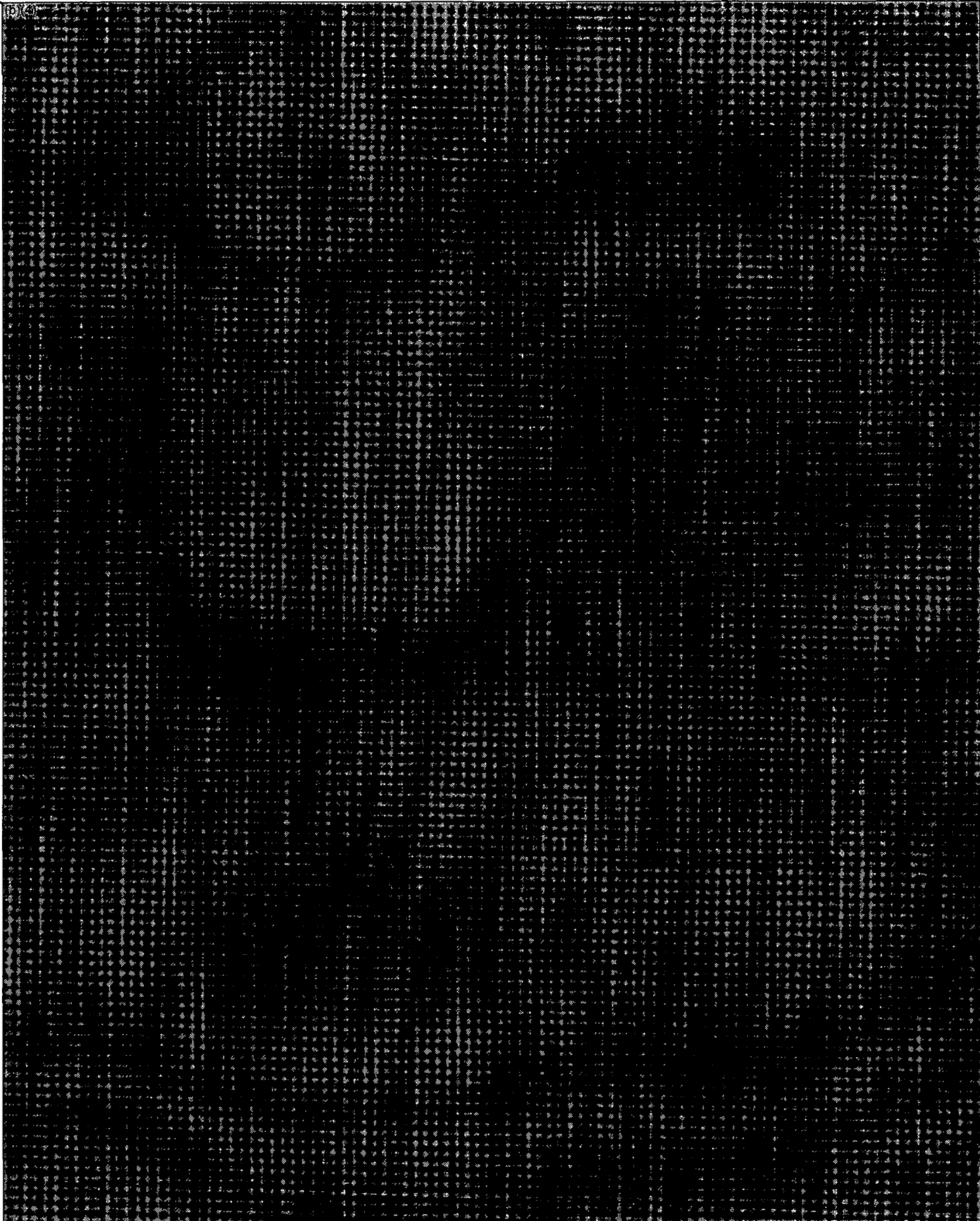
Dear Subscriber,

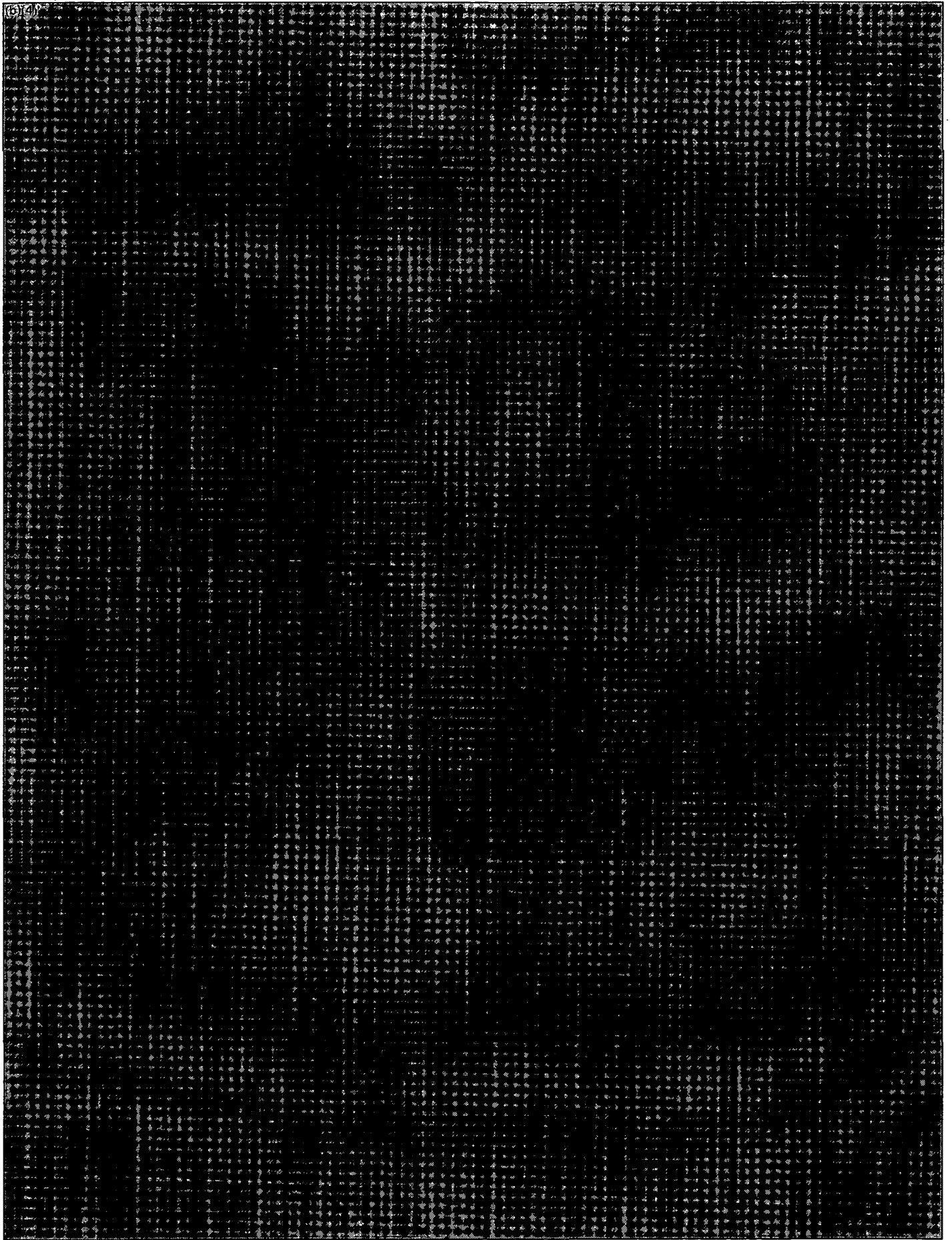
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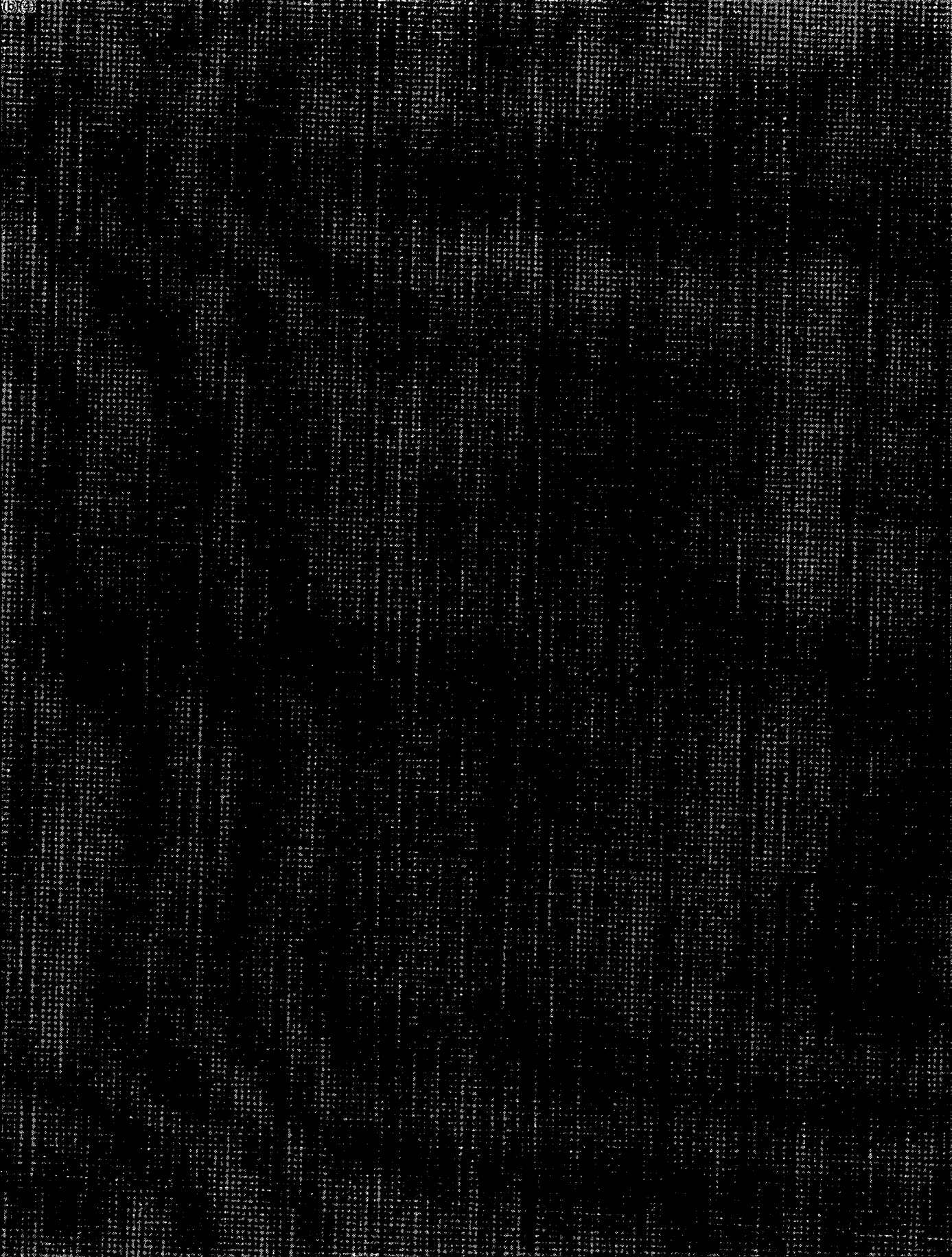




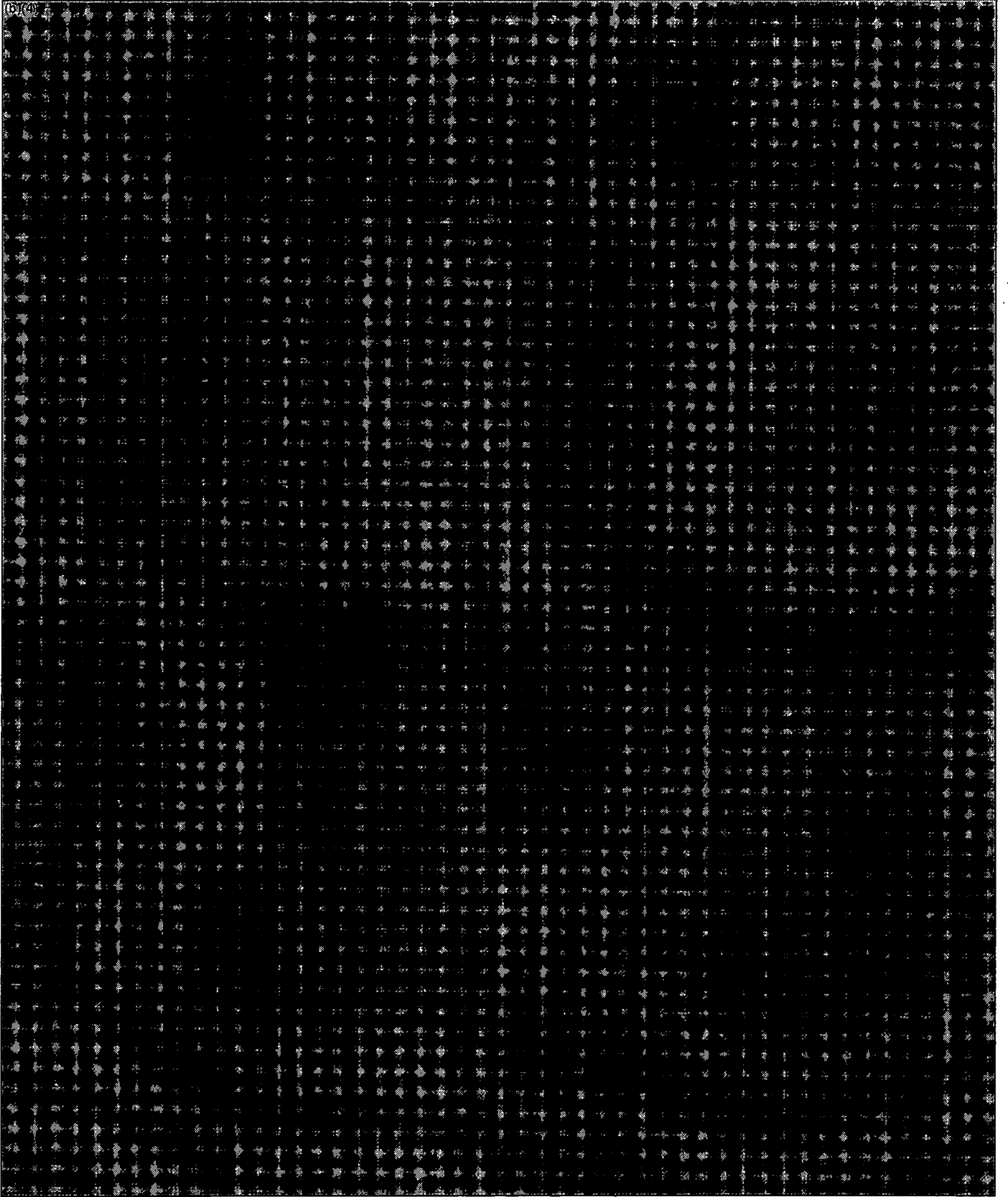


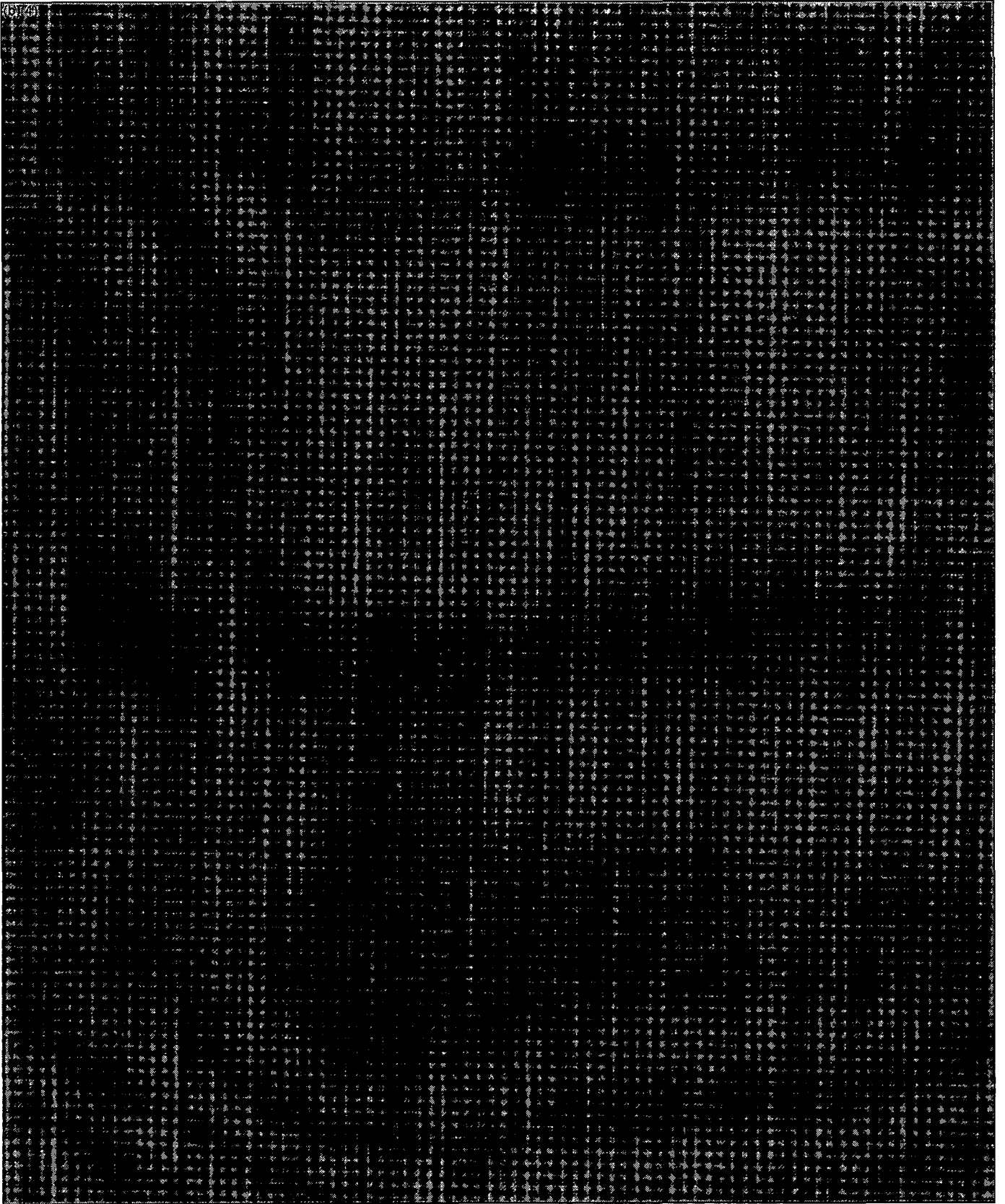


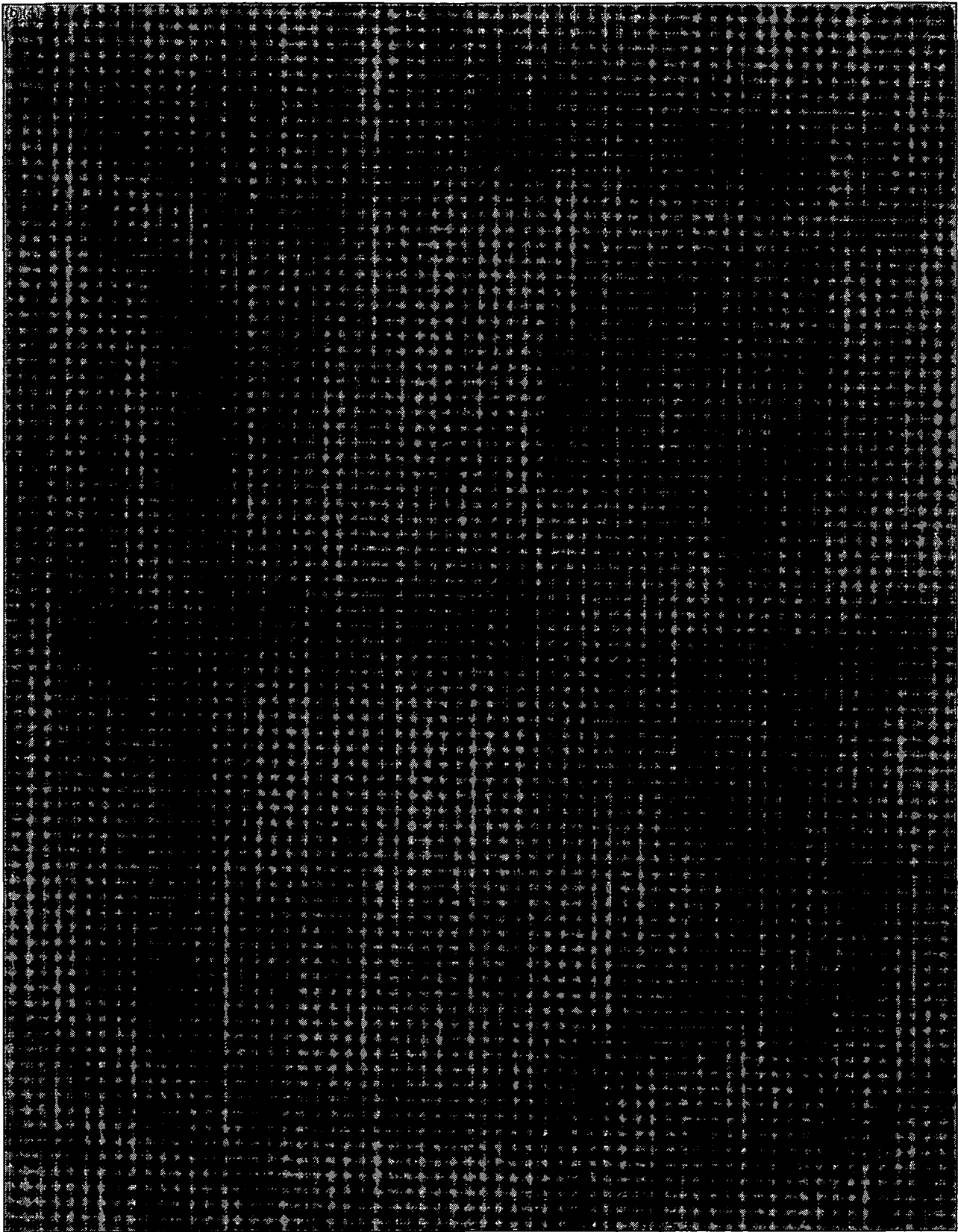
(b) (7) (C)

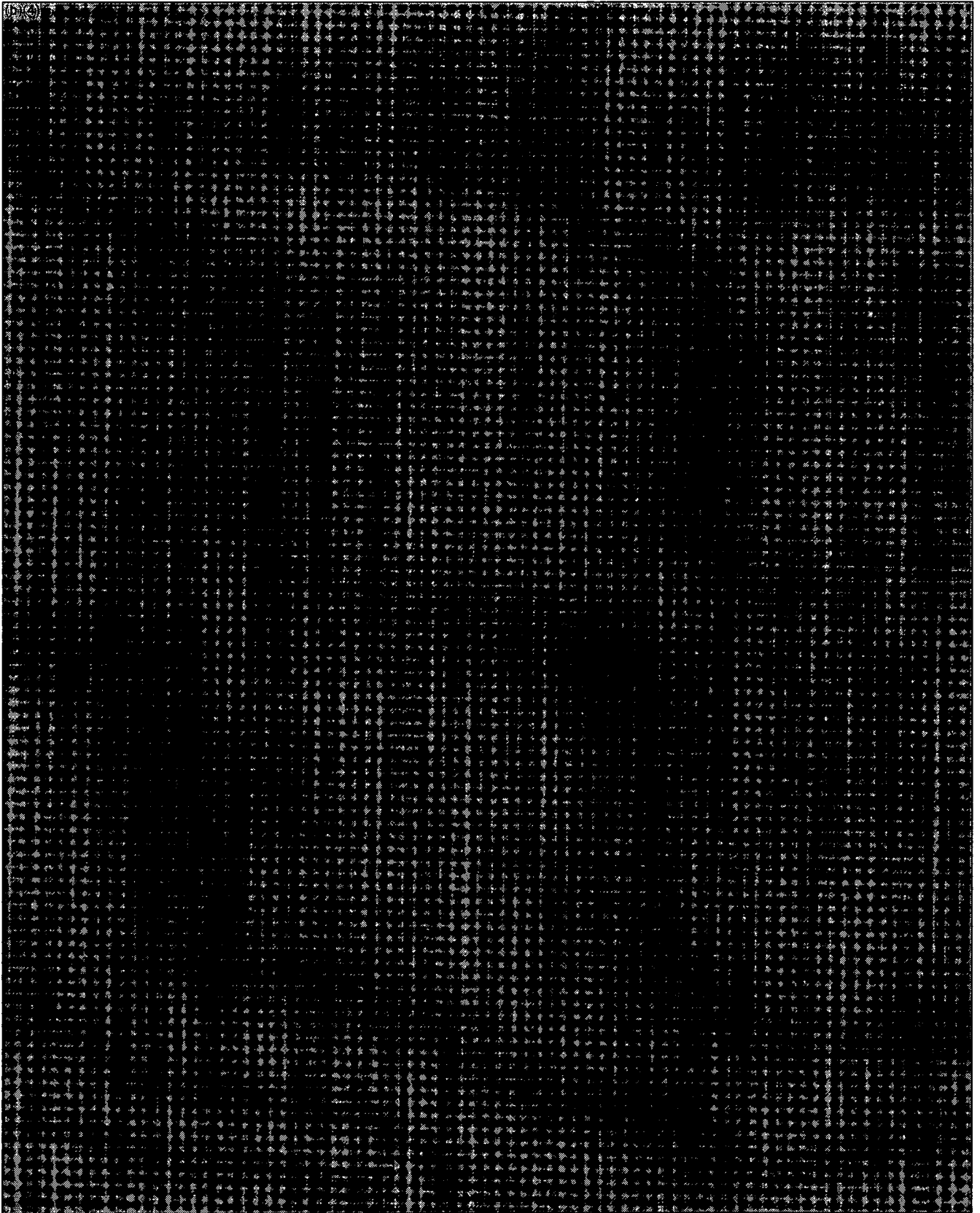


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Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 7:15 AM
To: Watson, Bruce; Miller, Charles
Subject: Fw: Fuku-4 Fuel Pool - MELCOR Results
Attachments: Fukushima_Unit4-SFP-Inventories.xlsx

From Sandia

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: Gibson, Kathy; Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y <sypicke@sandia.gov>; Schaperow, Jason; 'kcw@dycoda.com' <kcw@dycoda.com>
Sent: Mon Mar 21 07:09:41 2011
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

548 @105 days offload, 659 @ 500 days offload.
Don't know burnup, but GE-calculated isotopic inventories are included in spreadsheet.

I am headed to Dana's course on Severe Accidents and will have blickberry, but no way to send files.

Randy

From: Gibson, Kathy [Kathy.Gibson@nrc.gov]
Sent: Monday, March 21, 2011 5:06 AM
To: Gauntt, Randall O; Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; 'kcw@dycoda.com'
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

Can anyone confirm the numbers and age of the fuel in SFP4?

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y <sypicke@sandia.gov>; Schaperow, Jason; Gibson, Kathy; kcw@dycoda.com <kcw@dycoda.com>
Sent: Mon Mar 21 06:49:52 2011
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Sorry Jennifer,
You might have misunderstood a bit of what I said.

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KC - were there no FP releases?
Can you send more results?

Randy

BC/75

From: Uhle, Jennifer [Jennifer.Uhle@nrc.gov]
Sent: Monday, March 21, 2011 3:28 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; Gibson, Kathy
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Randy, no one is questioning NRC's analyses. We have a KAPL representative here at the Ops Center and he indicated that KAPL had done some calculations using MELCOR for the Admiral and they wanted to ask NRC's help in reviewing them. So, I contacted Jason to review the analysis and he said that you guys had done these analyses a few days ago. I asked Jason to talk to KAPL and inform them of our work so they would hopefully use our analyses. I have no idea what happened on the call with KAPL. I certainly believe our team has done the best analysis. I also would never ask KAPL to review any analyses you guys do. That is not what initiated the communication with KAPL. The Admiral and Chairman Jaczko are meeting tomorrow at 8:00 and I am informing the Chairman of our conclusions, not KAPL's. I don't even know what KAPL's were.

Jennifer

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
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To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y
Subject: FW: Fuku-4 Fuel Pool - MELCOR Results

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Jennifer - you have paid good money for the best research that there is - make use of it to show leadership that you so deserve.

You can reach me tomorrow: NRC training center (505)2646849 or by e-mail

Dont dump sand!!!!

Use our source terms !!!!!!!

Tell Naval Reactor what the source term is,

You need a briefing, - name your time!!!


Randy

From: Casey Wagner [kcw@dycoda.com]
Sent: Friday, March 18, 2011 1:20 PM
To: Gauntt, Randall O; Charles.Tinkler@nrc.gov; 'Schaperow, Jason'
Cc: McClellan, Yvonne
Subject: Fuku-4 Fuel Pool - MELCOR Results

Randy asked if I would let this calculation continue into severe accident degradation. The model needs a bit of work to convert to 1.8.6 and include latest SOARCA updates but here is the "out-of-the-box" results.

I noticed that debris flow blockage was not on and that probably contributes to the debris coolability.

Let me know if you want anything else.

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Friday, March 18, 2011 10:28 AM
To: rogaunt@sandia.gov; Charles.Tinkler@nrc.gov; 'Schaperow, Jason' (Jason.Schaperow@nrc.gov)
Cc: ymcclel@sandia.gov
Subject: FW: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code 




Hi Randy, Charlie, and Jason,

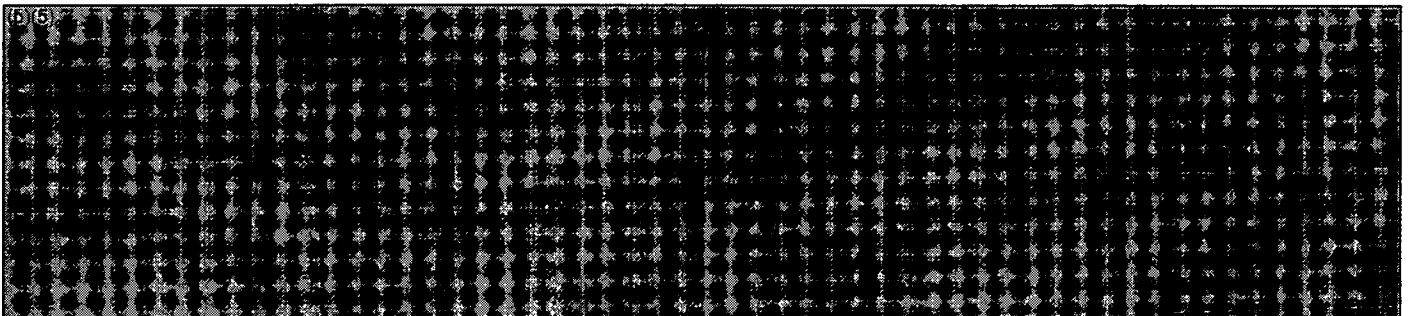
Randy - Sorry to see you were up at 12:36 am.

Enclosed is a pretty good no leak case for Fukushima #4. I was able to use the PB decay routines to specify exactly 548 assemblies at 105 days (3.5 kW/assembly) and 659 assemblies at 500 days (1.5 kW/assembly) for a total pool power of 3.03 MW.

If Fukushima Unit 4 was uncovered in a week, it was not a simple boil-off.

KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Friday, March 18, 2011 12:36 AM
To: Gauntt, Randall O; 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)';  Burns, Shawn; Pickering, Susan Y
Cc:  'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)'; 'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code 



From: Gauntt, Randall O
Sent: Wednesday, March 16, 2011 11:06 PM
To: 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'
Cc: (b)(6) Bolger, Francis T. (GE Power & Water); 'Ellison, Phillip G (GE Power & Water)'; 'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

Wayne,

(b)(6)
Randy

From: Marquino, Wayne (GE Power & Water) [mailto:(b)(6)]
Sent: Wednesday, March 16, 2011 6:15 PM
To: Hammargren, Benjamin (GE Power & Water); Gauntt, Randall O
Cc: (b)(6) Bolger, Francis T. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); kcw@dycoda.com
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

Ben - here is a customer for your Origen data

Please send it to Randy Gauntt

Wayne

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Wednesday, March 16, 2011 7:56 PM
To: Bolger, Francis T. (GE Power & Water); Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); 'Charles.Tinkler@nrc.gov'; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Crawford, Douglas C (GNF); 'kcw@dycoda.com'; Upton, Hugh A. (GE Power & Water)
Cc: (b)(6)
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

(b)(4);(b)(5)

Randy Gauntt

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

From: Bolger, Francis T. (GE Power & Water) [mailto:(b)(6)]
Sent: Wednesday, March 16, 2011 5:37 PM
To: Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Gauntt, Randall O; Crawford, Douglas C (GNF); kcw@dycoda.com; Upton, Hugh A. (GE Power & Water)
Cc: (b)(6)
Subject: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)
When: Wednesday, March 16, 2011 6:30 PM-7:30 PM (UTC-07:00) Mountain Time (US & Canada).
Where: ATC2 CR 25

500.0 d
 8.02E+02
 1.07E+03
 1.73E+05
 1.05E+02
 7.61E+02
 4.88E+02
 1.99E+02
 1.64E+02
 1.77E+05

Recently Offloaded Bundles	Stored Bundles		Total	
	number	number	bundles	
548		659	1207	
105	days	500	days	
			isotope	mass
u235	4.40E+05	u235	5.29E+05	u235 9.68E+05
u236	5.86E+05	u236	7.05E+05	u236 1.29E+06
u238	9.47E+07	u238	1.14E+08	u238 2.09E+08
np237	5.73E+04	np237	6.89E+04	np237 1.26E+05
pu239	4.17E+05	pu239	5.02E+05	pu239 9.19E+05
pu240	2.67E+05	pu240	3.22E+05	pu240 5.89E+05
pu241	1.15E+05	pu241	1.31E+05	pu241 2.46E+05
pu242	8.99E+04	pu242	1.08E+05	pu242 1.98E+05
total	9.67E+07	total	1.16E+08	total 2.13E+08

500.0 d
 5.75E+00
 9.15E+00
 9.48E+00
 3.38E+01
 5.73E+00
 2.80E+01
 5.02E+01
 6.79E+01
 9.36E+01
 1.25E+02
 1.38E+02
 1.66E+01
 1.34E-02
 1.64E+02
 1.78E+02
 1.95E+02
 2.13E+02
 3.77E-02
 2.06E+02
 2.22E+02
 1.42E+01
 2.23E+02
 2.27E+02
 2.13E+02
 2.59E+02
 3.34E+01
 2.15E+02
 2.19E+02

br 81	3.15E+03	br 81	3.79E+03	br 81 6.94E+03
se 82	5.02E+03	se 82	6.03E+03	se 82 1.10E+04
kr 83	5.19E+03	kr 83	6.25E+03	kr 83 1.14E+04
kr 84	1.85E+04	kr 84	2.23E+04	kr 84 4.08E+04
kr 85	3.37E+03	kr 85	3.91E+03	kr 85 7.28E+03
rb 85	1.51E+04	rb 85	1.83E+04	rb 85 3.35E+04
kr 86	2.75E+04	kr 86	3.31E+04	kr 86 6.06E+04
rb 87	3.72E+04	rb 87	4.47E+04	rb 87 8.19E+04
sr 88	5.13E+04	sr 88	6.17E+04	sr 88 1.13E+05
y 89	6.81E+04	y 89	8.23E+04	y 89 1.50E+05
sr 90	7.77E+04	sr 90	9.22E+04	sr 90 1.70E+05
zr 90	7.03E+03	zr 90	9.67E+03	zr 90 1.67E+04
y 91	7.89E+02	y 91	9.41E+01	y 91 8.83E+02
zr 91	8.91E+04	zr 91	1.08E+05	zr 91 1.97E+05
zr 92	9.77E+04	zr 92	1.17E+05	zr 92 2.15E+05
zr 93	1.07E+05	zr 93	1.28E+05	zr 93 2.35E+05
zr 94	1.17E+05	zr 94	1.40E+05	zr 94 2.57E+05
zr 95	1.49E+03	zr 95	2.17E+02	zr 95 1.71E+03
mo 95	1.10E+05	mo 95	1.35E+05	mo 95 2.45E+05
zr 96	1.22E+05	zr 96	1.46E+05	zr 96 2.68E+05
mo 96	7.79E+03	mo 96	9.37E+03	mo 96 1.72E+04
mo 97	1.22E+05	mo 97	1.47E+05	mo 97 2.69E+05
mo 98	1.24E+05	mo 98	1.50E+05	mo 98 2.74E+05
tc 99	1.17E+05	tc 99	1.40E+05	tc 99 2.57E+05
mo100	1.42E+05	mo100	1.71E+05	mo100 3.12E+05
ru100	1.83E+04	ru100	2.20E+04	ru100 4.04E+04
ru101	1.18E+05	ru101	1.42E+05	ru101 2.60E+05
ru102	1.20E+05	ru102	1.44E+05	ru102 2.65E+05

9.31E-04
 1.14E+02
 1.52E+02
 7.83E+01
 1.08E+02
 1.15E+01
 8.90E+01
 6.03E+01
 3.98E+01
 2.06E+01
 1.30E+01
 1.04E+01
 6.13E+00
 5.05E+00
 1.25E+01
 2.38E+01
 4.08E+01
 1.03E+02
 1.07E+02
 3.13E+02
 3.07E+02
 4.22E+02
 1.85E+01
 3.14E+01
 1.16E+02
 6.25E+02
 9.16E+00
 3.17E+02
 3.24E+01
 3.61E+02
 3.35E+02
 3.50E+02
 1.54E-04
 3.07E+02
 3.10E+02
 8.81E+00
 1.71E+02
 1.48E+01
 4.01E+02
 1.80E+02
 2.00E+02
 2.42E+01
 4.00E+01
 1.01E+02
 4.27E+01
 4.88E+01
 7.57E+01

ru103	5.45E+02	ru103	2.10E+01	ru103	5.66E+02
rh103	6.19E+04	rh103	7.51E+04	rh103	1.37E+05
ru104	8.34E+04	ru104	1.00E+05	ru104	1.84E+05
pd104	4.29E+04	pd104	5.16E+04	pd104	9.45E+04
pd105	5.92E+04	pd105	7.12E+04	pd105	1.30E+05
ru106	1.31E+04	ru106	1.10E+04	ru106	2.41E+04
pd106	4.19E+04	pd106	5.53E+04	pd106	9.72E+04
pd107	3.30E+04	pd107	3.97E+04	pd107	7.28E+04
pd108	2.18E+04	pd108	2.62E+04	pd108	4.80E+04
ag109	1.13E+04	ag109	1.36E+04	ag109	2.48E+04
pd110	7.15E+03	pd110	8.59E+03	pd110	1.57E+04
cd110	5.66E+03	cd110	6.83E+03	cd110	1.25E+04
cd111	3.36E+03	cd111	4.04E+03	cd111	7.40E+03
sn126	2.77E+03	sn126	3.33E+03	sn126	6.10E+03
i127	6.80E+03	i127	8.23E+03	i127	1.50E+04
te128	1.30E+04	te128	1.57E+04	te128	2.87E+04
i129	2.23E+04	i129	2.69E+04	i129	4.92E+04
te130	5.66E+04	te130	6.80E+04	te130	1.25E+05
xe131	5.85E+04	xe131	7.03E+04	xe131	1.29E+05
xe132	1.71E+05	xe132	2.06E+05	xe132	3.77E+05
cs133	1.68E+05	cs133	2.02E+05	cs133	3.70E+05
xe134	2.31E+05	xe134	2.78E+05	xe134	5.09E+05
cs134	1.46E+04	cs134	1.46E+04	cs134	2.92E+04
ba134	1.28E+04	ba134	1.82E+04	ba134	3.10E+04
cs135	6.35E+04	cs135	7.64E+04	cs135	1.40E+05
xe136	3.43E+05	xe136	4.12E+05	xe136	7.54E+05
ba136	5.02E+03	ba136	6.04E+03	ba136	1.11E+04
cs137	1.78E+05	cs137	2.11E+05	cs137	3.89E+05
ba137	1.33E+04	ba137	1.87E+04	ba137	3.20E+04
ba138	1.98E+05	ba138	2.38E+05	ba138	4.35E+05
la139	1.84E+05	la139	2.21E+05	la139	4.05E+05
ce140	1.92E+05	ce140	2.31E+05	ce140	4.22E+05
ce141	3.85E+02	ce141	7.23E+00	ce141	3.92E+02
pr141	1.68E+05	pr141	2.02E+05	pr141	3.70E+05
ce142	1.70E+05	ce142	2.04E+05	ce142	3.74E+05
nd142	4.83E+03	nd142	5.81E+03	nd142	1.06E+04
nd143	9.34E+04	nd143	1.12E+05	nd143	2.06E+05
ce144	2.12E+04	ce144	1.59E+04	ce144	3.71E+04
nd144	2.06E+05	nd144	2.58E+05	nd144	4.64E+05
nd145	9.84E+04	nd145	1.18E+05	nd145	2.17E+05
nd146	1.10E+05	nd146	1.32E+05	nd146	2.41E+05
pm147	1.76E+04	pm147	1.84E+04	pm147	3.61E+04
sm147	1.75E+04	sm147	2.39E+04	sm147	4.14E+04
nd148	5.51E+04	nd148	6.63E+04	nd148	1.21E+05
sm148	2.34E+04	sm148	2.82E+04	sm148	5.16E+04
nd150	2.67E+04	nd150	3.22E+04	nd150	5.89E+04
sm150	4.15E+04	sm150	4.99E+04	sm150	9.13E+04

3.48E+01
3.25E+01
9.73E+00
4.93E+00
3.04E+01
5.15E+00
9.48E+03

sm152	1.90E+04	sm152	2.29E+04	sm152	4.19E+04
eu153	1.78E+04	eu153	2.14E+04	eu153	3.92E+04
sm154	5.33E+03	sm154	6.41E+03	sm154	1.17E+04
eu154	2.95E+03	eu154	3.39E+03	eu154	6.34E+03
gd156	1.67E+04	gd156	2.01E+04	gd156	3.67E+04
gd158	2.82E+03	gd158	3.39E+03	gd158	6.21E+03
total	5.19E+06	total	6.24E+06	total	1.14E+07

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 7:19 AM
To: Santiago, Patricia
Subject: Fw: Fuku-4 Fuel Pool - MELCOR Results
Attachments: Fukushima_Unit4-SFP-Inventories.xlsx

So is SOARCA not a higher priority than training or so we not need Randy to be working on SOARCA this week?

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: Gibson, Kathy; Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y <sypicke@sandia.gov>; Schaperow, Jason; 'kcw@dycoda.com' <kcw@dycoda.com>
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Can anyone confirm the numbers and age of the fuel in SFP4?

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BC/76

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We have worked this for years and the skill to make MELCOR model SFP is not trivial nor accomplished on a Thursday afternoon.

NRC has the best technology and talent at their disposal. NRC RES should not be put in the position of evaluating every Johnny-come-lately analysis out of left field when you are commander of the most elite troops.

Hope you will find the results informative.

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Jennifer - you have paid good money for the best research that there is - make use of it to show leadership that you so deserve.

You can reach me tomorrow: NRC training center (505)2646849 or by e-mail

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Use our source terms !!!!!!!

Tell Naval Reactor what the source term is,

You need a briefing, - name your time!!!


Randy

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To: rogaunt@sandia.gov; Charles.Tinkler@nrc.gov; 'Schaperow, Jason' (Jason.Schaperow@nrc.gov)
Cc: ymcclel@sandia.gov
Subject: FW: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code 




Hi Randy, Charlie, and Jason,

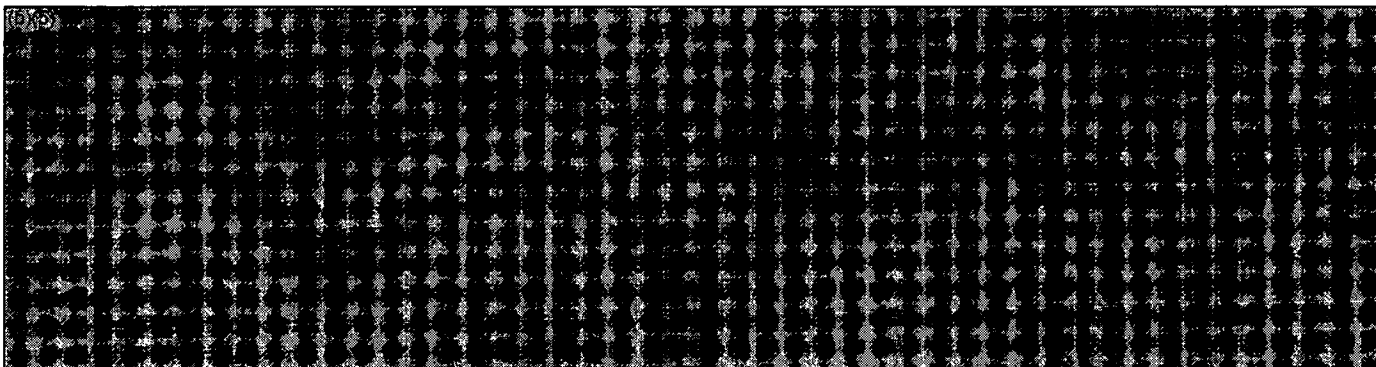
Randy - Sorry to see you were up at 12:36 am.

Enclosed is a pretty good no leak case for Fukushima #4. I was able to use the PB decay routines to specify exactly 548 assemblies at 105 days (3.5 kW/assembly) and 659 assemblies at 500 days (1.5 kW/assembly) for a total pool power of 3.03 MW.

If Fukushima Unit 4 was uncovered in a week, it was not a simple boil-off.

KC.

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Friday, March 18, 2011 12:36 AM
To: Gauntt, Randall O; 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)';  Burns, Shawn; Pickering, Susan Y
Cc: ; 'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)'; 'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code 



From: Gauntt, Randall O

Sent: Wednesday, March 16, 2011 11:06 PM

To: 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'

Cc: [REDACTED] 'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)'; 'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'

Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

[REDACTED]

From: Marquino, Wayne (GE Power & Water) [mailto:[REDACTED]]

Sent: Wednesday, March 16, 2011 6:15 PM

To: Hammargren, Benjamin (GE Power & Water); Gauntt, Randall O

Cc: [REDACTED] Bolger, Francis T. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); kcw@dycoda.com

Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Ben - here is a customer for your Origen data

Please send it to Randy Gauntt

Wayne

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]

Sent: Wednesday, March 16, 2011 7:56 PM

To: Bolger, Francis T. (GE Power & Water); Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); 'Charles.Tinkler@nrc.gov'; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Crawford, Douglas C (GNF); 'kcw@dycoda.com'; Upton, Hugh A. (GE Power & Water)

Cc: [REDACTED]

Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

[REDACTED]

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

From: Bolger, Francis T. (GE Power & Water) [mailto:[REDACTED]]

Sent: Wednesday, March 16, 2011 5:37 PM

To: Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Gauntt, Randall O; Crawford, Douglas C (GNF); kcw@dycoda.com; Upton, Hugh A. (GE Power & Water)

Cc: [REDACTED]

Subject: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

When: Wednesday, March 16, 2011 6:30 PM-7:30 PM (UTC-07:00) Mountain Time (US & Canada).

Where: ATC2 CR 25

500.0 d

8.02E+02
1.07E+03
1.73E+05
1.05E+02
7.61E+02
4.88E+02
1.99E+02
1.64E+02
1.77E+05

Recently Offloaded Bundles		Stored Bundles		Total	
548	number	659	number	1207 bundles	
105	days	500	days		
				isotope	mass
u235	4.40E+05	u235	5.29E+05	u235	9.68E+05
u236	5.86E+05	u236	7.05E+05	u236	1.29E+06
u238	9.47E+07	u238	1.14E+08	u238	2.09E+08
np237	5.73E+04	np237	6.89E+04	np237	1.26E+05
pu239	4.17E+05	pu239	5.02E+05	pu239	9.19E+05
pu240	2.67E+05	pu240	3.22E+05	pu240	5.89E+05
pu241	1.15E+05	pu241	1.31E+05	pu241	2.46E+05
pu242	8.99E+04	pu242	1.08E+05	pu242	1.98E+05
total	9.67E+07	total	1.16E+08	total	2.13E+08

500.0 d

5.75E+00
9.15E+00
9.48E+00
3.38E+01
5.73E+00
2.80E+01
5.02E+01
6.79E+01
9.36E+01
1.25E+02
1.38E+02
1.66E+01
1.34E-02
1.64E+02
1.78E+02
1.95E+02
2.13E+02
3.77E-02
2.06E+02
2.22E+02
1.42E+01
2.23E+02
2.27E+02
2.13E+02
2.59E+02
3.34E+01
2.15E+02
2.19E+02

br 81	3.15E+03	br 81	3.79E+03	br 81	6.94E+03
se 82	5.02E+03	se 82	6.03E+03	se 82	1.10E+04
kr 83	5.19E+03	kr 83	6.25E+03	kr 83	1.14E+04
kr 84	1.85E+04	kr 84	2.23E+04	kr 84	4.08E+04
kr 85	3.37E+03	kr 85	3.91E+03	kr 85	7.28E+03
rb 85	1.51E+04	rb 85	1.83E+04	rb 85	3.35E+04
kr 86	2.75E+04	kr 86	3.31E+04	kr 86	6.06E+04
rb 87	3.72E+04	rb 87	4.47E+04	rb 87	8.19E+04
sr 88	5.13E+04	sr 88	6.17E+04	sr 88	1.13E+05
y 89	6.81E+04	y 89	8.23E+04	y 89	1.50E+05
sr 90	7.77E+04	sr 90	9.22E+04	sr 90	1.70E+05
zr 90	7.03E+03	zr 90	9.67E+03	zr 90	1.67E+04
y 91	7.89E+02	y 91	9.41E+01	y 91	8.83E+02
zr 91	8.91E+04	zr 91	1.08E+05	zr 91	1.97E+05
zr 92	9.77E+04	zr 92	1.17E+05	zr 92	2.15E+05
zr 93	1.07E+05	zr 93	1.28E+05	zr 93	2.35E+05
zr 94	1.17E+05	zr 94	1.40E+05	zr 94	2.57E+05
zr 95	1.49E+03	zr 95	2.17E+02	zr 95	1.71E+03
mo 95	1.10E+05	mo 95	1.35E+05	mo 95	2.45E+05
zr 96	1.22E+05	zr 96	1.46E+05	zr 96	2.68E+05
mo 96	7.79E+03	mo 96	9.37E+03	mo 96	1.72E+04
mo 97	1.22E+05	mo 97	1.47E+05	mo 97	2.69E+05
mo 98	1.24E+05	mo 98	1.50E+05	mo 98	2.74E+05
tc 99	1.17E+05	tc 99	1.40E+05	tc 99	2.57E+05
mo 100	1.42E+05	mo 100	1.71E+05	mo 100	3.12E+05
ru 100	1.83E+04	ru 100	2.20E+04	ru 100	4.04E+04
ru 101	1.18E+05	ru 101	1.42E+05	ru 101	2.60E+05
ru 102	1.20E+05	ru 102	1.44E+05	ru 102	2.65E+05

9.31E-04
 1.14E+02
 1.52E+02
 7.83E+01
 1.08E+02
 1.15E+01
 8.90E+01
 6.03E+01
 3.98E+01
 2.06E+01
 1.30E+01
 1.04E+01
 6.13E+00
 5.05E+00
 1.25E+01
 2.38E+01
 4.08E+01
 1.03E+02
 1.07E+02
 3.13E+02
 3.07E+02
 4.22E+02
 1.85E+01
 3.14E+01
 1.16E+02
 6.25E+02
 9.16E+00
 3.17E+02
 3.24E+01
 3.61E+02
 3.35E+02
 3.50E+02
 1.54E-04
 3.07E+02
 3.10E+02
 8.81E+00
 1.71E+02
 1.48E+01
 4.01E+02
 1.80E+02
 2.00E+02
 2.42E+01
 4.00E+01
 1.01E+02
 4.27E+01
 4.88E+01
 7.57E+01

ru103	5.45E+02	ru103	2.10E+01	ru103	5.66E+02
rh103	6.19E+04	rh103	7.51E+04	rh103	1.37E+05
ru104	8.34E+04	ru104	1.00E+05	ru104	1.84E+05
pd104	4.29E+04	pd104	5.16E+04	pd104	9.45E+04
pd105	5.92E+04	pd105	7.12E+04	pd105	1.30E+05
ru106	1.31E+04	ru106	1.10E+04	ru106	2.41E+04
pd106	4.19E+04	pd106	5.53E+04	pd106	9.72E+04
pd107	3.30E+04	pd107	3.97E+04	pd107	7.28E+04
pd108	2.18E+04	pd108	2.62E+04	pd108	4.80E+04
ag109	1.13E+04	ag109	1.36E+04	ag109	2.48E+04
pd110	7.15E+03	pd110	8.59E+03	pd110	1.57E+04
cd110	5.66E+03	cd110	6.83E+03	cd110	1.25E+04
cd111	3.36E+03	cd111	4.04E+03	cd111	7.40E+03
sn126	2.77E+03	sn126	3.33E+03	sn126	6.10E+03
i127	6.80E+03	i127	8.23E+03	i127	1.50E+04
te128	1.30E+04	te128	1.57E+04	te128	2.87E+04
i129	2.23E+04	i129	2.69E+04	i129	4.92E+04
te130	5.66E+04	te130	6.80E+04	te130	1.25E+05
xe131	5.85E+04	xe131	7.03E+04	xe131	1.29E+05
xe132	1.71E+05	xe132	2.06E+05	xe132	3.77E+05
cs133	1.68E+05	cs133	2.02E+05	cs133	3.70E+05
xe134	2.31E+05	xe134	2.78E+05	xe134	5.09E+05
cs134	1.46E+04	cs134	1.46E+04	cs134	2.92E+04
ba134	1.28E+04	ba134	1.82E+04	ba134	3.10E+04
cs135	6.35E+04	cs135	7.64E+04	cs135	1.40E+05
xe136	3.43E+05	xe136	4.12E+05	xe136	7.54E+05
ba136	5.02E+03	ba136	6.04E+03	ba136	1.11E+04
cs137	1.78E+05	cs137	2.11E+05	cs137	3.89E+05
ba137	1.33E+04	ba137	1.87E+04	ba137	3.20E+04
ba138	1.98E+05	ba138	2.38E+05	ba138	4.35E+05
la139	1.84E+05	la139	2.21E+05	la139	4.05E+05
ce140	1.92E+05	ce140	2.31E+05	ce140	4.22E+05
ce141	3.85E+02	ce141	7.23E+00	ce141	3.92E+02
pr141	1.68E+05	pr141	2.02E+05	pr141	3.70E+05
ce142	1.70E+05	ce142	2.04E+05	ce142	3.74E+05
nd142	4.83E+03	nd142	5.81E+03	nd142	1.06E+04
nd143	9.34E+04	nd143	1.12E+05	nd143	2.06E+05
ce144	2.12E+04	ce144	1.59E+04	ce144	3.71E+04
nd144	2.06E+05	nd144	2.58E+05	nd144	4.64E+05
nd145	9.84E+04	nd145	1.18E+05	nd145	2.17E+05
nd146	1.10E+05	nd146	1.32E+05	nd146	2.41E+05
pm147	1.76E+04	pm147	1.84E+04	pm147	3.61E+04
sm147	1.75E+04	sm147	2.39E+04	sm147	4.14E+04
nd148	5.51E+04	nd148	6.63E+04	nd148	1.21E+05
sm148	2.34E+04	sm148	2.82E+04	sm148	5.16E+04
nd150	2.67E+04	nd150	3.22E+04	nd150	5.89E+04
sm150	4.15E+04	sm150	4.99E+04	sm150	9.13E+04

3.48E+01
3.25E+01
9.73E+00
4.93E+00
3.04E+01
5.15E+00
9.48E+03

sm152	1.90E+04	sm152	2.29E+04	sm152	4.19E+04
eu153	1.78E+04	eu153	2.14E+04	eu153	3.92E+04
sm154	5.33E+03	sm154	6.41E+03	sm154	1.17E+04
eu154	2.95E+03	eu154	3.39E+03	eu154	6.34E+03
gd156	1.67E+04	gd156	2.01E+04	gd156	3.67E+04
gd158	2.82E+03	gd158	3.39E+03	gd158	6.21E+03
total	5.19E+06	total	6.24E+06	total	1.14E+07

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 8:17 AM
To: Watson, Bruce
Subject: Fw: Fuku-4 Fuel Pool - MELCOR Results

Fyi

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: Gibson, Kathy
Sent: Mon Mar 21 08:14:21 2011
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

From: Gibson, Kathy [mailto:Kathy.Gibson@nrc.gov]
Sent: Monday, March 21, 2011 05:17 AM
To: Gauntt, Randall O
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

Thanks Randy. There seemed to be some here that thought there was some 30-day fuel.

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: Gibson, Kathy; Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y <sypicke@sandia.gov>; Schaperow, Jason; 'kcw@dycoda.com' <kcw@dycoda.com>
Sent: Mon Mar 21 07:09:41 2011
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Randy

From: Gibson, Kathy [Kathy.Gibson@nrc.gov]
Sent: Monday, March 21, 2011 5:06 AM
To: Gauntt, Randall O; Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; 'kcw@dycoda.com'
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

Can anyone confirm the numbers and age of the fuel in SFP4?

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y <sypicke@sandia.gov>; Schaperow, Jason; Gibson, Kathy; kcw@dycoda.com <kcw@dycoda.com>

BCJ 77

Sent: Mon Mar 21 06:49:52 2011
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Sorry Jennifer,
You might have misunderstood a bit of what I said.

Wagner's latest analysis says the pool smoulders but doesn't get really hot enough owing to starvation of the Zr reaction to really light off. He didn't provide FP release, but one might expect low releases of Cs - all of any remaining noble gas perhaps. I have not seen this latest analysis. The last SFP source term that I sent in was based on a Peach Bottom Analysis and scaled for Fuku-4. The source term for this analysis that KC sent late Friday will be much lower. I was not aware that this calculation had finished.

KC - were there no FP releases?
Can you send more results?

Randy

From: Uhle, Jennifer [Jennifer.Uhle@nrc.gov]
Sent: Monday, March 21, 2011 3:28 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; Gibson, Kathy
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Randy, no one is questioning NRC's analyses. We have a KAPL representative here at the Ops Center and he indicated that KAPL had done some calculations using MELCOR for the Admiral and they wanted to ask NRC's help in reviewing them. So, I contacted Jason to review the analysis and he said that you guys had done these analyses a few days ago. I asked Jason to talk to KAPL and inform them of our work so they would hopefully use our analyses. I have no idea what happened on the call with KAPL. I certainly believe our team has done the best analysis. I also would never ask KAPL to review any analyses you guys do. That is not what initiated the communication with KAPL. The Admiral and Chairman Jaczko are meeting tomorrow at 8:00 and I am informing the Chairman of our conclusions, not KAPL's. I don't even know what KAPL's were.

Jennifer

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 1:17 AM
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y
Subject: FW: Fuku-4 Fuel Pool - MELCOR Results

Jennifer,
I gather that you are drawn to evaluation KAPL analyses that were hurriedly put together last week based on cobbled up Grand Gulf decks. We have been developing and validating SFP analyses under the multi-million dollar NRC and now OECD programs to model SFP behavior. We have worked this for years and the skill to make MELCOR model SFP is not trivial nor accomplished on a Thursday afternoon. NRC has the best technology and talent at their disposal. NRC RES should not be put in the position of evaluating every Johnny-come-lately analysis out of left field when you are commander of the most elite troops.

Hope you will find the results informative.

We have also prepared SOURCE TERMS for Unit-4 pool accident and analogous MACCS analyses based on your request last Thursday. You have lots of talent and results at your disposal, and I would be more than happy to brief you on that.

I am here all week supopooriting Dana in hus severe accident ckass, and would be happy to come out and brief/brainstorm this mess. The KAPal analysis is very runimentary and they had to have second thoughts about sending.

Jennifer - you have paid good money for the best research that there is - make use if it to show leadership that you so deserve.

You can reach me tomorrow: NRC training center (505)2646849 or by e-mail

Dont dump sand!!!!!!

Use our source terms !!!!!!!

Tell Naval Reactor what the source term is,

You neede a briefing, - name your time!!!

Randy

From: Casey Wagner [kcw@dycoda.com]
Sent: Friday, March 18, 2011 1:20 PM
To: Gauntt, Randall O; Charles.Tinkler@nrc.gov; 'Schaperow, Jason'
Cc: McClellan, Yvonne
Subject: Fuku-4 Fuel Pool - MELCOR Results

Randy asked if I would let this calculation continue into severe accident degradation. The model needs a bit of work to convert to 1.8.6 and include latest SOARCA updates but here is the "out-of-the-box" results.

I noticed that debris flow blockage was not on and that probably contributes to the debris coolability.

Let me know if you want anything else.

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Friday, March 18, 2011 10:28 AM
To: rogaunt@sandia.gov; Charles.Tinkler@nrc.gov; 'Schaperow, Jason' (Jason.Schaperow@nrc.gov)
Cc: ymcclel@sandia.gov
Subject: FW: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

Hi Randy, Charlie, and Jason,

Randy - Sorry to see you were up at 12:36 am.



If Fukushima Unit 4 was uncovered in a week, it was not a simple boil-off.

KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Friday, March 18, 2011 12:36 AM

To: Gauntt, Randall O; 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)';
(b)(6) Burns, Shawn; Pickering, Susan Y
Cc: (b)(6) Bolger, Francis T. (GE Power & Water); 'Ellison, Phillip G (GE Power & Water)';
'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero,
Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

(b)(6)

From: Gauntt, Randall O
Sent: Wednesday, March 16, 2011 11:06 PM
To: 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'
Cc: (b)(6) Bolger, Francis T. (GE Power & Water); 'Ellison, Phillip G (GE Power & Water)';
'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero,
Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

Wayne
(b)(6)
Randy

From: Marquino, Wayne (GE Power & Water) [mailto:(b)(6)]
Sent: Wednesday, March 16, 2011 6:15 PM
To: Hammargren, Benjamin (GE Power & Water); Gauntt, Randall O
Cc: (b)(6) Bolger, Francis T. (GE Power & Water); Ellison, Phillip G (GE Power & Water);
Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero,
Hernando (GE Power & Water); kcw@dycoda.com
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

Ben - here is a customer for your Origin data

Please send it to Randy Gauntt

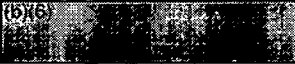
Wayne

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Wednesday, March 16, 2011 7:56 PM
To: Bolger, Francis T. (GE Power & Water); Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power &
Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power &
Water); 'Charles.Tinkler@nrc.gov'; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water);
Loewen, Eric (GE Power & Water); Crawford, Douglas C (GNF); 'kcw@dycoda.com'; Upton, Hugh A. (GE Power & Water)
Cc: (b)(6)
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

(b)(5)

Randy Gauntt

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

From: Bolger, Francis T. (GE Power & Water) [mailto:

Sent: Wednesday, March 16, 2011 5:37 PM

To: Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Gauntt, Randall O; Crawford, Douglas C (GNE): kow@dycoda.com; Upton, Hugh A. (GE Power & Water)

Cc: 

Subject: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code 

When: Wednesday, March 16, 2011 6:30 PM-7:30 PM (UTC-07:00) Mountain Time (US & Canada).

Where: ATC2 CR 25

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 2:36 PM
To: Lee, Richard
Subject: Fw: SNL Fuku-4 Fuel Pool - MELCOR Results

Please have all good info we receive from Sandia sent to the Ops Center RST and PMT.

Thx

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: 'kcw@dycoda.com' <kcw@dycoda.com>
Cc: Schaperow, Jason; Tinkler, Charles; Pickering, Susan Y <sy-picke@sandia.gov>; Gibson, Kathy; Uhle, Jennifer; McClellan, Yvonne <ymcclel@sandia.gov>
Sent: Mon Mar 21 10:38:17 2011
Subject: Re: SNL Fuku-4 Fuel Pool - MELCOR Results

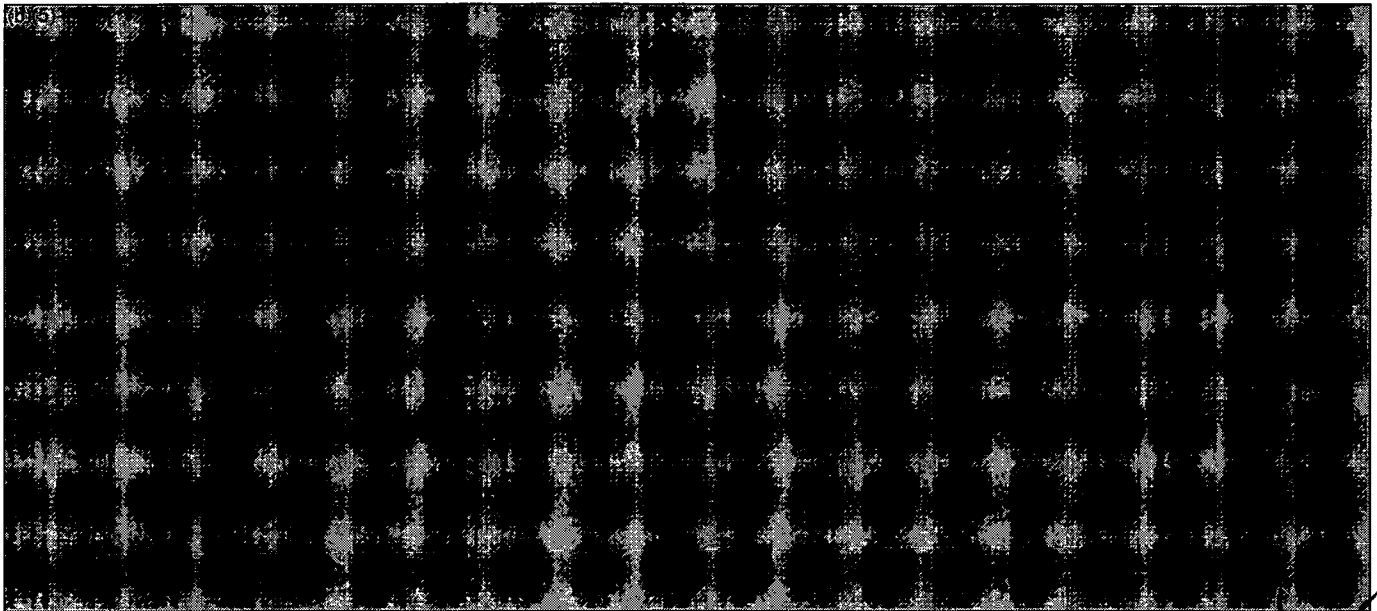
Thanks KC. Stay in touch. I really appreciate this.

We could use these improved results to refine our isotopic release rates for either MACCS, Rascal or NARAC. NRC is encouraged to opine.

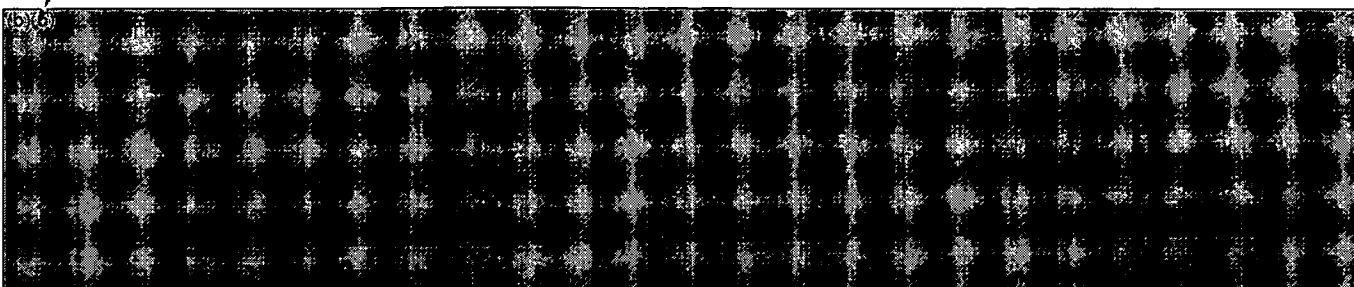
Randy

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Monday, March 21, 2011 08:12 AM
To: Gauntt, Randall O
Cc: 'Schaperow, Jason' <Jason.Schaperow@nrc.gov>; Charles.Tinkler@nrc.gov <Charles.Tinkler@nrc.gov>; Pickering, Susan Y; Kathy.Gibson@nrc.gov <Kathy.Gibson@nrc.gov>; Jennifer.Uhle@nrc.gov <Jennifer.Uhle@nrc.gov>; McClellan, Yvonne
Subject: SNL Fuku-4 Fuel Pool - MELCOR Results

Hi Randy,



BCJ 78



Let me know if I could help in any way.

Sincerely,
KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 5:21 AM
To: 'Jennifer.Uhle@nrc.gov'
Cc: 'Charles.Tinkler@nrc.gov'; Pickering, Susan Y; 'Jason.Schaperow@nrc.gov'; 'Kathy.Gibson@nrc.gov'; 'kcw@dycoda.com'
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

Looks to like it's too cold to ablate concrete. KC's model can probably tell us this - he just did report the corcon results, probably because there were none. But I have only seen these results this morning. I somehow missed this one mail on Friday. Seems very significant.

From: Uhle, Jennifer [mailto:Jennifer.Uhle@nrc.gov]
Sent: Monday, March 21, 2011 05:13 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles <Charles.Tinkler@nrc.gov>; Pickering, Susan Y; Schaperow, Jason <Jason.Schaperow@nrc.gov>; Gibson, Kathy <Kathy.Gibson@nrc.gov>; kcw@dycoda.com <kcw@dycoda.com>
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

The question Naval reactors is asking is whether the Unit 4 SFP will reach concrete ablation temperatures. Jason is talking to them today. I agree about the fact that RES/Sandia is a great team and we at NRC is trying to get the Federal family to use our source terms.

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 6:50 AM
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; Gibson, Kathy; kcw@dycoda.com
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Sorry Jennifer,
You might have misunderstood a bit of what I said.

Wagner's latest analysis says the pool smoulders but doesn't get really hot enough owing to starvation of the Zr reaction to really light off. He didn't provide FP release, but one might expect low releases of Cs - all of any remaining noble gas perhaps. I have not seen this latest analysis. The last SFP source term that I sent in was based on a Peach Bottom Analysis and scaled for Fuku-4. The source term for this analysis that KC sent late Friday will be much lower. I was not aware that this calculation had finished.

KC - were there no FP releases?
Can you send more results?

Randy

From: Uhle, Jennifer [Jennifer.Uhle@nrc.gov]
Sent: Monday, March 21, 2011 3:28 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; Gibson, Kathy
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Randy, no one is questioning NRC's analyses. We have a KAPL representative here at the Ops Center and he indicated that KAPL had done some calculations using MELCOR for the Admiral and they wanted to ask NRC's help in reviewing them. So, I contacted Jason to review the analysis and he said that you guys had done these analyses a few days ago. I asked Jason to talk to KAPL and inform them of our work so they would hopefully use our analyses. I have no idea what happened on the call with KAPL. I certainly believe our team has done the best analysis. I also would never ask KAPL to review any analyses you guys do. That is not what initiated the communication with KAPL. The Admiral and Chairman Jaczko are meeting tomorrow at 8:00 and I am informing the Chairman of our conclusions, not KAPL's. I don't even know what KAPL's were.

Jennifer

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 1:17 AM
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y
Subject: FW: Fuku-4 Fuel Pool - MELCOR Results

Jennifer,

I gather that you are drawn to evaluation KAPL analyses that were hurriedly put together last week based on cobbled up Grand Gulf decks. We have been developing and validating SFP analyses under the multi-million dollar NRC and now OECD programs to model SFP behavior.

We have worked this for years and the skill to make MELCOR model SFP is not trivial nor accomplished on a Thursday afternoon.

NRC has the best technology and talent at their disposal. NRC RES should not be put in the position of evaluating every Johnny-come-lately analysis out of left field when you are commander of the most elite troops.

Hope you will find the results informative.

We have also prepared SOURCE TERMS for Unit-4 pool accident and analogous MACCS analyses based on your request last Thursday. You have lots of talent and results at your disposal, and I would be more than happy to brief you on that.

I am here all week supporting Dana in his severe accident class, and would be happy to come out and brief/brainstorm this mess. The KAPL analysis is very rudimentary and they had to have second thoughts about sending.

Jennifer - you have paid good money for the best research that there is - make use of it to show leadership that you so deserve.

You can reach me tomorrow: NRC training center (505)2646849 or by e-mail

Don't dump sand!!!!

Use our source terms !!!!!!!

Tell Naval Reactor what the source term is,

You need a briefing, - name your time!!!

Randy

From: Casey Wagner [kcw@dycoda.com]
Sent: Friday, March 18, 2011 1:20 PM
To: Gauntt, Randall O; Charles.Tinkler@nrc.gov; 'Schaperow, Jason'
Cc: McClellan, Yvonne
Subject: Fuku-4 Fuel Pool - MELCOR Results

Randy asked if I would let this calculation continue into severe accident degradation. The model needs a bit of work to convert to 1.8.6 and include latest SOARCA updates but here is the "out-of-the-box" results.

I noticed that debris flow blockage was not on and that probably contributes to the debris coolability.

Let me know if you want anything else.

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Friday, March 18, 2011 10:28 AM
To: rogaunt@sandia.gov; Charles.Tinkler@nrc.gov; 'Schaperow, Jason' (Jason.Schaperow@nrc.gov)
Cc: ymccle@sandia.gov
Subject: FW: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Hi Randy, Charlie, and Jason,

Randy - Sorry to see you were up at 12:36 am.

[REDACTED]

If Fukushima Unit 4 was uncovered in a week, it was not a simple boil-off.

KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Friday, March 18, 2011 12:36 AM
To: Gauntt, Randall O; 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'; [REDACTED] Burns, Shawn; Pickering, Susan Y
Cc: [REDACTED] 'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)'; 'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

[REDACTED]

Also, is there any latest best guess as to water level in FU-4 - yesterday NRC Chairman said it was dry; MELCOR says it covered; helicopter flyby says they saw a reflection of the sky in the top-down view. We would say that unless there was a leak, the fuel should only just now be uncovering????

Randy

From: Gauntt, Randall O
Sent: Wednesday, March 16, 2011 11:06 PM
To: 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'
Cc: [REDACTED] Bolger, Francis T. (GE Power & Water); 'Ellison, Phillip G (GE Power & Water)'; 'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Wayne

Randy

From: Marquino, Wayne (GE Power & Water) [mailto:[REDACTED]]
Sent: Wednesday, March 16, 2011 6:15 PM
To: Hammaroren, Benjamin (GE Power & Water); Gauntt, Randall O
Cc: [REDACTED] Bolger, Francis T. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); kcw@dycoda.com
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Ben - here is a customer for your Origen data .

Please send it to Randy Gauntt

Wayne

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Wednesday, March 16, 2011 7:56 PM
To: Bolger, Francis T. (GE Power & Water); Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); 'Charles.Tinkler@nrc.gov'; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Crawford, Douglas C (GNF); 'kcw@dycoda.com'; Upton, Hugh A. (GE Power & Water)
Cc: [REDACTED]
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Randy Gauntt

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

From: Bolger, Francis T. (GE Power & Water) [mailto:[REDACTED]]
Sent: Wednesday, March 16, 2011 5:37 PM
To: Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Gauntt, Randall

O; Crawford, Douglas C (GNF); kcw@dycoda.com; Upton, Hugh A. (GE Power & Water)

Cc: (b)(6)

Subject: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

When: Wednesday, March 16, 2011 6:30 PM-7:30 PM (UTC-07:00) Mountain Time (US & Canada).

Where: ATC2 CR 25

Greenwood, Carol

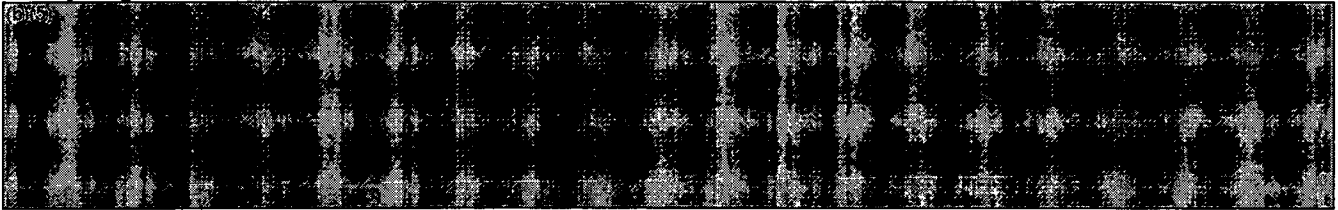
From: Gibson, Kathy
Sent: Monday, March 21, 2011 2:42 PM
To: Tinkler, Charles
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

Please talk to Brian about expectations for support to NR and other entities. Or I can do it when I'm back in the office tomorrow.

From: Tinkler, Charles
To: Gibson, Kathy
Sent: Mon Mar 21 12:20:32 2011
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Kathy-

Did you get an answer to your question?



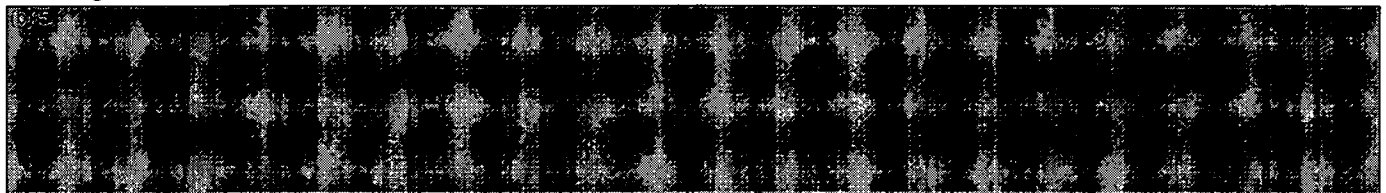
Can we at least get permission to have Sandia begin doing Fukushima analyses for both pools and reactors?

From: Gibson, Kathy
Sent: Monday, March 21, 2011 7:07 AM
To: 'rogaunt@sandia.gov'; Uhle, Jennifer
Cc: Tinkler, Charles; 'sypicke@sandia.gov'; Schaperow, Jason; 'kcw@dycoda.com'
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

Can anyone confirm the numbers and age of the fuel in SFP4?

From: Gauntt, Randall O <rogaunt@sandia.gov>
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y <sypicke@sandia.gov>; Schaperow, Jason; Gibson, Kathy; kcw@dycoda.com <kcw@dycoda.com>
Sent: Mon Mar 21 06:49:52 2011
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Sorry Jennifer,
You might have misunderstood a bit of what I said.



KC - were there no FP releases?
Can you send more results?

BC/79

Randy

From: Uhle, Jennifer [Jennifer.Uhle@nrc.gov]
Sent: Monday, March 21, 2011 3:28 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; Gibson, Kathy
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Randy, no one is questioning NRC's analyses. We have a KAPL representative here at the Ops Center and he indicated that KAPL had done some calculations using MELCOR for the Admiral and they wanted to ask NRC's help in reviewing them. So, I contacted Jason to review the analysis and he said that you guys had done these analyses a few days ago. I asked Jason to talk to KAPL and inform them of our work so they would hopefully use our analyses. I have no idea what happened on the call with KAPL. I certainly believe our team has done the best analysis. I also would never ask KAPL to review any analyses you guys do. That is not what initiated the communication with KAPL. The Admiral and Chairman Jaczko are meeting tomorrow at 8:00 and I am informing the Chairman of our conclusions, not KAPL's. I don't even know what KAPL's were.

Jennifer

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 1:17 AM
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y
Subject: FW: Fuku-4 Fuel Pool - MELCOR Results

Jennifer,

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Hope you will find the results informative.

We have also prepared SOURCE TERMS for Unit-4 pool accident and analogous MACCS analyses based on your request last Thursday. You have lots of talent and results at your disposal, and I would be more than happy to brief you on that.

I am here all week supporting Dana in his severe accident class, and would be happy to come out and brief/brainstorm this mess. The KAPL analysis is very rudimentary and they had to have second thoughts about sending.

Jennifer - you have paid good money for the best research that there is - make use of it to show leadership that you so deserve.

You can reach me tomorrow: NRC training center (505)2646849 or by e-mail

Don't dump sand!!!!

Use our source terms !!!!!!!

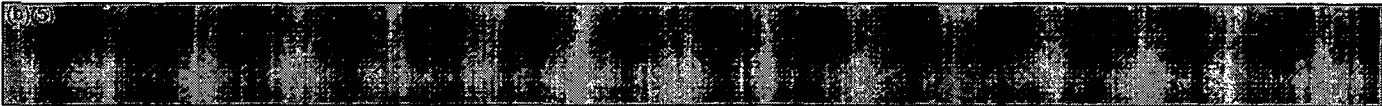
Tell Naval Reactor what the source term is,

You need a briefing, - name your time!!!

Randy

From: Casey Wagner [kcw@dycoda.com]
Sent: Friday, March 18, 2011 1:20 PM
To: Gauntt, Randall O; Charles.Tinkler@nrc.gov; 'Schaperow, Jason'
Cc: McClellan, Yvonne
Subject: Fuku-4 Fuel Pool - MELCOR Results

(b)(6)



I noticed that debris flow blockage was not on and that probably contributes to the debris coolability.

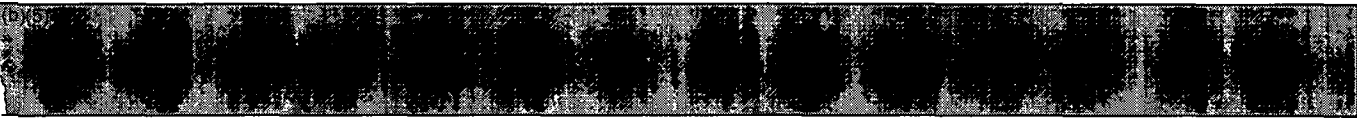
Let me know if you want anything else.

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Friday, March 18, 2011 10:28 AM
To: rogaunt@sandia.gov; Charles.Tinkler@nrc.gov; 'Schaperow, Jason' (Jason.Schaperow@nrc.gov)
Cc: ymccl@sandia.gov
Subject: FW: Fuku-4 Fuel Pool.- impact of dry pool -call#3 - 800-501-0843 code (b)(6)

Hi Randy, Charlie, and Jason,

Randy - Sorry to see you were up at 12:36 am.

(b)(6)

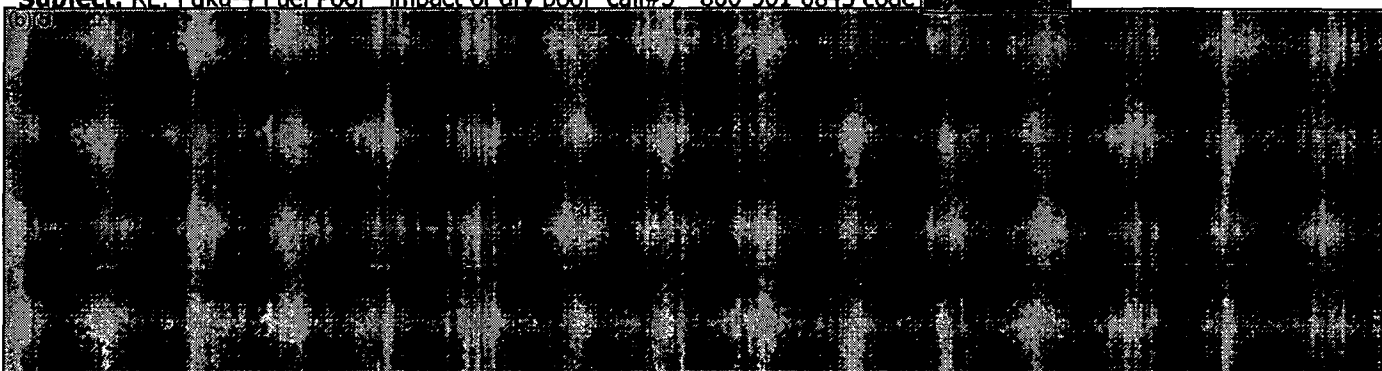


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KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Friday, March 18, 2011 12:36 AM
To: Gauntt, Randall O; 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)';
(b)(6) Burns, Shawn; Pickering, Susan Y
Cc: 'Casey_Wagner@comcast.net'; 'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)';
'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero,
Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(6)

(b)(6)



Randy

From: Gauntt, Randall O
Sent: Wednesday, March 16, 2011 11:06 PM
To: 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'
Cc: [REDACTED] 'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)'; 'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

From: Marquino, Wayne (GE Power & Water) [mailto:[REDACTED]]
Sent: Wednesday, March 16, 2011 6:15 PM
To: Hammaroren, Benjamin (GE Power & Water); Gauntt, Randall O
Cc: [REDACTED] Bolger, Francis T. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); kcw@dycoda.com
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Ben - here is a customer for your Origen data

Please send it to Randy Gauntt

Wayne

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Sent: Wednesday, March 16, 2011 7:56 PM
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Cc: [REDACTED]
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Randy Gauntt

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

From: Bolger, Francis T. (GE Power & Water) [mailto:[REDACTED]]
Sent: Wednesday, March 16, 2011 5:37 PM
To: Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Gauntt, Randall O; Crawford, Douglas C (GNF); kcw@dycoda.com; Upton, Hugh A. (GE Power & Water)
Cc: [REDACTED]
Subject: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

When: Wednesday, March 16, 2011 6:30 PM-7:30 PM (UTC-07:00) Mountain Time (US & Canada).
Where: ATC2 CR 25

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 3:02 PM
To: Santiago, Patricia; Tinkler, Charles
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

I asked Charlie to raise it with Brian. It seems the Chairman might somehow be interested in it also as he has communications with NR. They seem to be driving a lot of what we are spending our time on in the Ops Center.

We may just have to do it, but I'd like Brian to be aware and have input on its priority.

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

From: Santiago, Patricia
To: Gibson, Kathy
Sent: Mon Mar 21 14:51:02 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

I am raising this issue as you awake however, thus far I understand Jennifer wanted it done.

I also asked Jason to id it to us, the contract PM and give estimates of work as it is happening without the PM knowledge etc. That's ok if you and Jennifer have worked out an agreement but it doesn't seem as if that is true.

Let me know how else to tackle this.

Thanks

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

From: Gibson, Kathy
Sent: Monday, March 21, 2011 2:49 PM
To: Schaperow, Jason; Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Scott, Michael; Elkins, Scott; Chang, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Who is paying for Sandia's time? Is this work something we would want done anyway?

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

From: Schaperow, Jason
To: Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Gibson, Kathy; Scott, Michael; Elkins, Scott; Chang, Richard
Sent: Mon Mar 21 14:44:35 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

SNL is supporting this request from NR. They worked with Jennifer and me late last night and today. I plan to talk with KC Wagner shortly, as we will need his help in answering most of the questions below.

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

From: Santiago, Patricia
Sent: Monday, March 21, 2011 2:14 PM
To: Schaperow, Jason; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Gibson, Kathy; Scott, Michael; Elkins, Scott; Chang, Richard

BC/①

Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

When the action is closed we also need to alert katie and richard. Also u should cc me as we realize this work is dynamic so that I know what work is being done or requested. Is SNL doing anything since that requires u also cc richard chang as pm so he knows who is directing who at his contractor. we also need to let him know the extent of snl support since there is only 100k for this support presently.

Thanks

Sent from an NRC BlackBerry
Patricia Santiago

(b)(6)

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

From: Schaperow, Jason

To: Lee, Richard

Cc: Wagner, Katie; Tinkler, Charles; Szeto, Gordon CIV SEA 08 NR <(b)(6)>;
Santiago, Patricia

Sent: Mon Mar 21 13:23:17 2011

Subject: FW: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Hi Richard,

(b)(6)

Thanks,
Jason

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

From: Szeto, Gordon CIV SEA 08 NR [mailto:(b)(6)]

Sent: Monday, March 21, 2011 1:15 PM

To: Schaperow, Jason

Cc: Roberts, Thomas E CIV SEA 08 NR; Steinhurst, Laurel A CIV SEA 08 NR; Herman, David R CIV NAVSEA, 08; Vavoso, Thomas G CIV NAVSEA, 08; Bell, Stephen T CIV SEA 08 NR; Steele, Jeffrey M CIV SEA 08 NR; robert.fontaine.contractor@unnpp.gov; thomas.sambolt.contractor@unnpp.gov; marlene.gilmore.contractor@unnpp.gov

Subject: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Jason

Below are questions from NR program on the subject from 1015 call 21 Mar 11-

1. What is the decay heat assumed in the model. How is the fuel and its decay heat distributed radially (temperature plots indicate similar behavior for the "fresh" and "older" fuel). What are the decay heat assumptions for the "recently discharge" and "older discharged" fuel?

2. Clad temperature plots indicate complete clad relocation at about 17.6 days. What is the failure mechanism modeled in MELCOR?

(Highest temperature is too low to be melting. All axial elevations regardless of temperature fail at the same time.)

3. What is the fraction of zircaloy that has oxidized? The hydrogen generation plot shows increase of hydrogen generation due to zircaloy stopping at about 17.6 days (consistent with relocation) and no hydrogen generation after that.

4. What is the nodalization of the MELCOR model?

5. Why did the calculation stop at 18.2 Days?

6. Are there any results available from CAV or CVH Packages?

7. In the model, is the depleted oxygen being replenished from outside the building?

8. On the "hydrogen generation" curve, all of the hydrogen generation appears to stop prior to relocation of the core. What is the reason for the stopping of hydrogen generation?

9. What is the distribution of the older vs newer fuel in the pool and how was it modeled in the analysis? Can NRC contact GE spent fuel personnel to get insight into how Daiichi plants may distribute fuel?

10. Reports - please provide copies of the 5 reports that were given to GE on this analysis. Also, provide a bibliography of the other relevant reports for the BWR spent fuel pool analysis.

The reports should be provided the Mr. Fontaine (KAPL) at the email address above, Mr. Sambolt (Bettis), and Mr. Szeto at NR. NR mailing address for paper copy is:

1240 Isaac Hull Ave
SE Building 104
Washington DC 20376-8005

Call me if you have questions Jason

Tks
Gszeto


Naval Reactors

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 3:04 PM
To: Schaperow, Jason
Cc: Santiago, Patricia
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

I hope we modified the contract since this is not SOARCA related.

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

From: Schaperow, Jason
To: Gibson, Kathy
Sent: Mon Mar 21 14:53:51 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

We are paying for Sandia's time under the SOARCA project.

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

From: Gibson, Kathy
Sent: Monday, March 21, 2011 2:49 PM
To: Schaperow, Jason; Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Scott, Michael; Elkins, Scott; Chang, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Who is paying for Sandia's time? Is this work something we would want done anyway?

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

From: Schaperow, Jason
To: Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Gibson, Kathy; Scott, Michael; Elkins, Scott; Chang, Richard
Sent: Mon Mar 21 14:44:35 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

SNL is supporting this request from NR. They worked with Jennifer and me late last night and today. I plan to talk with KC Wagner shortly, as we will need his help in answering most of the questions below.

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

From: Santiago, Patricia
Sent: Monday, March 21, 2011 2:14 PM
To: Schaperow, Jason; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Gibson, Kathy; Scott, Michael; Elkins, Scott; Chang, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

When the action is closed we also need to alert katie and richard. Also u should cc me as we realize this work is dynamic so that I know what work is being done or requested. Is SNL doing anything since that requires u also cc richard chang as pm so he knows who is directing who at his contractor. we also need to let him know the extent of snl support since there is only 100k for this support presently.

Thanks

Sent from an NRC BlackBerry
Patricia Santiago

BC/81

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

From: Schaperow, Jason

To: Lee, Richard

Cc: Wagner, Katie; Tinkler, Charles; Szeto, Gordon CIV SEA 08 NR <[REDACTED]>;
Santiago, Patricia

Sent: Mon Mar 21 13:23:17 2011

Subject: FW: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Hi Richard,

Last night, when Jennifer Uhle was in the Ops Center, she directed me to coordinate with Naval Reactors (NR) who had some questions regarding spent fuel pool accident progression analysis for Fukushima Daiichi unit 4. Also, she sent NR the latest results of KC's spent fuel pool calculations for Fukushima Daiichi unit 4. I coordinated with NR last night and again this morning and, as a result, they forwarded me the information request below. I am forwarding it to you, as it is my understanding that you are handling and overseeing information requests for our division.

Thanks,

Jason

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

From: Szeto, Gordon CIV SEA 08 NR [mailto:[REDACTED]]

Sent: Monday, March 21, 2011 1:15 PM

To: Schaperow, Jason

Cc: Roberts, Thomas E CIV SEA 08 NR; Steinhurst, Laurel A CIV SEA 08 NR; Herman, David R CIV NAVSEA, 08; Vavoso, Thomas G CIV NAVSEA, 08; Bell, Stephen T CIV SEA 08 NR; Steele, Jeffrey M CIV SEA 08 NR; robert.fontaine.contractor@unnpp.gov; thomas.sambolt.contractor@unnpp.gov; marlene.gilmore.contractor@unnpp.gov

Subject: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Jason

Below are questions from NR program on the subject from 1015 call 21 Mar 11-

1. What is the decay heat assumed in the model. How is the fuel and its decay heat distributed radially (temperature plots indicate similar behavior for the "fresh" and "older" fuel). What are the decay heat assumptions for the "recently discharge" and "older discharged" fuel?

2. Clad temperature plots indicate complete clad relocation at about 17.6 days. What is the failure mechanism modeled in MELCOR?

(Highest temperature is too low to be melting. All axial elevations regardless of temperature fail at the same time.)

3. What is the fraction of zircaloy that has oxidized? The hydrogen generation plot shows increase of hydrogen generation due to zircaloy stopping at about 17.6 days (consistent with relocation) and no hydrogen generation after that.

4. What is the nodalization of the MELCOR model?

5. Why did the calculation stop at 18.2 Days?
6. Are there any results available from CAV or CVH Packages?
7. In the model, is the depleted oxygen being replenished from outside the building?
8. On the "hydrogen generation" curve, all of the hydrogen generation appears to stop prior to relocation of the core. What is the reason for the stopping of hydrogen generation?
9. What is the distribution of the older vs newer fuel in the pool and how was it modeled in the analysis? Can NRC contact GE spent fuel personnel to get insight into how Daiichi plants may distribute fuel?
10. Reports - please provide copies of the 5 reports that were given to GE on this analysis. Also, provide a bibliography of the other relevant reports for the BWR spent fuel pool analysis.

The reports should be provided to Mr. Fontaine (KAPL) at the email address above, Mr. Sambolt (Bettis), and Mr. Szeto at NR. NR mailing address for paper copy is:

1240 Isaac Hull Ave
SE Building 104
Washington DC 20376-8005

Call me if you have questions Jason

Tks

Gszeto

Naval Reactors

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 3:49 PM
To: Tinkler, Charles; 'kcw@dycoda.com'
Cc: 'rogaunt@sandia.gov'; Schaperow, Jason; Santiago, Patricia; Adkins, Kristen
Subject: Re: SNL Fuku-4 Fuel Pool - MELCOR Results

Thanks for your recommendation Charlie - and here comes the "but" - as interesting and important as the support to the Japanese is, we also have our regular work to do. My expectation for our staff, as well as our contractors, is that the SOARCA work should continue and be appropriately prioritized with requests related to Japan. Not all requests we get related to Japan are higher priority than SOARCA.

We all recognize and accept that the Japanese situation is having a schedule impact on SOARCA, but I want to minimize that as much as possible.

We can talk more tomorrow when I am not so tired and grouchy.

From: Tinkler, Charles
To: kcw@dycoda.com <kcw@dycoda.com>
Cc: 'Gauntt, Randall O' <rogaunt@sandia.gov>; Schaperow, Jason; Santiago, Patricia; Gauntt, Randall O <rogaunt@sandia.gov>; Adkins, Kristen
Sent: Mon Mar 21 15:38:22 2011
Subject: RE: SNL Fuku-4 Fuel Pool - MELCOR Results

I recommend you drop all SOARCA work while we are developing a revised/improved Fukushima spent fuel pool source term. This work is in response to NRC OpCenter requests for source terms.

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Monday, March 21, 2011 3:01 PM
To: Tinkler, Charles
Cc: 'Gauntt, Randall O'; Schaperow, Jason
Subject: RE: SNL Fuku-4 Fuel Pool - MELCOR Results

Hi Charlie,

I will give some thought on how best to do. Right now, the COR package "lower head" models a ¼" steel liner backed by concrete. Perhaps what could be done is to fail the "lower head", which is the ¼" liner and then allow anything that drops through to arrive in the CORCON cavity. I do not know whether the code will allow the CVH volume below the base plate and the "cavity" CVH volume to be the same. I would specify the surface area to be the same as the 1207 assemblies????

I am tied up with SOARCA peer review comments but will try to find some time tonight or tomorrow night.

KC

From: Tinkler, Charles [mailto:Charles.Tinkler@nrc.gov]
Sent: Monday, March 21, 2011 12:30 PM
To: kcw@dycoda.com
Cc: Gauntt, Randall O; Schaperow, Jason
Subject: RE: SNL Fuku-4 Fuel Pool - MELCOR Results

BC/82

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Are you continuing the run the existing case past 21 days? Is that case conducting heat to the liner and floor?

From: kcw@dycoda.com [mailto:kcw@dycoda.com]
Sent: Monday, March 21, 2011 2:23 PM
To: Tinkler, Charles
Subject: Re: SNL Fuku-4 Fuel Pool - MELCOR Results

These are new ones from the weekend with blockage active.

I did not include CORCON in these calcs. Once in CORCON there are many complication with debris in same spot and shifting between 2 MELCOR packages plus CORCON geometry becomes a consolidated "layer". Nevertheless, CORCON gives you access to many good models.

Do you want to pursue?

KC

Sent on the Sprint® Now Network from my BlackBerry®

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Date: Mon, 21 Mar 2011 12:15:05 -0400
To: kcw@dycoda.com<kcw@dycoda.com>
Cc: Gauntt, Randall O<rogaunt@sandia.gov>; Schaperow, Jason<Jason.Schaperow@nrc.gov>
Subject: RE: SNL Fuku-4 Fuel Pool - MELCOR Results

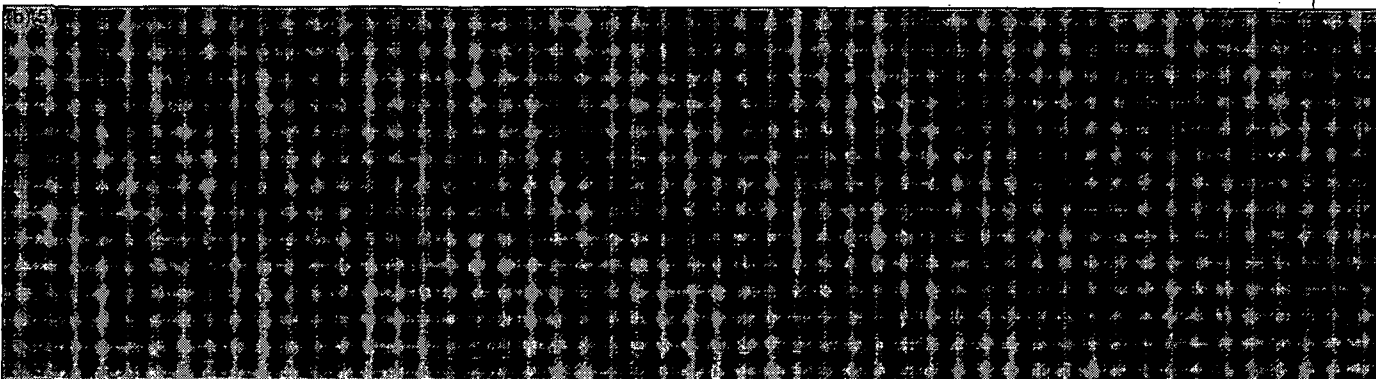
KC

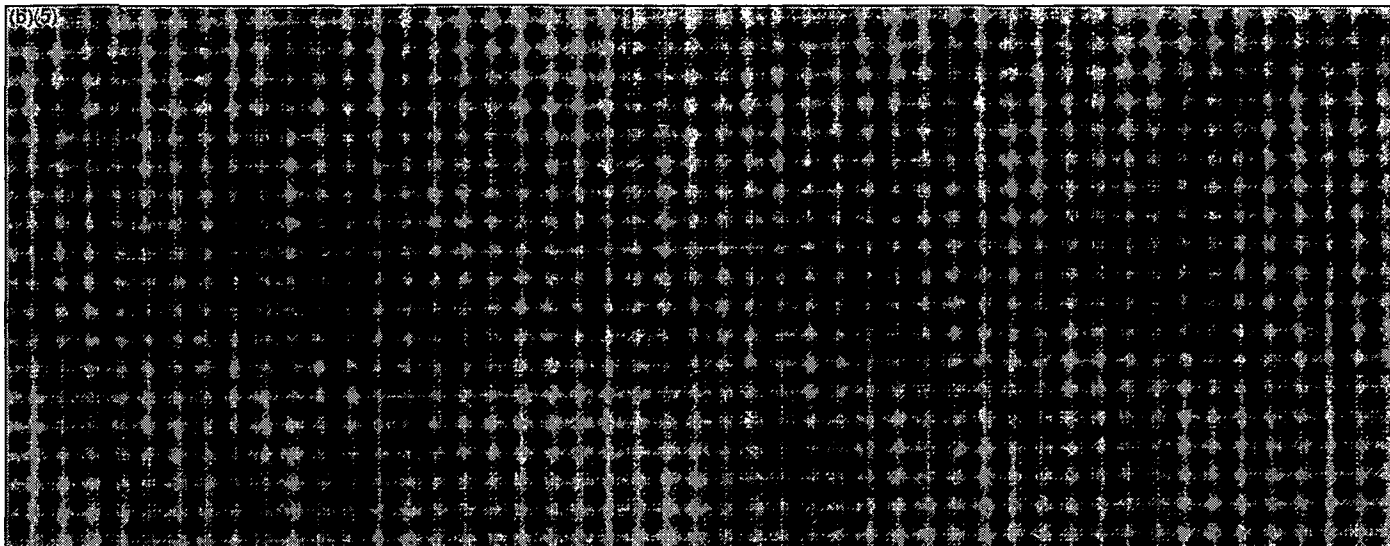
Are the results shown in the plots simply a continuation of the same run provided earlier out to ~17 hrs ?

Can we not activate the CORCON model?

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Monday, March 21, 2011 10:12 AM
To: 'Gauntt, Randall O'
Cc: Schaperow, Jason; Tinkler, Charles; 'Pickering, Susan Y'; Gibson, Kathy; Uhle, Jennifer; ymcclel@sandia.gov
Subject: SNL Fuku-4 Fuel Pool - MELCOR Results

Hi Randy,





Let me know if I could help in any way.

Sincerely,
KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 5:21 AM
To: 'Jennifer.Uhle@nrc.gov'
Cc: 'Charles.Tinkler@nrc.gov'; Pickering, Susan Y; 'Jason.Schaperow@nrc.gov'; 'Kathy.Gibson@nrc.gov'; 'kcw@dycoda.com'
Subject: Re: Fuku-4 Fuel Pool - MELCOR Results

Looks to like it's too cold to ablate concrete. KC's model can probably tell us this - he just did report the corcon results, probably because there were none. But I have only seen these results this morning. I somehow missed this one mail on Friday. Seems very significant.

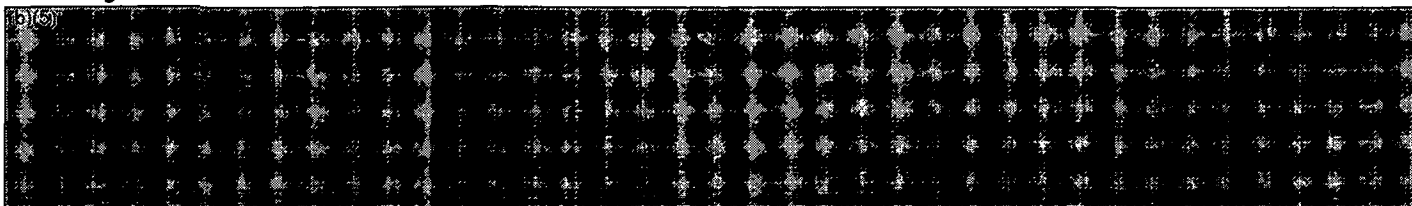
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Sent: Monday, March 21, 2011 05:13 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles <Charles.Tinkler@nrc.gov>; Pickering, Susan Y; Schaperow, Jason <Jason.Schaperow@nrc.gov>; Gibson, Kathy <Kathy.Gibson@nrc.gov>; kcw@dycoda.com <kcw@dycoda.com>
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

The question Naval reactors is asking is whether the Unit 4 SFP will reach concrete ablation temperatures. Jason is talking to them today. I agree about the fact that RES/Sandia is a great team and we at NRC is trying to get the Federal family to use our source terms.

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 6:50 AM
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; Gibson, Kathy; kcw@dycoda.com
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Sorry Jennifer,

You might have misunderstood a bit of what I said.



KC - were there no FP releases?
Can you send more results?

Randy

From: Uhle, Jennifer [Jennifer.Uhle@nrc.gov]
Sent: Monday, March 21, 2011 3:28 AM
To: Gauntt, Randall O
Cc: Tinkler, Charles; Pickering, Susan Y; Schaperow, Jason; Gibson, Kathy
Subject: RE: Fuku-4 Fuel Pool - MELCOR Results

Randy, no one is questioning NRC's analyses. We have a KAPL representative here at the Ops Center and he indicated that KAPL had done some calculations using MELCOR for the Admiral and they wanted to ask NRC's help in reviewing them. So, I contacted Jason to review the analysis and he said that you guys had done these analyses a few days ago. I asked Jason to talk to KAPL and inform them of our work so they would hopefully use our analyses. I have no idea what happened on the call with KAPL. I certainly believe our team has done the best analysis. I also would never ask KAPL to review any analyses you guys do. That is not what initiated the communication with KAPL. The Admiral and Chairman Jaczko are meeting tomorrow at 8:00 and I am informing the Chairman of our conclusions, not KAPL's. I don't even know what KAPL's were.

Jennifer

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Monday, March 21, 2011 1:17 AM
To: Uhle, Jennifer
Cc: Tinkler, Charles; Pickering, Susan Y
Subject: FW: Fuku-4 Fuel Pool - MELCOR Results

Jennifer,
I gather that you are drawn to evaluation KAPL analyses that were hurriedly put together last week based on cobbled up Grand Gulf decks. We have been developing and validating SFP analyses under the multi-million dollar NRC and now OECD programs to model SFP behavior. We have worked this for years and the skill to make MELCOR model SFP is not trivial nor accomplished on a Thursday afternoon. NRC has the best technology and talent at their disposal. NRC RES should not be put in the position of evaluating every Johnny-come-lately analysis out of left field when you are commander of the most elite troops.

Hope you will find the results informative.

We have also prepared SOURCE TERMS for Unit-4 pool accident and analogous MACCS analyses based on your request last Thursday. You have lots of talent and results at your disposal, and I would be more than happy to brief you on that.

I am here all week supporting Dana in his severe accident class, and would be happy to come out and brief/brainstorm this mess. The KAPL analysis is very rudimentary and they had to have second thoughts about sending.

Jennifer - you have paid good money for the best research that there is - make use if it to show leadership that you so deserve.

You can reach me tomorrow: NRC training center (505)2646849 or by e-mail

Dont dump sand!!!!

Use our source terms !!!!!!!

Tell Naval Reactor what the source term is,

You need a briefing, - name your time!!!


Randy

From: Casey Wagner [kcw@dycoda.com]
Sent: Friday, March 18, 2011 1:20 PM
To: Gauntt, Randall O; Charles.Tinkler@nrc.gov; 'Schaperow, Jason'
Cc: McClellan, Yvonne
Subject: Fuku-4 Fuel Pool - MELCOR Results

Randy asked if I would let this calculation continue into severe accident degradation. The model needs a bit of work to convert to 1.8.6 and include latest SOARCA updates but here is the "out-of-the-box" results.

I noticed that debris flow blockage was not on and that probably contributes to the debris coolability.

Let me know if you want anything else.

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Friday, March 18, 2011 10:28 AM
To: rogaunt@sandia.gov; Charles.Tinkler@nrc.gov; 'Schaperow, Jason' (Jason.Schaperow@nrc.gov)
Cc: ymccl@sandia.gov
Subject: FW: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code 



Hi Randy, Charlie, and Jason,

Randy - Sorry to see you were up at 12:36 am.

Enclosed is a pretty good no leak case for Fukushima #4. I was able to use the PB decay routines to specify exactly 548 assemblies at 105 days (3.5 kW/assembly) and 659 assemblies at 500 days (1.5 kW/assembly) for a total pool power of 3.03 MW.

If Fukushima Unit 4 was uncovered in a week, it was not a simple boil-off.

KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Friday, March 18, 2011 12:36 AM
To: Gauntt, Randall O; 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)';  Shawn; Pickering, Susan Y
Cc:  'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)';

'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'

Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

[REDACTED]

Randy

From: Gauntt, Randall O

Sent: Wednesday, March 16, 2011 11:06 PM

To: 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'

Cc: [REDACTED] Bolger, Francis T. (GE Power & Water); 'Ellison, Phillip G (GE Power & Water)';

'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero, Hernando (GE Power & Water)'; 'kcw@dycoda.com'

Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Wayne,

[REDACTED]

From: Marquino, Wayne (GE Power & Water) [mailto:[REDACTED]]

Sent: Wednesday, March 16, 2011 6:15 PM

To: Hammargren, Benjamin (GE Power & Water); Gauntt, Randall O

Cc: [REDACTED] Bolger, Francis T. (GE Power & Water); Ellison, Phillip G (GE Power & Water);

Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); kcw@dycoda.com

Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Ben - here is a customer for your Origen data

Please send it to Randy Gauntt

Wayne

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]

Sent: Wednesday, March 16, 2011 7:56 PM

To: Bolger, Francis T. (GE Power & Water); Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); 'Charles.Tinkler@nrc.gov'; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water);

Loewen, Eric (GE Power & Water); Crawford, Douglas C (GNF); 'kcw@dycoda.com'; Upton, Hugh A. (GE Power & Water)

Cc: [REDACTED]

Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

[REDACTED]

Randy Gauntt

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

From: Bolger, Francis T. (GE Power & Water) [mailto: [REDACTED]]

Sent: Wednesday, March 16, 2011 5:37 PM

To: Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Gauntt, Randall O; Crawford, Douglas C (GNE); kcw@dycoda.com; Upton, Hugh A. (GE Power & Water)

Cc: [REDACTED]

Subject: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

When: Wednesday, March 16, 2011 6:30 PM-7:30 PM (UTC-07:00) Mountain Time (US & Canada).

Where: ATC2 CR 25

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 4:27 PM
To: Santiago, Patricia
Cc: Chang, Richard; Tinkler, Charles; Lee, Richard
Subject: Re: SNL Fuku-4 Fuel Pool - MELCOR Results

We have others that can support event response. I found Mike Salay very knowledgeable and helpful re: MELCOR and source terms in Ops Center. Get Richard, Mike and Hossein involved as appropriate- especially as we move away from SOARCA developed source terms and toward Spent fuel pools.

From: Santiago, Patricia
To: Gibson, Kathy
Cc: Chang, Richard; Tinkler, Charles
Sent: Mon Mar 21 16:12:11 2011
Subject: FW: SNL Fuku-4 Fuel Pool - MELCOR Results

FYI

As priorities are event response and SOARCA, KC is required to support this event action.

I will work with Richard and talk to Susan tomorrow based on SOARCA discussions that Susan discussed this morning related to staff that were available for SOARCA when other key staff worked other projects.

Thanks

From: Tinkler, Charles
Sent: Monday, March 21, 2011 3:38 PM
To: kcw@dycoda.com
Cc: 'Gauntt, Randall O'; Schaperow, Jason; Santiago, Patricia; Gauntt, Randall O; Adkins, Kristen
Subject: RE: SNL Fuku-4 Fuel Pool - MELCOR Results

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KC

BC/83

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Subject: RE: SNL Fuku-4 Fuel Pool - MELCOR Results

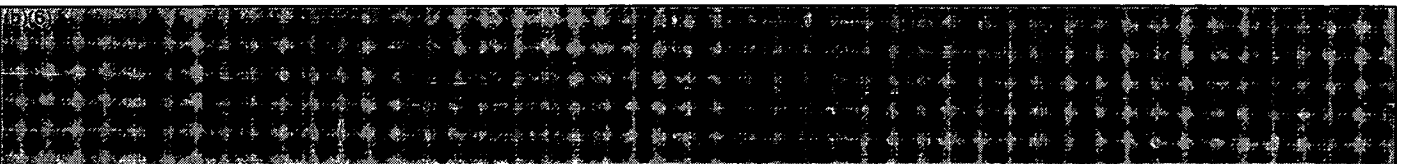
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Sent: Monday, March 21, 2011 10:12 AM
To: 'Gauntt, Randall O'
Cc: Schaperow, Jason; Tinkler, Charles; 'Pickering, Susan Y'; Gibson, Kathy; Uhle, Jennifer; ymccl@sandia.gov
Subject: SNL Fuku-4 Fuel Pool - MELCOR Results

Hi Randy,



(b)(6)

(b)(6)

(b)(6)

(b)(6)

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Sincerely,
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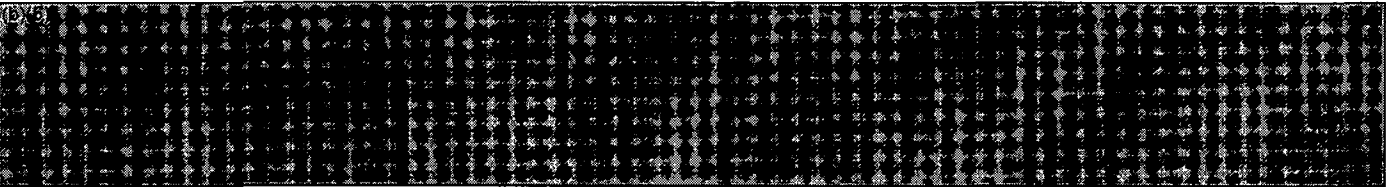
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Subject: FW: Fuku-4 Fuel Pool - MELCOR Results

Jennifer,
I gather that you are drawn to evaluation KAPL analyses that were hurriedly put together last week based on cobbled up Grand Gulf decks. We have been developing and validating SFP analyses under the multi-million dollar NRC and now OECD programs to model SFP behavior. We have worked this for years and the skill to make MELCOR model SFP is not trivial nor accomplished on a Thursday afternoon. NRC has the best technology and talent at their disposal. NRC RES should not be put in the position of evaluating every Johnny-come-lately analysis out of left field when you are commander of the most elite troops.

Hope you will find the results informative.

We have also prepared SOURCE TERmS for Unit-4 pool accident and analagous MACCS`analyses based on your request last thursday. You have lots of talent and results at your disposal, and I would be more than happy to brief you on that.

I am here all week supporting Dana in his severe accident class, and would be happy to come out and brief/brainstorm this mess. The KAPal analysis is very rudimentary and they had to have second thoughts about sending.

Jennifer - you have paid good money for the best research that there is - make use of it to show leadership that you so deserve.

You can reach me tomorrow: NRC training center (505)2646849 or by e-mail

Dont dump sand!!!!

Use our source terms !!!!!!!

Tell Naval Reactor what the source term is,

You need a briefing, - name your time!!!


Randy

From: Casey Wagner [kcw@dycoda.com]
Sent: Friday, March 18, 2011 1:20 PM
To: Gauntt, Randall O; Charles.Tinkler@nrc.gov; 'Schaperow, Jason'
Cc: McClellan, Yvonne
Subject: Fuku-4 Fuel Pool - MELCOR Results

Randy asked if I would let this calculation continue into severe accident degradation. The model needs a bit of work to convert to 1.8.6 and include latest SOARCA updates but here is the "out-of-the-box" results.

I noticed that debris flow blockage was not on and that probably contributes to the debris coolability.

Let me know if you want anything else.

From: Casey Wagner [mailto:kcw@dycoda.com]
Sent: Friday, March 18, 2011 10:28 AM
To: rogaunt@sandia.gov; Charles.Tinkler@nrc.gov; 'Schaperow, Jason' (Jason.Schaperow@nrc.gov)
Cc: ymccl@sandia.gov
Subject: FW: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code 

Hi Randy, Charlie, and Jason,

Randy - Sorry to see you were up at 12:36 am.

Enclosed is a pretty good no leak case for Fukushima #4. I was able to use the PB decay routines to specify exactly 548 assemblies at 105 days (3.5 kW/assembly) and 659 assemblies at 500 days (1.5 kW/assembly) for a total pool power of 3.03 MW.

If Fukushima Unit 4 was uncovered in a week, it was not a simple boil-off.

KC

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Friday, March 18, 2011 12:36 AM
To: Gauntt, Randall O; 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)';
[REDACTED] Burns, Shawn; Pickering, Susan Y
Cc: [REDACTED] 'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)';
'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero,
Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

[REDACTED]

Randy

From: Gauntt, Randall O
Sent: Wednesday, March 16, 2011 11:06 PM
To: 'Marquino, Wayne (GE Power & Water)'; 'Hammargren, Benjamin (GE Power & Water)'
Cc: [REDACTED] 'Bolger, Francis T. (GE Power & Water)'; 'Ellison, Phillip G (GE Power & Water)';
'Ginsberg, Robert (GE Power & Water)'; 'Klapproth, James F (GE Power & Water)'; 'Charles.Tinkler@nrc.gov'; 'Madronero,
Hernando (GE Power & Water)'; 'kcw@dycoda.com'
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Wayne

[REDACTED]

Randy

From: Marquino, Wayne (GE Power & Water) [mailto:[REDACTED]]
Sent: Wednesday, March 16, 2011 6:15 PM
To: Hammargren, Benjamin (GE Power & Water); Gauntt, Randall O
Cc: [REDACTED] Bolger, Francis T. (GE Power & Water); Ellison, Phillip G (GE Power & Water);
Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero,
Hernando (GE Power & Water); kcw@dycoda.com
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code [REDACTED]

Ben - here is a customer for your Origen data

Please send it to Randy Gauntt

Wayne

From: Gauntt, Randall O [mailto:rogaunt@sandia.gov]
Sent: Wednesday, March 16, 2011 7:56 PM
To: Bolger, Francis T. (GE Power & Water); Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power &
Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power &

Water); 'Charles.Tinkler@nrc.gov'; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Crawford, Douglas C (GNF); 'kcw@dycoda.com'; Upton, Hugh A. (GE Power & Water)
Cc: (b)(5)
Subject: RE: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(5)

(b)(5)

Randy Gauntt

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

From: Bolger, Francis T. (GE Power & Water) [mailto:(b)(5)]
Sent: Wednesday, March 16, 2011 5:37 PM
To: Buchholz, Carol E. (GE Power & Water); Ellison, Phillip G (GE Power & Water); Ginsberg, Robert (GE Power & Water); Klapproth, James F (GE Power & Water); Marquino, Wayne (GE Power & Water); Charles.Tinkler@nrc.gov; Madronero, Hernando (GE Power & Water); Heck, Charles (GE Power & Water); Loewen, Eric (GE Power & Water); Gauntt, Randall O; Crawford, Douglas C (GNF); kcw@dycoda.com; Upton, Hugh A. (GE Power & Water)
Cc: (b)(5)
Subject: Fuku-4 Fuel Pool - impact of dry pool -call#3 - 800-501-0843 code (b)(5)
When: Wednesday, March 16, 2011 6:30 PM-7:30 PM (UTC-07:00) Mountain Time (US & Canada).
Where: ATC2 CR 25

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 4:29 PM
To: Santiago, Patricia; Lee, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Katie Wagner for PM

Check with Richard

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

From: Santiago, Patricia
To: Gibson, Kathy; Tinkler, Charles
Cc: Elkins, Scott
Sent: Mon Mar 21 16:20:27 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Brian is aware. Charlie did go talk to Brian. Brian recognizes SOARCA will be delayed. I keep telling Charlie and my staff that all is dynamic and that event/OPCEN first then SOARCA.

I have approached PMDA regarding a separate Japan support contract to SNL vs via SOARCA as we are at our ceiling and if more than 100K is needed, it would disrupt our SOARCA work in the future. PMDA notes a separate contract can be done for 500K with minimal work. The question is who would best be the PM...Jason was ok with it recognizing Elizabeth would help execute and minimize Jason's time. Any views?

I did talk to Scott and he too raised the issue of priorities with Brian at an opportune moment and Brian agreed again he was aware of the taskings on both projects.

Thanks!

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

From: Gibson, Kathy
Sent: Monday, March 21, 2011 3:02 PM
To: Santiago, Patricia; Tinkler, Charles
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

I asked Charlie to raise it with Brian. It seems the Chairman might somehow be interested in it also as he has communications with NR. They seem to be driving a lot of what we are spending our time on in the Ops Center.

We may just have to do it, but I'd like Brian to be aware and have input on its priority.

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

From: Santiago, Patricia
To: Gibson, Kathy
Sent: Mon Mar 21 14:51:02 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

I am raising this issue as you awake however, thus far I understand Jennifer wanted it done.

I also asked Jason to id it to us, the contract PM and give estimates of work as it is happening without the PM knowledge etc. That's ok if you and Jennifer have worked out an agreement but it doesn't seem as if that is true.

BC/84

Let me know how else to tackle this.

Thanks

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

From: Gibson, Kathy
Sent: Monday, March 21, 2011 2:49 PM
To: Schaperow, Jason; Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Scott, Michael; Elkins, Scott; Chang, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Who is paying for Sandia's time? Is this work something we would want done anyway?

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

From: Schaperow, Jason
To: Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Gibson, Kathy; Scott, Michael; Elkins, Scott; Chang, Richard
Sent: Mon Mar 21 14:44:35 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

SNL is supporting this request from NR. They worked with Jennifer and me late last night and today. I plan to talk with KC Wagner shortly, as we will need his help in answering most of the questions below.

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

From: Santiago, Patricia
Sent: Monday, March 21, 2011 2:14 PM
To: Schaperow, Jason; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Gibson, Kathy; Scott, Michael; Elkins, Scott; Chang, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment


When the action is closed we also need to alert katie and richard. Also u should cc me as we realize this work is dynamic so that I know what work is being done or requested. Is SNL doing anything since that requires u also cc richard chang as pm so he knows who is directing who at his contractor. we also need to let him know the extent of snl support since there is only 100k for this support presently.

Thanks

Sent from an NRC BlackBerry

Patricia Santiago


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

From: Schaperow, Jason
To: Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Szeto, Gordon CIV SEA 08 NR < >;
Santiago, Patricia
Sent: Mon Mar 21 13:23:17 2011
Subject: FW: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment


Hi Richard,

Last night, when Jennifer Uhle was in the Ops Center, she directed me to coordinate with Naval Reactors (NR) who had some questions regarding spent fuel pool accident progression analysis for Fukushima Daiichi unit 4. Also, she sent NR the latest results of KC's spent

fuel pool calculations for Fukushima Daiichi unit 4. I coordinated with NR last night and again this morning and, as a result, they forwarded me the information request below. I am forwarding it to you, as it is my understanding that you are handling and overseeing information requests for our division.

Thanks,
Jason

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

From: Szeto, Gordon CIV SEA 08 NR [mailto:
Sent: Monday, March 21, 2011 1:15 PM
To: Schaperow, Jason
Cc: Roberts, Thomas E CIV SEA 08 NR; Steinhurst, Laurel A CIV SEA 08 NR; Herman, David R CIV NAVSEA, 08; Vavoso, Thomas G CIV NAVSEA, 08; Bell, Stephen T CIV SEA 08 NR; Steele, Jeffrey M CIV SEA 08 NR; robert.fontaine.contractor@unnpp.gov; thomas.sambolt.contractor@unnpp.gov; marlene.gilmore.contractor@unnpp.gov
Subject: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Jason

Below are questions from NR program on the subject from 1015 call 21 Mar 11-

1. What is the decay heat assumed in the model. How is the fuel and its decay heat distributed radially (temperature plots indicate similar behavior for the "fresh" and "older" fuel). What are the decay heat assumptions for the "recently discharge" and "older discharged" fuel?
2. Clad temperature plots indicate complete clad relocation at about 17.6 days. What is the failure mechanism modeled in MELCOR?

(Highest temperature is too low to be melting. All axial elevations regardless of temperature fail at the same time.)
3. What is the fraction of zircaloy that has oxidized? The hydrogen generation plot shows increase of hydrogen generation due to zircaloy stopping at about 17.6 days (consistent with relocation) and no hydrogen generation after that.
4. What is the nodalization of the MELCOR model?
5. Why did the calculation stop at 18.2 Days?
6. Are there any results available from CAV or CVH Packages?
7. In the model, is the depleted oxygen being replenished from outside the building?
8. On the "hydrogen generation" curve, all of the hydrogen generation appears to stop prior to relocation of the core. What is the reason for the stopping of hydrogen generation?
9. What is the distribution of the older vs newer fuel in the pool and how was it modeled in the analysis? Can NRC contact GE spent fuel personnel to get insight into how Daiichi plants may distribute fuel?

10. Reports - please provide copies of the 5 reports that were given to GE on this analysis. Also, provide a bibliography of the other relevant reports for the BWR spent fuel pool analysis.

The reports should be provided to Mr. Fontaine (KAPL) at the email address above, Mr. Sambolt (Bettis), and Mr. Szeto at NR. NR mailing address for paper copy is:

1240 Isaac Hull Ave
SE Building 104
Washington DC 20376-8005

Call me if you have questions Jason

Tks

Gszeto


Naval Reactors

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 21, 2011 4:38 PM
To: Santiago, Patricia; Schaperow, Jason; Lee, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

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

From: Santiago, Patricia
To: Gibson, Kathy; Schaperow, Jason
Sent: Mon Mar 21 16:34:07 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

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

From: Gibson, Kathy
Sent: Monday, March 21, 2011 3:04 PM
To: Schaperow, Jason
Cc: Santiago, Patricia
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

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

From: Schaperow, Jason
To: Gibson, Kathy
Sent: Mon Mar 21 14:53:51 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

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

From: Gibson, Kathy
Sent: Monday, March 21, 2011 2:49 PM
To: Schaperow, Jason; Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Scott, Michael; Elkins, Scott; Chang, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

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Cc: Wagner, Katie; Tinkler, Charles; Gibson, Kathy; Scott, Michael; Elkins, Scott; Chang, Richard
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BC/85

SNL is supporting this request from NR. They worked with Jennifer and me late last night and today. I plan to talk with KC Wagner shortly, as we will need his help in answering most of the questions below.

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Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

When the action is closed we also need to alert katie and richard. Also u should cc me as we realize this work is dynamic so that I know what work is being done or requested. Is SNL doing anything since that requires u also cc richard chang as pm so he knows who is directing who at his contractor. we also need to let him know the extent of snl support since there is only 100k for this support presently.
Thanks

Sent from an NRC BlackBerry
Patricia Santiago

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

From: Schaperow, Jason
To: Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Szeto, Gordon CIV SEA 08 NR <[REDACTED]>;
Santiago, Patricia
Sent: Mon Mar 21 13:23:17 2011
Subject: FW: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Hi Richard,

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Thanks,
Jason

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To: Schaperow, Jason
Cc: Roberts, Thomas E CIV SEA 08 NR; Steinhurst, Laurel A CIV SEA 08 NR; Herman, David R CIV NAVSEA, 08; Vavoso, Thomas G CIV NAVSEA, 08; Bell, Stephen T CIV SEA 08 NR; Steele, Jeffrey M CIV SEA 08 NR; robert.fontaine.contractor@unnpp.gov; thomas.sambolt.contractor@unnpp.gov; marlene.gilmore.contractor@unnpp.gov
Subject: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

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10. Reports - please provide copies of the 5 reports that were given to GE on this analysis. Also, provide a bibliography of the other relevant reports for the BWR spent fuel pool analysis.

The reports should be provided the Mr. Fontaine (KAPL) at the email address above, Mr. Sambolt (Bettis), and Mr. Szeto at NR. NR mailing address for paper copy is:

1240 Isaac Hull Ave
SE Building 104
Washington DC 20376-8005

Call me if you have questions Jason

Tks

Gszeto

Naval Reactors

Greenwood, Carol

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



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,

BC/86

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

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

Alan

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

Alan- Thanks for forwarding Jim Andersen's email.

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

From: Frazier, Alan
Sent: Monday, March 21, 2011 3:42 PM
To: Deegan, George
Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Weber, Michael; Miller, Charles; Moore, Scott; Merzke, Daniel
Subject: ACTION: Draft Scheduling Note for New Commission Meeting

George,

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

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

Status of event
Radiological Impacts
Radiological significance
External panel

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

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

Please let me know if you have any questions.

Regards,

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

From: Andersen, James
Sent: Monday, March 21, 2011 1:35 PM
To: EDO_TBPM Distribution
Cc: Muessle, 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)**

Greenwood, Carol

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 8:20 AM
To: Schaperow, Jason
Cc: Chang, Richard; Tinkler, Charles; Santiago, Patricia
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Yes they are handling contract.

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

From: Schaperow, Jason
To: Gibson, Kathy
Cc: Chang, Richard; Tinkler, Charles; Santiago, Patricia
Sent: Tue Mar 22 08:19:07 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

My understanding is that Pat and Richard are handling modifying the contract.

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

From: Gibson, Kathy
Sent: Monday, March 21, 2011 3:04 PM
To: Schaperow, Jason
Cc: Santiago, Patricia
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

[REDACTED]

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

From: Schaperow, Jason
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Sent: Mon Mar 21 14:53:51 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

[REDACTED]

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Sent: Monday, March 21, 2011 2:49 PM
To: Schaperow, Jason; Santiago, Patricia; Lee, Richard
Cc: Wagner, Katie; Tinkler, Charles; Scott, Michael; Elkins, Scott; Chang, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

[REDACTED]

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BC/87

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Sent from an NRC BlackBerry
Patricia Santiago

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Santiago, Patricia
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Subject: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Jason

Below are questions from NR program on the subject from 1015 call 21 Mar
11-

1. What is the decay heat assumed in the model. How is the fuel and its decay heat distributed radially (temperature plots indicate similar behavior for the "fresh" and "older" fuel). What are the decay heat assumptions for the "recently discharge" and "older discharged" fuel?

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5. Why did the calculation stop at 18.2 Days?

6. Are there any results available from CAV or CVH Packages?

7. In the model, is the depleted oxygen being replenished from outside the building?

8. On the "hydrogen generation" curve, all of the hydrogen generation appears to stop prior to relocation of the core. What is the reason for the stopping of hydrogen generation?

9. What is the distribution of the older vs newer fuel in the pool and how was it modeled in the analysis? Can NRC contact GE spent fuel personnel to get insight into how Daiichi plants may distribute fuel?

10. Reports - please provide copies of the 5 reports that were given to GE on this analysis. Also, provide a bibliography of the other relevant reports for the BWR spent fuel pool analysis.

The reports should be provided the Mr. Fontaine (KAPL) at the email address above, Mr. Sambolt (Bettis), and Mr. Szeto at NR. NR mailing address for paper copy is:

1240 Isaac Hull Ave
SE Building 104
Washington DC 20376-8005

Call me if you have questions Jason

Tks

Gszeto


Naval Reactors

Greenwood, Carol

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

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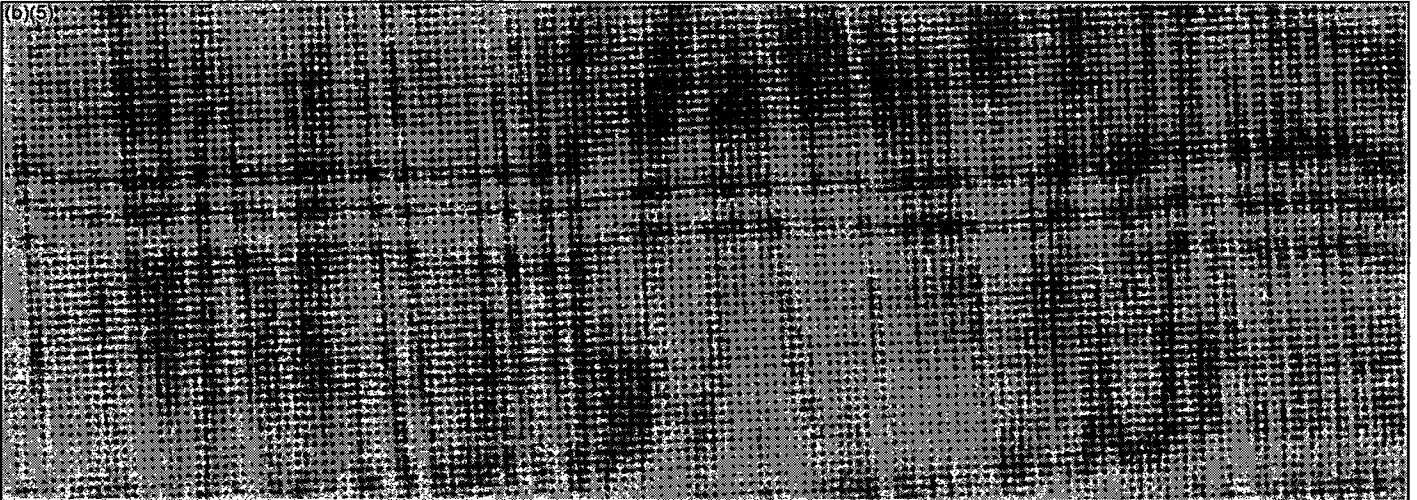
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BC/88

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Subject: Commission Meeting on Japanese Events
Importance: High



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

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To: Frazier, Alan
Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Weber, Michael; Miller, Charles; Moore, Scott; Merzke, Daniel
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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: Muessle, Mary; Weber, Michael; Virgilio, Martin; Ash, Darren; Landau, Mindy
Subject: Agenda Planning Meeting

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Greenwood, Carol

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 10:13 AM
To: Tinkler, Charles; Santiago, Patricia; Schaperow, Jason; Wagner, Katie
Cc: Lee, Richard
Subject: Re: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Agree. The only comment I would add is:

If we have or are getting answers to any of their questions for our own analysis, we should provide those answers.

We can refer NR to Sandia through their own communication/contracting/funding mechanisms. For example, why can't KAPL contact Sandia?

Thanks

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

From: Tinkler, Charles
To: Santiago, Patricia; Schaperow, Jason; Wagner, Katie
Cc: Lee, Richard; Gibson, Kathy
Sent: Tue Mar 22 10:06:54 2011
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

We have already received relief from responding to these NR requests until we finish our own work (per Brian Sheron and Jim wiggins) , I explained this to Pat yesterday PM . NR requests will be addressed later (time as yet undetermined)

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

From: Santiago, Patricia
Sent: Tuesday, March 22, 2011 8:57 AM
To: Schaperow, Jason; Wagner, Katie
Cc: Lee, Richard; Tinkler, Charles; Gibson, Kathy
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment


Are you engaging or working on higher priorities?
thanks

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

From: Schaperow, Jason
Sent: Tuesday, March 22, 2011 8:54 AM
To: Wagner, Katie
Cc: Lee, Richard; Tinkler, Charles; Santiago, Patricia; Gibson, Kathy
Subject: FW: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Please add the following question to the request from NR.

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

From: Szeto, Gordon CIV SEA 08 NR [mailto:
Sent: Monday, March 21, 2011 5:05 PM
To: Schaperow, Jason
Cc: Roberts, Thomas E CIV SEA 08 NR; Steinhurst, Laurel A CIV SEA 08 NR; Herman, David R CIV NAVSEA, 08; Vavoso, Thomas G CIV NAVSEA, 08; Bell, Stephen T CIV SEA 08 NR; Steele, Jeffrey M CIV SEA 08 NR; robert.fontaine.contractor@unnpp.gov; thomas.sambolt.contractor@unnpp.gov
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

BC/89

Jason

There was one other question to add to list -

The NRC/Sandia MELCOR analysis included time to boil SFP#4 dry.

Why haven't they seen steam from SFP#4 if it started with a lot of water?

gszeto


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

From: Schaperow, Jason [mailto:Jason.Schaperow@nrc.gov]
Sent: Monday, March 21, 2011 1:24 PM
To: Szeto, Gordon CIV SEA 08 NR
Subject: RE: NR Program Questions on NRC BWR MELCOR Spent Fuel Assessment

Thanks. We will work on it.

Jason

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The reports should be provided the Mr. Fontaine (KAPL) at the email address above, Mr. Sambolt (Bettis), and Mr. Szeto at NR. NR mailing address for paper copy is:

1240 Isaac Hull Ave
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Washington DC 20376-8005

Call me if you have questions Jason.

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XXXXXXXXXX

Naval Reactors

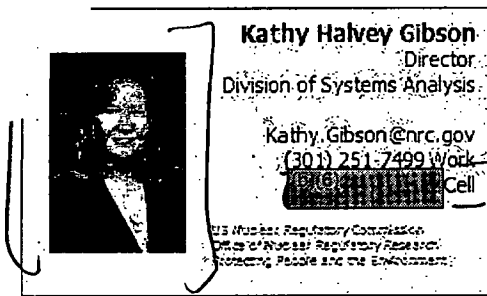
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To: Bowman, Gregory; Elkins, Scott
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Subject: RE: Commission Meeting on Japanese Events
Attachments: Kathy Halvey Gibson.vcf; image001.jpg

Importance: High

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Scott Elkins is our lead for the Commission meeting with staff support from Vered Shaffer.



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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.

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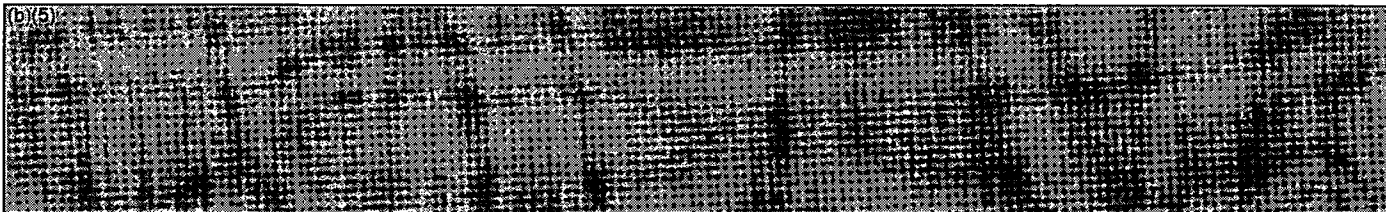
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(b)(5)

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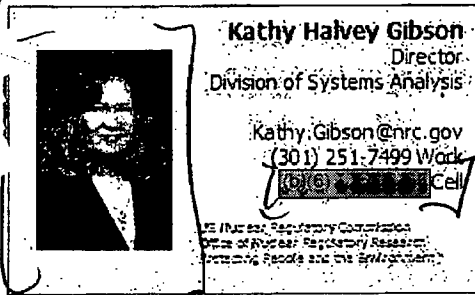
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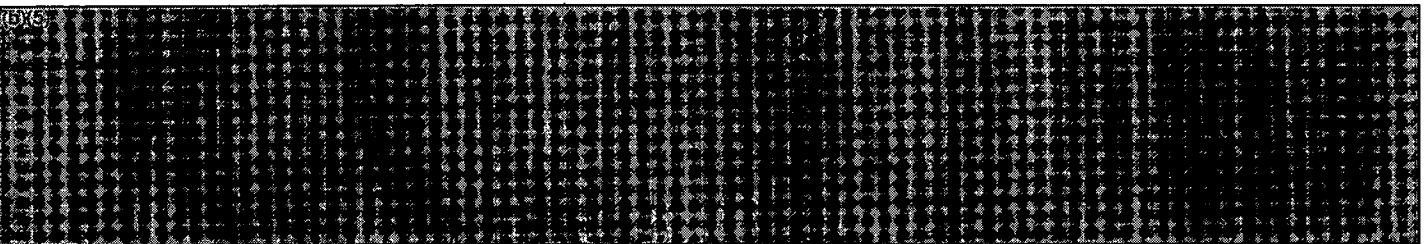
I discussed with Brian and we were thinking along the lines of an SL panel, probably 3 – one to cover how we develop the source terms (RES – Charlie Tinkler), one to cover the tools and processes for dose projections (in the Ops Center)(NSIR – Cindy Jones), one to cover health effects and protective 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).



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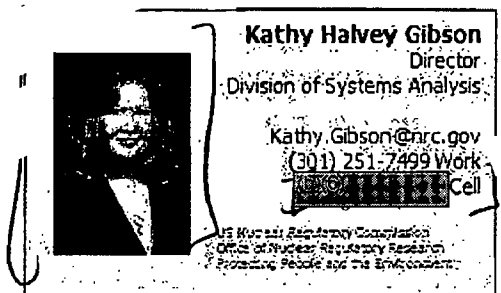
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Please take a look at Jim's note below from today's agenda planning meeting which was held immediately after the Commission meeting.

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.

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

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Cc: Muessle, Mary; Weber, Michael; Virgilio, Martin; Ash, Darren; Landau, Mindy
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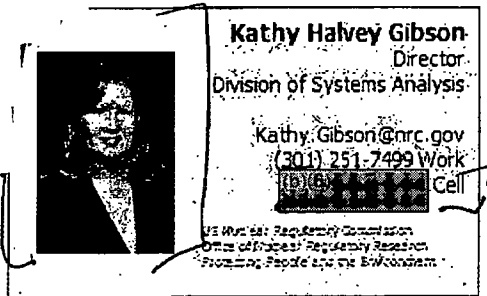
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From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 12:51 PM
To: Rini, Brett; Elkins, Scott
Subject: RE: Commission Meeting on Japanese Events
Attachments: Kathy Halvey Gibson3.vcf; image001.jpg

Scott has the lead. Please work with him.



From: Rini, Brett
Sent: Tuesday, March 22, 2011 12:42 PM
To: Gibson, Kathy
Subject: RE: Commission Meeting on Japanese Events

Kathy,

As a follow up to Greg's e-mail, I haven't yet done any work on the scheduling note. Let me know if you need any help pulling it together.

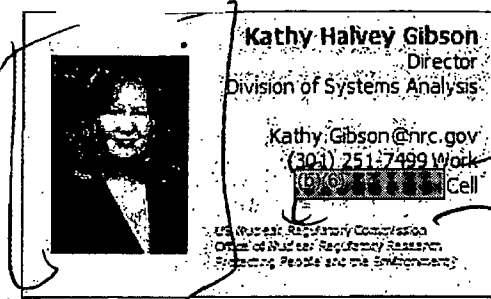
Brett

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Cc: Shaffer, Vered; Rini, Brett; Sheron, Brian; Uhle, Jennifer
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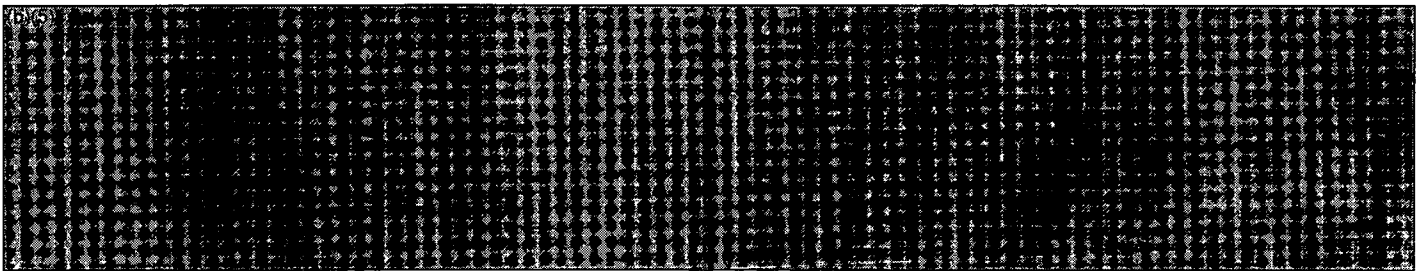
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BCF 92



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Cc: Shaffer, Vered; Rini, Brett
Subject: RE: Commission Meeting on Japanese Events

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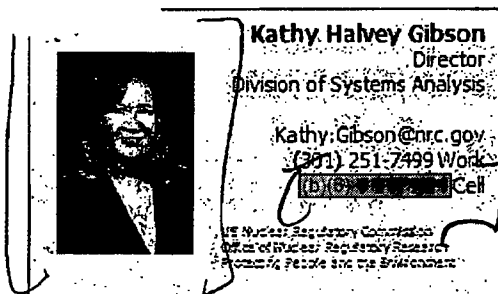


Brett just called me about this a little while ago, and he might have already started working on the scheduling note.

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.



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

NRR: Sean Meighan and Quynh Nguyen
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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.

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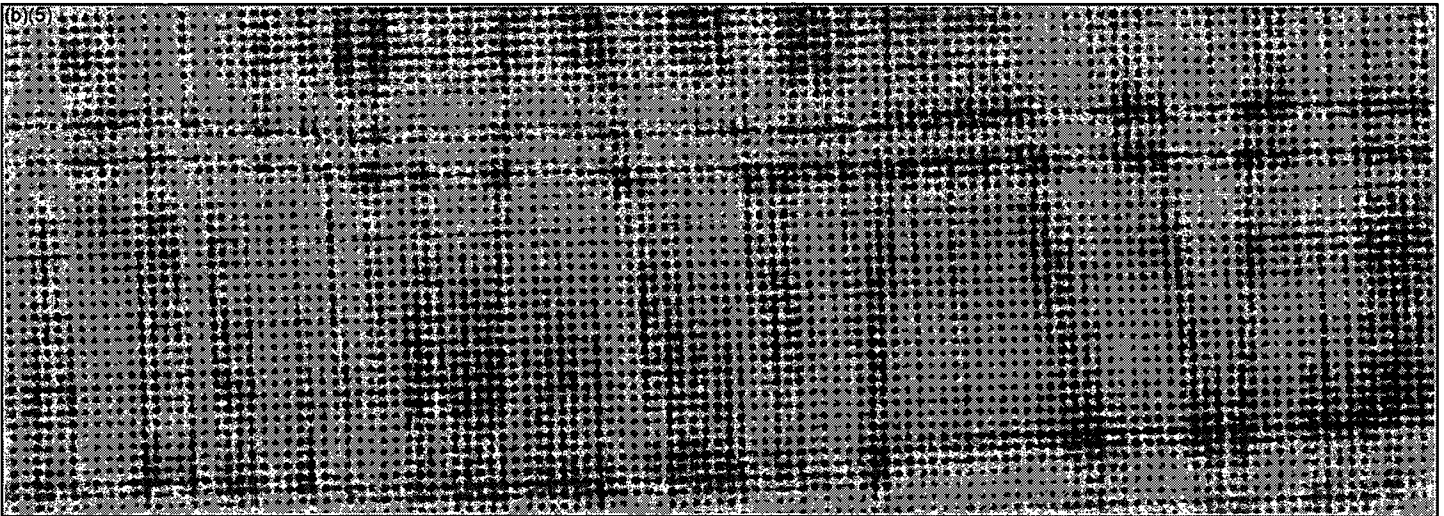
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Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Merzke, Daniel
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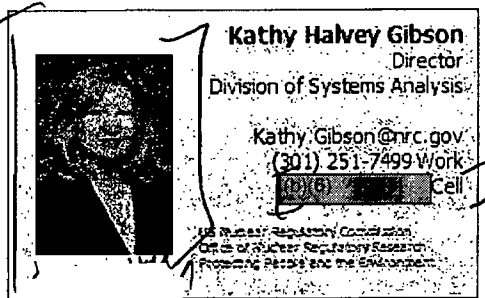
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Cc: Shaffer, Vered; Rini, Brett; Sheron, Brian; Uhle, Jennifer
Subject: RE: Commission Meeting on Japanese Events
Attachments: Kathy Halvey Gibson3.vcf; image001.jpg

I have some ideas, but want/need NSIR input.



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Sent: Tuesday, March 22, 2011 12:48 PM
To: Gibson, Kathy; Elkins, Scott
Cc: Shaffer, Vered; Rini, Brett; Sheron, Brian; Uhle, Jennifer
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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.

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BC/93

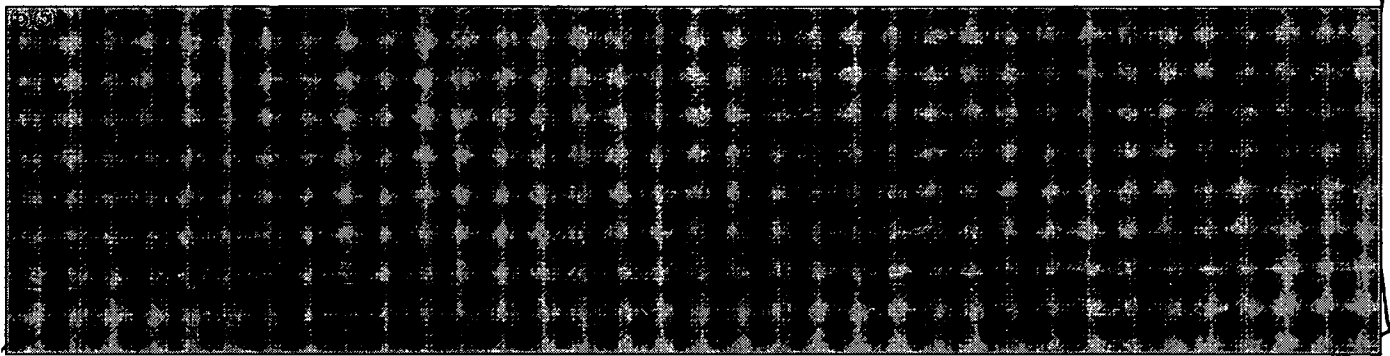


Kathy Halvey Gibson
Director
Division of Systems Analysis
Kathy.Gibson@nrc.gov
(301) 251-7499 Work
(b) (6) Cell

NRC Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Protecting People and the Environment

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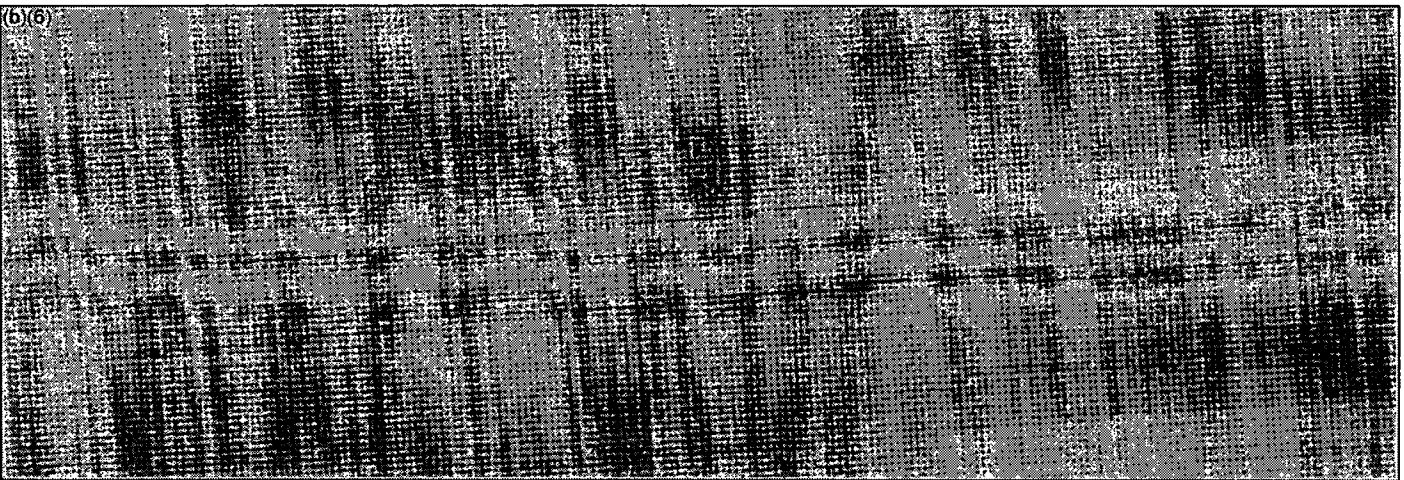
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Greenwood, Carol

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 2:55 PM
To: Wagner, Katie
Cc: Lee, Richard
Subject: Re: Station blackout questions
Attachments: image001.jpg

Not a problem, you are doing a great job.

From: Wagner, Katie
To: Gibson, Kathy
Cc: Lee, Richard
Sent: Tue Mar 22 14:52:17 2011
Subject: RE: Station blackout questions

Kathy,

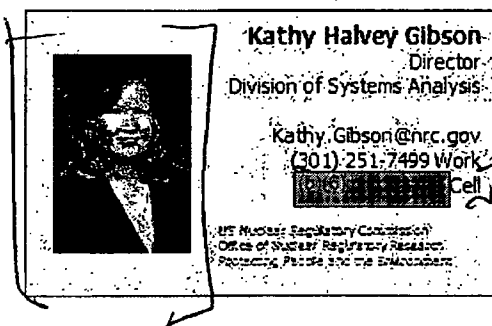
Sorry about this, in the future I will read more carefully.

-Katie

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 2:16 PM
To: Wagner, Katie; Burnell, Scott
Cc: Lee, Richard
Subject: RE: Station blackout questions

Katie,
Kevin wanted you to have NRR to review this BEFORE it went to OPA.

Thanks



From: Wagner, Katie
Sent: Tuesday, March 22, 2011 1:53 PM
To: Burnell, Scott
Cc: Lee, Richard; Gibson, Kathy
Subject: Station blackout questions
Importance: High

Good Afternoon Scott,

BC/94

Kevin Coyne of RES/DRA has provided a preliminary response to Mr. Soraghan's questions (see below), however he did not understand the third question and recommends that George Wilson of NRR/DE/EEEE review the preliminary response.

Thanks,

Katie Wagner
DSA POC for Japan-Related Requests

From: Coyne, Kevin
Sent: Tuesday, March 22, 2011 1:40 PM
To: Lee, Richard
Cc: Wagner, Katie; Wilson, George; Demoss, Gary; Beasley, Benjamin; Coe, Doug
Subject: RE: Station blackout questions
Importance: High

Richard –

We've taken a first cut at responding to the questions, but George Wilson from the NRR electrical engineering branch has been very active in this area and should review the question and answers before a response goes back to OPA (particularly for the first question...). I've cc'ed George, but Katie should coordinate the response with him before providing a final answer back to Scott Burnell.

-Kevin

First, has there been any update to these numbers?

- Unknown. However, our understanding is that NUREG-1776 (<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1776/>) is the most recent study specific to the station blackout rule that has been prepared by RES.

"Coping time in hours" – is that the amount of battery power? And is it the amount the plant has, or is required to have?

- 10 CFR 50.63, "Loss of all alternating current power," requires that the station blackout duration shall be based on (i) redundancy of the onsite emergency power ac power sources; (2) the reliability of the onsite emergency ac power sources; (3) the expected frequency of loss of offsite power; and (4) the probably time needed to restore offsite power. RG 1.155, "Station Blackout," (August 1988), provides guidance for determining a plant specific coping time based on these factors. In general, coping times range from 2 to 16 hours, though licensees may propose alternate durations based on plant specific factors relating to the reliability of their ac power systems.
- Licensees must demonstrate that systems have sufficient capacity and capability to ensure core cooling and containment integrity are maintained for the duration of the specified coping time. Although station batteries are one of the necessary systems, other systems that provide water inventory and containment functions must also be available

"Loss of Power events" – if a combined plant with two reactors lists two events, did each shut down for a total of four?

- Do not understand question – can a reference to a specific table or graph be provided by the questioner?

Also, is there updated figures for the "loss of power events?"

- NUREG/CR-6890, "Reevaluation of Station Blackout Risk at Nuclear Power Plants," (<http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr6890/>) examined data from 1986-2004 for four categories of loss of offsite power events: plant-centered, switchyard centered, grid-related, and weather-related.
- The NRC also maintains an active data collection program on operating experience. The most recent data for loss of offsite power events can be found at the following website: <http://nrcoe.inel.gov/results/index.cfm?fuseaction=LOSP.showMenu>

From: Lee, Richard
Sent: Tuesday, March 22, 2011 12:49 PM
To: Coyne, Kevin
Cc: Wagner, Katie
Subject: FW: Station blackout questions

Kevin:

We need to respond to inquiry on this. Could you please have someone in your Branch or Division to take a look at this. There is also another report, NUREG/CR-6890 on station blackout too.

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr6890/>

If you know other staff in NRO or NRR knows the answers, please let me know.

Thanks, Richard

From: Wagner, Katie
Sent: Tuesday, March 22, 2011 12:13 PM
To: Santiago, Patricia; Hoxie, Chris; Elkins, Scott; Bush-Goddard, Stephanie; Zaki, Tarek
Cc: Lee, Richard
Subject: Station blackout questions
Importance: High

All,

Do any of you know who the lead should be to answer these questions about station blackout (the questions are from a reporter see the highlighted section at the bottom of this email)? It may be another RES division or one in NRR?

Thank you,

Katie Wagner
DSA POC for Japan-Related Requests

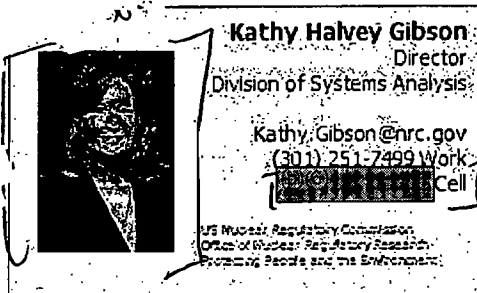
From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 11:59 AM
To: Wagner, Katie
Cc: Lee, Richard
Subject: FW: Station blackout questions
Importance: High

See if you can find this report in ADAMS and who was the cognizant office, branch, and staff.

If that doesn't work or in parallel, send an email request to our BCs and see if any of them know who the lead should be to answer these questions.

It may be another RES division or NRR, I am not sure.

If you need help processing this, see me or Richard Lee.



From: Burnell, Scott
Sent: Tuesday, March 22, 2011 9:49 AM
To: Gibson, Kathy; Scott, Michael
Cc: Elkins, Scott
Subject: FW: Station blackout questions
Importance: High

Kathy, Mike;

I'm thinking NUREG-1776 (Regulatory Effectiveness of the Station Blackout Rule) was done by the predecessor to your division, probably under Scott's branch. I need help answering the reporter's four questions below. Thanks very much.

Scott

From: Mike Soraghan [mailto:msoraghan@eenews.net]
Sent: Thursday, March 17, 2011 6:06 PM
To: Burnell, Scott
Subject: Station blackout questions

Mr. Burnell,

Thank you for taking my call a moment ago. I am looking at doing a story on station black out, with a little on seismic, that looks at all u.s. plants.

My simplest question is whether there is a list of the design basis each of the 104 reactors must meet in terms of what magnitude earthquake they must be able to withstand. I've been told that's not likely, so I'm pulling the information from news reports.

I have the 2000 report (attached) "Regulatory Effectiveness of the Station Blackout Rule." I've been looking at this, particularly the plant-by-plant chart, and I'm seeking some guidance.

First, has there been any update to these numbers?
"Coping time in hours" – is that the amount of battery power? And is it the amount the plant has, or is required to have?
"Loss of Power events" – if a combined plant with two reactors lists two events, did each shut down for a total of four?
Also, are there updated figures for the "loss of power events?"

Thank you,

Mike Soraghan

Reporter

msoraghan@eenews.net

202-446-0423 (desk)



(cell)

(Google Voice)

Environment & Energy Publishing, LLC

122 C Street, NW, Suite 722, Washington, DC 20001

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ClimateWire, E&E Daily, Greenwire, E&ENews PM, E&ETV, Land Letter

Greenwood, Carol

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 3:08 PM
To: McDermott, Brian; Dudek, Michael
Cc: Elkins, Scott; Shaffer, Vered
Subject: Fw: Commission Meeting on Japanese Events
Attachments: Kathy Halvey Gibson.vcf; image001.jpg

Importance: High

Gentlemen,
I sent this email to Michelle this am but haven't heard back. We need to coordinate a scheduling note with you. My staff has talked to some NSIR staff but we need management involvement so we can get it up to EDO.

Please advise whe we can work with.

Thanks!

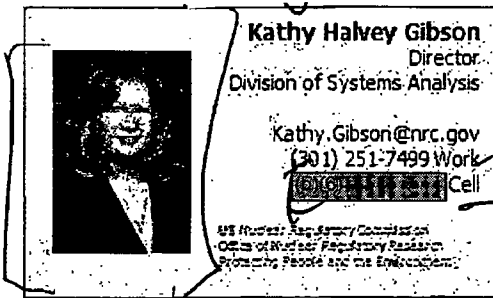
From: Gibson, Kathy
To: Evans, Michele
Cc: Elkins, Scott; Shaffer, Vered
Sent: Tue Mar 22 12:11:59 2011
Subject: FW: Commission Meeting on Japanese Events

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

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

Scott Elkins is our lead and POC for this effort.

Thanks,
Kathy



From: Bowman, Gregory
Sent: Tuesday, March 22, 2011 9:45 AM

BC/95

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!

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Cc: Uhle, Jennifer
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Subject: Commission Meeting on Japanese Events
Importance: High



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,

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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
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Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Weber, Michael; Miller, Charles; Moore, Scott; Merzke, Daniel
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Alan- Thanks for forwarding Jim Andersen's email.

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George,

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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.

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Radiological significance
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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

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

ETAs,

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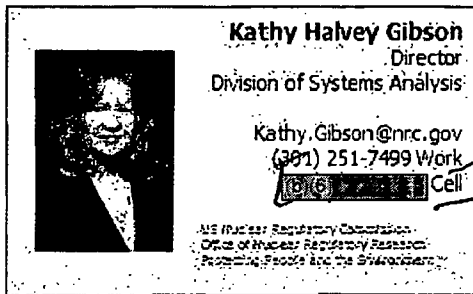
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Greenwood, Carol

From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 4:55 PM
To: Sheron, Brian
Subject: RE: RESPONSE - Commission Meeting on Japanese Events
Attachments: Kathy Halvey Gibson3.vcf; image001.jpg

I will come talk to you.



From: Sheron, Brian
Sent: Tuesday, March 22, 2011 4:54 PM
To: Gibson, Kathy
Subject: FW: RESPONSE - Commission Meeting on Japanese Events

Thoughts?

From: Weber, Michael
Sent: Tuesday, March 22, 2011 4:52 PM
To: Sheron, Brian
Subject: RESPONSE - Commission Meeting on Japanese Events

I think it is fine to involve the SLs, but I expect that we'll need an SES division director, who has been active in the response to be the lead presenter. He or she can call on the other SLS and staff as necessary. Rob Lewis would be good to lead this briefing.

From: Sheron, Brian
Sent: Tuesday, March 22, 2011 2:19 PM
To: Weber, Michael
Subject: FW: Commission Meeting on Japanese Events

Any thoughts?

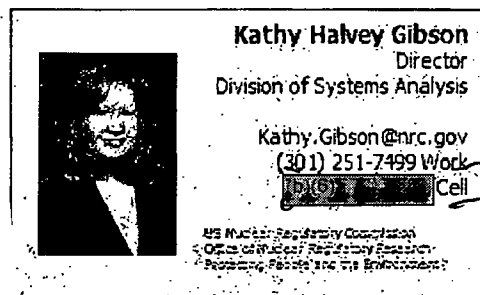
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Sent: Tuesday, March 22, 2011 12:39 PM
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BC/96

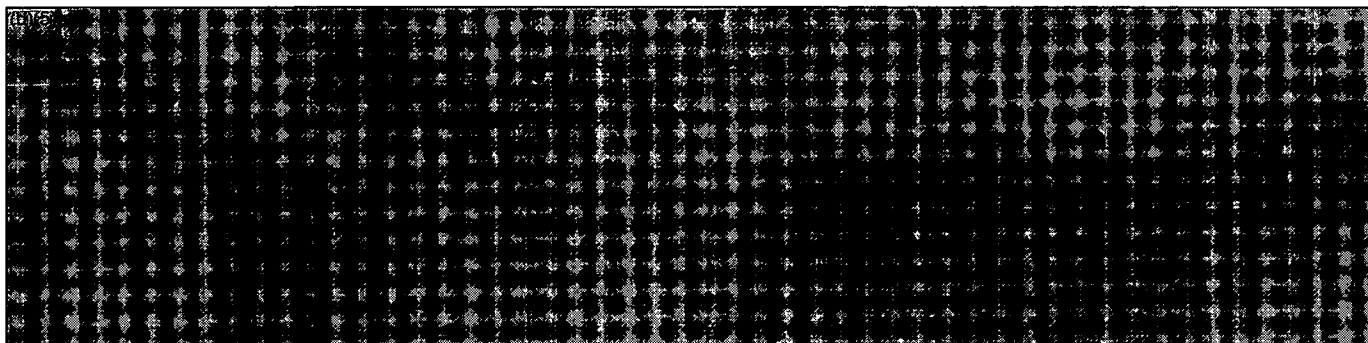
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From: Bowman, Gregory
Sent: Tuesday, March 22, 2011 12:23 PM
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Cc: Shaffer, Vered; Rini, Brett
Subject: RE: Commission Meeting on Japanese Events


Here you go.



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
Cell
RES Mission: Regulatory Compliance
Office of Incident Response Regulation
Protecting People and the Environment

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Importance: High

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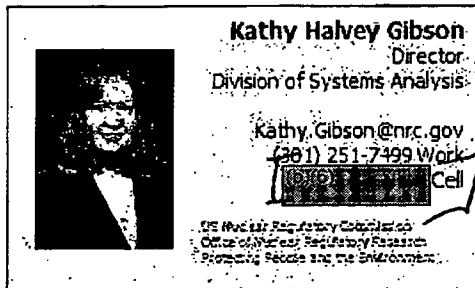
Below is the email chain related to the upcoming Commission meeting on radiological consequences and health effects of Japanese events. It will give you some background and the parameters that we are working toward. We were thinking that this briefing would give the staff the opportunity to showcase 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



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BC/97

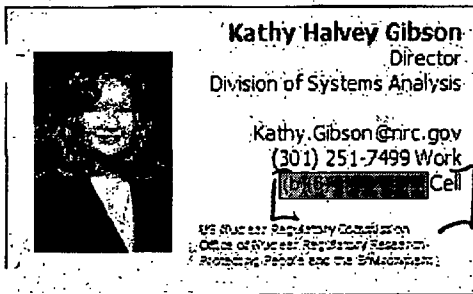
That sounds like a good plan.

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.

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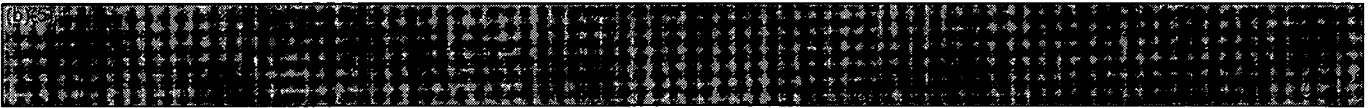
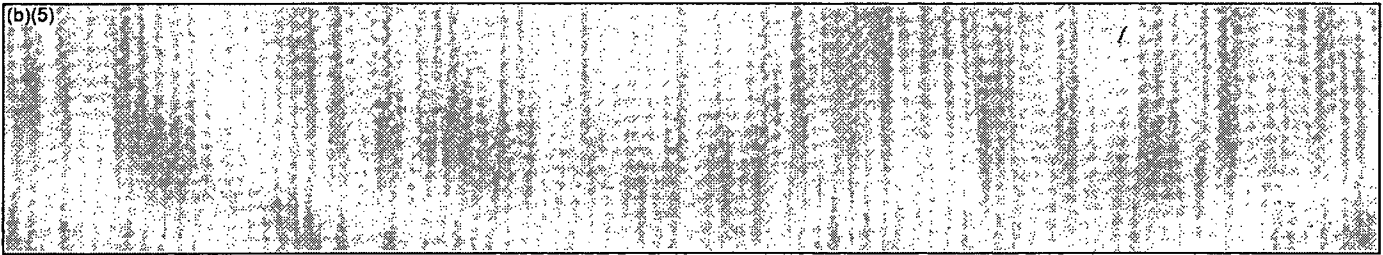
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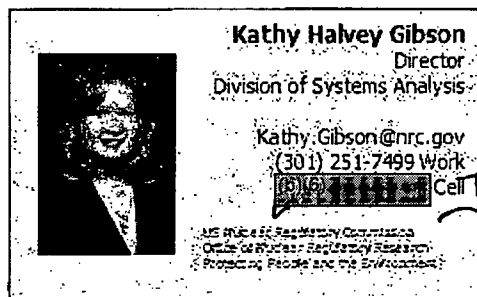


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Subject: FW: Commission Meeting on Japanese Events

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.

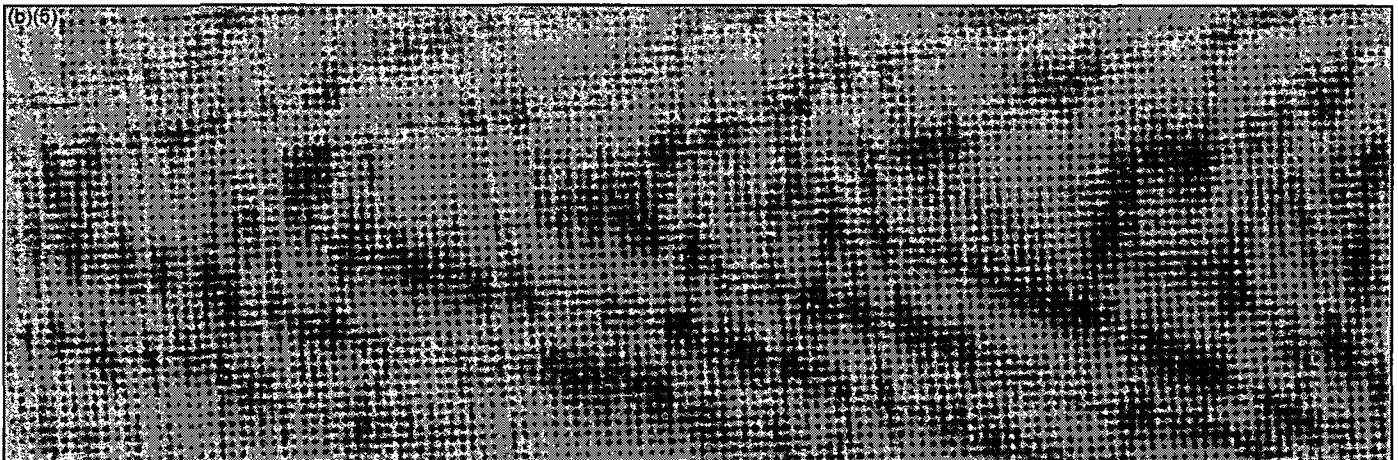
From: Gibson, Kathy
Sent: Tuesday, March 22, 2011 8:07 AM
To: Sheron, Brian; Uhle, Jennifer; Scott, Michael; Bush-Goddard, Stephanie
Cc: Elkins, Scott
Subject: Re: Commission Meeting on Japanese Events

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



Greg

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

Greg,

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

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

Alan

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

Alan- Thanks for forwarding Jim Andersen's email.

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

From: Frazier, Alan
Sent: Monday, March 21, 2011 3:42 PM
To: Deegan, George
Cc: Brock, Kathryn; Andersen, James; Wittick, Brian; Weber, Michael; Miller, Charles; Moore, Scott; Merzke, Daniel
Subject: ACTION: Draft Scheduling Note for New Commission Meeting

George,

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

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

Status of event
Radiological Impacts
Radiological significance

External panel

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

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

Please let me know if you have any questions.

Regards,

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

From: Andersen, James
Sent: Monday, March 21, 2011 1:35 PM
To: EDO_TBPM Distribution
Cc: Muessle, 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 advice 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)

Draft 3/21/11

SCHEDULING NOTE

Title: BRIEFING ON THE JAPAN NUCEAR EVENT: RADIOLOGICAL CONSEQUENCES AND POTENTIAL HEALTH EFFECTS (Public)

Purpose: Provide the Commission an update of the Japan nuclear event with additional focus on radiological consequences and potential health effects and an opportunity to hear a representative sample of external stakeholder viewpoints.

Scheduled: April TBD
9:00am

Duration: Approx. 3 hours

Location: Commissioner's Hearing Room, 1st fl. OWFN

Participants: **Presentation**

NRC Staff **50 mins.***

Bill Borchardt, Executive Director for Operations
Topic: Opening Remarks and Event Status 10 mins.*

Charlie Tinkler, Senior Level Advisor, RES
Topic: Source Term Determination 10 mins.*

Cynthia Jones, Technical Advisor, NSIR
Topic: Dose Projections 15 mins.*

Patricia Milligan, Senior Level Advisor, NSIR
Topic: Protective Actions and Health Effects 15 mins.*

Commission Q & A **50 mins.**

BREAK **5 mins.**

Stakeholder Panel **40 mins.***

David Bowman, DOE
Topic: DOE Assets (AMS, NARAC, etc) 10 mins.*

Sarah Decair, EPA
Topic: EPA Protective Action Guidelines 10 mins.*

TBD, FDA

Topic: FDA Derived Intervention Levels for Radionuclides in Food 10 mins.*

TBD, NR or DOD

Topic: Assets and Event Response for Military Personnel
10 mins.*

Commission Q & A

30 mins.

Discussion – Wrap-up

5 mins.

*For presentation only and does not include time for Commission Q & A's

Documents:

- TBD
- TBD

Staff background material due to SECY: Ten business days prior to the briefing.

Slides due to SECY: Five business days prior to the briefing.

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 9:23 AM
To: Schaperow, Jason
Cc: Tinkler, Charles; Mohseni, Aby
Subject: Re: ACTION: BRC presentation 3/28

My understanding is that you are accompanying Cathy Haney to answer questions. She is giving the briefing but will just be returning from Paris and will have little time to prepare. The Monday early am briefing is to get her up to speed.

Please contact Aby Mohseni to confirm and coordinate on your support for this meeting.

Thanks!

From: Schaperow, Jason
To: Gibson, Kathy
Cc: Tinkler, Charles
Sent: Wed Mar 23 09:10:56 2011
Subject: RE: ACTION: BRC presentation 3/28

Yesterday, Charlie asked whether I was available to brief Rep Hamilton of the BRC on Monday, March 28. He said current plans are to leave from OWFN/TWFN at 7:30 a.m. that day to give the briefing.

I am available to give the briefing on Monday. If it is decided that I will give the briefing, I will need more details on where we are meeting in OWFN/TWFN Monday morning.

Thanks,
Jason

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 8:11 AM
To: Schaperow, Jason
Subject: Fw: ACTION: BRC presentation 3/28

Jason,
Please confirm you are going with Cathy on Monday.

Thanks

From: Sheron, Brian
To: Haney, Catherine; Uhle, Jennifer
Cc: Gibson, Kathy
Sent: Wed Mar 23 07:39:02 2011
Subject: RE: ACTION: BRC presentation 3/28

I was told Jason Schaperow was going with you.

From: Haney, Catherine
Sent: Wednesday, March 23, 2011 4:38 AM
To: Sheron, Brian; Uhle, Jennifer
Subject: Fw: ACTION: BRC presentation 3/28

BC / 98

See notes below.

Is Charlie the best one to go with me. Remember this is sixty minutes with Rep Hamilton.

From: Hill, Brittain
To: Haney, Catherine
Cc: Mohseni, Aby
Sent: Tue Mar 22 13:56:59 2011
Subject: ACTION: BRC presentation 3/28

Cathy – based on feedback from NSIR, they do not believe that any of the existing slides need to be modified. They would, however, prefer us to address the current situation at the beginning of the presentation. I recommend inserting the following slide after #3 (Security Statement)

“Current Events

- March 11, 2010 earthquake & tsunami affected multiple installations in Japan.
- Short-term and longer-term evaluations for lessons learned
- NRC Information Notice 2011-05 sent to licensees [ML110760432]
- High degree of confidence that operations at US nuclear reactors are safe”

This allows a brief statement that NRC is evaluating these events, we’ve issued an IN to assess the previous B5b implementation actions, and reiterate the NRC position last presented by Bill Borchardt yesterday.

I also have Phil Brochman from NSIR lined up for briefing you at 0730 on Monday 3/28. He also can support the BRC briefing. The RES support depends on if you need to have their support at the Management level, or are comfortable with support from SLS staff such as Charlie Tinkler. I can’t resolve the security clearance transfers this is decided.

Please advise-
Thanks-
Britt

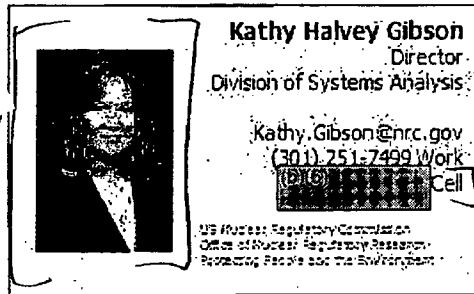
Brittain E. Hill, Ph.D.
Sr. Advisor for Repository Science
US Nuclear Regulatory Commission
MS EBB-2-B02, NMSS/HLWRS/TRD
Washington, DC 20555-0001

Ph (301) 492-3168; Fax (301) 492-3357;
Mobile  email: Brittain.Hill@nrc.gov

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 5:33 PM
To: Hoxie, Chris
Subject: RE: Nominees for 3rd Team to Japan
Attachments: Kathy Halvey Gibson2.vcf

Thanks, Chris



From: Hoxie, Chris
Sent: Thursday, March 24, 2011 5:32 PM
To: Gibson, Kathy
Subject: RE: Nominees for 3rd Team to Japan

Yes, Josh, Carl, or Nate have volunteered. But when I look at the skill set they are requesting, my guys just don't have that skill set. So I would prefer to not volunteer any of them. I might be setting them up for failure....

Chris L. Hoxie, PhD
Branch Chief, Code Development
Division of Systems Analysis
Office of Nuclear Regulatory Research
United States Nuclear Regulatory Commission
Room: CH3-D04
Phone: 301-251-7562
Cell: [REDACTED]

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 5:27 PM
To: Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: Nominees for 3rd Team to Japan
Importance: High


Please let me know before 8 am Monday if you recommend anyone from your staff (or SLs nominate yourself) for any of the expertise areas being sought to go to Japan. Please verify with the person you are nominating that they are willing and able to go during the first two weeks in April.

The information that staff provided on their willingness to go to Japan is attached FYI and use.

Thanks!

BC/99

Kathy Halvey Gibson
Director
Division of Systems Analysis



Kathy.Gibson@hrc.gov
(301) 751-7499 Work
(301) 751-7499 Cell

U.S. House of Representatives
Office of the Director of Regulatory Research
Protecting People and the Environment

From: Case, Michael

Sent: Thursday, March 24, 2011 1:47 PM

To: Coyne, Kevin; Correia, Richard; Gibson, Kathy; Richards, Stuart; Case, Michael

Cc: Rini, Brett; Sheron, Brian; Uhle, Jennifer

Subject: Nominees for 3rd Team to Japan

The Agency is trying to put together another team to go to Japan leaving on or about April 2nd and returning April 16th. They are seeking individuals willing to go with skills in the following areas:

Severe Accident Management Knowledge

B.5.b Knowledge

Accident Recovery Knowledge

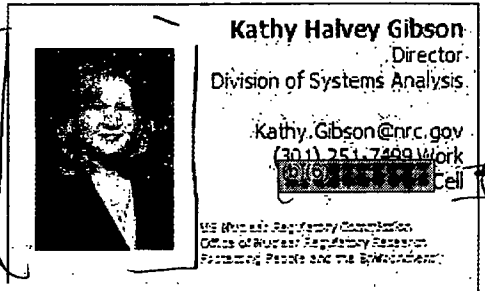
Political Savvy

Additional background info is on the attached sheet. **Please forward your nominees to Brian/Jennifer/Brett by 0800 Monday** (due at noon to Michele Evans). DSA currently has one nominee that will be forwarded shortly. Background info on nominated candidates should include the person's skills in relation to those identified areas above, any OD endorsement, and passport status.

Greenwood, Carol

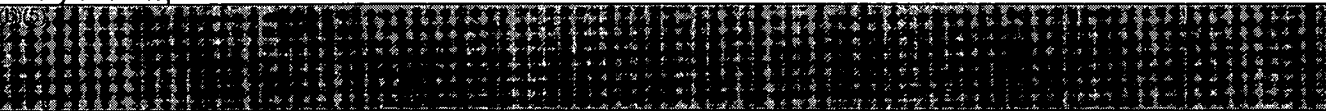
From: Gibson, Kathy
Sent: Thursday, March 24, 2011 5:45 PM
To: Lewis, Robert; Bush-Goddard, Stephanie; Moore, Scott
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences
Attachments: Kathy Halvey Gibson2.vcf

Ok, when you decide what you want in the scheduling note, e.g. who you want at the table, and the external panel participants (besides HPS), we can revise the note and get it up to EDO.



From: Lewis, Robert
Sent: Thursday, March 24, 2011 5:42 PM
To: Bush-Goddard, Stephanie; Gibson, Kathy; Moore, Scott
Subject: Fw: RESPONSE - Commission briefing on Radiation Health Consequences

Kathy and Stephanie

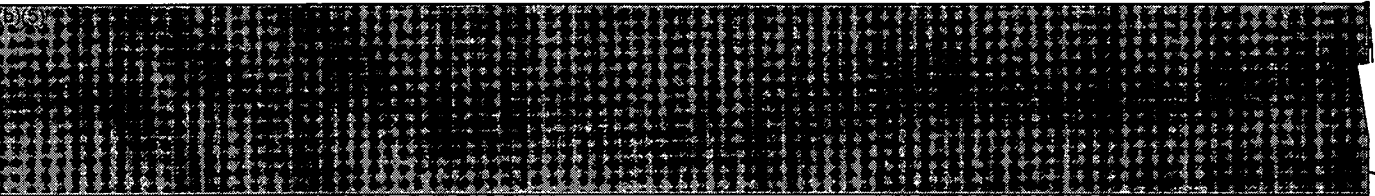


In case I don't catch you early Fri am, and since Deegan is out --

Scott Moore and I would like to see the scheduling note revisions before it goes to edo or secy.

Also did anyone in fsme help identify new external stakeholders (I saw something in passing that that may be requested but nothing came by me).

From: Bowman, Gregory
To: Deegan, George; Lewis, Robert
Cc: Moore, Scott
Sent: Thu Mar 24 14:17:24 2011
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences



From: Deegan, George
Sent: Thursday, March 24, 2011 2:06 PM

BCI 100

To: Bowman, Gregory; Lewis, Robert
Cc: Moore, Scott
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

Greg- I was just speaking with Scott about this, and both he and Rob were willing to have FSME taking lead, but this was a few minutes before you sent this email. Could the 3/28 meeting 2 3 PM be used to inform the Scheduling Note?

From: Bowman, Gregory
Sent: Thursday, March 24, 2011 1:58 PM
To: Lewis, Robert; Deegan, George
Subject: FW: RESPONSE - Commission briefing on Radiation Health Consequences

FYI – Mike wants RES to keep the lead for the meeting. I'm going to work with them to revise the scheduling note based on feedback from the Chairman. The Chairman didn't like RES's suggested external panel. He wants HPS and maybe one other group that can provide an objective assessment of the health consequences. FSME might be better able to come up with names and organizations, so RES might be in touch with help on that.

From: Andersen, James
Sent: Thursday, March 24, 2011 1:49 PM
To: Bowman, Gregory; Frazier, Alan; Brock, Kathryn
Subject: Fw: RESPONSE - Commission briefing on Radiation Health Consequences

Fyi

Sent from an NRC Blackberry
James Andersen

From: Weber, Michael
To: Sheron, Brian
Cc: Muesje, Mary; Andersen, James
Sent: Thu Mar 24 13:44:43 2011
Subject: RESPONSE - Commission briefing on Radiation Health Consequences

RES maintains the lead responsibility for the briefing with Rob as the briefer. Most of the technical knowledge and support in the radiation health effects area is coming from RES, consequently RES has the lead for the briefing. Rob is the briefer based on his knowledge of the agency's response. It is a great opportunity to practice interdependence.

Thanks

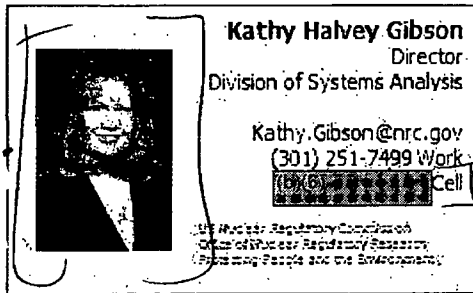
From: Sheron, Brian
Sent: Thursday, March 24, 2011 1:39 PM
To: Weber, Michael
Subject: FW: commission briefing on japan

Mike, We had originally proposed that 3 SLs conduct the bulk of the briefing (Charlie Tinker, Cindy Jones, and Trish Milligan). Greg Bowman told us that you decided that just Rob Lewis would be at the table for this Commission meeting and do the briefing. Hence, we told Rob that FSME should have the lead for the briefing, since RES has no role in the meeting, other than we will have some folks available to answer questions about source term.

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:19 PM
To: Lewis, Robert
Subject: RE: commission briefing on japan

Rob,
My understanding is now that you are doing the briefing, FSME has the lead. Attached is the scheduling note that we provided for your use.

Best,
Kathy



From: Lewis, Robert
Sent: Thursday, March 24, 2011 12:23 PM
To: Gibson, Kathy
Subject: commission briefing on japan

Kathy

My understanding is that I am to do the subject commission briefing with RES' support. Is that your current understanding?

Other than a heads up email from Michele Evans and a short discussion with Charlie Miller and Mike Weber, I have no meaningful awareness of any existing plans to schedule, prepare, obtain alignment, and conduct the meeting. Can you help me to get plugged in, and include Don Cool, and Vince Holahan?

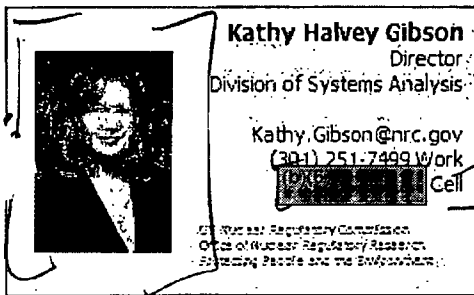
Thanks
Rob

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 5:52 PM
To: Lewis, Robert
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences
Attachments: Kathy Halvey Gibson3.vcf

We can't update the scheduling note without your input. It might work best if you assign someone to work with Stephanie since this is on a fast track.

I assume you have views who you would like on the external panel, no?

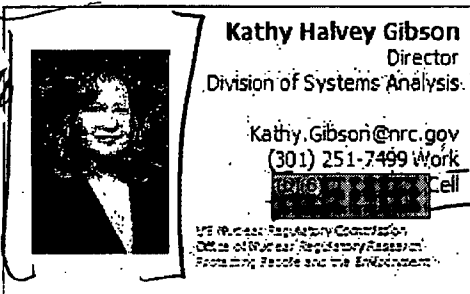


From: Lewis, Robert
Sent: Thursday, March 24, 2011 5:48 PM
To: Gibson, Kathy
Subject: Re: RESPONSE - Commission briefing on Radiation Health Consequences

Thanks for the quick response. The email from Greg Bowman explicitly says he asked RES to update the scheduling note? Your email seems to think I have the ball. What am I missing?

From: Gibson, Kathy
To: Lewis, Robert; Bush-Goddard, Stephanie; Moore, Scott
Sent: Thu Mar 24 17:45:00 2011
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

Ok, when you decide what you want in the scheduling note, e.g. who you want at the table, and the external panel participants (besides HPS), we can revise the note and get it up to EDO.



From: Lewis, Robert
Sent: Thursday, March 24, 2011 5:42 PM

BC/101

To: Bush-Goddard, Stephanie; Gibson, Kathy; Moore, Scott
Subject: Fw: RESPONSE - Commission briefing on Radiation Health Consequences

Kathy and Stephanie

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Scott Moore and I would like to see the scheduling note revisions before it goes to edo or secy.

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Cc: Moore, Scott
Sent: Thu Mar 24 14:17:24 2011
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

From: Deegan, George
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Cc: Moore, Scott
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

Greg- I was just speaking with Scott about this, and both he and Rob were willing to have FSME taking lead, but this was a few minutes before you sent this email. Could the 3/28 meeting 2 3 PM be used to inform the Scheduling Note?

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To: Bowman, Gregory; Frazier, Alan; Brock, Kathryn
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James Andersen

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Sent: Thu Mar 24 13:44:43 2011
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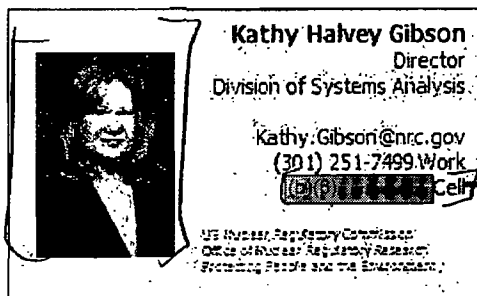
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Subject: RE: commission briefing on japan

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Kathy



From: Lewis, Robert
Sent: Thursday, March 24, 2011 12:23 PM
To: Gibson, Kathy
Subject: commission briefing on japan

Kathy

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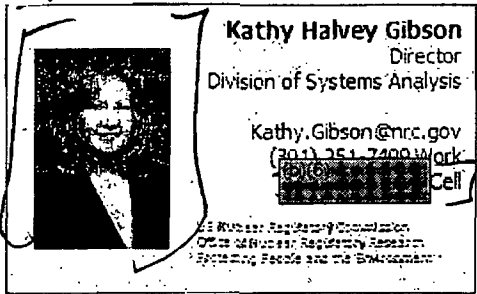
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Thanks
Rob

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 6:05 PM
To: RES_DSA
Subject: FW: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective
Attachments: Kathy Halvey Gibson.vcf

FYI .



From: Brock, Terry
Sent: Thursday, March 24, 2011 1:37 PM
To: Gibson, Kathy
Subject: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Excellent John Boice interview below on Japanese current events Hat-tip to Vered on finding this.

Terry

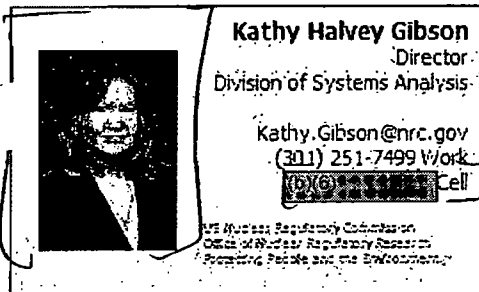
CNN Video Link:
<http://www.cnn.com/video/data/2.0/video/world/2011/03/23/sotu.boice.0320.cnn.cnn.html>

BC/102

- Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 6:06 PM
To: Ashley Carnes; Bobbi and Tim Monroe; Dad Halvey; Gibson, Raymond;
gibsongroup@msn.com; Jennifer Gibson (jagibson1@comcast.net); Jimmy Gibson; John Eric Halvey; John Eric Halvey - work; Kayln Freisleben; Kim Stoltz; Megan Gibson; Mom Halvey; Rachel & Ray Gibson; Randi Gibson; Rick Halvey
Subject: FW: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective
Attachments: Kathy Halvey Gibson.vcf

For anyone interested – from an independent source.



From: Brock, Terry
Sent: Thursday, March 24, 2011 1:37 PM
To: Gibson, Kathy
Subject: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Excellent John Boice interview below on Japanese current events. Hat-tip to Vered on finding this.

Terry

CNN Video Link:

<http://www.cnn.com/video/data/2.0/video/world/2011/03/23/sotu.boice.0320.cnn.cnn.html>

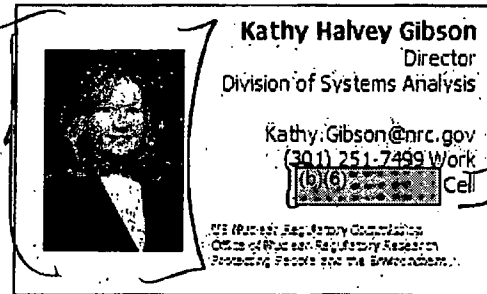
BC/103

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 6:13 PM
To: Kayln Freisleben
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective
Attachments: Kathy Halvey Gibson2.vcf

Yes – he has been doing this kind of work forever, has been or currently is on every major international committee that studies health effects of radiation, he was also a big shot at the National Cancer Institute. Studied Japanese atomic bomb survivors, Chernobyl, TMI, etc. He is very credible.

(b)(6)



Kathy Halvey Gibson
Director
Division of Systems Analysis

Kathy.Gibson@nrc.gov
(301) 251-7499 Work
(b)(6) Cell

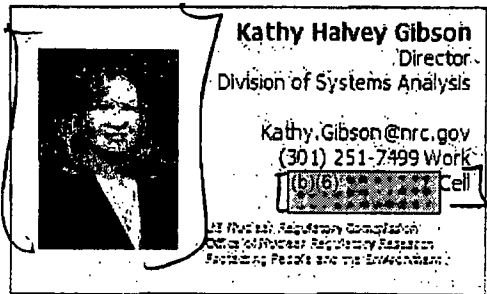
US Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Facilitating People and the Environment

From: Kayln Freisleben [mailto:kfreisleben@sumtotalsystems.com]
Sent: Thursday, March 24, 2011 6:09 PM
To: Gibson, Kathy
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Do you know that person?

From: Gibson, Kathy [mailto:Kathy.Gibson@nrc.gov]
Sent: Thursday, March 24, 2011 6:06 PM
To: Ashley Carnes; Bobbi and Tim Monroe; Dad Halvey; Gibson, Raymond; (b)(6); Jennifer Gibson
(b)(6); Jimmy Gibson; John Eric Halvey; John Eric Halvey - work; Kayln Freisleben; Kim Stoltz; Megan Gibson; Mom Halvey; Rachel & Ray Gibson; Randi Gibson; Rick Halvey
Subject: FW: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

For anyone interested – from an independent source.



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
Facilitating People and the Environment

From: Brock, Terry
Sent: Thursday, March 24, 2011 1:37 PM

BC/104

To: Gibson, Kathy

Subject: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Excellent John Boice interview below on Japanese current events. Hat-tip to Vered on finding this.

Terry

CNN Video Link:

<http://www.cnn.com/video/data/2.0/video/world/2011/03/23/sotu.boice.0320.cnn.cnn.html>

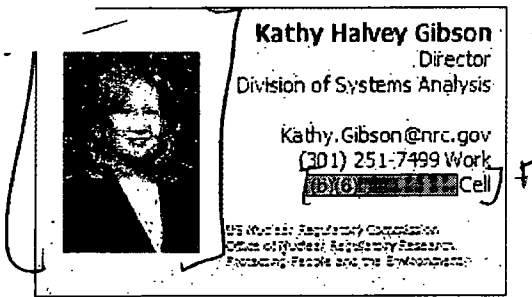
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Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 6:26 PM
To: Bush-Goddard, Stephanie
Subject: FW: Changes to Draft Scheduling Note
Attachments: 110414 Status on Japan Scheduling Note (Rev 1).docx; Kathy Halvey Gibson.vcf
Importance: High

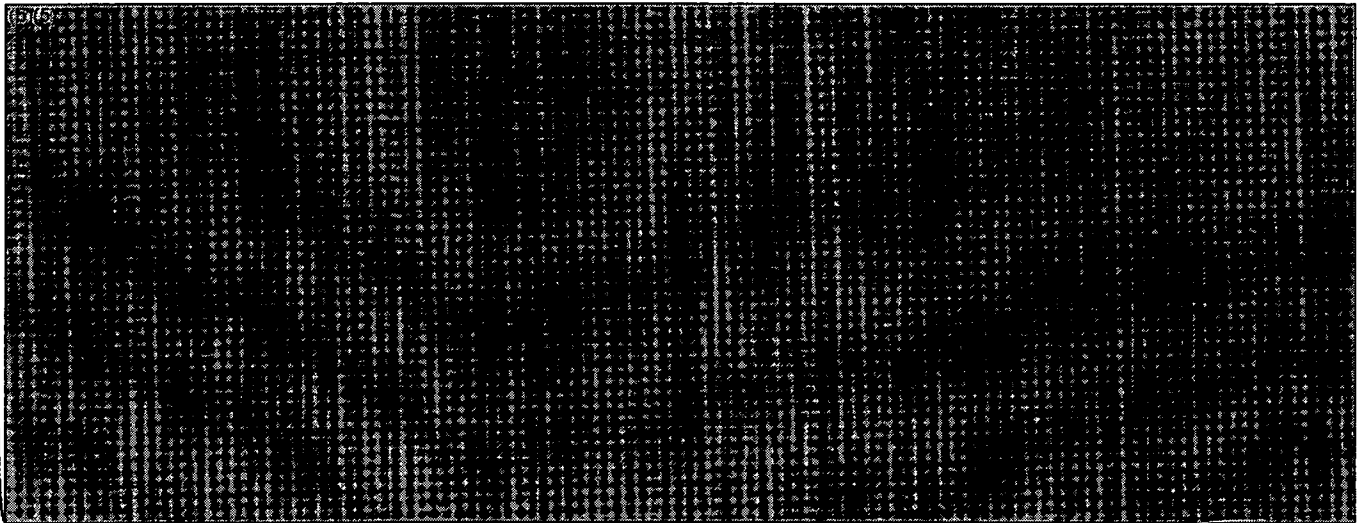
Stephanie,
This email has the latest version of the scheduling note. You need to get input from Rob on who they want for the external panel (organization and name), update the scheduling note accordingly, then provide it to Greg Bowman.

Thanks,
Kathy



From: Bowman, Gregory
Sent: Thursday, March 24, 2011 2:04 PM
To: Elkins, Scott
Cc: Gibson, Kathy; Shaffer, Vered; Lewis, Robert; Cool, Donald; Holahan, Vincent
Subject: Changes to Draft Scheduling Note
Importance: High

Scott,



Greg

BC | 105

Draft: 03/22/11

SCHEDULING NOTE

Title: BRIEFING ON STATUS OF NRC RESPONSE TO EVENTS IN JAPAN – STATION BLACKOUT (Public)

Purpose: To provide the Commission with an updated status of the Japanese event and to provide an overview of the Station Blackout Rule.

Scheduled: April 28, 2011
9:00 a.m.

Duration: Approx. 1 hour and 45 minutes

Location: Commissioners' Conference Room, 1st floor OWFN

Participants:	Presentation
<u>NRC Staff Panel</u>	50 mins.*
Marty Virgilio , Deputy Executive Director <u>Topic:</u> Update on NRC Response to Japanese Events	15 mins.*
Jack Grobe , Deputy Director for Engineering and Support Office of Nuclear Reactor Regulation <u>Topic:</u> Station Blackout Overview	5 mins.*
Patrick Hiland , Director for Engineering, Office of Nuclear Reactor Regulation <u>Topic:</u> Station Blackout Rule Background	10 mins.*
George Wilson , Chief of Instrumentation and Control Branch, Division of Engineering, Office of Nuclear Reactor Regulation <u>Topic:</u> Station Blackout Review and Approval Process	20 mins.*
Commission Q & A	50 mins.
Discussion – Wrap-up	5 mins

*For presentation only and does not include time for Commission Q & A's.

Documents:

Background due to SECY: April 14, 2011.
Slides due to SECY: April 21, 2011.

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 7:49 PM
To: Bush-Goddard, Stephanie
Subject: Re: RES Seminar: Chernobyl

You are good! :-)

From: Bush-Goddard, Stephanie
To: Sheron, Brian; Bonaccorso, Amy; Gibson, Kathy; Uhle, Jennifer
Cc: Donaldson, Leslie; Shaffer, Vered
Sent: Thu Mar 24 19:33:55 2011
Subject: RES Seminar: Chernobyl

Brian,

John Boice can present at the RES Seminar: Chernobyl 25th Anniversary.

Amy : please call me so that we can finalized the agenda with Brian, Frank and Dr. Boice as presenters.

It will be a good and balanced seminar.

-Stephanie

From: Sheron, Brian
Sent: Thursday, March 24, 2011 3:06 PM
To: Bush-Goddard, Stephanie; Bonaccorso, Amy; Gibson, Kathy; Uhle, Jennifer
Cc: Donaldson, Leslie
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

If you guys want to do it instead of John, that's fine with me. I presume you have information specific to Chernobyl?

From: Bush-Goddard, Stephanie
Sent: Thursday, March 24, 2011 2:57 PM
To: Bush-Goddard, Stephanie; Sheron, Brian; Bonaccorso, Amy; Gibson, Kathy; Uhle, Jennifer
Cc: Donaldson, Leslie
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

I was want to add that the Health Effects Branch is also very capable of presenting Radiological Consequences and Health Effects at the 25 anniversary of Chernobyl.

-Stephanie

From: Bush-Goddard, Stephanie
Sent: Thursday, March 24, 2011 2:50 PM
To: Sheron, Brian; Bonaccorso, Amy; Gibson, Kathy; Uhle, Jennifer
Cc: Donaldson, Leslie
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

I'm on the phone now.

BCF 106

From: Sheron, Brian
Sent: Thursday, March 24, 2011 2:50 PM
To: Bonaccorso, Amy; Gibson, Kathy; Uhle, Jennifer
Cc: Bush-Goddard, Stephanie; Donaldson, Leslie
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Stephanie, can you call John and see if he is available. I presume we can pay him an honorarium as well? Let Amy know if he can participate and then we can make the necessary adjustments to the agenda.

From: Bonaccorso, Amy
Sent: Thursday, March 24, 2011 2:45 PM
To: Sheron, Brian; Gibson, Kathy; Uhle, Jennifer
Cc: Bush-Goddard, Stephanie; Donaldson, Leslie
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Folks:

We've had this Mr. Boice suggestion and also a health effects presentation suggestion (from Stephanie). Neither was finalized by the time I needed to roll out with an advertisement. Stephanie told me not to worry about hers.... I thought that I cc'ed Kathy on that final "Are we ready to go?" but can't confirm right now (at a touchdown center without email archives).

If you really want Mr. Boice - I can adjust the agenda, but we should stick to the 2 hour time slot because that is what we've advertised. We had to lock something in for advertising. I don't have contact info for Mr. Boice and his presentation would need to be worked in so we do not have overlap.

Someone please let me know as soon as possible if we are serious about pursuing this. Also - we need to leave some time for Q&A....that just occurred to me...so the draft agenda will need to be slightly adjusted anyway for that.

Thanks,

Amy

From: Sheron, Brian
Sent: Thursday, March 24, 2011 2:37 PM
To: Gibson, Kathy; Uhle, Jennifer
Cc: Bonaccorso, Amy
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Another failure to communicate.

Amy asked me who we could get to speak on Chernobyl. Frank was the only NRC staffer who was involved in the agency's response (besides me) who is still available. Amy tracked him down, and we are paying him a \$500 honorarium. Sometime after that, someone (you?) mentioned that John Boice did an epidemiological study on the Chernobyl survivors and suggested we get him to speak. I agreed and asked Amy to pursue and adjust presentation times so we could fit him in. That is the last that I heard of it. If we could get him to speak, that would be great.

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 2:24 PM

To: Sheron, Brian; Uhle, Jennifer
Subject: Re: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

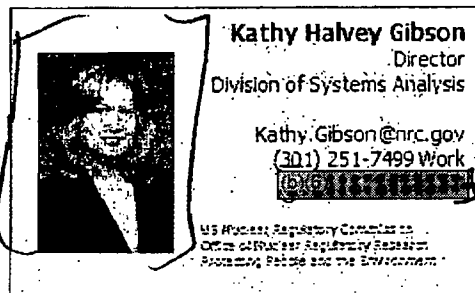
Staff tells me you wanted Frank Congel so they ran with that. Also we would have to pay Dr. Boice.

From: Sheron, Brian
To: Gibson, Kathy; Uhle, Jennifer
Sent: Thu Mar 24 14:04:20 2011
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

I thought we were getting him for the Chernobyl seminar since he supposedly did a health effects study on the Chernobyl survivors. What happened?

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:47 PM
To: Sheron, Brian; Uhle, Jennifer
Subject: FW: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

A potential speaker when we do a Japan seminar!



From: Brock, Terry
Sent: Thursday, March 24, 2011 1:37 PM
To: Gibson, Kathy
Subject: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Excellent John Boice interview below on Japanese current events. Hat-tip to Vered on finding this.

Terry

CNN Video Link:

<http://www.cnn.com/video/data/2.0/video/world/2011/03/23/sotu.boice.0320.cnn.cnn.html>

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 6:17 PM
To: Bush-Goddard, Stephanie
Subject: RE: Public health: another issue that needs near-term action
Attachments: Kathy Halvey Gibson.vcf

What about Japanese citizens?

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

From: Bush-Goddard, Stephanie
Sent: Wednesday, March 23, 2011 6:12 PM
To: Gibson, Kathy
Subject: RE: Public health: another issue that needs near-term action

For the US: Yes, setting up additional monitoring stations for the public (without detecting anything) could cause additional alarm where none is needed.

In Japan: we should provide guidance to our citizens based on real data. They probably should get monitored there and we should give them information if they want to get monitored when they come back to the US.

I think they are responding to the public RASCAL run that shows very high does to the Thyroid.

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

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 6:07 PM
To: Bush-Goddard, Stephanie
Cc: Sherbini, Sami; Wagner, Katie
Subject: RE: Public health: another issue that needs near-term action

So do we think it is a bad idea in US and Japan?

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

From: Bush-Goddard, Stephanie
Sent: Wednesday, March 23, 2011 5:54 PM
To: Gibson, Kathy
Cc: Sherbini, Sami; Wagner, Katie
Subject: RE: Public health: another issue that needs near-term action

They are talking about monitoring members of the public in the US.

and transferring equipment to Japan to help them monitor.

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

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 5:46 PM

BC/107

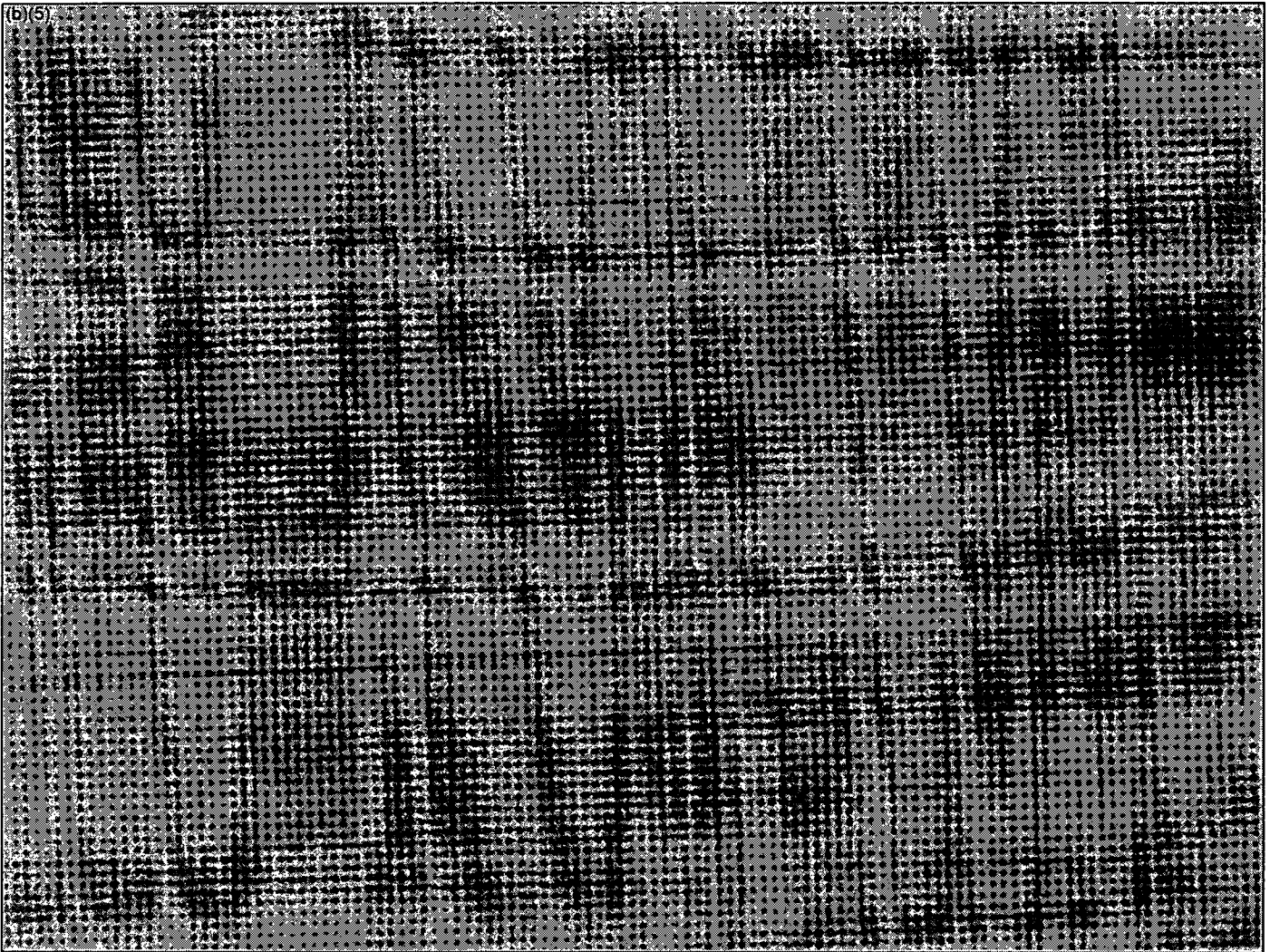
To: Bush-Goddard, Stephanie
Cc: Sherbini, Sami; Wagner, Katie
Subject: RE: Public health: another issue that needs near-term action

Are they talking about members of the public in US or Japan? Does it make a difference to your response?

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

From: Bush-Goddard, Stephanie
Sent: Wednesday, March 23, 2011 4:38 PM
To: Gibson, Kathy
Cc: Sherbini, Sami; Wagner, Katie
Subject: FW: Public health: another issue that needs near-term action

Kathy,



-Stephanie

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

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:59 PM

To: Lee, Richard; Wagner, Katie
Cc: Bush-Goddard, Stephanie
Subject: FW: Public health: another issue that needs near-term action

Assign this one to Stephanie

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

From: Sheron, Brian
Sent: Wednesday, March 23, 2011 1:57 PM
To: Gibson, Kathy; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: Fw: Public health: another issue that needs near-term action

See below. Any thoughts?

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

From: Per F. Peterson <peterson@nuc.berkeley.edu>
To: Koonin, Steven <Steven.Koonin@science.doe.gov>; Adams, Ian <Ian.Adams@Hq.Doe.Gov>; Aoki, Steven <Steven.Aoki@nnsa.doe.gov>; Binkley, Steve <Steve.Binkley@science.doe.gov>; Brinkman, Bill <Bill.Brinkman@science.doe.gov>; RJBudnitz@lbl.gov <RJBudnitz@lbl.gov>; SCHU <SCHU@hq.doe.gov>; DAgostino, Thomas <Thomas.DAgostino@nnsa.doe.gov>; Steven_A._Fetter@ostp.eop.gov <Steven_A._Fetter@ostp.eop.gov>; Finck, Phillip <phillip.finck@inl.gov>; <[REDACTED]>; <[REDACTED]>; Grossenbacher, John (INL) <john.grossenbacher@inl.gov>; John Holdren <[REDACTED]>; Hurlbut, Brandon <Brandon.Hurlbut@hq.doe.gov>; Kelly, John E (NE) <JohnE.Kelly@Nuclear.Energy.Gov>; McFarlane, Harold <harold.mcfarlane@inl.gov>; Owens, Missy <Missy.Owens@hq.doe.gov>; Poneman, Daniel <Daniel.Poneman@hq.doe.gov>; Sheron, Brian; ronaldo.szilard@inl.gov <ronaldo.szilard@inl.gov>; rlg2@us.ibm.com <rlg2@us.ibm.com>; Per F. Peterson <peterson@nuc.berkeley.edu>; Lyons, Peter <Peter.Lyons@Nuclear.Energy.gov>
Sent: Wed Mar 23 13:35:11 2011
Subject: Public health: another issue that needs near-term action

I would like to raise another issue which now merits expeditious, near term action.

There is a short time window now, of about 6 to 8 weeks, during which it will remain possible to use whole-body counting and other methods to measure any I-131 that members of the public may have ingested. There are a number of reasons why collecting this data, from a sufficiently large sample of the public and workers to get statistically strong data, would be very valuable. I have raised this question with other members of the UCB faculty, and there is general agreement that prompt action should be taken in this area. I do understand that the IAEA has been making measurements, but I am not sure what specifically they have been doing and whether this includes whole-body counting (which can measure body burdens of radioactive materials resolved by isotopes).

Below I discuss this issue in greater detail, outline the reasons why prompt action is likely warranted, and discuss what actions DOE could take immediately in this area.

There has been a program at the Carlsbad Environmental Monitoring and Research Center near WIPP, that has been funded by the DOE, that has performed whole body counting:

<http://www.cemrc.org/health/lieadown.htm>

This program at CEMRC has had important and valuable effects in increasing public confidence, since any member of the public with a concern about potential exposures can determine whether any has happened.

In the longer term many cases of thyroid cancer, and other health problems, may end up being attributed to exposures from the Fukushima accident, both in Japan and on the U.S. west coast. Unless statistically strong data is collected in this short time window, it will be difficult to provide a strong and scientifically valid argument about the probability that these diseases have originated from exposures resulting from this accident.

The second reason to collect this data is that it is possible that we will find that some people have received doses of I-131 and other radionuclides that could exceed the levels that current Protective Action Guidelines are designed to prevent. This could provide a basis for immediate action to change PAG's, as well as the ability in the longer term to reassess and improve our approaches to PAGs.

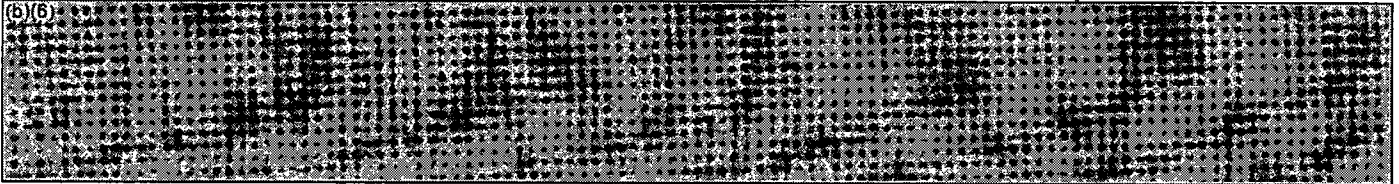
Also, the effectiveness of emergency response depends strongly on the level of public confidence that the government has people's best interests in mind; collecting data that shows the effectiveness (or lack of effectiveness) of these efforts could be central to building longer-term confidence and thus incentivizing more people to follow government recommendations in future emergencies of all types.

The third reason to collect this data is that it could identify individuals who have had significant exposure to I-131 or other radionuclides, and alert them and their medical care professionals to monitor for potential health effects. For remaining people, it could provide reassurance that they do not need to worry about long-term health impacts from the accident.

A fourth reason to collect this data is that it could provide a good statistical basis to correlate data taken from hand-held monitors (I presume these exist) that can be used to screen large numbers of people, to actual, isotope-resolved whole-body burdens. It may even make sense to support bringing some people to the CEMRC facility in Carlsbad, since it has extremely high resolution, so that there can be a direct comparison between rapid monitoring methods, conventional whole body counts, and the extremely accurate counts possible at the CEMRC facility.

I should emphasize that substantial care must be taken in organizing any activity to collect data, with respect to public opinion in Japan. There are very strong reasons to gather data, but it must be done in a way that is broadly viewed as being in the interest of the public and the individuals involved. Having some significant role played by universities may be helpful, as well as the IAEA, so that the effort would not be viewed as being a government-directed effort, given current low levels of trust in the government.

There is only a 6 to 8 week window where whole body counting is practical for detecting I-131. I would



Thoughts?

-Per

Per F. Peterson
Professor and Chair
Department of Nuclear Engineering
University of California
4153 Etcheverry Hall
Berkeley, California 94720-1730
peterson@nuc.berkeley.edu
Office: (510) 643-7749 Fax: (510) 643-9685
http://www.nuc.berkeley.edu/People/Per_Peterson

Ex Co PI

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 6:35 PM
To: Sheron, Brian
Cc: Uhle, Jennifer
Subject: FW: Public health: another issue that needs near-term action
Attachments: Kathy Halvey Gibson.vcf

Brian,

Below is HEB's response to the question of iodine monitoring. They think it's a bad idea for people in the US because there (so far) isn't measurable iodine in the US. They think US citizens (like Mike) who are potentially exposed over there and return should be offered information and access to monitoring when they return. And finally they think the Japanese are likely already monitoring their citizens. They think this may be a funding opportunity for the entities making these proposals.

Details below.

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

From: Bush-Goddard, Stephanie
Sent: Wednesday, March 23, 2011 6:12 PM
To: Gibson, Kathy
Subject: RE: Public health: another issue that needs near-term action

For the US: Yes, setting up additional monitoring stations for the public (without detecting anything) could cause additional alarm where none is needed.

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Sent: Wednesday, March 23, 2011 5:54 PM
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BC/108

and transferring equipment to Japan to help them monitor.

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To: Bush-Goddard, Stephanie

Cc: Sherbini, Sami; Wagner, Katie

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Kathy,



(b)(5)

-Stephanie

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Sent: Wednesday, March 23, 2011 1:57 PM
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From: Per F. Peterson <peterson@nuc.berkeley.edu>
To: Koonin, Steven <Steven.Koonin@science.doe.gov>; Adams, Ian <Ian.Adams@Hq.Doe.Gov>; Aoki, Steven <Steven.Aoki@nnsa.doe.gov>; Binkley, Steve <Steve.Binkley@science.doe.gov>; Brinkman, Bill <Bill.Brinkman@science.doe.gov>; RJBudnitz@lbl.gov <RJBudnitz@lbl.gov>; SCHIL <SCHIL@hq.doe.gov>; DAgostino, Thomas <Thomas.DAgostino@nnsa.doe.gov>; (b)(6); (b)(6); (b)(6); Finck, Phillip <phillip.finck@inl.gov>; (b)(6); (b)(6); Grossenbacher, John (INL) <john.grossenbacher@inl.gov>; John Holdren <(b)(6)>; Hurlbut, Brandon <Brandon.Hurlbut@hq.doe.gov>; Kelly, John E (NE) <JohnE.Kelly@Nuclear.Energy.Gov>; McFarlane, Harold <harold.mcfarlane@inl.gov>; Owens, Missy <Missy.Owens@hq.doe.gov>; Poneman, Daniel <Daniel.Poneman@hq.doe.gov>; Sheron, Brian; ronaldo.szilard@inl.gov <ronaldo.szilard@inl.gov>; rlg2@us.ibm.com <rlg2@us.ibm.com>; Per F. Peterson <peterson@nuc.berkeley.edu>; Lyons, Peter <Peter.Lyons@Nuclear.Energy.gov>
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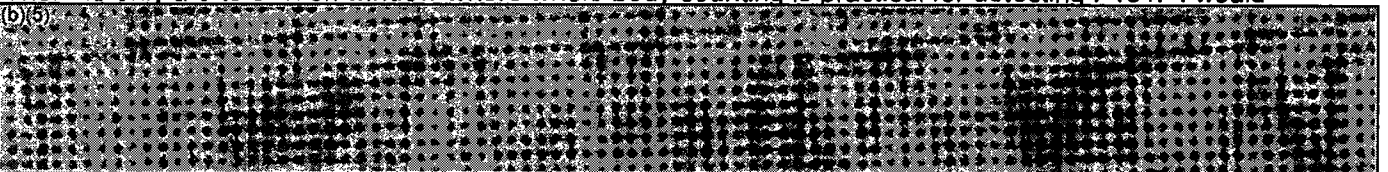
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(b)(5)


Thoughts?

-Per

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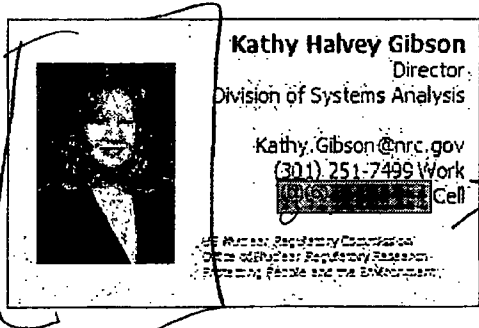
Per F. Peterson

Professor and Chair
Department of Nuclear Engineering
University of California
4153 Etcheverry Hall
Berkeley, California 94720-1730
peterson@nuc.berkeley.edu
Office: (510) 643-7749 Fax: (510) 643-9685
http://www.nuc.berkeley.edu/People/Per_Peterson

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:13 PM
To: Bowman, Gregory; Evans, Michele; Sheron, Brian; Elkins, Scott
Subject: Scheduling note for Japan brief
Attachments: Kathy Halvey Gibson.vcf; 1104xx Japan Rad Consequence Scheduling Noterev1nonames.docx

Attached with no names and time adjustments.



BC/109

Draft 3/21/11

SCHEDULING NOTE

Title: BRIEFING ON THE JAPAN NUCLEAR EVENT: RADIOLOGICAL CONSEQUENCES AND POTENTIAL HEALTH EFFECTS (Public)

Purpose: Provide the Commission an update of the Japan nuclear event with additional focus on radiological consequences and potential health effects and an opportunity to hear a representative sample of external stakeholder viewpoints.

Scheduled: April TBD
9:00am

Duration: Approx. 3 hours

Location: Commissioner's Hearing Room, 1st fl. OWFN

Participants:	Presentation
<u>NRC Staff</u>	45 mins.*
Bill Borchardt, Executive Director for Operations <u>Topic:</u> Opening Remarks and Event Status	10 mins.*
TBD, <u>Topic:</u> Source Term Determination	10 mins.*
TBD, <u>Topic:</u> Dose Projections	10 mins.*
TBD, <u>Topic:</u> Protective Actions and Health Effects	10 mins.*
TBD, <u>Topic:</u> Summary	5 mins*
Commission Q & A	50 mins.
BREAK	5 mins.
<u>Stakeholder Panel</u>	30 mins.*
David Bowman, DOE <u>Topic:</u> DOE Assets (AMS, NARAC, etc)	10 mins.*
Sarah Decair, EPA <u>Topic:</u> EPA Protective Action Guidelines, RadNet	10 mins.*

TBD, FDA

Topic: FDA Derived Intervention Levels for Radionuclides in Food 10 mins.*

Commission Q & A

50 mins.

Discussion – Wrap-up

5 mins.

*For presentation only and does not include time for Commission Q & A's

Documents:

- TBD

- TBD

Staff background material due to SECY: Ten business days prior to the briefing.

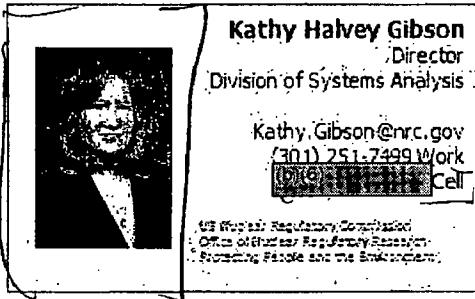
Slides due to SECY: Five business days prior to the briefing.

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:24 PM
To: Lee, Richard; Wagner, Katie
Subject: FW: Ops Center Action Item for Ticketing
Attachments: Kathy Halvey Gibson.vcf

Importance: High

Please pick out what belongs to us and get somebody working on it. Thanks



From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 12:08 PM
To: Case, Michael; Richards, Stuart; Gibson, Kathy; Scott, Michael
Subject: FW: Ops Center Action Item for Ticketing
Importance: High

FYI – I just sent this information request from the Ops Center to Brett. I sent it to him because I wasn't sure which division in RES would be the right one to help with this, but I figured I'd pass it along to you, as well, given that the Ops Center is looking for a response by the end of the day.

From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 11:51 AM
To: Rini, Brett; Deegan, George
Cc: Frazier, Alan; Brock, Kathryn
Subject: FW: Ops Center Action Item for Ticketing
Importance: High

Brett and George,

We got the request below from the Ops Center. We think there should be one coordinated response back to the Ops Center from RES and FSME, but none of us are sure which division would be best able to respond. Can you help with this? Note that the Ops Center has asked for a response by 18:00 tonight.

Greg

From: RST01 Hoc
Sent: Wednesday, March 23, 2011 11:23 AM
To: Andersen, James; Muessle, Mary
Cc: Brown, Frederick
Subject: Ops Center Action Item for Ticketing

Jim and Mary,

BCF 110

Per Fred Brown, RST Director here in the Ops Center, Please ticket the following item to RES and FSME:

"Respond to Dan Dorman's email on long-term issue questions from Japan. Provide responses or estimates of when the responses can be expected to Dan by 18:00 EDT. If additional information is needed, let the site team know of any questions that can be brought back to NISA.

-Regarding the best type of enclosure for the plant, does NRC have any thoughts? Do we have any regulations applicable to this condition or thoughts on the role of the regulatory authority in this decision?

-What licensing requirements apply to decommissioning and regulatory review of the decommissioning plan?

-What should the Japanese be considering with respect to criticality prevention and decay heat removal during the entombment period?

-The NRC's TMI fact sheet notes that the first manned entry into the Unit 2 reactor building occurred after a venting of Krypton in July 1980 (16 months after the accident). What actions occurred during those 16 months that could inform their planning?"

Dan Dorman's email pasted below:

From: Dorman, Dan
Sent: Tuesday, March 22, 2011 3:05 AM
To: OST01 HOC; Casto, Greg; Monninger, John; ET07 Hoc
Subject: RE:

Additional tasks from meeting with NISA et al this morning. Lower priority than the Cabinet level issues we just discussed on the phone, but any responses available by 1800 EDT on 3/22 would be greatly appreciated along with an estimate of when the remainder may be expected. If you need additional info, please identify any questions we can bring back to NISA (keeping in mind please that their plant data is also very limited, i.e., keep your data expectations modest).

1. Sea water injection continues to reactors 1-3. NISA is concerned about the radiolytic disassociation of H₂ and O₂. NISA would like NRC's perspective on the significance of this concern and how to treat this concern as they transition to freshwater injection.
2. At what point does salt deposits become a problem for flow during pending freshwater injection?
3. NISA is conducting simulations to project the extent of damage to fuel in the reactors. Has NRC developed any views on the extent of fuel damage?
4. NISA is interested to obtain any reference material regarding core-concrete interaction (not because they think they have a current issue but against that eventuality) including the conditions under which that occurs and any associated data.
5. In addition to the H₂/O₂ disassociation in item 1 above, they are concerned that there may be residual H₂ in the containments and welcome NRC's thoughts on how to treat such a condition.

NISA is beginning to look at long term issues and has the following Qs in this area (note some of these may only apply to Japan's regulatory framework, but if we have insights from our post-TMI actions they would be greatly appreciated):

6. Regarding the best type of enclosure for the plant, does NRC have any thoughts? Do we have any regulations applicable to this condition or thoughts on the role of the regulatory authority in this decision?
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Regarding the spent fuel pools, NISA asserted that the Unit 1 SFP is above TAF with over 20 days margin due to low decay heat. They are not injecting to the Unit 1 SFP. For Unit 2, they are injecting seawater to the SFP via installed

· piping. For Units 3 and 4, they are spraying from pumper trucks within the RBs to put water on the top of the pools (In response to a question, they indicated that these sprays were put in place after the explosive events in those buildings.)
· Based on this information, NISA is assuming that the SFPs are all below 100C. The team here has questions relative to the latter buildings and other information available, for example, lack of visual evidence of steaming on Unit 4. We would appreciate HQ's thoughts on the SFPs and apparent inconsistencies with the status provided by NISA.

Dan Dorman

Thanks,
Eric Thomas
RST Coordinator

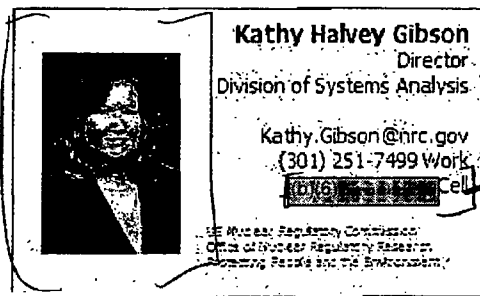
Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:26 PM
To: Lee, Richard
Cc: Richards, Stuart
Subject: FW: Ops Center Action Item for Ticketing
Attachments: Kathy Halvey Gibson.vcf

Importance: High

Please discuss with Stu if you disagree.

Stu, Richard is our POC for all Ops Center requests.



From: Richards, Stuart
Sent: Wednesday, March 23, 2011 1:24 PM
To: Gibson, Kathy
Cc: Zaki, Tarek; Lee, Richard; Bush-Goddard, Stephanie; Case, Michael; Rini, Brett; Bowman, Gregory
Subject: FW: Ops Center Action Item for Ticketing
Importance: High

Kathy

I highlighted two items below that I think DSA should address (in green and red highlight).

If you disagree, let's talk.

Note the 6 pm tonight due date for a response (either the answer, or an estimate of when we can provide an answer).

Thanks
Stu

From: RST01 Hoc
Sent: Wednesday, March 23, 2011 11:23 AM
To: Andersen, James; Muessle, Mary
Cc: Brown, Frederick
Subject: Ops Center Action Item for Ticketing

Jim and Mary,

Per Fred Brown, RST Director here in the Ops Center, Please ticket the following item to RES and FSME:

BC/111

“Respond to Dan Dorman's email on long-term issue questions from Japan. Provide responses or estimates of when the responses can be expected to Dan by 18:00 EDT. If additional information is needed, let the site team know of any questions that can be brought back to NISA.

-Regarding the best type of enclosure for the plant, does NRC have any thoughts? Do we have any regulations applicable to this condition or thoughts on the role of the regulatory authority in this decision?

-What licensing requirements apply to decommissioning and regulatory review of the decommissioning plan?

-What should the Japanese be considering with respect to criticality prevention and decay heat removal during the entombment period? (Richard Lee's Branch?)

-The NRC's TMI fact sheet notes that the first manned entry into the Unit 2 reactor building occurred after a venting of Krypton in July 1980 (16 months after the accident). What actions occurred during those 16 months that could inform their planning?” (Richard Lee and Stephanie's branches??)

Dan Dorman's email pasted below:

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Sent: Tuesday, March 22, 2011 3:05 AM
To: OST01 HOC; Casto, Greg; Monninger, John; ET07.Hoc
Subject: RE:

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the latter buildings and other information available, for example, lack of visual evidence of steaming on Unit 4. We would appreciate HQ's thoughts on the SFPs and apparent inconsistencies with the status provided by NISA.

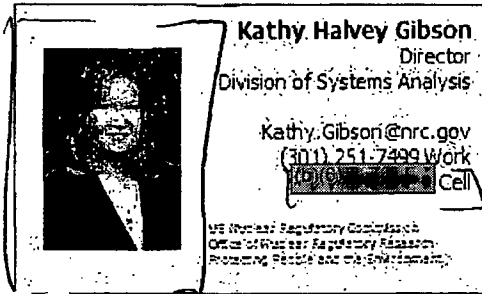
Dan Dorman

Thanks,
Eric Thomas
RST Coordinator

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:27 PM
To: Armstrong, Kenneth; Sheron, Brian
Cc: Ramirez, Annie
Subject: RE: Impacts
Attachments: Kathy Halvey Gibson.vcf

But we expect more as time goes on, most likely in Richard's branch.



From: Armstrong, Kenneth
Sent: Wednesday, March 23, 2011 12:02 PM
To: Sheron, Brian
Cc: Gibson, Kathy; Ramirez, Annie
Subject: RE: Impacts

Brian,

At the present time the only additional impacts to DSA (besides SOARCA) are in the Health Effects Branch:

- FSME Part 20 User need is on hold at the time.
- The Briefing to Marty Virgilio on CRPPH is not getting the required attention it needs but, the due date is still the same.
- The expert group on occupational exposure is delayed.

Thanks,
Kenneth

From: Sheron, Brian
To: Rini, Brett; Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Richards, Stuart; Scott, Michael; Uhle, Jennifer; Valentin, Andrea
Sent: Wed Mar 23 10:03:49 2011
Subject: Impacts

Bill Borchardt is having a meeting from 12:30 pm to 1:30 pm today with Office Directors and RAs to discuss how the Japanese event is impacting our work. So far, I am aware of the impact on SOARCA, and I am assuming there will be some impact on our seismic work.

1.) Mike, can I get a little more detail on what the impact is, if any, on our seismic work because of Annie's and Jon Ake's participation.

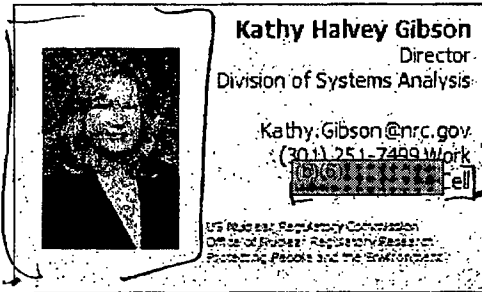
2.) Please let me know if there are other areas that are or will be impacted by the Japanese event. I need this by about 11:30 am today. Thanks.

BC/112

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:53 PM
To: Lee, Richard; Wagner, Katie
Subject: FW: Ops Center Action Item for Ticketing
Attachments: Decommissioning Type Information; Kathy Halvey Gibson.vcf

More info



From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 1:45 PM
To: Richards, Stuart
Cc: Case, Michael; Gibson, Kathy; Scott, Michael; Rini, Brett
Subject: RE: Ops Center Action Item for Ticketing

Sorry if my e-mail wasn't clear...we only need a response to the four questions from the 11:23 am e-mail from RST01 Hoc.

I would recommend coordinating with George Deegan and Larry Camper in FSME. I was CC'd on the attached e-mail from Larry a little while ago, and it looks like they might be best equipped to cover most (or all) of the questions.

From: Richards, Stuart
Sent: Wednesday, March 23, 2011 1:07 PM
To: Bowman, Gregory
Cc: Case, Michael; Gibson, Kathy; Scott, Michael
Subject: RE: Ops Center Action Item for Ticketing
Importance: High

Greg

Are we trying to respond to all of the issues in Dan Dorman's e-mail, or just the items highlighted in the 11:23 am e-mail from RST01 Hoc ?

Thanks
Stu

From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 12:08 PM
To: Case, Michael; Richards, Stuart; Gibson, Kathy; Scott, Michael
Subject: FW: Ops Center Action Item for Ticketing
Importance: High

BC | 113

FYI – I just sent this information request from the Ops Center to Brett. I sent it to him because I wasn't sure which division in RES would be the right one to help with this, but I figured I'd pass it along to you, as well, given that the Ops Center is looking for a response by the end of the day.

From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 11:51 AM
To: Rini, Brett; Deegan, George
Cc: Frazier, Alan; Brock, Kathryn
Subject: FW: Ops Center Action Item for Ticketing
Importance: High

Brett and George,

We got the request below from the Ops Center. We think there should be one coordinated response back to the Ops Center from RES and FSME, but none of us are sure which division would be best able to respond. Can you help with this? Note that the Ops Center has asked for a response by 18:00 tonight.

Greg

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Sent: Wednesday, March 23, 2011 11:23 AM
To: Andersen, James; Muessle, Mary
Cc: Brown, Frederick
Subject: Ops Center Action Item for Ticketing

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Dan Dorman

Thanks,
Eric Thomas
RST Coordinator

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:59 PM
To: Lee, Richard; Wagner, Katie
Cc: Bush-Goddard, Stephanie
Subject: FW: Public health: another issue that needs near-term action
Attachments: Kathy Halvey Gibson.vcf

Assign this one to Stephanie

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

From: Sheron, Brian
Sent: Wednesday, March 23, 2011 1:57 PM
To: Gibson, Kathy; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: Fw: Public health: another issue that needs near-term action

See below. Any thoughts?

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

From: Per F. Peterson <peterson@nuc.berkeley.edu>
To: Koonin, Steven <Steven.Koonin@science.doe.gov>; Adams, Ian <Ian.Adams@Hq.Doe.Gov>; Aoki, Steven <Steven.Aoki@nnsa.doe.gov>; Binkley, Steve <Steve.Binkley@science.doe.gov>; Brinkman, Bill <Bill.Brinkman@science.doe.gov>; RJBudnitz@lbl.gov <RJBudnitz@lbl.gov>; SCHU <SCHU@hq.doe.gov>; DAgostino, Thomas <Thomas.DAgostino@nnsa.doe.gov>; [REDACTED]; [REDACTED]; Finck, Phillip <phillip.finck@inl.gov>; [REDACTED]; Grossenbacher, John (INL) <john.grossenbacher@inl.gov>; John Holdren <John.Holdren@inl.gov>; Hurlbut, Brandon <Brandon.Hurlbut@hq.doe.gov>; Kelly, John E (NE) <JohnE.Kelly@Nuclear.Energy.Gov>; McFarlane, Harold <harold.mcfarlane@inl.gov>; Owens, Missy <Missy.Owens@hq.doe.gov>; Poneman, Daniel <Daniel.Poneman@hq.doe.gov>; Sheron, Brian; ronaldo.szilard@inl.gov <ronaldo.szilard@inl.gov>; rlg2@us.ibm.com <rlg2@us.ibm.com>; Per F. Peterson <peterson@nuc.berkeley.edu>; Lyons, Peter <Peter.Lyons@Nuclear.Energy.gov>
Sent: Wed Mar 23 13:35:11 2011
Subject: Public health: another issue that needs near-term action

I would like to raise another issue which now merits expeditious, near term action.

There is a short time window now, of about 6 to 8 weeks, during which it will remain possible to use whole-body counting and other methods to measure any I-131 that members of the public may have ingested. There are a number of reasons why collecting this data, from a sufficiently large sample of the public and workers to get statistically strong data, would be very valuable. I have raised this question with other members of the UCB faculty, and there is general agreement that prompt action should be taken in this area. I do understand that the IAEA has been making measurements, but I am not sure what specifically they have been doing and whether this includes whole-body counting (which can measure body burdens of radioactive materials resolved by isotopes).

Below I discuss this issue in greater detail, outline the reasons why prompt action is likely warranted, and discuss what actions DOE could take immediately in this area.

There has been a program at the Carlsbad Environmental Monitoring and Research Center near WIPP, that has been funded by the DOE, that has performed whole body counting:

BC | 114

This program at CEMRC has had important and valuable effects in increasing public confidence, since any member of the public with a concern about potential exposures can determine whether any has happened.

In the longer term many cases of thyroid cancer, and other health problems, may end up being attributed to exposures from the Fukushima accident, both in Japan and on the U.S. west coast. Unless statistically strong data is collected in this short time window, it will be difficult to provide a strong and scientifically valid argument about the probability that these diseases have originated from exposures resulting from this accident.

The second reason to collect this data is that it is possible that we will find that some people have received doses of I-131 and other radionuclides that could exceed the levels that current Protective Action Guidelines are designed to prevent. This could provide a basis for immediate action to change PAG's, as well as the ability in the longer term to reassess and improve our approaches to PAGs.

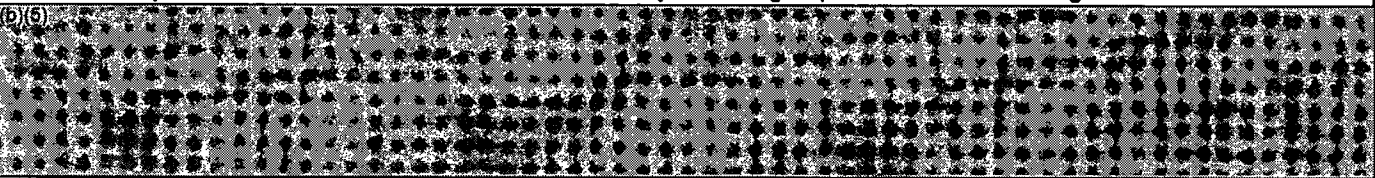
Also, the effectiveness of emergency response depends strongly on the level of public confidence that the government has people's best interests in mind; collecting data that shows the effectiveness (or lack of effectiveness) of these efforts could be central to building longer-term confidence and thus incentivizing more people to follow government recommendations in future emergencies of all types.

The third reason to collect this data is that it could identify individuals who have had significant exposure to I-131 or other radionuclides, and alert them and their medical care professionals to monitor for potential health effects. For remaining people, it could provide reassurance that they do not need to worry about long-term health impacts from the accident.

A fourth reason to collect this data is that it could provide a good statistical basis to correlate data taken from hand-held monitors (I presume these exist) that can be used to screen large numbers of people, to actual, isotope-resolved whole-body burdens. It may even make sense to support bringing some people to the CEMRC facility in Carlsbad, since it has extremely high resolution, so that there can be a direct comparison between rapid monitoring methods, conventional whole body counts, and the extremely accurate counts possible at the CEMRC facility.

I should emphasize that substantial care must be taken in organizing any activity to collect data, with respect to public opinion in Japan. There are very strong reasons to gather data, but it must be done in a way that is broadly viewed as being in the interest of the public and the individuals involved. Having some significant role played by universities may be helpful, as well as the IAEA, so that the effort would not be viewed as being a government-directed effort, given current low levels of trust in the government.

There is only a 6 to 8 week window where whole body counting is practical for detecting I-131. I would



Thoughts?

EXS

-Per

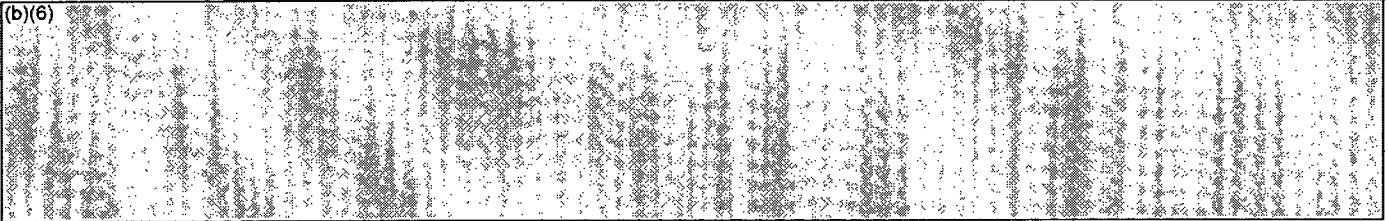
Per F. Peterson
Professor and Chair
Department of Nuclear Engineering

University of California
4153 Etcheverry Hall
Berkeley, California 94720-1730
peterson@nuc.berkeley.edu
Office: (510) 643-7749 Fax: (510) 643-9685
http://www.nuc.berkeley.edu/People/Per_Peterson

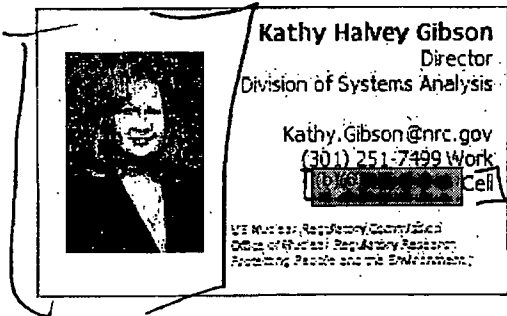
Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 2:53 PM
To: Jeffrey Ross Williams
Subject: Practice
Attachments: Kathy Halvey Gibson.vcf

Jeff,



Best,
Kathy



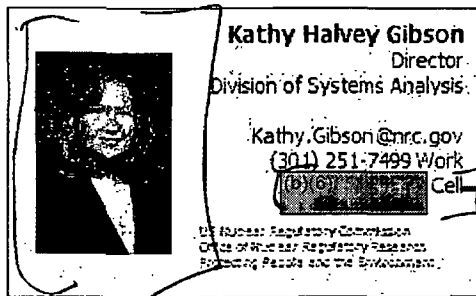
BC/115

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 2:54 PM
To: Sheron, Brian
Cc: Uhle, Jennifer
Subject: Japan FOIA
Attachments: Kathy Halvey Gibson.vcf

Brian,
We have just been told this is back on. Are you aware of this? We are to provide Japan related emails between 3/11 and 3/16.

k



Kathy Halvey Gibson
Director
Division of Systems Analysis
Kathy.Gibson@nrc.gov
(301) 251-7499 Work
[Redacted] Cell
U.S. Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Protecting People and the Environment

BC/116

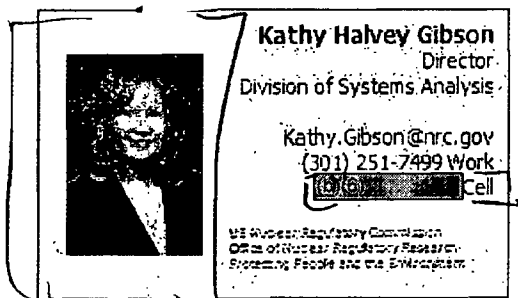
Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 2:58 PM
To: Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: Heads up: Japan evacuations
Attachments: Japan evacuation.doc; Kathy Halvey Gibson.vcf

If you are interested...

Also EPA maintains a website RadNet with online monitoring of the western US

<http://www.epa.gov/japan2011/rert/radnet-data.html>



From: Sheron, Brian
Sent: Wednesday, March 23, 2011 2:32 PM
To: Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Richards, Stuart; Scott, Michael; Uhle, Jennifer; Valentin, Andrea
Subject: FW: Heads up: Japan evacuations

From: Leeds, Eric
Sent: Wednesday, March 23, 2011 2:24 PM
To: Brenner, Eliot; Hayden, Elizabeth
Cc: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Johnson, Michael; Holahan, Gary; Wiggins, Jim; Evans, Michele; Miller, Charles; Sheron, Brian; Uhle, Jennifer; Doane, Margaret; Mamish, Nader; Grobe, Jack; Boger, Bruce; Ruland, William; Dean, Bill; McCree, Victor; Pederson, Cynthia; Howell, Art; Batkin, Joshua
Subject: Heads up: Japan evacuations

FYI - I asked our contact at the NEA for info on other countries evacuating around Fukushima. Some other members of the international community followed the US recommendation. Some did other things See below and attached.

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

From: Diane.JACKSON@oecd.org [mailto:Diane.JACKSON@oecd.org]
Sent: Wednesday, March 23, 2011 1:22 PM

BC/117

To: Leeds, Eric

Subject: Your question about Japan evacuations

Eric –

I did some web searching. Canada, South Korea, UK and Australia stated an evacuation distance of 80 km/ 50 miles.

Many countries, such as France, urged their citizens in the north-east Japan and Tokyo to evacuate. In most reports, most countries do not state the reason is nuclear and they do not give a defined distance.

Attached are excerpts from reports with web sources.

Hope that helps,
Diane

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

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

Kyodo News: March 18, Kyodo

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

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

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

Australian Business Traveller: 18 March 2011

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

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

Travel Weekly: Mar 17, 2011 07:43

"Nuclear fears in Japan prompt FCO warning"

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

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

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

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

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

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

BBC report: 18 march 2011

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

"Foreign evacuations"

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

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

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

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

Financial Times report Published: March 17 2011 17:14

"Foreign governments step up evacuations"

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

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

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

World News Company report: March 17 2011

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:02 PM
To: Wagner, Katie
Cc: Bush-Goddard, Stephanie
Subject: FW: Public health: another issue that needs near-term action; I-131 counting.
Attachments: Kathy Halvey Gibson.vcf

Add to the item for Stephanie

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

From: Sheron, Brian
Sent: Wednesday, March 23, 2011 2:42 PM
To: Gibson, Kathy; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: FW: Public health: another issue that needs near-term action; I-131 counting.

More.....

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

From: Per F. Peterson [<mailto:peterson@nuc.berkeley.edu>]
Sent: Wednesday, March 23, 2011 2:27 PM
To: Richard L Garwin
Cc: Brinkman, Bill; Hurlbut, Brandon; Sheron, Brian; Poneman, Daniel; McFarlane, Harold; Adams, Ian; John Holdren; Kelly, John E (NE); Grossenbacher, John (INL); Owens, Missy; Per F. Peterson; Lyons, Peter; Finck, Phillip; [REDACTED] RJBudnitz@lbl.gov; ronaldo.szilard@inl.gov; SCHU; Aoki, Steven; Koonin, Steven; [REDACTED] Binkley, Steve; DAgostino, Thomas
Subject: Re: Public health: another issue that needs near-term action; I-131 counting.

Dick,

Good idea.

Also, I just spoke with Jim Conca, who directed the CEMRC facility for many years. He advises that a more accurate, and logistically simpler method to measure I-131 is by collecting urine samples. Collecting a quart or more, recording the time over which the collection occurred, and adding nitric acid to acidify (which prevents precipitation on the container walls and biological action that can pressurize the container), and then performing gamma counting, provides the most sensitive way to assay for I-131. Clearly this is logistically much easier to implement as well.

I'm not sure whether there are hand-held detectors that can give the spectral resolution needed to detect I-131, but since it would be the only source of significant radiation in the chest region, simple counting might suffice. Whole body counts still provide a direct measure of intake, so could be valuable to perform for some fraction of the people. Everyone who goes through a whole-body count should also be counted with a hand-held device and urine assay as well, I would assume.

An important point for doing this in the U.S., and probably in Japan, is that the protocols must receive approval by a Human Subjects Committee.

If one were to initiate an effort to perform whole body counting at LLNL and PNNL, the human subjects review can likely be done faster if it is initially for lab employees who would volunteer to be counted.

BC/118

Screening lab employees could provide baseline data to use in deciding/planning counting for the public as well.

Again, collecting statistically useful data on uptake of I-131 and other radionuclides on the U.S. west coast and in Japan could be very valuable in the longer term, when many people may begin to believe that the Fukushima accident is the cause of a variety of health problems.

-Per

>Right on, Per!

>

>But it seems to me that one could promptly validate the use of a single
>counter near the thyroid gland for detecting I-131, in comparison to
>whole body counting, since the thyroid is so efficient in concentrating
>iodine. And if thyroid counting is adequate, the whole process would
>be quicker and cheaper.

>

>Dick Garwin

Per F. Peterson
Professor and Chair
Department of Nuclear Engineering
University of California
4153 Etcheverry Hall
Berkeley, California 94720-1730
peterson@nuc.berkeley.edu
Office: (510) 643-7749 Fax: (510) 643-9685
http://www.nuc.berkeley.edu/People/Per_Peterson

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:04 PM
To: Bush-Goddard, Stephanie; Sherbini, Sami
Cc: Uhle, Jennifer; Sheron, Brian; Wagner, Katie
Subject: RE: Public health: another issue that needs near-term action; I-131 counting.
Attachments: Kathy Halvey Gibson.vcf

Please confirm that you are looking at this, and give me and Katie an estimate of when you will have a response.

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

From: Sheron, Brian
Sent: Wednesday, March 23, 2011 2:42 PM
To: Gibson, Kathy; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: FW: Public health: another issue that needs near-term action; I-131 counting.

More.....

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

From: Per F. Peterson [<mailto:peter@nuc.berkeley.edu>]
Sent: Wednesday, March 23, 2011 2:27 PM
To: Richard L Garwin
Cc: Brinkman, Bill; Hurlbut, Brandon; Sheron, Brian; Poneman, Daniel; McFarlane, Harold; Adams, Ian; John Holdren; Kelly, John E (NE); Grossenbacher, John (INL); Owens, Missy; Per F. Peterson; Lyons, Peter; Finck, Phillip; [REDACTED] RJBudnitz@lbl.gov; ronaldo.szilard@inl.gov; SCHU; Aoki, Steven; Koonin, Steven; [REDACTED] Binkley, Steve; DAgostino, Thomas
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BCF 119

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>be quicker and cheaper.

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>Dick Garwin

Per F. Peterson
Professor and Chair
Department of Nuclear Engineering
University of California
4153 Etcheverry Hall
Berkeley, California 94720-1730
peterson@nuc.berkeley.edu
Office: (510) 643-7749 Fax: (510) 643-9687
http://www.nuc.berkeley.edu/People/Per_Peterson

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:16 PM
To: Case, Michael
Cc: Scott, Michael; Zaki, Tarek; Lee, Richard
Subject: NGNP meeting attendance
Attachments: Kathy Halvey Gibson.vcf

Importance: High

Mike,

Brian would like us to reevaluate the number of people we send to the NGNP meeting in April. Below is the list and justifications we provided. I am proposing to remove Mike Scott, Richard, Hossein, Mourad, and AJ from the list. That would reduce DSA from 8 to 3. Do both of your folks need to go in light of Japan response and uncertainty of future of NGNP? Mike, Tarek, Richard, please weigh in. Thanks

Mike (overall NGNP management) – high priority
Richard (management) – medium priority
Sud (overall NGNP DOE coordinator, giving presentation) – high priority
Stu (technical lead – fuel, giving presentation) – high priority
Joe (technical lead – thermal fluids) – high priority
Hossein (technical lead – MELCOR development) – medium priority
Mourad (technical lead – SCALE development) – medium priority
Srini (technical lead – graphite, giving presentation) – high priority
Shah (technical lead – high temperature materials, giving presentation) – high priority
AJ (being mentored by Stu for future leading role in fuel) – low priority

Sud Basu, NGNP lead and coordinator of the NRC NGNP R&D program – Under the DOE/NRC interagency agreement, DOE fully expects that the NRC NGNP lead and the R&D coordinator to be present at the meeting for various functions – to provide an overview of the NRC R&D, to actively participate in R&D status discussion in all relevant technical areas, and to provide NRC input.

Joe Kelly, NGNP R&D thermal-fluids track lead - Keeping up-to-date on DOE's NGNP experimental programs which will be used in the validation of our evaluation model and will allow us to better tailor our experimental programs to complement theirs.

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Makuteswara Srinivasan, NGNP R&D graphite technology track lead - As the overall materials coordinator with considerable background, experience, and prior knowledge dating back to the origin of the project and before, Srini's participation at the meeting is expected. DOE requested a presentation on NRC's R&D program on graphite.

Shah Malik, NGNP R&D high temperature materials technology track lead – As the high temperature materials track lead, DOE requested a presentation on NRC's R&D program on high temperature materials.

Hossein Esmaili, lead for NGNP MELCOR code development - Keeping track on DOE's NGNP R&D program, both analytical and experimental programs, so as to better tailor our MELCOR development, assessment, and validation activities.

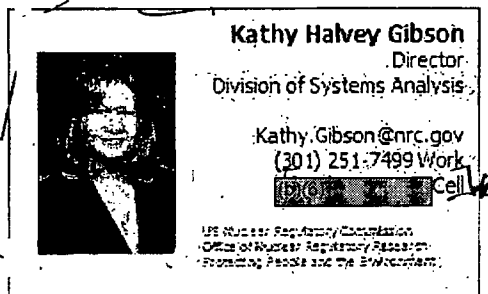
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of the latest developments, and have my questions answered directly. In addition, crucial decisions are being made with respect to reactor type and design choices, as well as in international collaboration, which will certainly impact the course of the projects for which I am responsible. Also, attending the Technical review meeting will give me an additional opportunity to meet face-to-face with my ORNL contractors and conduct "off-line" status meetings. I have not attended last year's meeting in Denver, which in retrospect prevented me from "being in the loop", and probably (slightly) impacted my project monitoring duties.

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Mike Scott -- representing DSA management and responsible NGNP management lead.

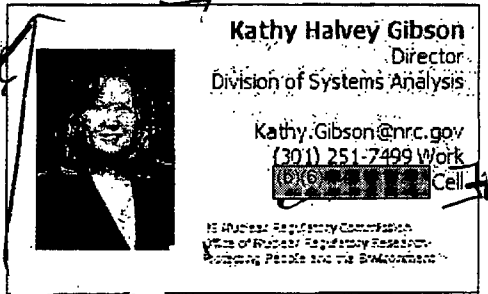
Richard Lee -- representing BC level DSA management and providing oversight on NGNP R&D activities in NGNP neutronics, FP transport, and MELCOR development.



Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:24 PM
To: Scott, Michael
Subject: RE: Staff Adjustments for Japan Response
Attachments: Kathy Halvey Gibson2.vcf

Good to hear from you. Stay safe!



From: Scott, Michael
Sent: Wednesday, March 23, 2011 8:52 AM
To: Gibson, Kathy
Subject: Re: Staff Adjustments for Japan Response

Hi Kathy. You still on shift? I made it in to hotel okay and my intl bb works, so I will keep up with email as time permits.

Sent from my NRC blackberry
Michael Scott



From: Gibson, Kathy
To: RES_DSA
Cc: Sheron, Brian; Uhle, Jennifer; Flory, Shirley; Rini, Brett; Armstrong, Kenneth; Ramirez, Annie; Case, Michael; Richards, Stuart; Coe, Doug; Coyne, Kevin
Sent: Tue Mar 22 19:09:34 2011
Subject: Staff Adjustments for Japan Response


While Mike Scott is in Japan, Scott Elkins will be acting DSA deputy director this week, and Chris Hoxie will be acting deputy director next week (Mar 28-Apr 1).

While Ken Armstrong is supporting SPB with Japan event response and SOARCA, Annie Ramirez will be acting DSA technical assistant.

Richard Lee is our POC for Operations Center support.

Katie Wagner is the POC for information requests related to the Japanese events.

BC/121



Kathy Halvey Gibson
Director
Division of Systems Analysis

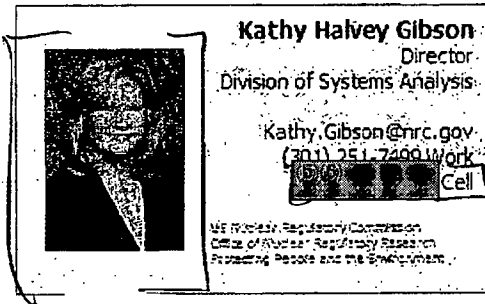
Kathy.Gibson@nrc.gov
(301) 251-7499 Work
(b)(6) Cell

U.S. Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Protecting People and the Environment

Greenwood, Carol

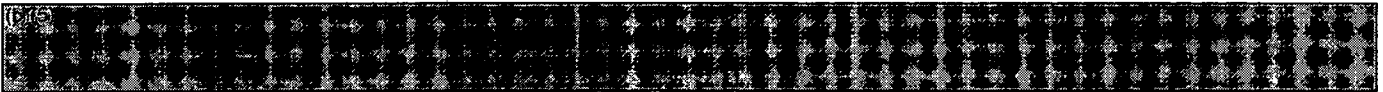
From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:26 PM
To: Scott, Michael
Subject: RE: NGNP meeting attendance
Attachments: Kathy Halvey Gibson2.vcf

Yes to your last question and also people needed to continue Japan support which is higher (by far) priority.



From: Scott, Michael
Sent: Wednesday, March 23, 2011 3:23 PM
To: Gibson, Kathy
Subject: RE: NGNP meeting attendance

Your call of course. If I am to be RES lead for NGNP R&D, seems essential that I go and get a better understanding of what is going on and meet the people doing the work. I was also supposed to meet with INL people who could provide me insight on HTTR, for which (if it happens) I am the lead.



Mike

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:16 PM
To: Case, Michael
Cc: Scott, Michael; Zaki, Tarek; Lee, Richard
Subject: NGNP meeting attendance
Importance: High

Mike,

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- Sud (overall NGNP DOE coordinator, giving presentation) - high priority
- Stu (technical lead - fuel, giving presentation) - high priority
- Joe (technical lead - thermal fluids) - high priority
- Hossein (technical lead - MELCOR development) - medium priority

BC 122

Mourad (technical lead – SCALE development) – medium priority,
Sri (technical lead – graphite, giving presentation) – high priority,
Shah (technical lead – high temperature materials, giving presentation) – high priority,
AJ (being mentored by Stu for future leading role in fuel) – low priority.

Sud Basu, NGNP lead and coordinator of the NRC NGNP R&D program – Under the DOE/NRC interagency agreement, DOE fully expects that the NRC NGNP lead and the R&D coordinator to be present at the meeting for various functions – to provide an overview of the NRC R&D, to actively participate in R&D status discussion in all relevant technical areas, and to provide NRC input.

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Kathy Halvey Gibson

Director

Division of Systems Analysis

Kathy.Gibson@nrc.gov

(301) 251-7499 Work

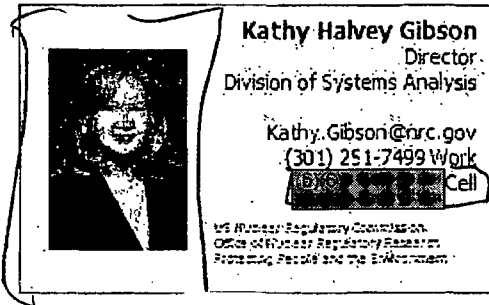
(301) 251-7499 Cell

NRC Mission: Regulatory Coordination
Office of Nuclear Regulatory Research
Promoting People and the Environment

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:26 PM
To: Zaki, Tarek; Case, Michael
Cc: Scott, Michael; Lee, Richard
Subject: RE: NGNP meeting attendance
Attachments: Kathy Halvey Gibson2.vcf

Maybe not, if they are involved in Japan work which is higher priority.



From: Zaki, Tarek
Sent: Wednesday, March 23, 2011 3:25 PM
To: Gibson, Kathy; Case, Michael
Cc: Scott, Michael; Lee, Richard
Subject: RE: NGNP meeting attendance

I believe both Srini and Shah are giving presentations. Thanks. Tarek

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:16 PM
To: Case, Michael
Cc: Scott, Michael; Zaki, Tarek; Lee, Richard
Subject: NGNP meeting attendance
Importance: High

Mike,

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BC/123

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Makuteswara Srinivasan, NGNP R&D graphite technology track lead - As the overall materials coordinator with considerable background, experience, and prior knowledge dating back to the origin of the project and before, Srin's participation at the meeting is expected. DOE requested a presentation on NRC's R&D program on graphite.

Shah Malik, NGNP R&D high temperature materials technology track lead – As the high temperature materials track lead, DOE requested a presentation on NRC's R&D program on high temperature materials.

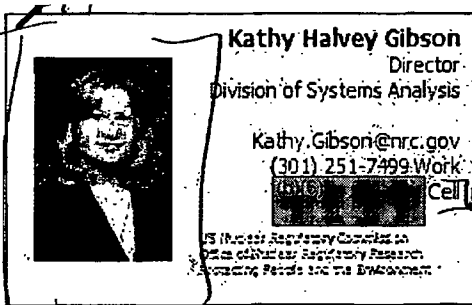
Hossein Esmaili, lead for NGNP MELCOR code development - Keeping track on DOE's NGNP R&D program, both analytical and experimental programs, so as to better tailor our MELCOR development, assessment, and validation activities.

Mourad Aissa, NGNP R&D neutronics track lead - As the NGNP project faces funding and schedule challenges, it is important that I interact with the key neutronics players at INL and other facilities, keep abreast of the latest developments, and have my questions answered directly. In addition, crucial decisions are being made with respect to reactor type and design choices, as well as in international collaboration, which will certainly impact the course of the projects for which I am responsible. Also, attending the Technical review meeting will give me an additional opportunity to meet face-to-face with my ORNL contractors and conduct "off-line" status meetings. I have not attended last year's meeting in Denver, which in retrospect prevented me from "being in the loop", and probably (slightly) impacted my project monitoring duties.

Amy Hull, NGNP NDE - Amy covers NGNP NDE so, according to Mirela Gavrilas, she must attend as well though the NDE program may be too new for a presentation.

Mike Scott – representing DSA management and responsible NGNP management lead.

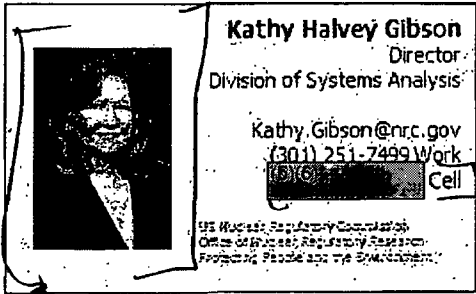
Richard Lee – representing BC level DSA management and providing oversight on NGNP R&D activities in NGNP neutronics, FP transport, and MELCOR development.



Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:33 PM
To: Sheron, Brian
Subject: RE: Japan FOIA
Attachments: Kathy Halvey Gibson2.vcf

Ok, then we are going forward to comply.



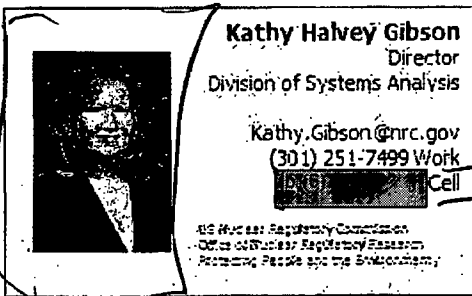
From: Sheron, Brian
Sent: Wednesday, March 23, 2011 3:32 PM
To: Gibson, Kathy
Subject: RE: Japan FOIA

Nope.

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 2:54 PM
To: Sheron, Brian
Cc: Uhle, Jennifer
Subject: Japan FOIA

Brian;
We have just been told this is back on. Are you aware of this? We are to provide Japan related emails between 3/11 and 3/16.

k



BC/124

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:42 PM
To: Sheron, Brian; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: Re: Public health: another issue that needs near-term action; I-131 counting.

Yes but now that Stephanie is a celebrity (she and her branch had lunch with the Chairman today), we will have to keep her nose to the grindstone (instead of up in the air)! :-)

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

From: Sheron, Brian
To: Gibson, Kathy; Bush-Goddard, Stephanie; Sherbini, Sami
Cc: Uhle, Jennifer; Wagner, Katie
Sent: Wed Mar 23 15:34:13 2011
Subject: RE: Public health: another issue that needs near-term action; I-131 counting.

BTW, this is not a rush priority item. These guys are part of DOE Secretary Chu's "brain trust" that is thinking "outside the box" on how to help the Japanese.

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

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 3:04 PM
To: Bush-Goddard, Stephanie; Sherbini, Sami
Cc: Uhle, Jennifer; Sheron, Brian; Wagner, Katie
Subject: RE: Public health: another issue that needs near-term action; I-131 counting.

Please confirm that you are looking at this, and give me and Katie an estimate of when you will have a response.

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

From: Sheron, Brian
Sent: Wednesday, March 23, 2011 2:42 PM
To: Gibson, Kathy; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: FW: Public health: another issue that needs near-term action; I-131 counting.

More.....

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

From: Per F. Peterson [<mailto:peterston@nuc.berkeley.edu>]
Sent: Wednesday, March 23, 2011 2:27 PM
To: Richard L Garwin
Cc: Brinkman, Bill; Hurlbut, Brandon; Sheron, Brian; Poneman, Daniel; McFarlane, Harold; Adams, Ian; John Holdren; Kelly, John E (NE); Grossenbacher, John (INL); Owens, Missy; Per F. Peterson; Lyons, Peter; Finck, Phillip; [REDACTED]; RJBudnitz@lbl.gov; ronaldo.szilard@inl.gov; SCHU; Aoki, Steven; Koonin, Steven; [REDACTED]; Binkley, Steve; DAgostino, Thomas
Subject: Re: Public health: another issue that needs near-term action; I-131 counting.

Dick,

BC/125

Good idea.

Also, I just spoke with Jim Conca, who directed the CEMRC facility for many years. He advises that a more accurate, and logistically simpler method to measure I-131 is by collecting urine samples. Collecting a quart or more, recording the time over which the collection occurred, and adding nitric acid to acidify (which prevents precipitation on the container walls and biological action that can pressurize the container), and then performing gamma counting, provides the most sensitive way to assay for I-131. Clearly this is logistically much easier to implement as well.

I'm not sure whether there are hand-held detectors that can give the spectral resolution needed to detect I-131, but since it would be the only source of significant radiation in the chest region, simple counting might suffice. Whole body counts still provide a direct measure of intake, so could be valuable to perform for some fraction of the people. Everyone who goes through a whole-body count should also be counted with a hand-held device and urine assay as well, I would assume.

An important point for doing this in the U.S., and probably in Japan, is that the protocols must receive approval by a Human Subjects Committee.

If one were to initiate an effort to perform whole body counting at LLNL and PNNL, the human subjects review can likely be done faster if it is initially for lab employees who would volunteer to be counted. Screening lab employees could provide baseline data to use in deciding/planning counting for the public as well.

Again, collecting statistically useful data on uptake of I-131 and other radionuclides on the U.S. west coast and in Japan could be very valuable in the longer term, when many people may begin to believe that the Fukushima-accident is the cause of a variety of health problems.

-Per

>Right on, Per!

>

>But it seems to me that one could promptly validate the use of a single
>counter near the thyroid gland for detecting I-131, in comparison to
>whole body counting, since the thyroid is so efficient in concentrating
>iodine. And if thyroid counting is adequate, the whole process would
>be quicker and cheaper.

>

>Dick Garwin

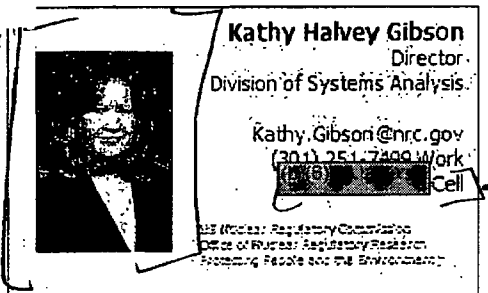
Per F. Peterson
Professor and Chair
Department of Nuclear Engineering
University of California
4153 Etcheverry Hall
Berkeley, California 94720-1730
peterson@nuc.berkeley.edu
Office: (510) 643-7749 Fax: (510) 643-9685
http://www.nuc.berkeley.edu/People/Per_Peterson

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 5:03 PM
To: Wagner, Katie
Cc: Lee, Richard
Subject: RE: Ops Center Action Item for Ticketing
Attachments: Kathy Halvey Gibson2.vcf

Yes, and ask them to factor this information into their response.

Thanks



From: Wagner, Katie
Sent: Wednesday, March 23, 2011 4:35 PM
To: Gibson, Kathy
Cc: Lee, Richard
Subject: RE: Ops Center Action Item for Ticketing

Kathy,

Should I forward the attached table and Richard's response to George Deegan and Larry Camper in FSME?

Thanks, Katie

From: Lee, Richard
Sent: Wednesday, March 23, 2011 4:02 PM
To: Wagner, Katie
Cc: Gibson, Kathy
Subject: RE: Ops Center Action Item for Ticketing

Katie:

These are all long term related activities.

Most of the questions are related to decommissioning and entombment. If decommissioning is in FSME, then let them answer the question. Criteria for materials selection for entombment (developed by ORNL) is attached.

For the TMI-2, we need to go back ask someone on this. Would not be able to answer this for awhile.

Richard

BC/126

Regarding the best type of enclosure for the plant, does NRC have any thoughts? Do we have any regulations applicable to this condition or thoughts on the role of the regulatory authority in this decision?

~What licensing requirements apply to decommissioning and regulatory review of the decommissioning plan?

-What should the Japanese be considering with respect to criticality prevention and decay heat removal during the entombment period?

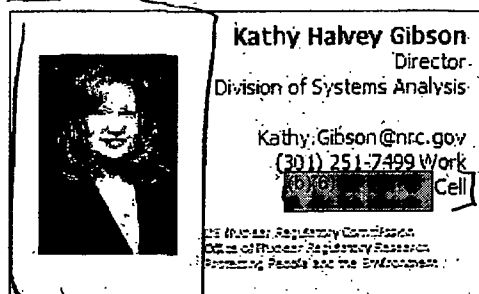
-The NRC's TMI fact sheet notes that the first manned entry into the Unit 2 reactor building occurred after a venting of Krypton in July 1980 (16 months after the accident). What actions occurred during those 16 months that could inform their planning?"

From: Wagner, Katie
Sent: Wednesday, March 23, 2011 3:47 PM
To: Lee, Richard
Subject: FW: Ops Center Action Item for Ticketing

Most recent I have on this. . . they want answers by 1800 tonight

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:53 PM
To: Lee, Richard; Wagner, Katie
Subject: FW: Ops Center Action Item for Ticketing

More info



From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 1:45 PM
To: Richards, Stuart
Cc: Case, Michael; Gibson, Kathy; Scott, Michael; Rini, Brett
Subject: RE: Ops Center Action Item for Ticketing

Sorry if my e-mail wasn't clear...we only need a response to the four questions from the 11:23 am e-mail from RST01 Hoc.

I would recommend coordinating with George Deegan and Larry Camper in FSME. I was CC'd on the attached e-mail from Larry a little while ago, and it looks like they might be best equipped to cover most (or all) of the questions.

From: Richards, Stuart
Sent: Wednesday, March 23, 2011 1:07 PM

To: Bowman, Gregory
Cc: Case, Michael; Gibson, Kathy; Scott, Michael
Subject: RE: Ops Center Action Item for Ticketing
Importance: High

Greg

Are we trying to respond to all of the issues in Dan Dorman's e-mail, or just the items highlighted in the 11:23 am e-mail from RST01 Hoc ?

Thanks
Stu

From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 12:08 PM
To: Case, Michael; Richards, Stuart; Gibson, Kathy; Scott, Michael
Subject: FW: Ops Center Action Item for Ticketing
Importance: High

FYI – I just sent this information request from the Ops Center to Brett. I sent it to him because I wasn't sure which division in RES would be the right one to help with this, but I figured I'd pass it along to you, as well, given that the Ops Center is looking for a response by the end of the day.

From: Bowman, Gregory
Sent: Wednesday, March 23, 2011 11:51 AM
To: Rini, Brett; Deegan, George
Cc: Frazier, Alan; Brock, Kathryn
Subject: FW: Ops Center Action Item for Ticketing
Importance: High

Brett and George,

We got the request below from the Ops Center. We think there should be one coordinated response back to the Ops Center from RES and FSME, but none of us are sure which division would be best able to respond. Can you help with this? Note that the Ops Center has asked for a response by 18:00 tonight.

Greg

From: RST01 Hoc
Sent: Wednesday, March 23, 2011 11:23 AM
To: Andersen, James; Muessle, Mary
Cc: Brown, Frederick
Subject: Ops Center Action Item for Ticketing

Jim and Mary,

Per Fred Brown, RST Director here in the Ops Center, Please ticket the following item to RES and FSME:

"Respond to Dan Dorman's email on long-term issue questions from Japan. Provide responses or estimates of when the responses can be expected to Dan by 18:00 EDT. If additional information is needed, let the site team know of any questions that can be brought back to NISA.

-Regarding the best type of enclosure for the plant, does NRC have any thoughts? Do we have any regulations applicable to this condition or thoughts on the role of the regulatory authority in this decision?

-What licensing requirements apply to decommissioning and regulatory review of the decommissioning plan?

-What should the Japanese be considering with respect to criticality prevention and decay heat removal during the entombment period?

-The NRC's TMI fact sheet notes that the first manned entry into the Unit 2 reactor building occurred after a venting of Krypton in July 1980 (16 months after the accident). What actions occurred during those 16 months that could inform their planning?"

Dan Dorman's email pasted below:

From: Dorman, Dan
Sent: Tuesday, March 22, 2011 3:05 AM
To: OST01 HOC; Casto, Greg; Monninger, John; ET07 Hoc
Subject: RE:

Additional tasks from meeting with NISA et al this morning. Lower priority than the Cabinet level issues we just discussed on the phone, but any responses available by 1800 EDT on 3/22 would be greatly appreciated along with an estimate of when the remainder may be expected. If you need additional info, please identify any questions we can bring back to NISA (keeping in mind please that their plant data is also very limited, i.e., keep your data expectations modest).

1. Sea water injection continues to reactors 1-3. NISA is concerned about the radiolytic disassociation of H₂ and O₂. NISA would like NRC's perspective on the significance of this concern and how to treat this concern as they transition to freshwater injection.
2. At what point does salt deposits become a problem for flow during pending freshwater injection?
3. NISA is conducting simulations to project the extent of damage to fuel in the reactors. Has NRC developed any views on the extent of fuel damage?
4. NISA is interested to obtain any reference material regarding core-concrete interaction (not because they think they have a current issue but against that eventuality) including the conditions under which that occurs and any associated data.
5. In addition to the H₂/O₂ disassociation in item 1 above, they are concerned that there may be residual H₂ in the containments and welcome NRC's thoughts on how to treat such a condition.

NISA is beginning to look at long term issues and has the following Qs in this area (note some of these may only apply to Japan's regulatory framework, but if we have insights from our post-TMI actions they would be greatly appreciated):

6. Regarding the best type of enclosure for the plant, does NRC have any thoughts? Do we have any regulations applicable to this condition or thoughts on the role of the regulatory authority in this decision?
7. What licensing requirements apply to decommissioning and regulatory review of the decommissioning plan?
8. What should they be considering with respect to criticality prevention and decay heat removal during the entombment period?
9. The NRC's TMI Fact Sheet notes that the first manned entry into the Unit 2 reactor building occurred after a venting of Krypton in July 1980 (16 months after the accident). What actions occurred during those 16 months that could inform their planning?

Regarding the spent fuel pools, NISA asserted that the Unit 1 SFP is above TAF with over 20 days margin due to low decay heat. They are not injecting to the Unit 1 SFP. For Unit 2, they are injecting seawater to the SFP via installed piping. For Units 3 and 4, they are spraying from pumper trucks within the RBs to put water on the top of the pools (In response to a question, they indicated that these sprays were put in place after the explosive events in those buildings.) Based on this information, NISA is assuming that the SFPs are all below 100C. The team here has questions relative to the latter buildings and other information available, for example, lack of visual evidence of steaming on Unit 4. We would appreciate HQ's thoughts on the SFPs and apparent inconsistencies with the status provided by NISA.

Dan Dorman

Thanks,

Eric Thomas
RST Coordinator

Greenwood, Carol

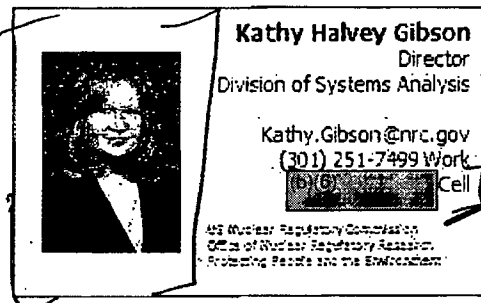
From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 5:39 PM
To: Janney, Margie
Cc: Lee, Richard; Wagner, Katie; Flanagan, Michelle
Subject: RE: Request for Information after Events in Japan

Margie,
Would you set up a bridge line so remote offices can call in to the meeting?

Katie Wagner and Michelle Flanagan will attend for RES/DSA.

We have set up a single POC for our division to receive and track via SharePoint all requests for information related to Japan. Katie will be prepared to describe this system for the group.

Thanks,
Kathy



Kathy Halvey
Gibson.vcf

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

From: Smith, Sharon **On Behalf Of** Janney, Margie
Sent: Wednesday, March 23, 2011 4:22 PM
To: Nichols, Russell; Sealing, Donna; Paradiso, Karen; Landau, Mindy; Clayton, Kathleen; McDermott, Brian; Morris, Scott; Holahan, Patricia; Erlanger, Craig; Thaggard, Mark; Correia, Richard; Layton, Michael; Wimbush, Andrea; Glitter, Joseph; Nelson, Robert; Howe, Allen; Ruland, William; Bahadur, Sher; Craver, Patti; Mamish, Nader; Mitchell, Linda; Hayden, Elizabeth; Shannon, Valerie; Vietti-Cook, Annette; Champ, Billie; Case, Michael; Richards, Stuart; Gibson, Kathy; Scott, Michael; Coe, Doug; Coyne, Kevin; Parks, Jazel; Powell, Amy; Droggitis, Spiros; Belmore, Nancy; Hirsch, Patricia; Remsburg, Kristy; Pulliam, Timothy; Rodgers, Mary; Whetstone, Jack; Corbett, James; Shields, James; Rich, Thomas; Holonich, Joseph; Boyce, Thomas (OIS); Schaeffer, James; Evans, Michele; Rheaume, Cynthia; Boger, Bruce; Grobe, Jack; Givvines, Mary; Uhle, Jennifer; Valentin, Andrea; Dorman, Dan
Subject: Request for Information after Events in Japan
When: Thursday, March 24, 2011 3:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: HQ-TWFN-10A01-40p

Hi Everyone,

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

BCJ 127

Some topics which we'd like to discuss include:

A quick FOIA request overview

A quick Congressional Inquiry overview

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

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

Please forward this meeting notice to appropriate staff.

Please let me know if you have any questions.

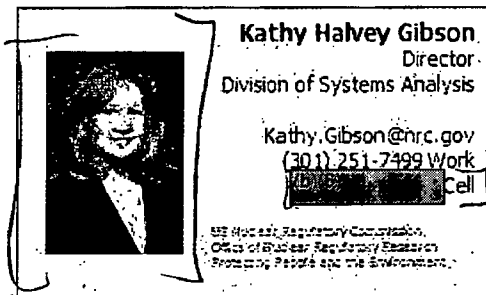
Thanks!

-Margie

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 5:43 PM
To: Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: SRM - COMGBJ-11-0002 - NRC Actions Following the Events in Japan
Attachments: SRM-CmGBJ11-0002.docx; Kathy Halvey Gibson.vcf

The final SRM on Japan followup. I have heard that Jack Grobe, Gary Holahan, and Charlie Miller are on the short term task group so far.



From: Sheron, Brian
Sent: Wednesday, March 23, 2011 4:58 PM
To: Rini, Brett; Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Richards, Stuart; Scott, Michael; Uhle, Jennifer; Valentin, Andrea
Subject: FW: SRM - COMGBJ-11-0002 - NRC Actions Following the Events in Japan

From: Flory, Shirley
Sent: Wednesday, March 23, 2011 4:44 PM
To: Sheron, Brian; Uhle, Jennifer
Subject: FW: SRM - COMGBJ-11-0002 - NRC Actions Following the Events in Japan

From: RidsEdoDraftSrmVote Resource
Sent: Wednesday, March 23, 2011 4:41 PM
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
Subject: FW: SRM - COMGBJ-11-0002 - NRC Actions Following the Events in Japan

From: Lewis, Antoinette
Sent: Wednesday, March 23, 2011 4:34 PM
To: Vietti-Cook, Annette; Baggett, Steven; Bates, Andrew; Batkin, Joshua; Blake, Kathleen; Bollwerk, Paul; Bozin, Sunny; Bradford, Anna; Brown, Theron; Bubar, Patrice; Bupp, Margaret; Burns, Stephen; Chairman Temp; Clark, Lisa; Coggins, Angela; Cordes, John; Crawford, Carrie; Cutchin, James; Davis, Roger; Fopma, Melody; Franovich, Mike; Gibbs, Catina;

Hackett, Edwin; Hart, Ken; Harves, Carolyn; Hawkens, Roy; Hayden, Elizabeth; Henderson, Karen; Herr, Linda; Hipschman, Thomas; Hudson, Sharon; KLS Temp; Kock, Andrea; Lepre, Janet; Loyd, Susan; Mamish, Nader; Marshall, Michael; Mitchell, Reggie; Monninger, John; Moore, Scott; OCA Distribution; OPA Resource; Orders, William; Pace, Patti; Poole, Brooke; Rabideau, Peter; Reddick, Darani; Laufer, Richard; RidsEdoDraftSrmVote Resource; RidsOcaaMailCenter Resource; RidsOcfoMailCenter Resource; RidsOgcMailCenter Resource; RidsOigMailCenter Resource; RidsOipMailCenter Resource; Baval, Rochelle; Rothschild, Trip; Joosten, Sandy; Savoy, Carmel; Sharkey, Jeffrey; Shea, Pamela; Snodderly, Michael; Sosa, Belkys; Speiser, Herald; Svinicki, Kristine; Temp, WCO; Temp, WDM; Thoma, John; Warren, Roberta; Zorn, Jason; Temp, GEA; Apostolakis, George; Tadesse, Rebecca; Butler, Gall; Perry, Jamila; Doane, Margaret; Castleman, Patrick; Montes, David; Dhir, Neha; Adler, James; Jimenez, Patricia; Muessle, Mary; Nieh, Ho; Ostendorff, William; Warnick, Greg; Pearson, Laura; Lui, Christiana; Lisann, Elizabeth

Cc: Wright, Darlene; Lewis, Antoinette

Subject: SRM - COMGBJ-11-0002 - NRC Actions Following the Events in Japan

(ML110820875)

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

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

March 23, 2011

MEMORANDUM TO: Chairman Jaczko

FROM: Annette Vietti-Cook, Secretary **/RA/**

SUBJECT: COMGBJ-11-0002 – NRC ACTIONS FOLLOWING THE EVENTS
IN JAPAN

This memorandum is to inform you that all Commissioners have concurred in your proposal regarding NRC actions following the events in Japan. The attached tasking memorandum provides staff direction on this issue.

This completes action on COMGBJ-11-0002.

Attachment:
As stated

cc: Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
EDO
OGC
OPA
OCA

March 23, 2011

MEMORANDUM TO: R. W. Borchardt
Executive Director for Operations

FROM: Chairman Jaczko */RA/*

SUBJECT: TASKING MEMORANDUM – COMGBJ-11-0002 – NRC
ACTIONS FOLLOWING THE EVENTS IN JAPAN

The staff should establish a senior level agency task force to conduct a methodical and systematic review of our processes and regulations to determine whether the agency should make additional improvements to our regulatory system and make recommendations to the Commission for its policy direction. The review should address the following near term and then longer term objectives.

Near Term Review

- This task force should evaluate currently available technical and operational information from the events that have occurred at the Fukushima Daiichi nuclear complex in Japan to identify potential or preliminary near term/immediate operational or regulatory issues affecting domestic operating reactors of all designs, including their spent fuel pools, in areas such as protection against earthquake, tsunami, flooding, hurricanes; station blackout and a degraded ability to restore power; severe accident mitigation; emergency preparedness; and combustible gas control.
- The task force should develop recommendations, as appropriate, for potential changes to inspection procedures and licensing review guidance, and recommend whether generic communications, orders, or other regulatory requirements are needed.
- The task force efforts should be informed by some stakeholder input but should be independent of industry efforts.
- The report would be released to the public per normal Commission processes (including its transmission to the Commission as a Notation Vote Paper).

To ensure the Commission is both kept informed of these efforts and called upon to resolve any policy recommendations that surface, the task force should, at a minimum, be prepared to brief the Commission on a 30 day quick look report; on the status of the ongoing near term review at approximately the 60 day point; and then on the 90 day culmination of the near term efforts. Additional specific subject matter briefings and additional voting items that request Commission policy direction may also be added during the Commission's agenda planning meetings.

(EDO)

(SECY Suspense: 30, 60, & 90 days)

Longer Term Review

- The task force's longer term review should begin as soon as NRC has sufficient technical information from the events in Japan with the goal of no later than the completion of the 90 day near term report, and the task force should provide updates on the beginning of the longer term review at the 30 and 60 day status updates.
- This effort would include specific information on the sequence of events and the status of equipment during the duration of the event.
- The task force should evaluate all technical and policy issues related to the event to identify potential research, generic issues, changes to the reactor oversight process, rulemakings, and adjustments to the regulatory framework that should be conducted by NRC.
- The task force should evaluate potential interagency issues such as emergency preparedness.
- Applicability of the lessons learned to non-operating reactor and non-reactor facilities should also be explored.
- During the review, the task force should receive input from and interact with all key stakeholders.
- The task force should provide a report with recommendations, as appropriate, to the Commission within six months from the start of the evaluation for Commission policy direction.
- The report would be released to the public per normal Commission processes (including its transmission to the Commission as a Notation Vote Paper).
- Before beginning work on the longer term review, staff should provide the Commission with estimated resource impacts on other regulatory activities.
- The ACRS should review the report as issued in its final form and provide a letter report to the Commission.

(EDO)

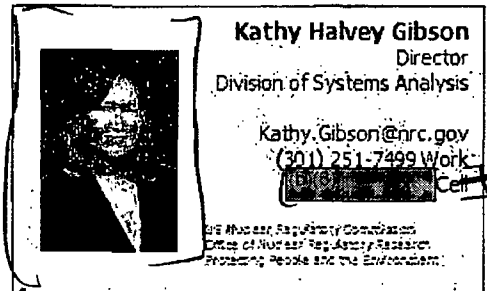
(SECY Suspense: 9 months, if needed)

cc: Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
OGC
CFO
OCA
OPA
Office Directors, Regions, ACRS, ASLBP (via E-Mail)
PDR

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 5:45 PM
To: Sheron, Brian
Subject: FW: Japan/SBO Scheduling Note
Attachments: 110428 Status on Japan and SBO.docx; Kathy Halvey Gibson.vcf

Here's the scheduling note (draft) for the SBO Commission meeting.



From: Andersen, James
Sent: Wednesday, March 23, 2011 1:51 PM
To: Frazier, Alan
Subject: FW: Japan/SBO Scheduling Note

Here is the latest version. I meet with the Chairman's office today, the Chairman tomorrow, and the Commission on March 31st before it will be final.

Jim A.

BC/129

Draft: 03/22/11

SCHEDULING NOTE

Title: BRIEFING ON STATUS OF NRC RESPONSE TO EVENTS IN JAPAN – STATION BLACKOUT (Public)

Purpose: To provide the Commission with an updated status of the Japanese event and to provide an overview of the Station Blackout Rule.

Scheduled: April 28, 2011
9:00 a.m.

Duration: Approx. 1 hour and 45 minutes

Location: Commissioners' Conference Room, 1st floor OWFN

Participants: **Presentation**

NRC Staff Panel **50 mins.***

Marty Virgilio, Deputy Executive Director **15 mins.***
Topic: Update on NRC Response to Japanese Events

Jack Grobe, Deputy Director for Engineering and Support **5 mins.***
Office of Nuclear Reactor Regulation
Topic: Station Blackout Overview

Patrick Hiland, Director for Engineering, **10 mins.***
Office of Nuclear Reactor Regulation
Topic: Station Blackout Rule Background

George Wilson, Chief of Instrumentation and Control Branch, **20 mins.***
Division of Engineering, Office of Nuclear Reactor Regulation
Topic: Station Blackout Review and Approval Process

Commission Q & A **50 mins.**

Discussion – Wrap-up **5 mins**

*For presentation only and does not include time for Commission Q & A's.

Documents:

Background due to SECY: April 14, 2011.
Slides due to SECY: April 21, 2011.

Greenwood, Carol

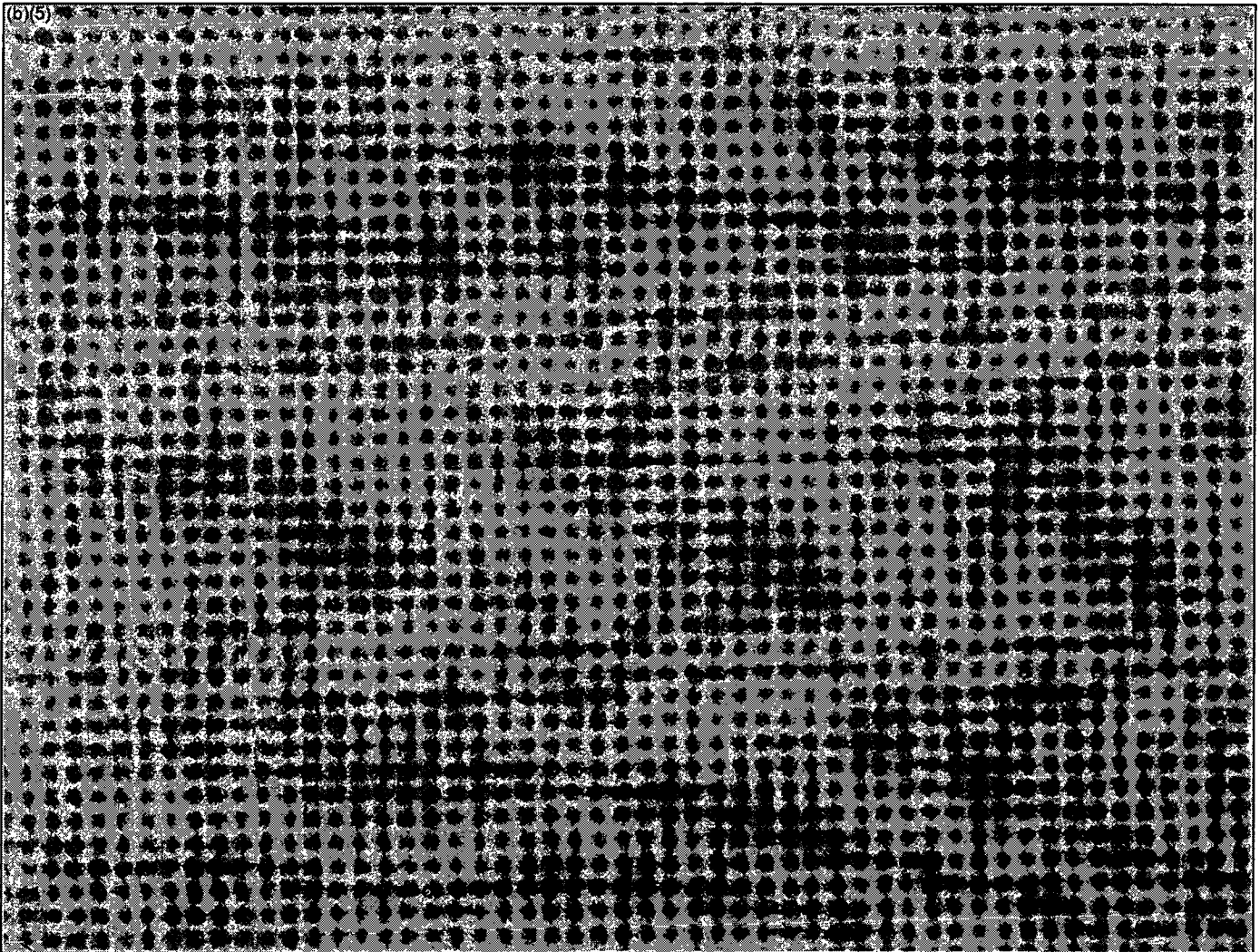
From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 5:46 PM
To: Bush-Goddard, Stephanie
Cc: Sherbini, Sami; Wagner, Katie
Subject: RE: Public health: another issue that needs near-term action
Attachments: Kathy Halvey Gibson.vcf

Are they talking about members of the public in US or Japan? Does it make a difference to your response?

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

From: Bush-Goddard, Stephanie
Sent: Wednesday, March 23, 2011 4:38 PM
To: Gibson, Kathy
Cc: Sherbini, Sami; Wagner, Katie
Subject: FW: Public health: another issue that needs near-term action

Kathy,



BC/130

-Stephanie

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

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 1:59 PM
To: Lee, Richard; Wagner, Katie
Cc: Bush-Goddard, Stephanie
Subject: FW: Public health: another issue that needs near-term action

Assign this one to Stephanie

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

From: Sheron, Brian
Sent: Wednesday, March 23, 2011 1:57 PM
To: Gibson, Kathy; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: Fw: Public health: another issue that needs near-term action

See below. Any thoughts?

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

From: Per F. Peterson <peterson@nuc.berkeley.edu>
To: Koonin, Steven <Steven.Koonin@science.doe.gov>; Adams, Ian <Ian.Adams@Hq.Doe.Gov>; Aoki, Steven <Steven.Aoki@nnsa.doe.gov>; Binkley, Steve <Steve.Binkley@science.doe.gov>; Brinkman, Bill <Bill.Brinkman@science.doe.gov>; RJBudnitz@lbl.gov <RJBudnitz@lbl.gov>; SCHU <SCHU@hq.doe.gov>; DAgostino, Thomas <Thomas.DAgostino@nnsa.doe.gov>; [REDACTED] <[REDACTED]@[REDACTED]>; [REDACTED] <[REDACTED]@[REDACTED]>; Finck, Phillip <phillip.finck@inl.gov>; rgarwin@ostp.eop.gov <rgarwin@ostp.eop.gov>; Grossenbacher, John (INL) <john.grossenbacher@inl.gov>; John Holdren <[REDACTED]@[REDACTED]>; Hurlbut, Brandon <Brandon.Hurlbut@hq.doe.gov>; Kelly, John E (NE) <JohnE.Kelly@Nuclear.Energy.Gov>; McFarlane, Harold <harold.mcfarlane@inl.gov>; Owens, Missy <Missy.Owens@hq.doe.gov>; Poneman, Daniel <Daniel.Poneman@hq.doe.gov>; Sheron, Brian; ronaldo.szilard@inl.gov <ronaldo.szilard@inl.gov>; rlg2@us.ibm.com <rlg2@us.ibm.com>; Per F. Peterson <peterson@nuc.berkeley.edu>; Lyons, Peter <Peter.Lyons@Nuclear.Energy.gov>
Sent: Wed Mar 23 13:35:11 2011
Subject: Public health: another issue that needs near-term action

I would like to raise another issue which now merits expeditious, near term action.

There is a short time window now, of about 6 to 8 weeks, during which it will remain possible to use whole-body counting and other methods to measure any I-131 that members of the public may have ingested. There are a number of reasons why collecting this data, from a sufficiently large sample of the public and workers to get statistically strong data, would be very valuable. I have raised this question with other members of the UCB faculty, and there is general agreement that prompt action should be taken in this area. I do understand that the IAEA has been making measurements, but I am not sure what specifically they have been doing and whether this includes whole-body counting (which can measure body burdens of radioactive materials resolved by isotopes).

Below I discuss this issue in greater detail, outline the reasons why prompt action is likely warranted, and discuss what actions DOE could take immediately in this area.

There has been a program at the Carlsbad Environmental Monitoring and Research Center near WIPP, that has been funded by the DOE, that has performed whole body counting:

<http://www.cemrc.org/health/liedown.htm>

This program at CEMRC has had important and valuable effects in increasing public confidence, since any member of the public with a concern about potential exposures can determine whether any has happened.

In the longer term many cases of thyroid cancer, and other health problems, may end up being attributed to exposures from the Fukushima accident, both in Japan and on the U.S. west coast. Unless statistically strong data is collected in this short time window, it will be difficult to provide a strong and scientifically valid argument about the probability that these diseases have originated from exposures resulting from this accident.

The second reason to collect this data is that it is possible that we will find that some people have received doses of I-131 and other radionuclides that could exceed the levels that current Protective Action Guidelines are designed to prevent. This could provide a basis for immediate action to change PAG's, as well as the ability in the longer term to reassess and improve our approaches to PAGs.

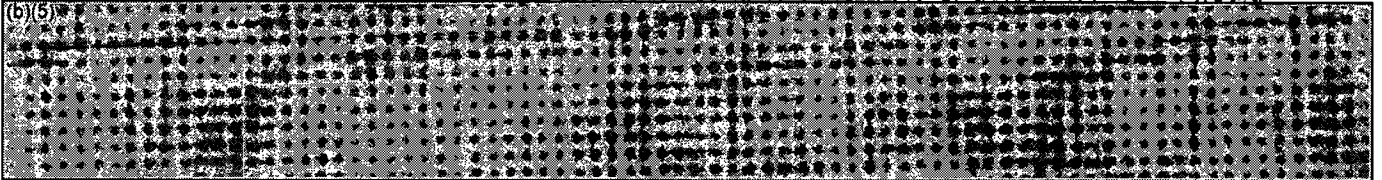
Also, the effectiveness of emergency response depends strongly on the level of public confidence that the government has people's best interests in mind; collecting data that shows the effectiveness (or lack of effectiveness) of these efforts could be central to building longer-term confidence and thus incentivizing more people to follow government recommendations in future emergencies of all types.

The third reason to collect this data is that it could identify individuals who have had significant exposure to I-131 or other radionuclides, and alert them and their medical care professionals to monitor for potential health effects. For remaining people, it could provide reassurance that they do not need to worry about long-term health impacts from the accident.

A fourth reason to collect this data is that it could provide a good statistical basis to correlate data taken from hand-held monitors (I presume these exist) that can be used to screen large numbers of people, to actual, isotope-resolved whole-body burdens. It may even make sense to support bringing some people to the CEMRC facility in Carlsbad, since it has extremely high resolution, so that there can be a direct comparison between rapid monitoring methods, conventional whole body counts, and the extremely accurate counts possible at the CEMRC facility.

I should emphasize that substantial care must be taken in organizing any activity to collect data, with respect to public opinion in Japan. There are very strong reasons to gather data, but it must be done in a way that is broadly viewed as being in the interest of the public and the individuals involved. Having some significant role played by universities may be helpful, as well as the IAEA, so that the effort would not be viewed as being a government-directed effort, given current low levels of trust in the government.

There is only a 6 to 8 week window where whole body counting is practical for detecting I-131. I would



Thoughts?

-Per

--

Per F. Peterson
Professor and Chair
Department of Nuclear Engineering

University of California
4153 Etcheverry Hall
Berkeley, California 94720-1730
peterson@nuc.berkeley.edu
Office: (510) 643-7749 Fax: (510) 643-9685
http://www.nuc.berkeley.edu/People/Per_Peterson

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 6:06 PM
To: Sheron, Brian
Subject: Commission meeting on Japan Health Effects
Attachments: Kathy Halvey Gibson.vcf; 1104xx Japan Rad Consequence Scheduling Noterev2.docx; 1104xx Japan Rad Consequence Scheduling Noterev1nonames2.docx

Brian,

Below are the relevant comments on who should do the briefing. These are from 3 separate email chains. Attached are two versions of the scheduling note, one without names and one with.

From: Weber, Michael
Sent: Tuesday, March 22, 2011 4:52 PM
To: Sheron, Brian
Subject: RESPONSE - Commission Meeting on Japanese Events

I think it is fine to involve the SLs, but I expect that we'll need an SES division director, who has been active in the response to be the lead presenter. He or she can call on the other SLS and staff as necessary. Rob Lewis would be good to lead this briefing.

From: Elkins, Scott
To: Gibson, Kathy
Sent: Wed Mar 23 11:15:46 2011
Subject: Schedule note

Kathy,

Greg Bowman needs to find additional time in the agenda for Q and A. He proposes cutting NR from the agenda and reducing staff presentation time by 20 minutes.

Also, I spoke to Michelle Evans who said that Mike Weber and Charlie Miller want Rob Lewis at the table and to remove all the SLs.

I need to talk with you on this when convenient.

Scott

From: Evans, Michele
Sent: Wednesday, March 23, 2011 10:58 AM
To: Gibson, Kathy
Cc: Lewis, Robert
Subject: RE: Upcoming Comm Meeting on Fukushima rad consequences

I just talked to Scott Elkins. Based on a conversation with Mike Weber and Charlie Miller, Rob Lewis should be the SES at the table. The SLS should be in the well to support.


Please contact Rob Lewis regarding which date he can support.

BC/131

Kathy Halvey Gibson
Director
Division of Systems Analysis

Kathy.Gibson@nrc.gov
(301) 251-7499 Work
(b)(6) Cell

U.S. Nuclear Regulatory Commission
Office of Public Regulatory Relations
Protecting People and the Environment



Draft 3/21/11

SCHEDULING NOTE

Title: BRIEFING ON THE JAPAN NUCEAR EVENT: RADIOLOGICAL CONSEQUENCES AND POTENTIAL HEALTH EFFECTS (Public)

Purpose: Provide the Commission an update of the Japan nuclear event with additional focus on radiological consequences and potential health effects and an opportunity to hear a representative sample of external stakeholder viewpoints.

Scheduled: April TBD
9:00am

Duration: Approx. 3 hours

Location: Commissioner's Hearing Room, 1st fl. OWFN

Participants:

Presentation

NRC Staff

45 mins.*

Bill Borchardt, Executive Director for Operations
Topic: Opening Remarks and Event Status

5 mins.*

TBD, Topic: Overview

5 mins*

TBD, Topic: Source Term Determination

10 mins.*

TBD, Topic: Dose Projections

10 mins.*

TBD, Topic: Protective Actions and Health Effects

10 mins.*

TBD, Topic: Summary

5 mins*

Commission Q & A

50 mins.

BREAK

5 mins.

Stakeholder Panel

30 mins.*

David Bowman, DOE
Topic: DOE Assets (AMS, NARAC, etc)

10 mins.*

Sarah Decair, EPA

Topic: EPA Protective Action Guidelines, RadNet 10 mins.*

TBD, FDA

Topic: FDA Derived Intervention Levels for Radionuclides in Food 10 mins.*

Commission Q & A 50 mins.

Discussion – Wrap-up 5 mins.

*For presentation only and does not include time for Commission Q & A's

Documents:

- TBD
- TBD

Staff background material due to SECY: Ten business days prior to the briefing.

Slides due to SECY: Five business days prior to the briefing.

Draft 3/21/11

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Topic: Opening Remarks and Event Status

5 mins.*

TBD, Topic: Overview

5 mins*

Charles Tinkler, SLS, RES
Topic: Source Term Determination

10 mins.*

Cynthia Jones, SLS, NSIR
Topic: Dose Projections

10 mins.*

Patricia Milligan, SLS, NSIR
Topic: Protective Actions and Health Effects

10 mins.*

TBD, Topic: Summary

5 mins*

Commission Q & A

50 mins.

BREAK

5 mins.

Stakeholder Panel

30 mins.*

David Bowman, DOE

<u>Topic:</u> DOE Assets (AMS, NARAC, etc)	10 mins.*
Sarah Decair, EPA <u>Topic:</u> EPA Protective Action Guidelines, RadNet	10 mins.*
TBD, FDA <u>Topic:</u> FDA Derived Intervention Levels for Radionuclides in Food	10 mins.*
Commission Q & A	50 mins.
Discussion – Wrap-up	5 mins.

*For presentation only and does not include time for Commission Q & A's

Documents:

- TBD
- TBD

Staff background material due to SECY: Ten business days prior to the briefing.
 Slides due to SECY: Five business days prior to the briefing.

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 7:16 AM
To: Scott, Michael
Cc: Lee, Richard; Sheron, Brian; Uhle, Jennifer
Subject: Re: Conference call with DOE 6:00-7:00pm

Thanks Mike!

From: Scott, Michael
To: Gibson, Kathy
Cc: Lee, Richard
Sent: Thu Mar 24 04:15:42 2011
Subject: Re: Conference call with DOE 6:00-7:00pm

Kathy: John Monninger checked with Ron Cherry and Damien Peko. Neither was aware of an issue as described in your note. They are following up with DOE chain to see if they can find out more.

Sent from my NRC blackberry
Michael Scott

(b)(6)

From: Gibson, Kathy
To: Scott, Michael
Cc: Lee, Richard
Sent: Wed Mar 23 22:31:52 2011
Subject: Fw: Conference call with DOE 6:00-7:00pm

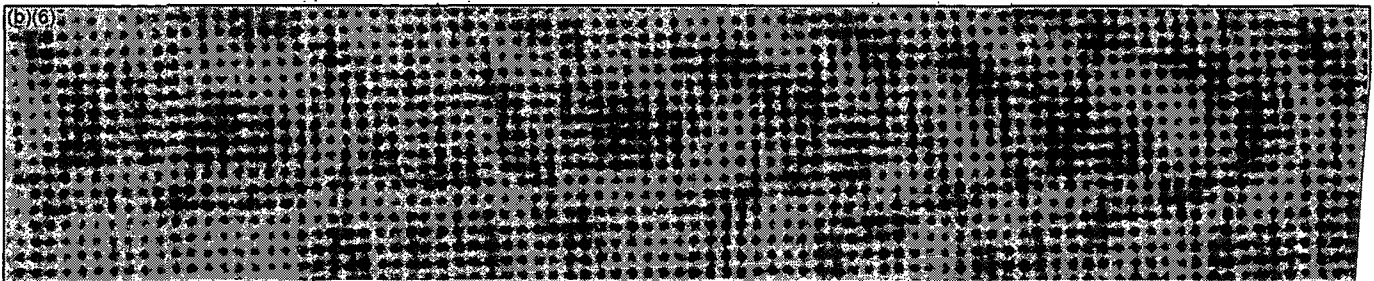
Mike,
See the email below. Can you see if you can find out what this is about? We will follow up here too but it seems to have some connection to what your predecessors are doing or have done over there.

Thanks,
K

From: Lee, Richard
To: Sheron, Brian
Cc: Gibson, Kathy; Elkins, Scott
Sent: Wed Mar 23 19:43:35 2011
Subject: Conference call with DOE 6:00-7:00pm

__Brian:

(b)(6)



(b) (6)

Richard.

Greenwood, Carol

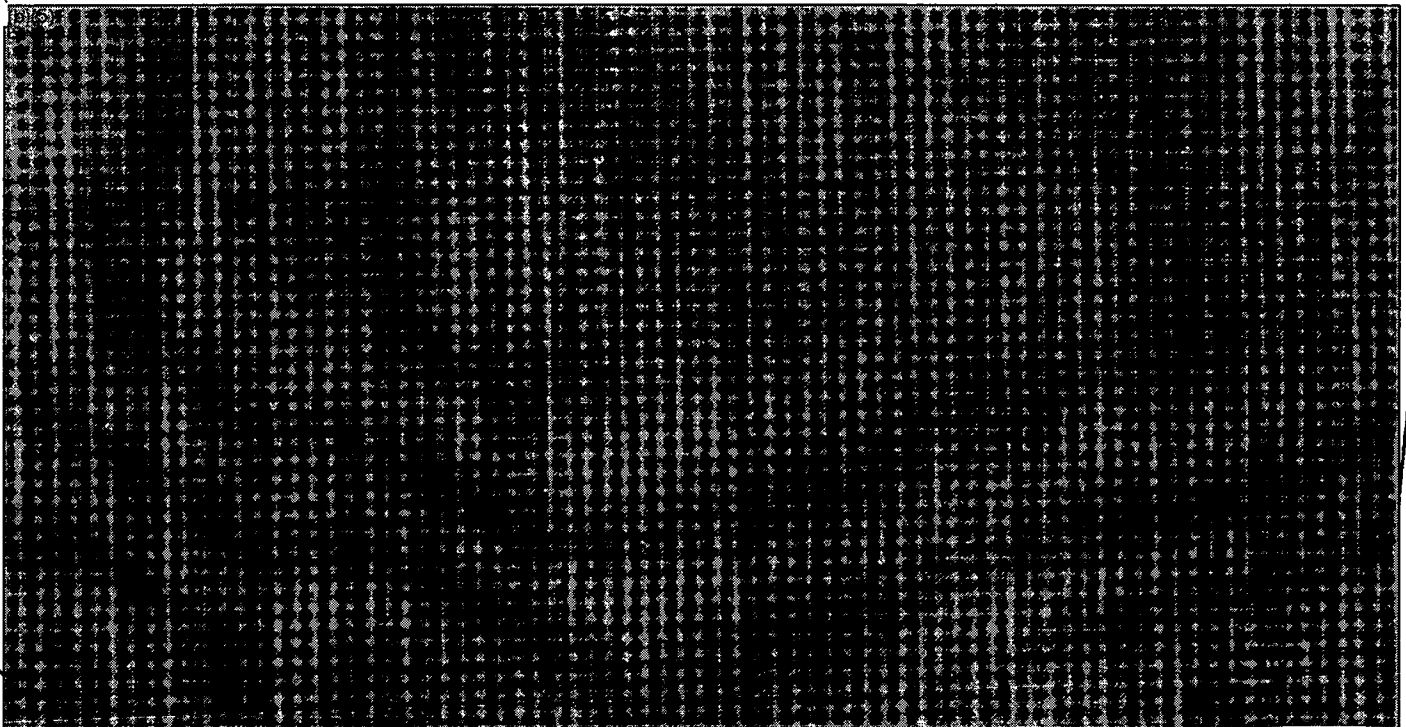
From: Gibson, Kathy
Sent: Thursday, March 24, 2011 8:16 AM
To: Lee, Richard; Zigh, Ghani
Subject: Fw: Tomorrow's news tonight -- read and delete

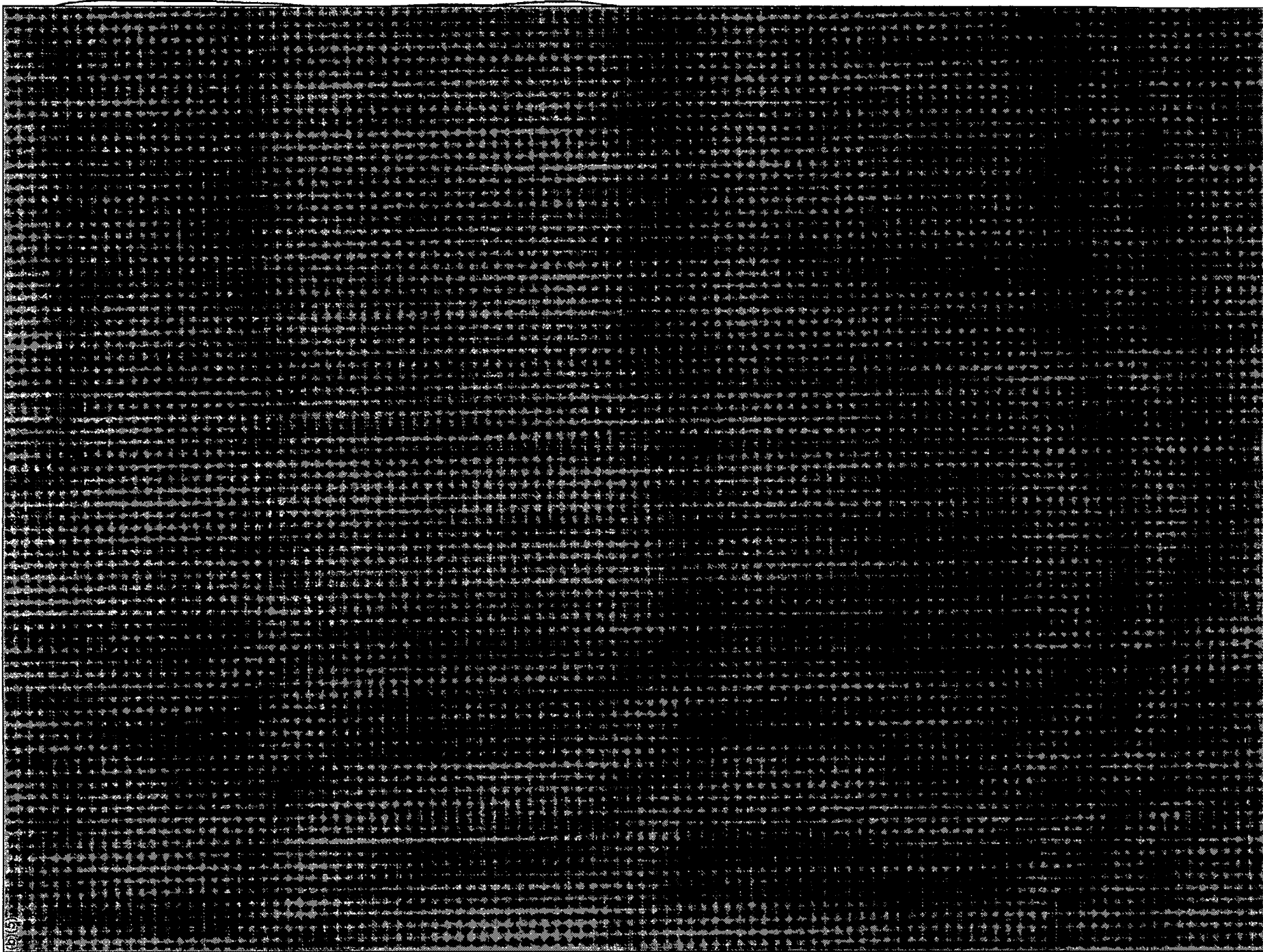
From: Coe, Doug
To: Scott, Michael; Gibson, Kathy
Cc: Coyne, Kevin; Correia, Richard
Sent: Thu Mar 24 07:36:27 2011
Subject: FW: Tomorrow's news tonight -- read and delete

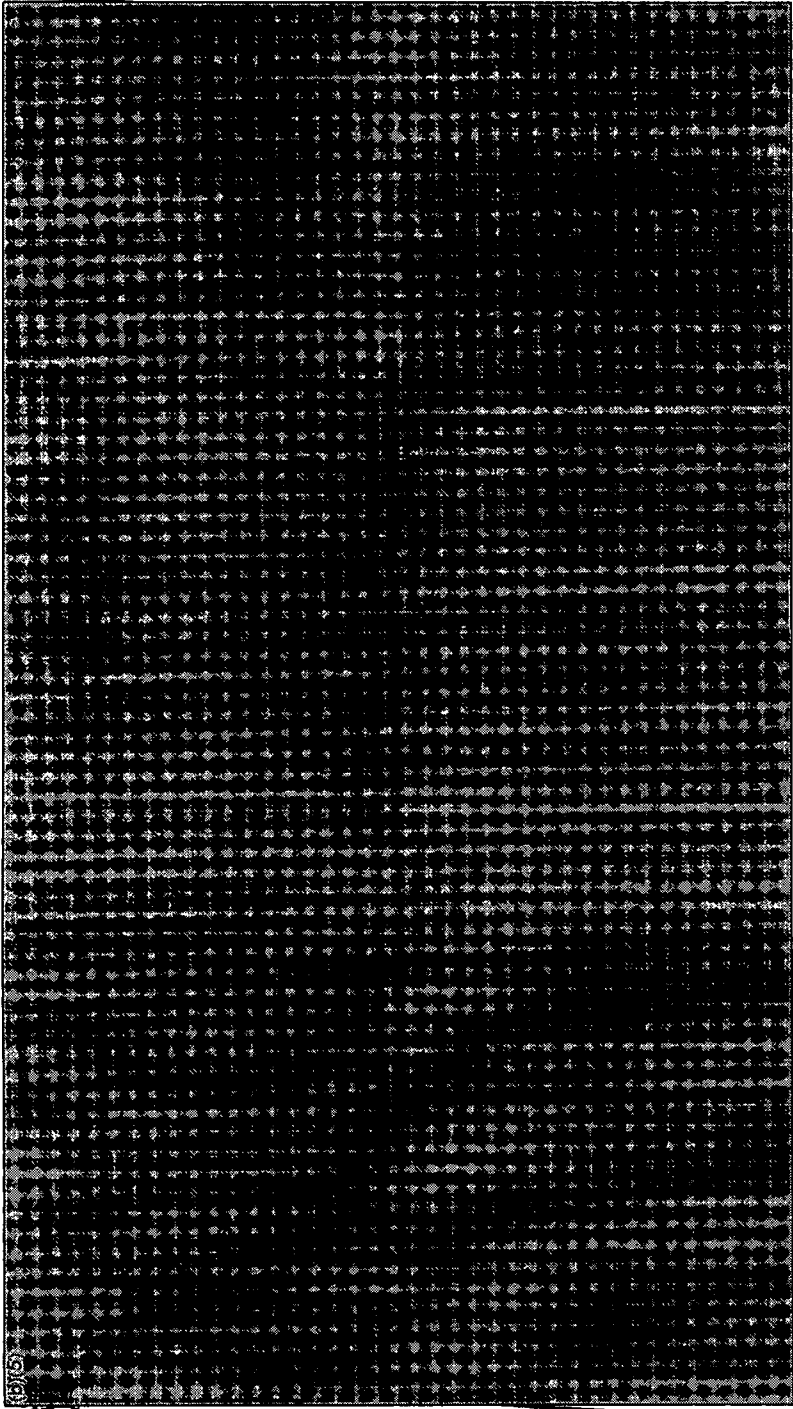
Kathy/Mike,
Item below on wet/dry spent fuel storage is relevant to the question Brian asked that Mike relayed to us last week. I heard Brian mention it again on Monday with respect to ongoing DSA work, but I'm not sure what the tasking is and who has the actions.
Please let us know if/when DRA needs to get in the game,
Thanks,
Doug

From: Brenner, Eliot
Sent: Wednesday, March 23, 2011 5:33 PM
To: Brenner, Eliot
Subject: Tomorrow's news tonight -- read and delete

Internal use only – no distribution outside NRC – no redistribution
May contain material proprietary to news agencies







Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 8:23 AM
To: Sheron, Brian
Cc: Uhle, Jennifer
Subject: Re: Commission meeting on Japan Health Effects

Ok I will call Greg when I get in.

From: Sheron, Brian
To: Gibson, Kathy
Cc: Uhle, Jennifer
Sent: Thu Mar 24 07:35:20 2011
Subject: RE: Commission meeting on Japan Health Effects

I'm not falling on my sword for this one. Tell Greg that the lead for the briefing should be transferred to FSME since if Mike wants just Rob at the table, RES has no direct role in the briefing, and therefore, we should not have the lead. Why should we coordinate a briefing we have no direct involvement in?

From: Gibson, Kathy
Sent: Wednesday, March 23, 2011 6:06 PM
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Brian,
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Also, I spoke to Michelle Evans who said that Mike Weber and Charlie Miller want Rob Lewis at the table and to remove all the SLs.

BC1134

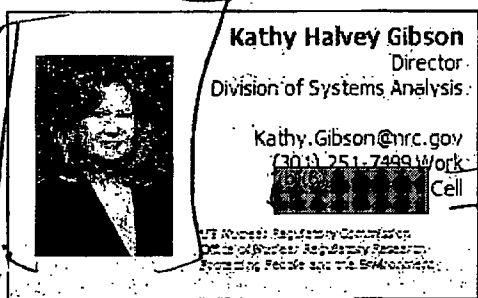
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Scott

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To: Gibson, Kathy
Cc: Lewis, Robert
Subject: RE: Upcoming Comm Meeting on Fukushima rad consequences

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Please contact Rob Lewis regarding which date he can support.




Kathy Halvey Gibson
Director
Division of Systems Analysis
Kathy.Gibson@nrc.gov
(301) 751-7499 Work
Cell

NRC Mission: Regulatory Oversight
Office of Nuclear Regulatory Research
Promoting People and the Environment

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 11:40 AM
To: Sheron, Brian
Cc: Uhle, Jennifer
Subject: RE: Background 3rd team to Japan .docx
Attachments: Kathy Halvey Gibson.vcf

(b)(5)

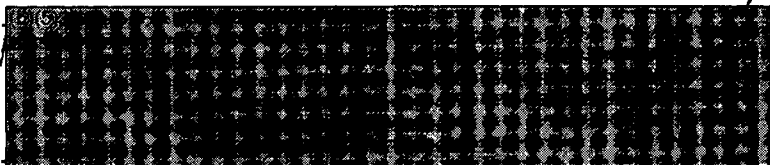


Kathy Halvey Gibson
Director
Division of Systems Analysis
Kathy.Gibson@nrc.gov
(301) 251-7499 Work
[Redacted] Cell

U.S. Nuclear Regulatory Commission
Office of Project Regulatory Research
Processing, Policy and the Environment

From: Sheron, Brian
Sent: Thursday, March 24, 2011 11:29 AM
To: Gibson, Kathy
Cc: Uhle, Jennifer
Subject: FW: Background 3rd team to Japan .docx

See below.



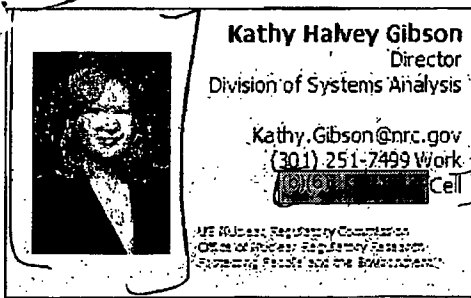
From: Salus, Amy
Sent: Thursday, March 24, 2011 11:14 AM
To: Ruland, William; Holahan, Gary; Miller, Charles; Haney, Catherine; Sheron, Brian; Ordaz, Vonna; Dean, Bill; McCree, Victor; Satorius, Mark; Howell, Art; Collins, Elmo
Subject: Background 3rd team to Japan .docx

BC/135

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 10:52 AM
To: Santiago, Patricia; Barr, Jonathan; Chang, Richard; Parks, Jazel
Subject: RE: SOARCA FOIA - NSIR Documents
Attachments: Kathy Halvey Gibson.vcf

ok



From: Santiago, Patricia
Sent: Thursday, March 24, 2011 10:31 AM
To: Barr, Jonathan; Chang, Richard; Gibson, Kathy; Parks, Jazel
Subject: Re: SOARCA FOIA - NSIR Documents

Kathy

I propose that jon take the lead with richard and carol if available while jazel processes the japan foia. I should have an ma in 2 weeks to also assist. It is a lot of work. Thanks

Sent from an NRC BlackBerry
Patricia Santiago

From: Barr, Jonathan
To: Parks, Jazel; Christian, Warren; Brown, Natalie
Cc: Santiago, Patricia; Holzle, Catherine; Hirsch, Patricia; Chang, Richard
Sent: Thu Mar 24 10:21:00 2011
Subject: RE: SOARCA FOIA - NSIR Documents

Hello,

The redactions to the NSIR presentations which I gave Jazel yesterday were made in consultation with Pat Santiago and two other members of the SOARCA team based on our understanding of exemption 5. If FOIA staff have concerns, please give me a call at (301) 251-7538 (T,W,Th) or (301) 873-0782 (M,F). However I believe the OGC attorney(s) should review and let us know if they disagree with our redactions. If I am misunderstanding the process, please let me know.

Thanks,
Jon

From: Parks, Jazel
Sent: Thursday, March 24, 2011 9:22 AM
To: Christian, Warren; Brown, Natalie

BC/136

Cc: Santiago, Patricia; Barr, Jonathan; Holze, Catherine; Hirsch, Patricia
Subject: SOARCA FOIA - NSIR Documents

Good Morning Everyone,

Jonathan Barr returned these documents to me around 5pm last night so I waited till today to bring them back to the office. I know that Natalie is not in today but once you see these documents, I know both are you are going to have concerns. I feel that another meeting should be conducted with Pat, Jon, Natalie, Warren, possibly an attorney and myself.

While I will still be handling the FOIA, I am being pulled from assisting in this project outside of my normal capacity due to my PD being changed and having to now do IT coordination. I also have that FOIA concerning the Japan Nuclear crisis that is expedited and takes priority to this SOARCA FOIA. However, I would like to have a CLEAR understanding passed from FOIA/OGC to RES staff that is working on this request. Maybe even a sample document(s) should be send out as an attachment to the meeting scheduler so that there will be an example(s).

Let me know what everyone thinks and I will try and set up a meeting/conference call.

Thank you and have a wonderful day,

Jazel Parks

Research Information Specialist

RES/PMDA/ITIB

(P) 301-251-7690

(F) 301-251-7426

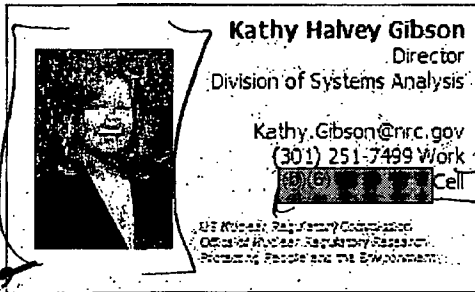
(M/S) 

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:19 PM
To: Lewis, Robert
Subject: RE: commission briefing on japan
Attachments: Kathy Halvey Gibson.vcf; 1104xx Japan Rad Consequence Scheduling Noterev1nonames2.docx

Rob,
My understanding is now that you are doing the briefing, FSME has the lead. Attached is the scheduling note that we provided for your use.

Best,
Kathy



From: Lewis, Robert
Sent: Thursday, March 24, 2011 12:23 PM
To: Gibson, Kathy
Subject: commission briefing on japan

Kathy

My understanding is that I am to do the subject commission briefing with RES' support. Is that your current understanding?

Other than a heads up email from Michele Evans and a short discussion with Charlie Miller and Mike Weber, I have no meaningful awareness of any existing plans to schedule, prepare, obtain alignment, and conduct the meeting. Can you help me to get plugged in, and include Don Cool, and Vince Holahan?

Thanks
Rob

BC/137

Draft 3/21/11

SCHEDULING NOTE

Title: BRIEFING ON THE JAPAN NUCLEAR EVENT: RADIOLOGICAL CONSEQUENCES AND POTENTIAL HEALTH EFFECTS (Public)

Purpose: Provide the Commission an update of the Japan nuclear event with additional focus on radiological consequences and potential health effects and an opportunity to hear a representative sample of external stakeholder viewpoints.

Scheduled: April TBD
9:00am

Duration: Approx. 3 hours

Location: Commissioner's Hearing Room, 1st fl. OWFN

Participants:	Presentation
<u>NRC Staff</u>	45 mins.*
Bill Borchardt, Executive Director for Operations <u>Topic:</u> Opening Remarks and Event Status	10 mins.*
TBD, <u>Topic:</u> Source Term Determination	10 mins.*
TBD, <u>Topic:</u> Dose Projections	10 mins.*
TBD, <u>Topic:</u> Protective Actions and Health Effects	10 mins.*
TBD, <u>Topic:</u> Summary	5 mins*
Commission Q & A	50 mins.
BREAK	5 mins.
<u>Stakeholder Panel</u>	30 mins.*
David Bowman, DOE <u>Topic:</u> DOE Assets (AMS, NARAC, etc)	10 mins.*
Sarah Decair, EPA <u>Topic:</u> EPA Protective Action Guidelines, RadNet	10 mins.*

TBD, FDA

Topic: FDA Derived Intervention Levels for Radionuclides in Food 10 mins.*

Commission Q & A

50 mins.

Discussion – Wrap-up

5 mins.

*For presentation only and does not include time for Commission Q & A's

Documents:

- TBD
- TBD

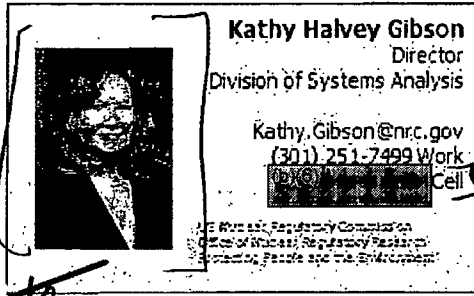
Staff background material due to SECY: Ten business days prior to the briefing.

Slides due to SECY: Five business days prior to the briefing.

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:47 PM
To: Sheron, Brian; Uhle, Jennifer
Subject: FW: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective
Attachments: Kathy Halvey Gibson.vcf

A potential speaker when we do a Japan seminar!



From: Brock, Terry
Sent: Thursday, March 24, 2011 1:37 PM
To: Gibson, Kathy
Subject: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Excellent John Boice interview below on Japanese current events. Hat-tip to Vered on finding this.

Terry

CNN Video Link:

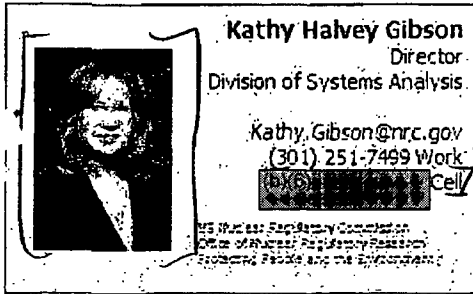
<http://www.cnn.com/video/data/2.0/video/world/2011/03/23/sotu.boice.0320.cnn.cnn.html>

BC/138

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:48 PM
To: Case, Michael
Subject: RE: Background 3rd team to Japan .docx
Attachments: Kathy Halvey Gibson2.vcf

Yes he does, but let me give him a heads up first and I will get back to you as soon as I contact him.



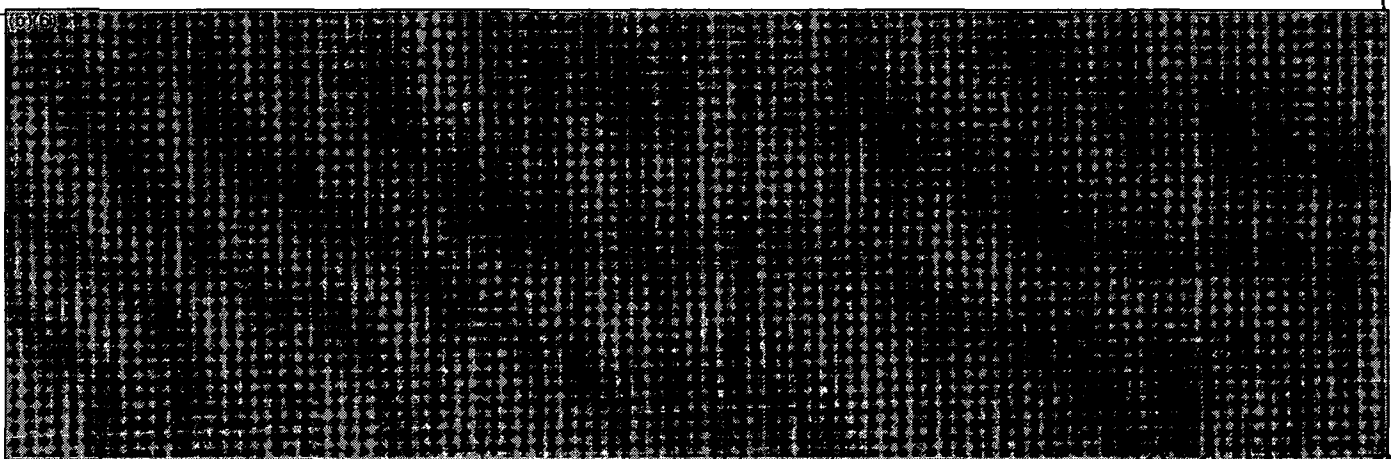
From: Case, Michael
Sent: Thursday, March 24, 2011 1:35 PM
To: Gibson, Kathy
Subject: FW: Background 3rd team to Japan .docx

Hi Kathy. The only tidbit of information I need in order to forward Mike's name is his passport status (i.e. does he have one).

From: Sheron, Brian
Sent: Thursday, March 24, 2011 11:44 AM
To: Case, Michael
Subject: FW: Background 3rd team to Japan .docx


FYI. You can volunteer Salay.

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 11:40 AM
To: Sheron, Brian
Cc: Uhle, Jennifer
Subject: RE: Background 3rd team to Japan .docx



BC 139

(b)(5)



Kathy Halvey Gibson
Director
Division of Systems Analysis
Kathy.Gibson@nrc.gov
(301) 251-7499 Work
[Redacted] Cell
U.S. Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Protecting People and the Environment

From: Sheron, Brian
Sent: Thursday, March 24, 2011 11:29 AM
To: Gibson, Kathy
Cc: Uhle, Jennifer
Subject: FW: Background 3rd team to Japan .docx

See below.

(b)(5)

From: Salus, Amy
Sent: Thursday, March 24, 2011 11:14 AM
To: Ruland, William; Holahan, Gary; Miller, Charles; Haney, Catherine; Sheron, Brian; Ordaz, Vonna; Dean, Bill; McCree, Victor; Satorius, Mark; Howell, Art; Collins, Elmo
Subject: Background 3rd team to Japan .docx

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 2:14 PM
To: Sheron, Brian
Subject: Re: RESPONSE - Commission briefing on Radiation Health Consequences

I don't agree with Mike's premises, but I'm not falling on any sword either. I am assigning Stephanie to lead with assistance from Sami and Vered. I anticipate that Rob will want his SLs involved.

From: Sheron, Brian
To: Gibson, Kathy
Sent: Thu Mar 24 13:58:00 2011
Subject: FW: RESPONSE - Commission briefing on Radiation Health Consequences

Go figure.....Do we even know what lead responsibility means if we aren't involved?

From: Weber, Michael
Sent: Thursday, March 24, 2011 1:45 PM
To: Sheron, Brian
Cc: Muessle, Mary; Andersen, James
Subject: RESPONSE - Commission briefing on Radiation Health Consequences

RES maintains the lead responsibility for the briefing with Rob as the briefer. Most of the technical knowledge and support in the radiation health effects area is coming from RES, consequently RES has the lead for the briefing. Rob is the briefer based on his knowledge of the agency's response. It is a great opportunity to practice interdependence.

Thanks

From: Sheron, Brian
Sent: Thursday, March 24, 2011 1:39 PM
To: Weber, Michael
Subject: FW: commission briefing on japan


Mike, We had originally proposed that 3 SLs conduct the bulk of the briefing (Charlie Tinker, Cindy Jones, and Trish Milligan). Greg Bowman told us that you decided that just Rob Lewis would be at the table for this Commission meeting and do the briefing. Hence, we told Rob that FSME should have the lead for the briefing, since RES has no role in the meeting, other than we will have some folks available to answer questions about source term.

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Sent: Thursday, March 24, 2011 1:19 PM
To: Lewis, Robert
Subject: RE: commission briefing on japan

Rob,
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Best,
Kathy

BC/140



Kathy Halvey Gibson
Director
Division of Systems Analysis

Kathy.Gibson@nrc.gov
(301) 251-7499 Work
(301) 251-7499 Cell

U.S. Nuclear Regulatory Commission
Office of Nuclear Regulatory Research
Promoting People and the Environment

From: Lewis, Robert
Sent: Thursday, March 24, 2011 12:23 PM
To: Gibson, Kathy
Subject: commission briefing on japan

Kathy

My understanding is that I am to do the subject commission briefing with RES' support. Is that your current understanding?

Other than a heads up email from Michele Evans and a short discussion with Charlie Miller and Mike Weber, I have no meaningful awareness of any existing plans to schedule, prepare, obtain alignment, and conduct the meeting. Can you help me to get plugged in, and include Don Cool, and Vince Holahan?

Thanks
Rob

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 2:16 PM
To: Bush-Goddard, Stephanie
Subject: Fw: Changes to Draft Scheduling Note

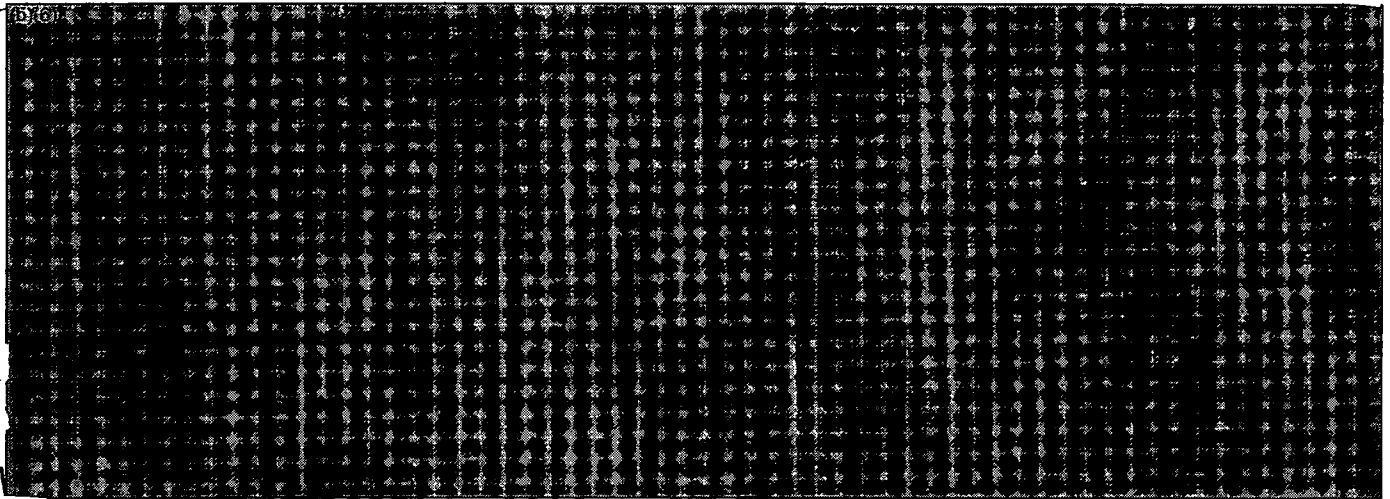
From: Gibson, Kathy
To: Bowman, Gregory; Elkins, Scott
Cc: Shaffer, Vered; Lewis, Robert; Cool, Donald; Holahan, Vincent; Sherbini, Sami
Sent: Thu Mar 24 14:15:44 2011
Subject: Re: Changes to Draft Scheduling Note

I am assigning Stephanie to lead this with assistance from Sami and Vered.

Stephanie will be contacting Rob shortly.

From: Bowman, Gregory
To: Elkins, Scott
Cc: Gibson, Kathy; Shaffer, Vered; Lewis, Robert; Cool, Donald; Holahan, Vincent
Sent: Thu Mar 24 14:03:53 2011
Subject: Changes to Draft Scheduling Note

Scott,



Greg

BC/141

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 2:17 PM
To: Elkins, Scott
Subject: Re: Changes to Draft Scheduling Note

Stephanie will lead and I am responding to the emails.

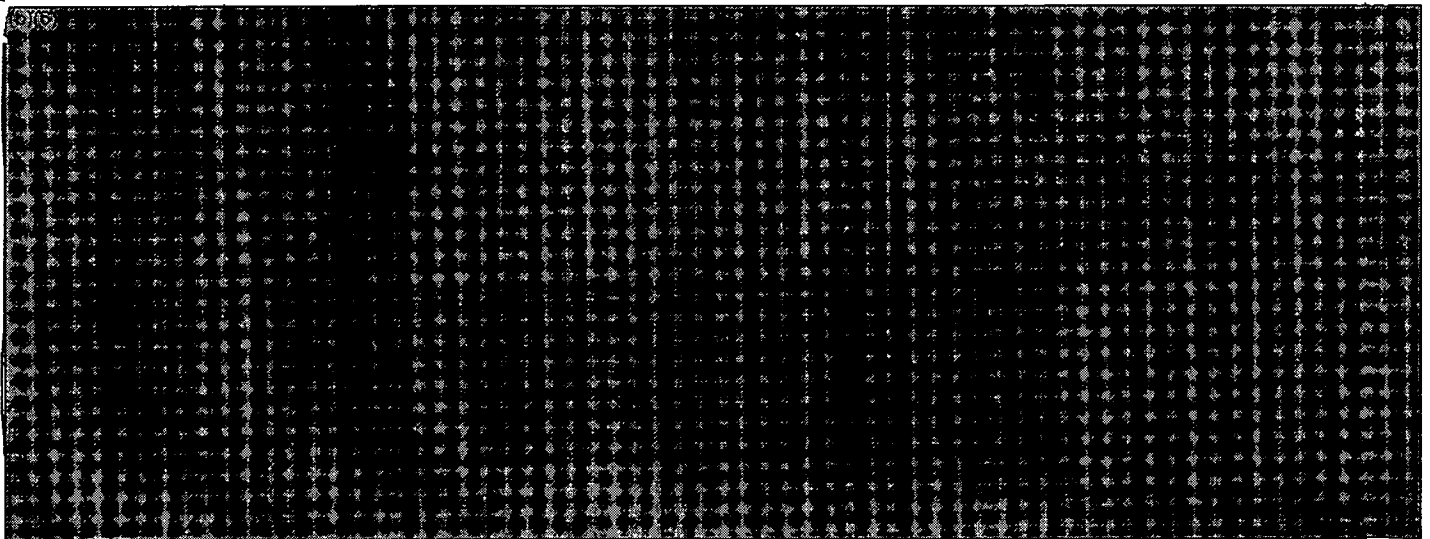
From: Elkins, Scott
To: Gibson, Kathy
Sent: Thu Mar 24 14:11:38 2011
Subject: FW: Changes to Draft Scheduling Note

Kathy,

The revised scheduling note retains Robert Lewis as the singular staff technical presenter. Based on our conversation this morning I'm not sure how to respond about RES retaining the lead on this at this point. Please advise.
Scott

From: Bowman, Gregory
Sent: Thursday, March 24, 2011 2:04 PM
To: Elkins, Scott
Cc: Gibson, Kathy; Shaffer, Vered; Lewis, Robert; Cool, Donald; Holahan, Vincent
Subject: Changes to Draft Scheduling Note
Importance: High

Scott,



Greg

BC/142

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 2:38 PM
To: Sheron, Brian
Cc: Uhle, Jennifer
Subject: Re: RESPONSE - Commission briefing on Radiation Health Consequences

Stephanie says Weber is right on the lead office given what the Chairman wants - the focus on radiological impact/health effects. That is what her group does. And Bill Otts group for environmental transport (she will coordinate with them).

And she and her branch met with the Chairman yesterday so they have a perspective on what he's thinking and worrying about.

From: Sheron, Brian
To: Gibson, Kathy
Sent: Thu Mar 24 14:23:32 2011
Subject: FW: RESPONSE - Commission briefing on Radiation Health Consequences

See below. I don't think we should be preparing briefing slides for Rob. I suggest someone call him and ask him when he'll have his presentation slides ready. I suppose we can send them to SECY so they can make the copies, etc.

Decide who you want in the well to answer questions on radiology, since I understand neither Cindy nor Trish are available that day.

From: Weber, Michael
Sent: Thursday, March 24, 2011 2:14 PM
To: Sheron, Brian
Subject: RESPONSE - Commission briefing on Radiation Health Consequences

Sure you do. You pull together the briefing slides and background information and prepare to answer the more detailed technical responses to questions from the Commission.

From: Sheron, Brian
Sent: Thursday, March 24, 2011 2:00 PM
To: Weber, Michael
Cc: Muessle, Mary; Andersen, James
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

OK, but I don't understand because RES has no role in the meeting.

From: Weber, Michael
Sent: Thursday, March 24, 2011 1:45 PM
To: Sheron, Brian
Cc: Muessle, Mary; Andersen, James
Subject: RESPONSE - Commission briefing on Radiation Health Consequences

RES maintains the lead responsibility for the briefing with Rob as the briefer. Most of the technical knowledge and support in the radiation health effects area is coming from RES, consequently RES has the lead for the briefing. Rob is the briefer based on his knowledge of the agency's response. It is a great opportunity to practice interdependence.

BC/143

Thanks

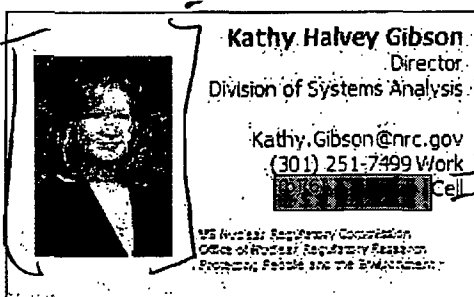
From: Sheron, Brian
Sent: Thursday, March 24, 2011 1:39 PM
To: Weber, Michael
Subject: FW: commission briefing on japan

Mike, We had originally proposed that 3 SLs conduct the bulk of the briefing (Charlie Tinker, Cindy Jones, and Trish Milligan). Greg Bowman told us that you decided that just Rob Lewis would be at the table for this Commission meeting and do the briefing. Hence, we told Rob that FSME should have the lead for the briefing, since RES has no role in the meeting, other than we will have some folks available to answer questions about source term.

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:19 PM
To: Lewis, Robert
Subject: RE: commission briefing on japan

Rob,
My understanding is now that you are doing the briefing, FSME has the lead. Attached is the scheduling note that we provided for your use.

Best,
Kathy



From: Lewis, Robert
Sent: Thursday, March 24, 2011 12:23 PM
To: Gibson, Kathy
Subject: commission briefing on japan

Kathy

My understanding is that I am to do the subject commission briefing with RES' support. Is that your current understanding?

Other than a heads up email from Michele Evans and a short discussion with Charlie Miller and Mike Weber, I have no meaningful awareness of any existing plans to schedule, prepare, obtain alignment, and conduct the meeting. Can you help me to get plugged in, and include Don Cool, and Vince Holahan?

Thanks
Rob

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 3:17 PM
To: Bush-Goddard, Stephanie
Subject: Re: RESPONSE - Commission briefing on Radiation Health Consequences

Rob is driving the ship. He should tell you what to put on the scheduling note - what the topics are and who the external speakers should be. Once he provides a draft of his slides we can provide talking points. He should determine who is in the well with our input depending on what the topics end up being and the slides.

We are technical support.

From: Bush-Goddard, Stephanie
To: Sheron, Brian; Gibson, Kathy
Cc: Uhle, Jennifer
Sent: Thu Mar 24 15:07:07 2011
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

Yes, I have a list of external panelist.

I will pass by Rob Lewis and keep Kathy in the loop once we confirm the agenda.

-Stephanie

From: Sheron, Brian
Sent: Thursday, March 24, 2011 2:15 PM
To: Gibson, Kathy; Bush-Goddard, Stephanie
Cc: Uhle, Jennifer
Subject: FW: RESPONSE - Commission briefing on Radiation Health Consequences

See below. Can you find some external panelists?

From: Muessle, Mary
Sent: Thursday, March 24, 2011 2:13 PM
To: Sheron, Brian; Weber, Michael
Cc: Andersen, James
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

I am attaching the scheduling note with the topics the Chairman approved today. He also wanted to add Dose Modeling and to have a discussion on how we deal with iodine uptake. We did inform him that the presenters may change. If possible, we are also looking for some 1-2 external panelists with general knowledge such as someone from the Health Physics Society.

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

BC/144

From: Sheron, Brian
Sent: Thursday, March 24, 2011 2:00 PM
To: Weber, Michael
Cc: Muessle, Mary; Andersen, James
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

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Thanks

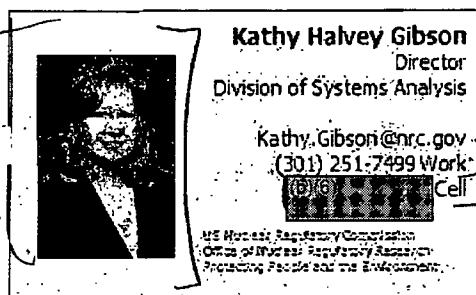
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Subject: FW: commission briefing on japan

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Subject: RE: commission briefing on japan

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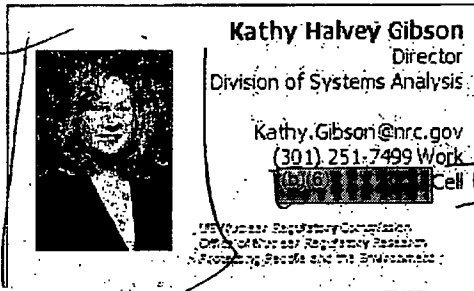
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Thanks
Rob

Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 3:52 PM
To: Bush-Goddard, Stephanie
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences
Attachments: Kathy Halvey Gibson2.vcf

This is coming from Brian.



From: Bush-Goddard, Stephanie
Sent: Thursday, March 24, 2011 3:32 PM
To: Gibson, Kathy
Subject: RE: RESPONSE - Commission briefing on Radiation Health Consequences

I hear you clearly, but he might not have that same view.

Based on the chain of emails, he is the presenter/figure head and we are leading (providing slides (technical knowledge), and talking points (supports).

..but I will wait until I hear from him and keep you in the loop.

Mike Weber said:

"RES maintains the lead responsibility for the briefing with Rob as the briefer. Most of the technical knowledge and support in the radiation health effects area is coming from RES, consequently RES has the lead for the briefing. Rob is the briefer based on his knowledge of the agency's response. It is a great opportunity to practice interdependence."

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To: Sheron, Brian; Gibson, Kathy

BC/145

Cc: Uhle, Jennifer
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Yes, I have a list of external panelist.

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

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Cc: Muessle, Mary; Andersen, James
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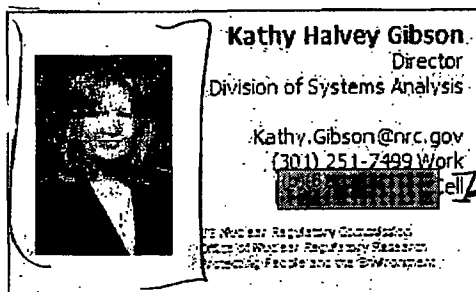
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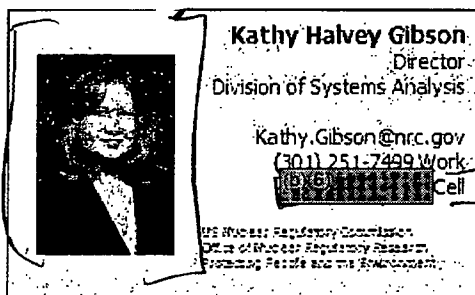
Greenwood, Carol

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 5:27 PM
To: Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: Nominees for 3rd Team to Japan
Attachments: Background 3rd team to Japan .docx; Kathy Halvey Gibson.vcf; Japaneventstaffing.xlsx
Importance: High

Please let me know before 8 am Monday if you recommend anyone from your staff (or SLs nominate yourself) for any of the expertise areas being sought to go to Japan. Please verify with the person you are nominating that they are willing and able to go during the first two weeks in April.

The information that staff provided on their willingness to go to Japan is attached FYI and use.

Thanks!



From: Case, Michael
Sent: Thursday, March 24, 2011 1:47 PM
To: Coyne, Kevin; Correia, Richard; Gibson, Kathy; Richards, Stuart; Case, Michael
Cc: Rini, Brett; Sheron, Brian; Uhle, Jennifer
Subject: Nominees for 3rd Team to Japan

The Agency is trying to put together another team to go to Japan leaving on or about April 2nd and returning April 16th. They are seeking individuals willing to go with skills in the following areas:

- Severe Accident Management Knowledge
- B.5.b Knowledge
- Accident Recovery Knowledge
- Political Savvy

Additional background info is on the attached sheet. **Please forward your nominees to Brian/Jennifer/Brett by 0800 Monday** (due at noon to Michele Evans). DSA currently has one nominee that will be forwarded shortly. Background info on nominated candidates should include the person's skills in relation to those identified areas above, any OD endorsement, and passport status.

BC/146

March 24, 2011

Background Information for Third Team to Japan

Overall:

We are planning to replace the current site team with a six person team that would include four members with a collective, good understanding of severe accident management, B5b and accident recovery, and two members with the management and political savvy to deal with the ambassador and Japanese regulators, military and cabinet. (One of these will be an Executive SES level to replace Dan Dorman)

Next phase would be to replace that 6 person team with a two person team. (Composition TBD)

Specific Request of OD/RAs:

1. Identify staff with all or some of following skill sets who are willing to travel to Japan on or about April 2. The staff would return on about April 16.
 - a. Severe Accident management knowledge
 - b. B5b knowledge
 - c. Accident Recovery knowledge
 - d. Political Savvy

Please provide nominees to Michele Evans **by noon on Monday, March 28**. Brief summary of staff's background as it applies to the above skill sets and any endorsement by OD/RA will be greatly appreciated.

2. Not immediately needed would be nominees for the 4th team of two who may depart USA on or before April 13. Composition is TBD.

Please Note: Identification of the Next Executive to send to replace Dan Dorman, is being made by DEDOs, and is not part of this request.

Last	First	Position	Phone (301)	Room	Op Center Staffing (Y/N)	Shift Priority 1 (7am-3pm) 2 (3pm-11pm) 3 (11pm-7am)	Japan staffing (Y/N)
Directors Office							
Gibson	Kathy	Division Director	251-7499	3-A02	Y	1	
Scott	Michael	Deputy Division Director (acting)	251-7524	3-B01	Y	1,2	Y
Bajorek	Stephen	Sr. Lvl. Advisor	251-7561	3-D03	Y	1,2,3	Y
Boyd	Christopher	Sr. Lvl. Advisor	251-7525	3-B02			
Tinkler	Charles	Sr. Lvl. Advisor	251-7496	2-D01	Y	1	
Zigh	Abdelghani	Sr. Lvl. Advisor	251-7505	3-B06			
Rubin	Stuart	Sr. Lvl. Advisor	251-7527	3-B04	Y	1,2	Y
Voglewede	John	Sr. Lvl. Advisor	251-7555	3-D01	Y	1,2,3	Y
Sherbini	Sami	Sr. Tech. Advisor	251-7508	3-D05	N		Y
Armstrong	Kenneth	Tech. Assistant	251-7551	3-A01	Y	1,2,3	N
Bowlin	Elizabeth	Mgmt. Analyst	251-7955	3-A10	Y	1,2,3	N
Shaffer	Sarah	Mgmt. Analyst	251-7670	3-A08			
Greenwood	Carol	Lead Admin Assistant	251-3319	3-A03			
Bano	Mahmooda	Admin Assistant	251-7507	3-A05			
Wach	Lisa	Admin Assistant	251-7539	3-A06			
Code Development Branch							
Hoxie	Chris	Branch Chief	251-7562	3-D04	N		N
Bernard	Matthew	Reactor Syst. Eng.	251-7550	3-C30	N		N
Calvo	Antony	IT Specialist	251-7677	3-C24			
Figueroa	Gladys	Reactor Syst. Eng.	251-7545	3-C22	N		N
Gingrich	Chester	Sr. Reactor Syst. Eng.	251-7535	3-C08	N		N
Hudson	Nathanael	Reactor Syst. Eng.	254-7534	3-C06	Y	3	N
Ireland	Andrew	Reactor Syst. Eng.	251-7553	3-C33	N		N
Murray	Chris	Reactor Syst. Eng.	251-7513	3-A16			
Staudenmeier	Joseph	Sr. Reactor Syst. Eng.	251-7522	3-A23	Y	1	N
Thurston	Carl	Reactor Syst. Eng.	251-7517	3-C16			
Tien	Kirk	Reactor Syst. Eng.	251-7536	3-C09			
Velazquez-Lo	Alex	Reactor Syst. Eng.	251-7509	3-A09	Y	1,2,3	Y
Whitman	Joshua	Reactor Syst. Eng.	251-7514	3-A17	Y	1,2,3	Y
Fuel and Source Term Branch							
Lee	Richard	Branch Chief	251-7526	3-B03	N		Y
Aissa	Mourad	Sr. Crit. Saf. & Reac. Phys.	251-7511	3-A12	Y	1	N
Algama	Don	Reactor Syst. Eng.	251-7940	3-C26	Y	1,2,3	Y
Esmaili	Hossein	Sr. Reactor Syst. Eng.	251-7554	3-C34	Y	1,2	N
Flanagan	Michelle	Reactor Syst. Eng.	251-7547	3-C27	Y	1,2	Y
Notafrancesco	Allen	Sr. Reactor Syst. Eng.	251-7560	3-C40			
Raynaud	Patrick	Reactor Syst. Eng.	251-7542	3-C25	Y		
Salay	Michael	Reactor Syst. Eng.	251-7543	3-C20	Y	1,2,3	Y
Scott	Harold	Nuclear Eng.	251-7557	3-C35			

Wagner	Katie	General Eng.	251-7552	3-C32	Y	1,2,3	N
Health Effects Branch							
Bush-Godda	Stephanie	Branch Chief	251-7528	3-B05			
Anzenberg	Vered	Nuclear Eng.	251-7546	3-A20	Y	1,2,3	N
Brock	Terry	Sr. Prog. Manager	251-7487	3-A15	N		N
Huffert	Tony	Sr. Health Physicist	251-7506	3-C01	Y	1,2,3	Y
Lewis	Doris	Health Physicist	251-7559	3-C38	Y	1	N
Saba	Mohammad	Health Physicist	251-7558	3-C36			
Sahle *	Solomon	Health Physicist	251-7925	4-A09			
Schaffer	Steven	Sr. Health Physicist	251-7473	2-A20	N		N
Sun	Casper	Health Physicist	251-7912	3-C21	Y	1,2	Y
Tomon	John	Health Physicist	251-7904	3-C23	Y	1,2,3	N
New and Advanced Reactors Branch							
Zaki	Tarek	Branch Chief (acting)	251-7986	3-A11	Y	2	N
Barr	Jonathan	Reactor Syst. Eng.	251-7538	3-C12	Y	1,2,3	N
Basu	Sudhamay	Sr. Nuclear Eng.	251-7521	3-A22	N		N
Corson	James	Reactor Syst. Eng.	251-7902	3-C05	N		N
Kelly	Joseph	Sr. Reactor Syst. Eng.	251-7510	3-A18	Y	1,2,3	
Madni	Imtiaz	Reactor Syst. Eng.	251-7493	2-C36	N		N
Nosek	Andrew	Reactor Syst. Eng.	251-7476	2-C13	Y	1,2,3	N
Rubin	Michael	Reactor Syst. Eng.	251-7549	3-C29	Y	2	Y
Skarda	Ray	Reactor Syst. Eng.	251-7969	3-C13	Y	1,2,3	Y
Tene	Kimberly	Reactor Syst. Eng.	251-7533	3-C04	N		N
Reactors Systems Analysis Branch							
Elkins	Scott	Branch Chief	251-7544	3-D02	Y	1,2	N
Colon**	Jessica	Reactor Systems Eng. (NS)	251-3303	3-C11			
Dorn	Jadyn	Reactor Systems Eng.	251-7565	3-C31	Y	1,2,3	Y
Frankl	Steve	Sr. Reactor Syst. Eng.	251-7901	3-C02	Y	1,2	Y
Harrington	Ron	Reactor Systems Eng.	251-7532	3-C03			
Krepel	Scott	Reactor Systems Eng.	251-7421	3-A21	Y	1,2	Y
Krotiuk	William	Sr. Reactor Syst. Eng.	251-7541	3-C15			
Lien	Peter	Sr. Reactor Syst. Eng.	251-7540	3-C14	Y	1,2,3	N
Marshall	Shawn	Reactor Systems Eng.	251-7523	3-A26	Y	2	N
Ramirez	Annie	Chemical Eng. (NSPDP)	251-7537	3-C10			
Yarsky	Peter	Sr. Reactor Syst. Eng.	251-7518	3-A19	Y	1	Y
Special Projects Branch							
Santiago	Patricia	Branch Chief	251-7982	2-D04	Y	1,2,3	N
Chang	Richard	Program Manager	251-7980	2-A17	Y	1,2,3	N
Ghosh	Tina	Sr. Prog. Manager	251-7984	2-A06	N		N
Gonzalez	Sergio	STUDENT ENGINEER (C)	251-7453	2-C18	Y	1	N
Navarro	Carlos	Reactor Syst. Eng.	251-7485	2-C26	Y	1,2,3	N

Schaperow	Jason	Sr. Reactor Syst. Eng.	251-7452	2-A19	Y	1	
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Area of expertise (BWR, Dose Assessment/HP, Fuels, Nuclear, Severe Accident, Systems Analysis, T/H, EST or RST etc)	Additional Notes
Management, PMT	Already supporting Op Center
Management, RST	
System Analysis, T/H	Not available March 24-27
Severe Accident, Systems Analysis, T/H	Already supporting Op Center
BWR, Severe Accident, System Analysis, EST	
Fuels	
Dose Assessment/HP	
Coordination, Systems Analysis, T/H	Will go to Japan if skill set is needed
Liaison, Coordination	
System Analysis	
Systems Analysis, T/H	
Code Development	
Systems Analysis, T/H	
System Analysis, T/H	after March 23, 2011
System Analysis	prior TEPCO experience
Severe Accident	
Severe Accident, T/H	Op Center Mon-Wed
Core Design, Nuclear	Japanese language experience and cultural experience
Severe Accident, T/H	Already supporting Op Center
Fuels, Communication	
Fuel	traveling from 3/18 to 3/23
Severe Accident	Already supporting Op Center

Communication	
Dose Assessment/HP	
Dose Assessment/HP	Already supporting Op Center (like 1st shift, will do 2nd or 3rd if needed)
Dose Assessment/HP	Already supporting Op Center
Dose Assessment/HP	
Dose Assessment/HP	
Dose Assessment/HP	member of the RST, available after 3/21/11
Dose Assessment/HP	
T/H	
Coordination, Nuclear	
HTGR, Nuclear	
Systems Analysis, T/H	
Offsite Transport and Dose Response, T/H	
T/H	
Nuclear Threat Assessment, Severe Accident, System Analysis, T/H	
System Analysis	Day Shift on Monday, Wednesday and/or Thursday
System Analysis, T/H	
Fuel, Nuclear, System Analysis, T/H	
BWR, System Analysis	
System Analysis, T/H	Shift 1 or 2 preferred
Coordination, T/H	
BWR, Containment Systems, System Analysis, T/H	
Dose Assessment/HP	Will go to Japan if skill set is needed
Coordination	
Level 1/2/3 PRA	
Coordination	
Dose Assessment (RASCAL)	

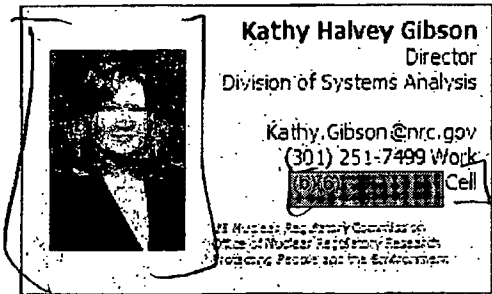
Severe Accident, Systems Analysis, T/H	Already supporting Op Center
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Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 8:36 AM
To: Schaperow, Jason; Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: QUESTION FROM JAPAN
Attachments: Kathy Halvey Gibson.vcf

Anybody recall what Mike is referring to and can you send Richard a copy of the slides?

Thanks!



From: Scott, Michael
Sent: Friday, March 25, 2011 5:44 AM
To: Gibson, Kathy; Lee, Richard; Voglewede, John; Santiago, Patricia
Subject: QUESTION FROM JAPAN

I seem to remember someone sending out a slide show on hydrogen since I've been in RES. I can't remember who our expert was, but I need to get a copy of the slide show he or she had developed on the subject. Can any of you recall?

Thanks

Mike

BC/147

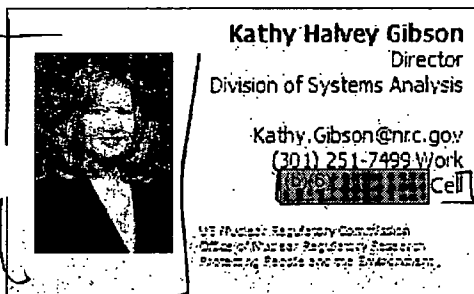
Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 8:48 AM
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
Attachments: Kathy Halvey Gibson.vcf

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 NGNP 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 HTRR 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



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

BC/148

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.

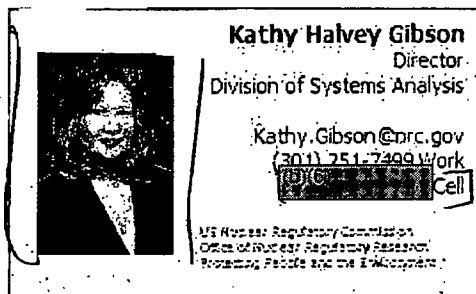
Best regards,
Kazu KUNITOMI

Kazuhiko KUNITOMI Ph.D
Division Leader
Small-sized HTGR Reseach and Development Division
Nuclear Hydrogen and Heat Application Reseach Center
Japan Atomic Energy Agency
Oarai-machi, Ibaraki-ken, JAPAN 311-1393
TEL +81-29-266-7897
FAX +81-29-266-7608
E-mail : kunitomi.kazuhiko@jaea.go.jp

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 8:59 AM
To: Tinkler, Charles
Subject: RE: QUESTION FROM JAPAN
Attachments: Kathy Halvey Gibson2.vcf

Don who? And what is the concern? Different than the hydrogen explosions they have been having?



From: Tinkler, Charles
Sent: Friday, March 25, 2011 8:58 AM
To: Gibson, Kathy
Subject: RE: QUESTION FROM JAPAN

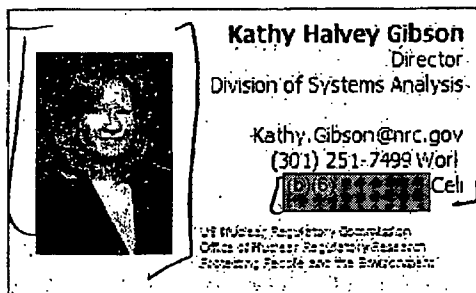
I have talked to Don about his shift last night (I am in the office now). Concerns about hydrogen and have a message into Steve Arndt to call.

But I have no idea what Mike is referring to

From: Gibson, Kathy
Sent: Friday, March 25, 2011 8:36 AM
To: Schaperow, Jason; Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: QUESTION FROM JAPAN

Anybody recall what Mike is referring to and can you send Richard a copy of the slides?

Thanks!



From: Scott, Michael
Sent: Friday, March 25, 2011 5:44 AM

BC/149

To: Gibson, Kathy; Lee, Richard; Voglewede, John; Santiago, Patricia

Subject: QUESTION FROM JAPAN

I seem to remember someone sending out a slide show on hydrogen since I've been in RES. I can't remember who our expert was, but I need to get a copy of the slide show he or she had developed on the subject. Can any of you recall?

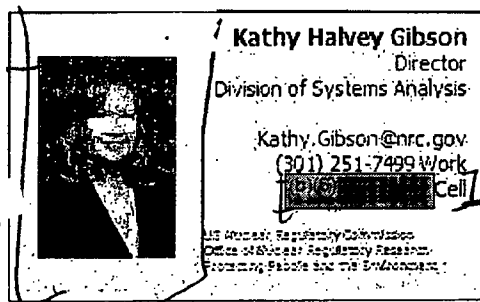
Thanks

Mike

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 9:06 AM
To: Tinkler, Charles
Subject: RE: QUESTION FROM JAPAN
Attachments: Kathy Halvey Gibson3.vcf

Ok thanks, I'm glad you're here. Did we ever find out whether they have hardened vents?



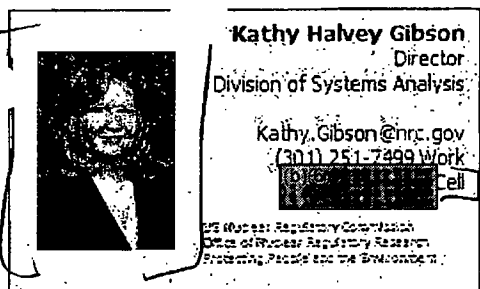
From: Tinkler, Charles
Sent: Friday, March 25, 2011 9:05 AM
To: Gibson, Kathy
Subject: RE: QUESTION FROM JAPAN

Don Helton, he was on shift in RST last night

I understand from Don the concern may be hydrogen explosions in the containment , drywell?

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Sent: Friday, March 25, 2011 8:59 AM
To: Tinkler, Charles
Subject: RE: QUESTION FROM JAPAN

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Subject: RE: QUESTION FROM JAPAN

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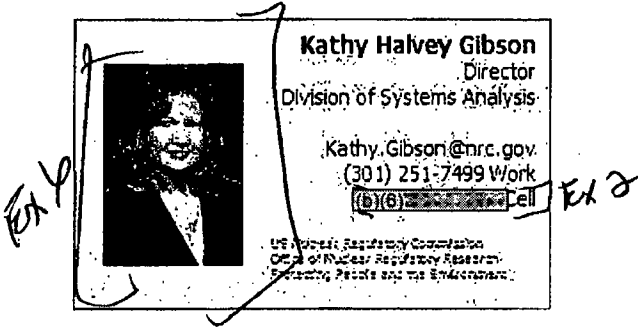
BC/150

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Sent: Friday, March 25, 2011 8:36 AM
To: Schaperow, Jason; Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: QUESTION FROM JAPAN

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Thanks!



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To: Gibson, Kathy; Lee, Richard; Voglewede, John; Santiago, Patricia
Subject: QUESTION FROM JAPAN

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Thanks

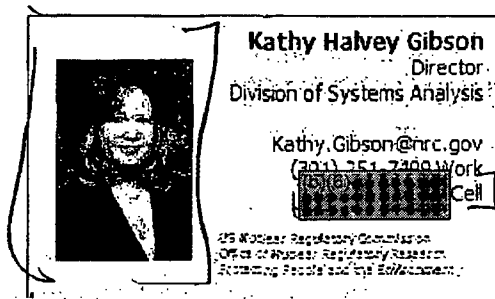
Mike

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 9:30 AM
To: Bush-Goddard, Stephanie
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective
Attachments: Kathy Halvey Gibson.vcf

FSME is driving this train. (Please don't make me say this again ☺) I am on my way to HQ so not available. The ball is all yours.

Please contact Rob and work it out. My vote is Maher from HPS and John Boice.



From: Bush-Goddard, Stephanie
Sent: Friday, March 25, 2011 9:28 AM
To: Lewis, Robert; Gibson, Kathy
Cc: Moore, Scott; Cool, Donald; Holahan, Vincent; Sherbini, Sami; Brock, Terry; Schaffer, Steven
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Kathy and Rob,

RES has ideas on speakers also.

Additionally, I am working on the scheduling note that is due to the EDO today.

It is possible to meet for 30 minutes to finalize our thinking on all the speakers, the logistics of who's presenting and who's supplying information, etc.

Should I schedule a phone conference this morning???

From: Lewis, Robert
Sent: Friday, March 25, 2011 9:26 AM
To: Gibson, Kathy
Cc: Bush-Goddard, Stephanie; Moore, Scott; Cool, Donald; Holahan, Vincent
Subject: RE: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Here is the pool of external panelist for the meeting. How do you want to proceed?
I have not contacted any of them, but I think we have a lot of staff with strong connections to leverage.

Fred Mettler, Univ of New Mexico OR John Boice, Vanderbilt (Epidemiology issues)

BC/151

Ken Kase, International Radiation Protection Association (IRPA) (international perspective)

Ed Maher or Mike Ryan, HPS (health physics society perspective or ACRS)

Dick Toohey, ORAU (has worked extensively on Chernobyl)

From: Gibson, Kathy
Sent: Friday, March 25, 2011 7:30 AM
To: Lewis, Robert
Cc: Bush-Goddard, Stephanie
Subject: Fw: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Rob,
Suggestion for a speaker on the external panel. We just contacted him to speak for RES Chernobyl seminar and he's done a previous seminar for us. Internationally respected authority on radiological risk and dose consequences.

Stephanie can give you more details, and the video is worth watching.

Kathy

From: Brock, Terry
To: Gibson, Kathy
Sent: Thu Mar 24 13:37:18 2011
Subject: John Boice- CNN: Japan Reactor Accident - Radiation Risks in Perspective

Excellent John Boice interview below on Japanese current events. Hat-tip to Vered on finding this.

Terry

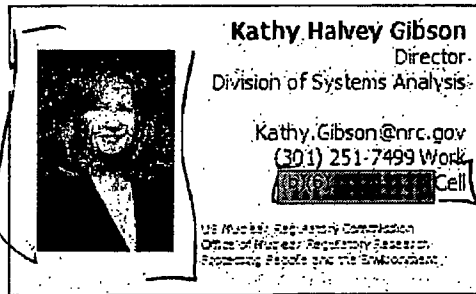
CNN Video Link:

<http://www.cnn.com/video/data/2.0/video/world/2011/03/23/sotu.boice.0320.cnn.cnn.html>

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 11:39 AM
To: Tinkler, Charles
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper
Attachments: Kathy Halvey Gibson3.vcf

Can you send it to Mike Scott too? Oh wait, is Arndt in Japan?



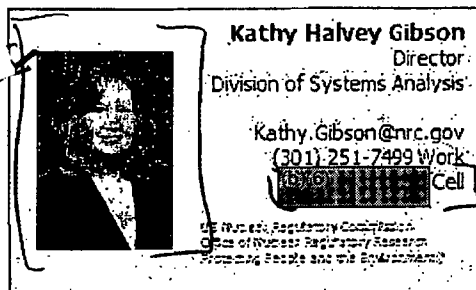
From: Tinkler, Charles
Sent: Friday, March 25, 2011 11:38 AM
To: Gibson, Kathy
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

That's fine

Btw – I did pass along guidance on hydrogen to Steve Arndt

From: Gibson, Kathy
Sent: Friday, March 25, 2011 11:04 AM
To: Tinkler, Charles
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

The scheduling note has you and Marty in the well to answer questions.



From: Tinkler, Charles
Sent: Thursday, March 24, 2011 1:36 PM
To: Gibson, Kathy
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

Item 2 "Add a discussion topic on severe accidents to the NRC panel"

BC/152

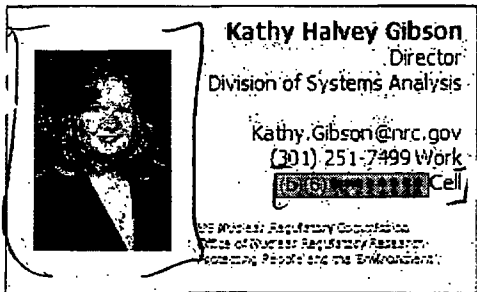
What does this mean? If it means modeling of severe accidents then it should involve me, if any detail is desired.

If it means a view from 30,000 ft then PRA folks

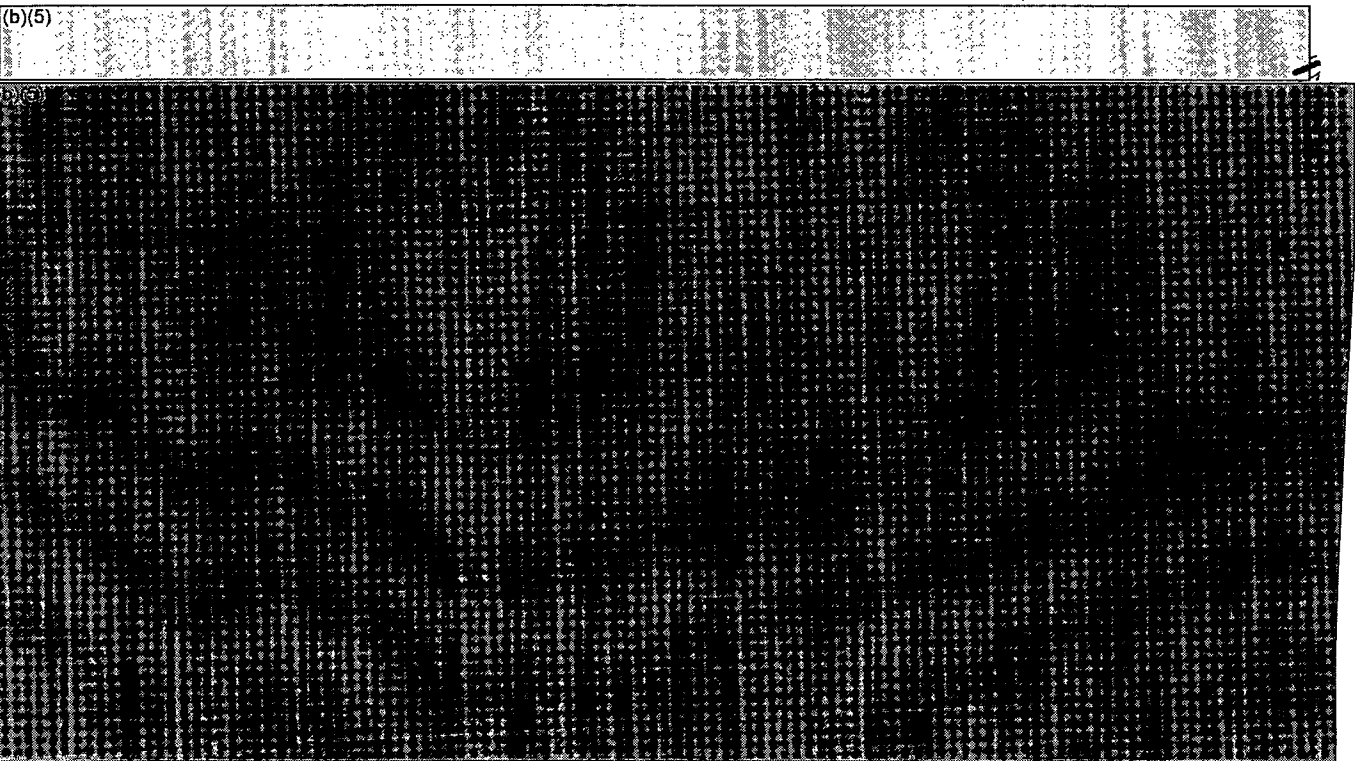
But we still have a different view of this whole thing, ie, that is we don't need to analyze 20,000 cutsets we need better analysis of major contributors.

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:22 PM
To: Tinkler, Charles
Subject: FW: Feedback from Agenda Planning Meeting - Level 3 PRA Paper
Importance: High

Would you be the right person to present, or Marty Stutzke? Or ???



From: Bowman, Gregory
Sent: Thursday, March 24, 2011 1:07 PM
To: Coe, Doug
Cc: Gibson, Kathy; Sheron, Brian; Uhle, Jennifer; Coyne, Kevin; Hudson, Daniel
Subject: Feedback from Agenda Planning Meeting - Level 3 PRA Paper
Importance: High



Greg

From: Coe, Doug
Sent: Wednesday, March 23, 2011 5:49 PM
To: Bowman, Gregory
Cc: Gibson, Kathy; Scott, Michael; Sheron, Brian; Uhle, Jennifer; Coyne, Kevin; Hudson, Daniel; Stutzke, Martin
Subject: RE: Agenda Planning Meeting - Level 3 PRA Paper

Greg –

Just so you know, we are waiting to hear that we have a green light on this approach before proceeding with changing the current Commission meeting scheduling note and the ACRS subcommittee meeting arrangements.

Please confirm with us, when you can, that we should move forward on this path.

Thanks so much,

Doug


From: Coe, Doug
Sent: Tuesday, March 22, 2011 5:56 PM
To: Bowman, Gregory
Cc: Gibson, Kathy; Scott, Michael; Sheron, Brian; Uhle, Jennifer; Coyne, Kevin; Hudson, Daniel; Stutzke, Martin
Subject: RE: Agenda Planning Meeting - Level 3 PRA Paper

Greg,

RES can support providing a Level III PRA SECY paper to the Commission by June 20 (in support of a Commission meeting on July 5 or later). This would entail a due date to OEDO of June 13.

However, our original plan of a paper with joint Level III/SOARCA recommendations will need to be modified to include ONLY the Level III PRA options/recommendations.

Note that we were planning to meet with the ACRS subcommittees in May and the ACRS full Committee in June (June 8-10) and would not be able to incorporate any ACRS letter recommendations into our paper before sending it to OEDO on June 13. However, the Committee had already offered to provide its letter in June, so the staff and Commission will still have the benefit of ACRS views at a Commission meeting in July.



We are happy to help with any communication you need to make to the Chairman's office.

Thanks,

Doug

From: Bowman, Gregory
Sent: Tuesday, March 22, 2011 10:05 AM
To: Sheron, Brian; Uhle, Jennifer; Coe, Doug; Coyne, Kevin
Cc: Gibson, Kathy; Scott, Michael
Subject: Agenda Planning Meeting - Level 3 PRA Paper
Importance: High

I'm not sure if you saw this on the Chairman's agenda that Mike sent out over the weekend, but the Chairman is looking to move the Level 3 PRA meeting up to early July. That would mean the paper would need to come to the Commission in mid-June (several weeks earlier than currently scheduled).

Can you let me know if that's even doable? I know there was some coordination between the Level 3 paper and SOARCA (if I remember right, you were trying to publish the draft SOARCA paper for public comment before the Commission meeting, but I might have that wrong), and that might add some additional complications.

If either you can't move up the Level 3 paper or moving it up is going to cause significant consequences (e.g., you won't be able to discuss SOARCA), please let me know as soon as possible. If that's the case, we'll need to communicate those concerns to the Chairman's office. I'll take care of that, but I'll need some help in coming up with language.

From: Weber, Michael

Sent: Sunday, March 20, 2011 6:52 PM

To: Sheron, Brian; Uhle, Jennifer; Haney, Catherine; Kinneman, John; Miller, Charles; Moore, Scott; Zimmerman, Roy; McCrary, Cheryl

Cc: Brock, Kathryn; Frazier, Alan; Bowman, Gregory

Subject: FYI - Agenda Planning Meeting

Early awareness of potential proposed changes to the Commission calendar...stay tuned

From: Andersen, James

To: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Ash, Darren; Muessle, Mary; Landau, Mindy; Leeds, Eric

Cc: Baval, Rochelle; Laufer, Richard; Vietti-Cook, Annette

Sent: Sun Mar 20 18:18:07 2011

Subject: Agenda Planning Meeting

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

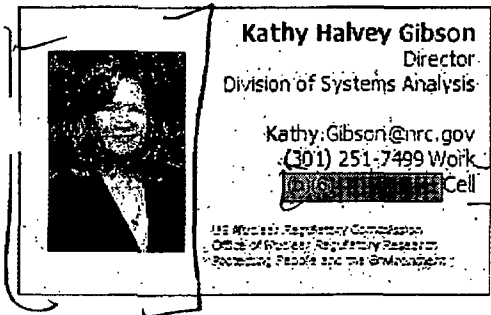
I have copied SECY to give them a heads up.

Jim A.

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 11:38 AM
To: Tinkler, Charles
Subject: RE: QUESTION FROM JAPAN
Attachments: Kathy Halvey Gibson4.vcf

Hmmm, we were talking at lunch yesterday about how culture may be affecting response.



From: Tinkler, Charles
Sent: Friday, March 25, 2011 11:37 AM
To: Gibson, Kathy
Subject: FW: QUESTION FROM JAPAN

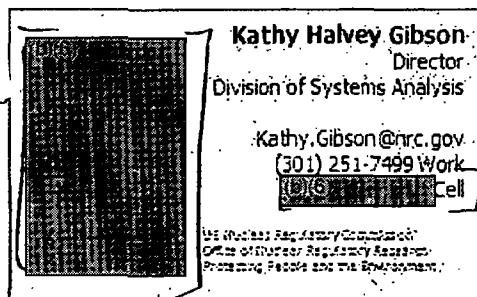
Latest info is they may have hardened vents (and they may be using them intermittently on unit 1, without making it widely known)

From: Tinkler, Charles
Sent: Friday, March 25, 2011 9:07 AM
To: Gibson, Kathy
Subject: RE: QUESTION FROM JAPAN

No

From: Gibson, Kathy
Sent: Friday, March 25, 2011 9:06 AM
To: Tinkler, Charles
Subject: RE: QUESTION FROM JAPAN

Ok thanks, I'm glad you're here. Did we ever find out whether they have hardened vents?



BC/153

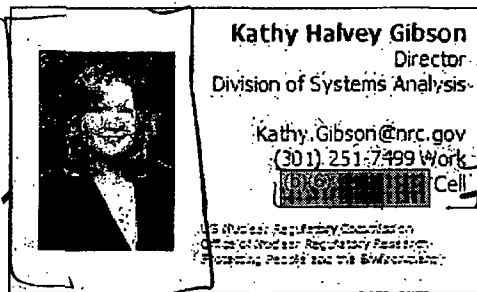
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Subject: RE: QUESTION FROM JAPAN

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To: Gibson, Kathy
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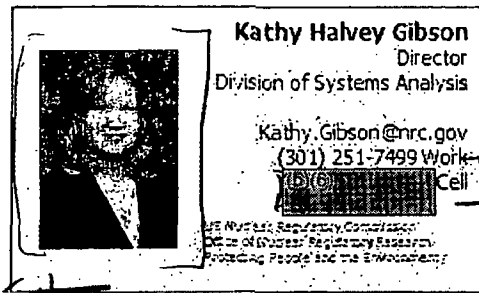
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From: Gibson, Kathy
Sent: Friday, March 25, 2011 8:36 AM
To: Schaperow, Jason; Bush-Goddard, Stephanie; Elkins, Scott; Hoxie, Chris; Lee, Richard; Santiago, Patricia; Scott, Michael; Bajorek, Stephen; Boyd, Christopher; Rubin, Stuart; Sherbini, Sami; Tinkler, Charles; Voglewede, John; Zigh, Ghani
Subject: FW: QUESTION FROM JAPAN.

Anybody recall what Mike is referring to and can you send Richard a copy of the slides?

Thanks!



From: Scott, Michael
Sent: Friday, March 25, 2011 5:44 AM
To: Gibson, Kathy; Lee, Richard; Voglewede, John; Santiago, Patricia
Subject: QUESTION FROM JAPAN

I seem to remember someone sending out a slide show on hydrogen since I've been in RES. I can't remember who our expert was, but I need to get a copy of the slide show he or she had developed on the subject. Can any of you recall?

Thanks

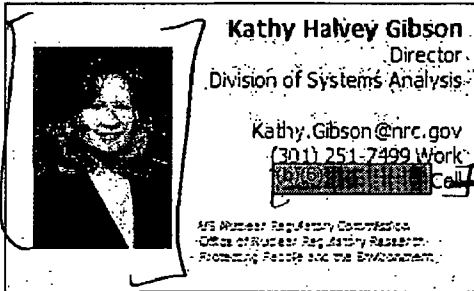
Mike

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 11:29 AM
To: Ader, Charles; Cheok, Michael; Scott, Michael; Ruland, William; Coe, Doug
Cc: Balarabe, Sarah; Penny, Melissa; Lombard, Mark
Subject: RE: WEEKLY COUNTERPARTS CALL NEXT WEEK
Attachments: Kathy Halvey Gibson.vcf

Mike is in Japan and I am out on Monday (b)(6) The only thing I was going to mention is that I was briefed by my staff (and Tara) on the 50.46(b) WG meeting yesterday where the results of our research in the balloon were discussed. Alignment was NOT reached. We have some questions to answer for some of the members. I am cautiously optimistic that alignment can be reached.

Have a good retreat,
Kathy



From: Ader, Charles
Sent: Friday, March 25, 2011 11:23 AM
To: Cheok, Michael; Gibson, Kathy; Scott, Michael; Ruland, William; Coe, Doug
Cc: Balarabe, Sarah; Penny, Melissa; Lombard, Mark
Subject: WEEKLY COUNTERPARTS CALL NEXT WEEK

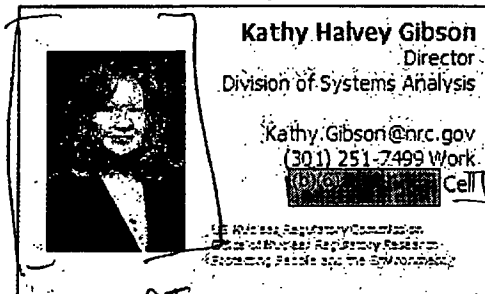
Mark Lombard and I will be at a NRO SES Pre-retreat meeting all of Monday afternoon, March 28, so will not be available to participate in the weekly counterparts call. We will also be out on Tuesday and Wednesday at the NRO Retreat. If there are any items that we need to discuss, let me know. Monday morning or Tuesday Morning will be the best times.

BC/154

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 11:44 AM
To: Tinkler, Charles
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper
Attachments: Kathy Halvey Gibson4.vcf

Ok so did he send it to Japan?

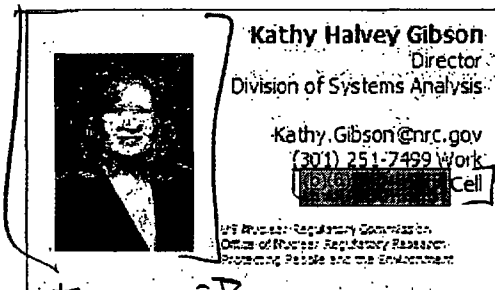


From: Tinkler, Charles
Sent: Friday, March 25, 2011 11:42 AM
To: Gibson, Kathy
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

Arndt is in RST Ops Center

From: Gibson, Kathy
Sent: Friday, March 25, 2011 11:39 AM
To: Tinkler, Charles
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

Can you send it to Mike Scott too? Oh wait, is Arndt in Japan?



From: Tinkler, Charles
Sent: Friday, March 25, 2011 11:38 AM
To: Gibson, Kathy
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

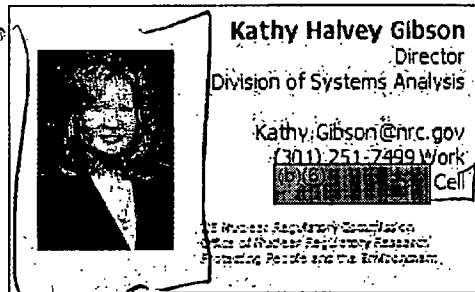
That's fine

Btw - I did pass along guidance on hydrogen to Steve Arndt

BCI 155

From: Gibson, Kathy
Sent: Friday, March 25, 2011 11:04 AM
To: Tinkler, Charles
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

The scheduling note has you and Marty in the well to answer questions.



From: Tinkler, Charles
Sent: Thursday, March 24, 2011 1:36 PM
To: Gibson, Kathy
Subject: RE: Feedback from Agenda Planning Meeting - Level 3 PRA Paper

Item 2 "Add a discussion topic on severe accidents to the NRC panel"

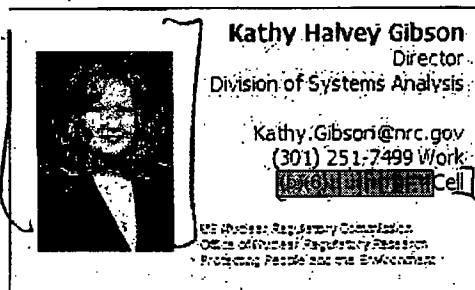
What does this mean? If it means modeling of severe accidents then it should involve me, if any detail is desired.

If it means a view from 30,000 ft then PRA folks

But we still have a different view of this whole thing, ie, that is we don't need to analyze 20,000 cutsets we need better analysis of major contributors.

From: Gibson, Kathy
Sent: Thursday, March 24, 2011 1:22 PM
To: Tinkler, Charles
Subject: FW: Feedback from Agenda Planning Meeting - Level 3 PRA Paper
Importance: High

Would you be the right person to present, or Marty Stutzke? Or ???



From: Bowman, Gregory
Sent: Thursday, March 24, 2011 1:07 PM
To: Coe, Doug
Cc: Gibson, Kathy; Sheron, Brian; Uhle, Jennifer; Coyne, Kevin; Hudson, Daniel
Subject: Feedback from Agenda Planning Meeting - Level 3 PRA Paper
Importance: High

(b)(5)

Greg

From: Coe, Doug
Sent: Wednesday, March 23, 2011 5:49 PM
To: Bowman, Gregory
Cc: Gibson, Kathy; Scott, Michael; Sheron, Brian; Uhle, Jennifer; Coyne, Kevin; Hudson, Daniel; Stutzke, Martin
Subject: RE: Agenda Planning Meeting - Level 3 PRA Paper

Greg –
 Just so you know, we are waiting to hear that we have a green light on this approach before proceeding with changing the current Commission meeting scheduling note and the ACRS subcommittee meeting arrangements.
 Please confirm with us, when you can, that we should move forward on this path.
 Thanks so much,
 Doug

From: Coe, Doug
Sent: Tuesday, March 22, 2011 5:56 PM
To: Bowman, Gregory
Cc: Gibson, Kathy; Scott, Michael; Sheron, Brian; Uhle, Jennifer; Coyne, Kevin; Hudson, Daniel; Stutzke, Martin
Subject: RE: Agenda Planning Meeting - Level 3 PRA Paper

Greg,

(b)(5)

Ex 5 Pre-decisional

(b)(5)

Thanks,
Doug

From: Bowman, Gregory
Sent: Tuesday, March 22, 2011 10:05 AM
To: Sheron, Brian; Uhle, Jennifer; Coe, Doug; Coyne, Kevin
Cc: Gibson, Kathy; Scott, Michael
Subject: Agenda Planning Meeting - Level 3 PRA Paper
Importance: High

I'm not sure if you saw this on the Chairman's agenda that Mike sent out over the weekend, but the Chairman is looking to move the Level 3 PRA meeting up to early July. That would mean the paper would need to come to the Commission in mid-June (several weeks earlier than currently scheduled).

Can you let me know if that's even doable? I know there was some coordination between the Level 3 paper and SOARCA (if I remember right, you were trying to publish the draft SOARCA paper for public comment before the Commission meeting, but I might have that wrong), and that might add some additional complications.

If either you can't move up the Level 3 paper or moving it up is going to cause significant consequences (e.g., you won't be able to discuss SOARCA), please let me know as soon as possible. If that's the case, we'll need to communicate those concerns to the Chairman's office. I'll take care of that, but I'll need some help in coming up with language.

From: Weber, Michael
Sent: Sunday, March 20, 2011 6:52 PM
To: Sheron, Brian; Uhle, Jennifer; Haney, Catherine; Kinneman, John; Miller, Charles; Moore, Scott; Zimmerman, Roy; McCrary, Cheryl
Cc: Brock, Kathryn; Frazier, Alan; Bowman, Gregory
Subject: FYI - Agenda Planning Meeting.

Early awareness of potential proposed changes to the Commission calendar...stay tuned

From: Andersen, James
To: Borchardt, Bill; Virgilio, Martin; Weber, Michael; Ash, Darren; Muessle, Mary; Landau, Mindy; Leeds, Eric
Cc: Baval, Rochelle; Laufer, Richard; Vietti-Cook, Annette
Sent: Sun Mar 20 18:18:07 2011
Subject: Agenda Planning Meeting

Over the weekend, I have been called into a number of Agenda Planning discussions with the Chairman's office and finally today with the Chairman. I believe the attached is close to what the Chairman plans to propose during the 11:00am meeting. The Chairman understands this is aggressive and may push the staff to

far. A point I tried to make a couple times in a nice manner. I can discuss more during the 8:00am meeting if needed. Since I created this document, I don't know how close this will be to the actual document the Chairman's office creates for the Chairman's use.

I have copied SECY to give them a heads up.

Jim A.

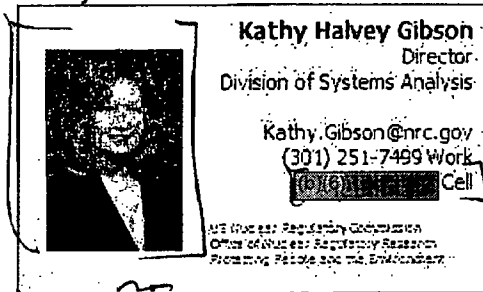
Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 2:03 PM
To: Pickering, Susan Y
Subject: RE: Action: Fukushima FOIA
Attachments: Kathy Halvey Gibson.vcf

Susan,
I was responding earlier on my Blackberry so I couldn't scroll all the way down to read your FOIA language. It reads just like ours, e.g. "all internal communications within the U.S. Department of Energy".

So I don't think we need to be involved at all. And we are not involving you in ours.

Kathy



From: Pickering, Susan Y [mailto:sypicke@sandia.gov]
Sent: Friday, March 25, 2011 1:48 PM
To: Gibson, Kathy
Subject: RE: Action: Fukushima FOIA

OK, enjoy your break. I will meet you on Wednesday (hopefully) as I will be in DC.

From: Gibson, Kathy [mailto:Kathy.Gibson@nrc.gov]
Sent: Friday, March 25, 2011 11:43 AM
To: Pickering, Susan Y
Cc: Valentin, Andrea; Parks, Jazel; Sheron, Brian; Uhle, Jennifer
Subject: Re: Action: Fukushima FOIA

I will pass this to our RES admin FOIA staff and we will get back to you. We may need guidance from our main FOIA people too. I suspect we will assign a POC for you on this. I am out on Monday, so I may not be able to get back to you until Tuesday.

From: Pickering, Susan Y <sypicke@sandia.gov>
To: Gibson, Kathy
Sent: Fri Mar 25 13:26:54 2011
Subject: RE: Action: Fukushima FOIA

Howdy! The scope of the request is "all communication" related to the three Japanese sites. You can scroll down this message to the whole text, it is in black ink. The AP reporter mentions some officials by name.

BC | 156

From: Gibson, Kathy [mailto:Kathy.Gibson@nrc.gov]
Sent: Friday, March 25, 2011 11:04 AM
To: Pickering, Susan Y; Uhle, Jennifer; Santiago, Patricia; Lee, Richard; Rivers, Joseph
Cc: Gauntt, Randall O; Burns, Shawn; Valentin, Andrea; Parks, Jazel
Subject: Re: Action: Fukushima FOIA

We have one too but it is limited to internal NRC to NRC communications from 3/11-3/16/11. What does yours encompass?

Jazel Parks is RES FOIA coordinator. She will likely be involved. Also Andrea Valentin, our Administrative SES.

From: Pickering, Susan Y <sy-picke@sandia.gov>
To: Uhle, Jennifer; Gibson, Kathy; Santiago, Patricia; Lee, Richard; Rivers, Joseph
Cc: Gauntt, Randall O <rogaunt@sandia.gov>; Burns, Shawn <spburns@sandia.gov>
Sent: Fri Mar 25 12:34:06 2011
Subject: FW: Action: Fukushima FOIA

Well, it was bound to happen. We are responding to a broad FOIA request from the Associated Press. To what extent would you like to be involved? Sigh...

From: Pickering, Susan Y
Sent: Friday, March 25, 2011 10:32 AM
To: Pickering, Susan Y; Pearson, Camelia D.; Fitzpatrick, Lynn; Gauntt, Randall O; Burns, Shawn; Rein, Amy; O'Canna, Myra L; Castellano, Dolores; Elliott, Russell D; Parks, M Bradley; Rhodes, William G; Bonano, Evaristo Jose; Sorenson, Ken B; McClellan, Yvonne; Lloyd, Janette; Khalil, Imane; Miller, David R; McMahon, Kevin A; Shanks, Arthur; Danneskiold, James D; Petti, Jason P; Hill, Marianne B; Knief, Ronald A; Philbin, Jeffrey S; Durbin, Samuel; Ammerman, Douglas J; Shoemaker, Paul E; Jones, Joe A; Wheeler, Timothy; Lipinski, Ronald J
Cc: Silva, Jacquelyn R; Bauck, Steven C; Eanes, James L; Orrell, Stanley A; Walck, Marianne; Tatro, Marjorie; Hwang, Bob
Subject: Action: Fukushima FOIA
Importance: High

Greetings,

Your response is due to Camelia Pearson by COB Monday, 3/28!

Here is what you need to know to respond:

- Freedom of Information Act (FOIA) is the law so respond quickly, accurately, and completely; as best you can given the short turnaround. NNSA is expediting this request.
- DOE received 3 nearly identical FOIA requests from the Associated Press. See, below
- The requests are for all communications including emails, faxes, and written correspondence. Provide only those communications between the listed entities, e.g., DOE, NRC, GE, other DOE labs, and the individuals specifically named.
- Verbal communication is outside the scope, you do not need to include it.
- Also out of scope are communications limited to LMC and Sandia, foreign entities and Sandia, or just between Sandians.
- In scope are communications Sandia contractors made that meet the request.
- If any content is OOU, propriety, or draft; please let Camelia Pearson know by adding a note in your email. Don't mark the document itself. The sensitive sections will be reviewed by classification folks for possible exemption/redaction.
- Send all communication to Camelia Pearson, electronically, if possible. For example, paste multiple emails into one email to her.

- Send communication from 3/11 to 4/1. Send all you have now and continue to send until COB 4/1.
- Keep all communication indefinitely. There could be follow-up action.
- There is no P/T, so use the one you charged when you generated the communication.
- Complete the attached form and send it to Camelia along w/ your communication. It is quick. Staff should complete section 5, managers section 6. Yes, the rates are woefully small. No, we don't get reimbursed (I asked). The requestor pays for the FOIA, but Dept of Justice keeps the money.

If you have no communication that matches the request, you can happily ignore this message. If you know of others that might, please forward it to them, including contractors. I will contact John Kelly, DOE NE, and Jennifer Uhle, NRC, about the request. You may let your customers know, too, if you like.

Transparency in government is what makes democracy great; but I know you weren't just hanging around playing dominoes! Thanks for your effort!
syp

Requests:

1. The communications should include emails, faxes and written correspondence between Energy Secretary Steven Chu, his staff and his counsel, and all other DOE employees to and from the NRC and to and from GE Energy, Hitach-GE Nuclear energy, and its designated representatives. Our request should include communications between DOE national laboratories and NRC and GE pertaining to the nuclear incident, as well as the 34 DOE personnel working in Japan.

NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

2. Requesting copies of all internal communications within the U.S. Department of Energy, including those to and from Energy Secretary Steven Chu, his chief of staff, and his counsel, pertaining to the Japanese nuclear incidents cause by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

The communications should include emails, faxes, and written correspondence between DOE and Japanese officials, including: Energy Secretary Chu, his staff and counsel, the 34 employees deployed to Japan and those working for national laboratories helping to assess and monitor the events.

NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

3. Requesting copies of all internal communications within the U.S. Department of Energy, including those to and from Energy Secretary Steven Chu, his chief of staff, and his counsel, pertaining to the Japanese nuclear incidents cause by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

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laboratories and NRC and GE pertaining to the nuclear incident, as well as the 34 DOE personnel working in Japan.

NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

From: Pickering, Susan Y

Sent: Thursday, March 24, 2011 5:11 PM

To: Pearson, Camelia D.; Fitzpatrick, Lynn; Gauntt, Randall O; Burns, Shawn; Miller, Christopher C; Rein, Amy; O'Canna, Myra L; Castellano, Dolores; Elliott, Russell D; Parks, M Bradley; Rhodes, William G; Bonano, Evaristo Jose; Sorenson, Ken B; McClellan, Yvonne; Lloyd, Janette; Khalil, Imane; Miller, David R; McMahon, Kevin A

Cc: Silva, Jacquelyn R; Bauck, Steven C; Eanes, James L; Orrell, Stanley A

Subject: RE: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)

Greetings,

Don't panic!

I just spoke w/ James Eanes and Camelia Pearson. I have a better understanding of the request and Camelia is researching some specific questions. I will follow-up w/ them tomorrow morning and send you an update.

I am not sure who all will need to respond to this request, so please forward it to others as necessary. Don't respond yet!
syp

From: Pearson, Camelia D.

Sent: Thursday, March 24, 2011 4:43 PM

To: Fitzpatrick, Lynn; Gauntt, Randall O; Burns, Shawn; Miller, Christopher C; Rein, Amy; O'Canna, Myra L; Castellano, Dolores; Pickering, Susan Y; Elliott, Russell D

Cc: Silva, Jacquelyn R; Bauck, Steven C

Subject: FW: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)

Importance: High

FYI, there is no project and task number to charge this work too, and because (FOIA) Freedom of Information Act is the law and it is part of our contract within our Prime Contract, we have clauses that make Sandia subject to the law in a timely and efficient manner:

72. DEAR 970.5204-2 LAWS, REGULATIONS, AND DOE DIRECTIVES (DEC 2000) (DEVIATION)

(a) In performing work under this contract, the contractor shall comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency.

Therefore, each department is responsible for fulfilling the law and charging their costs accordingly to their own project and task.

Hello: This is an Expedited FOIA Request, Normal Times for Delivery Does Not Apply. The DUE Date to NNSA is March 31, 2011.

The attached Freedom of Information Act (FOIA) requests access to and copies of all communications between the Department of Energy, the U.S. Nuclear Regulatory Commission, GE Energy and Hitachi-GE Nuclear Energy pertaining to the Japanese nuclear incidents caused by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

3 requests were aggregated into 1:

2. The communications should include emails, faxes and written correspondence between Energy Secretary Steven Chu, his staff and his counsel, and all other DOE employees to and from the NRC and to and from GE Energy, Hitachi-GE Nuclear energy, and its designated representatives. Our request should include communications between DOE national laboratories and NRC and GE pertaining to the nuclear incident, as well as the 34 DOE personnel working in Japan.

NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

2. Requesting copies of all internal communications within the U.S. Department of Energy, including those to and from Energy Secretary Steven Chu, his chief of staff, and his counsel, pertaining to the Japanese nuclear incidents cause by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

The communications should include emails, faxes, and written correspondence between DOE and Japanese officials, including: Energy Secretary Chu, his staff and counsel, the 34 employees deployed to Japan and those working for national laboratories helping to assess and monitor the events.

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NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

(The original request begins on page 2 of the attached document.)

Your response is greatly appreciated within 2 days by Monday March 28, 2011, for records that are only explicitly responsive to what the requester has asked. If there is more than one item or question listed, please indicate which record(s) respond to that specific item or question. An estimate of costs for processing, and/or a need for clarification/scope narrowing, and the time you need to review and gather documents to the FOIA request. In addition please fill out the LAST page of the Record of Freedom of Information (FOI) *Processing Cost sheet for Contractor personnel* that is attached to the original FOIA request (The instructions for filling out the form is on the next to the last page) and return to me within 5 days by Thursday October 15, 2011 for an estimate of cost and processing as indicated above. The FOIA will be considered INCOMPLETE if this information is not provided, IT WILL BE RETURNED FOR PROCESSING. Please use the amounts already embedded in the document any other amount is not accepted, these are set cost by FOIA.

If you are not the person to receive this FOIA request, (disregard) and please let me know if there are other individuals, I should contact to respond to this FOIA request.

In addition, if a search was conducted and no responsive records were found, I need you to answer the following four questions below and email me the response within 2 days by Monday March 28, 2011:

1. Where was the search conducted?
2. What type of search was conducted, hand or computer?
3. If it was a computer, how was it conducted and what was searched? (What Keywords Was Used to Query the Database).
4. If by hand, how was it conducted and what was searched?

Please send one (1) copy of any unclassified or sensitive responsive information directly to Camilla Pearson, preferably electronically by email, or to M/S 0180. **DO NOT SEND ANY RECORDS OR RESPONSIVE INFORMATION to the requester, NNSA, SSO, or any other source.** All FOIAs are routed through Corporate Catalogs with the exception of classified information as indicated below.

One (1) copy of all classified responsive information must be sent to David Cain, Classification, at M/S 0175. Please notify the FOIA Specialist/Coordinator at pearsca@ornl.gov when the records have been sent.

Please notify me by email if any of these Sandia records are **Contractor-Owned Records** according to Sandia's M&O contract, Clause I-73 (b) <http://www-irrn.sandia.gov/corpdata/doe/prime/i-73.html>; therefore, they are **not agency records** and therefore not subject to FOIA.

When searching for responsive record(s) in your organization, this search should include records maintained in any format, including electronic files, active files, and retired files in the Archives. If you know responsive records are available through the following, state this in your response and provide as much bibliographical information (title, url, if on the web, author, etc.) as possible to be provided to the requester:

- Office of Science and Technical Information (OSTI)
- National Technical Information Service (NTIS)
- Public Library
- DOE Reading Room

If the record's can be located in a DOE Reading Room and the requester is within 100 miles of that location, we are not required to provide the document's; it is consider to be in a public domain.

ADDITIONAL INFORMATION (Freedom of Information Act (FOIA Exemptions) :

The following lists the nine categories of records, which are exempt from disclosure under FOIA:

1. Documents classified by executive order-(national security information)
2. Internal personnel rules and procedures—(examples: internal manuals and standard operating procedures)
3. Documents specifically exempted by statute—(restricted data, formerly restricted data, and unclassified controlled nuclear information)
4. Confidential or proprietary business information submitted to the Department of Energy—(examples: portions of contracts or proposal)
5. Records which are inter- or intra-agency memorandums or letters—(this exemption safeguards the deliberative policy-making process. Draft documents are usually considered pre-decisional, deliberative process documents. However, final decisions must be released, along with the factual information. This exemption also includes attorney-client work products)

6. Records which would be a clearly unwarranted invasion or personal privacy—(examples: documents contained in personnel or medical files)
7. Records of information compiled for “for enforcement purposes” (this would not include background investigative reports or documents concerning security clearances) to the extent that disclosure would:
 - a. Interfere with the enforcement proceedings;
 - b. Deny an individual of a right to a fair or impartial adjudication;
 - c. Be an unwarranted invasion of personal privacy;
 - d. Disclosure the identity of a confidential source;
 - e. Reveal investigator techniques or procedures;
 - f. Endanger the life or physical safety of any individual;
8. Records, which pertain to the regulation and supervision of financial institutions.
9. Maps and records containing geological and geophysical information concerning wells.

Thank you,

From: Peigler, Wanda [mailto:WPeigler@doeal.gov]
Sent: Thursday, March 24, 2011 2:39 PM
To: Pearson, Camelia D.
Cc: Deserisy, Lloyd Donald
Subject: FW: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)
Importance: High

This is an expedited request that is due by March 31, 2011. I am preparing the official request, but sending this to you prior, so you can get this out to the SMEs. Thanks.

From: Hamblen, Christina H.
Sent: Thursday, March 24, 2011 12:20 PM
To: Vigil, Geraldine J.; Harkness, Debbie; Peigler, Wanda; Wyatt, Steven L (YSO); Slack, Terri (Y12)
Subject: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)
Importance: High

ALL,

EXPEDITED PROCESSING

DUE DATE: March 31, 2011

Important: This FOIA is being coordinated by HQ DOE. Expedited processing was granted to the requester. Therefore, please move this FOIA to the top of your list and get it back to us as soon as possible. **DO NOT DELAY.**

Here is DOE's guidance for this request:

The interim response to this request is being review by GC/Susan Beard. There will be a consolidated response via DOE-HQ, the timeframe for the search is March 11-March 16. **1.** Index the records (categorically) as oppose to each individual document. **2.** The documents along with a signed certification sheet (attached) by an authorizing/denying official and a justification memo is to be sent/emailed to this office (SC FOIA Office). **3.** The documents should have been review by your office and any information should be bracketed and the FOIA exemption place next to the bracket. **4.** The justification memo should discuss the rational for withholding the information and how it relates to the exemption(s) being used. **5.** The memo should contain any other pertinent information about the documents that we should be aware of.

3 requests were aggregated into 1:

1. Requesting copies of all internal communications within the U.S. Department of Energy, including those to and from Energy Secretary Steven Chu, his chief of staff, and his counsel, pertaining to the Japanese nuclear incidents cause by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

The communications should include emails, faxes, and written correspondence between Energy Secretary Chu, his office and his staff, the Public Affairs Office, DOE national laboratories, and the 34 DOE personnel on the ground in Japan assisting in the response to the disaster.

NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

2. Requesting copies of all internal communications within the U.S. Department of Energy, including those to and from Energy Secretary Steven Chu, his chief of staff, and his counsel, pertaining to the Japanese nuclear incidents cause by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

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NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

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NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

Chris

Christina Hamblen
Information Programs Specialist
Office of Public Affairs
National Nuclear Security Administration
Service Center

Phone: (505) 845- 4765

Fax: (505) 284-7205

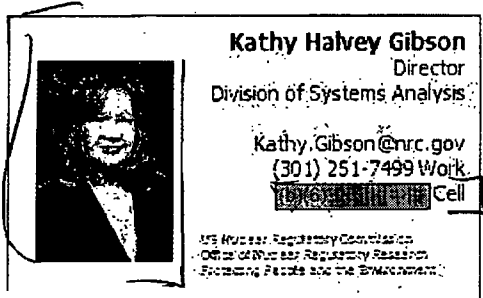
 **SAVE PAPER - Please do not print this e-mail unless absolutely necessary**

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 2:11 PM
To: Sheron, Brian
Cc: Valentin, Andrea; Parks, Jazel
Subject: RE: Action: Fukushima FOIA
Attachments: Kathy Halvey Gibson.vcf

I was responding via Blackberry and reacting based on Susan's characterization of a "broad" FOIA request. Now that I'm back in the office and can read the actual language, it reads the same as our FOIA - e.g. "all internal communications within the U.S. Department of Energy".

So we are **not** involved in theirs and they are not involved in ours. Susan agrees. Whew!



From: Sheron, Brian
Sent: Friday, March 25, 2011 1:46 PM
To: Gibson, Kathy
Subject: RE: Action: Fukushima FOIA

Since when does a FOIA request to NRC also apply to a DOE Lab?

From: Gibson, Kathy
Sent: Friday, March 25, 2011 1:43 PM
To: 'sypicke@sandia.gov'
Cc: Valentin, Andrea; Parks, Jazel; Sheron, Brian; Uhle, Jennifer
Subject: Re: Action: Fukushima FOIA

I will pass this to our RES admin FOIA staff and we will get back to you. We may need guidance from our main FOIA people too. I suspect we will assign a POC for you on this. I am out on Monday, so I may not be able to get back to you until Tuesday.

From: Pickering, Susan Y <sypicke@sandia.gov>
To: Gibson, Kathy
Sent: Fri Mar 25 13:26:54 2011
Subject: RE: Action: Fukushima FOIA

Howdy! The scope of the request is "all communication" related to the three Japanese sites. You can scroll down this message to the whole text, it is in black ink. The AP reporter mentions some officials by name.

BC/157

From: Gibson, Kathy [mailto:Kathy.Gibson@nrc.gov]
Sent: Friday, March 25, 2011 11:04 AM
To: Pickering, Susan Y; Uhle, Jennifer; Santiago, Patricia; Lee, Richard; Rivers, Joseph
Cc: Gauntt, Randall O; Burns, Shawn; Valentin, Andrea; Parks, Jazel
Subject: Re: Action: Fukushima FOIA

We have one too but it is limited to internal NRC to NRC communications from 3/11-3/16/11. What does yours encompass?

Jazel Parks is RES FOIA coordinator. She will likely be involved. Also Andrea Valentin, our Administrative SES.

From: Pickering, Susan Y <sypicke@sandia.gov>
To: Uhle, Jennifer; Gibson, Kathy; Santiago, Patricia; Lee, Richard; Rivers, Joseph
Cc: Gauntt, Randall O <rogaunt@sandia.gov>; Burns, Shawn <spburns@sandia.gov>
Sent: Fri Mar 25 12:34:06 2011
Subject: FW: Action: Fukushima FOIA

Well, it was bound to happen. We are responding to a broad FOIA request from the Associated Press. To what extent would you like to be involved? Sigh...

From: Pickering, Susan Y
Sent: Friday, March 25, 2011 10:32 AM
To: Pickering, Susan Y; Pearson, Camelia D.; Fitzpatrick, Lynn; Gauntt, Randall O; Burns, Shawn; Rein, Amy; O'Canna, Myra L; Castellano, Dolores; Elliott, Russell D; Parks, M Bradley; Rhodes, William G; Bonano, Evaristo Jose; Sorenson, Ken B; McClellan, Yvonne; Lloyd, Janette; Khalil, Imane; Miller, David R; McMahon, Kevin A; Shanks, Arthur; Danneskiold, James D; Petti, Jason P; Hill, Marianne B; Knief, Ronald A; Philbin, Jeffrey S; Durbin, Samuel; Ammerman, Douglas J; Shoemaker, Paul E; Jones, Joe A; Wheeler, Timothy; Lipinski, Ronald J
Cc: Silva, Jacquelyn R; Bauck, Steven C; Eanes, James L; Orrell, Stanley A; Walck, Marianne; Tatro, Marjorie; Hwang, Bob
Subject: Action: Fukushima FOIA
Importance: High

Greetings,

Your response is due to Camelia Pearson by COB Monday, 3/28!

Here is what you need to know to respond:

- Freedom of Information Act (FOIA) is the law so respond quickly, accurately, and completely; as best you can given the short turnaround. NNSA is expediting this request.
- DOE received 3 nearly identical FOIA requests from the Associated Press. See, below
- The requests are for all communications including emails, faxes, and written correspondence. Provide only those communications between the listed entities, e.g., DOE, NRC, GE, other DOE labs, and the individuals specifically named.
- Verbal communication is outside the scope, you do not need to include it.
- Also out of scope are communications limited to LMC and Sandia, foreign entities and Sandia, or just between Sandians.
- In scope are communications Sandia contractors made that meet the request.
- If any content is OOU, propriety, or draft; please let Camelia Pearson know by adding a note in your email. Don't mark the document itself. The sensitive sections will be reviewed by classification folks for possible exemption/redaction.
- Send all communication to Camelia Pearson, electronically, if possible. For example, paste multiple emails into one email to her.

- Send communication from 3/11 to 4/1. Send all you have now and continue to send until COB 4/1.
- Keep all communication indefinitely. There could be follow-up action.
- There is no P/T, so use the one you charged when you generated the communication.
- Complete the attached form and send it to Camelia along w/ your communication. It is quick. Staff should complete section 5, managers section 6. Yes, the rates are woefully small. No, we don't get reimbursed (I asked). The requestor pays for the FOIA, but Dept of Justice keeps the money.

If you have no communication that matches the request, you can happily ignore this message. If you know of others that might, please forward it to them, including contractors. I will contact John Kelly, DOE NE, and Jennifer Uhle, NRC, about the request. You may let your customers know, too, if you like.

Transparency in government is what makes democracy great; but I know you weren't just hanging around playing dominoes! Thanks for your effort!

syp

Requests:

1. The communications should include emails, faxes and written correspondence between Energy Secretary Steven Chu, his staff and his counsel, and all other DOE employees to and from the NRC and to and from GE Energy, Hitach-GE Nuclear energy, and its designated representatives. Our request should include communications between DOE national laboratories and NRC and GE pertaining to the nuclear incident, as well as the 34 DOE personnel working in Japan.

NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

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NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

From: Pickering, Susan Y

Sent: Thursday, March 24, 2011 5:11 PM

To: Pearson, Camelia D.; Fitzpatrick, Lynn; Gauntt, Randall O; Burns, Shawn; Miller, Christopher C; Rein, Amy; O'Canna, Myra L; Castellano, Dolores; Elliott, Russell D; Parks, M Bradley; Rhodes, William G; Bonano, Evaristo Jose; Sorenson, Ken B; McClellan, Yvonne; Lloyd, Janette; Khalil, Imane; Miller, David R; McMahon, Kevin A

Cc: Silva, Jacquelyn R; Bauck, Steven C; Eanes, James L; Orrell, Stanley A

Subject: RE: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)

Greetings,

Don't panic!

I just spoke w/ James Eanes and Camelia Pearson. I have a better understanding of the request and Camelia is researching some specific questions. I will follow-up w/ them tomorrow morning and send you an update.

I am not sure who all will need to respond to this request, so please forward it to others as necessary. Don't respond yet!

syp

From: Pearson, Camelia D.

Sent: Thursday, March 24, 2011 4:43 PM

To: Fitzpatrick, Lynn; Gauntt, Randall O; Burns, Shawn; Miller, Christopher C; Rein, Amy; O'Canna, Myra L; Castellano, Dolores; Pickering, Susan Y; Elliott, Russell D

Cc: Silva, Jacquelyn R; Bauck, Steven C

Subject: FW: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)

Importance: High

FYI, there is no project and task number to charge this work too, and because (FOIA) Freedom of Information Act is the law and it is part of our contract within our Prime Contract, we have clauses that make Sandia subject to the law in a timely and efficient manner:

72. DEAR 970.5204-2 LAWS, REGULATIONS, AND DOE DIRECTIVES (DEC 2000) (DEVIATION)

(a) In performing work under this contract, the contractor shall comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency.

Therefore, each department is responsible for fulfilling the law and charging their costs accordingly to their own project and task.

Hello: This is an Expedited FOIA Request, Normal Times for Delivery Does Not Apply. The DUE Date to NNSA is March 31, 2011.

The attached Freedom of Information Act (FOIA) requests access to and copies of all communications between the Department of Energy, the U.S. Nuclear Regulatory Commission, GE Energy and Hitachi-GE Nuclear Energy pertaining to the Japanese nuclear incidents caused by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

3 requests were aggregated into 1:

2. The communications should include emails, faxes and written correspondence between Energy Secretary Steven Chu, his staff and his counsel, and all other DOE employees to and from the NRC and to and from GE Energy, Hitachi-GE Nuclear energy, and its designated representatives. Our request should include communications between DOE national laboratories and NRC and GE pertaining to the nuclear incident, as well as the 34 DOE personnel working in Japan.

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NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

(The original request begins on page 2 of the attached document.)

Your response is greatly appreciated within 2 days by Monday March 28, 2011, for records that are only explicitly responsive to what the requester has asked. If there is more than one item or question listed, please indicate which record(s) respond to that specific item or question. An estimate of costs for processing, and/or a need for clarification/scope narrowing, and the time you need to review and gather documents to the FOIA request. In addition please fill out the LAST page of the Record of Freedom of Information (FOI) Processing Cost sheet for Contractor personnel that is attached to the original FOIA request (The instructions for filling out the form is on the next to the last page) and return to me within 5 days by Thursday October 15, 2011 for an estimate of cost and processing as indicated above. The FOIA will be considered INCOMPLETE if this information is not provided, IT WILL BE RETURNED FOR PROCESSING. Please use the amounts already embedded in the document any other amount is not accepted, these are set cost by FOIA.

If you are not the person to receive this FOIA request, (disregard) and please let me know if there are other individuals, I should contact to respond to this FOIA request.

In addition, if a search was conducted and no responsive records were found, I need you to answer the following four questions below and email me the response within 2 days by Monday March 28, 2011:

1. Where was the search conducted?
2. What type of search was conducted, hand or computer?
3. If it was a computer, how was it conducted and what was searched? (What Keywords Was Used to Query the Database).
4. If by hand, how was it conducted and what was searched?

Please send one (1) copy of any unclassified or sensitive responsive information directly to Camelia Pearson, preferably electronically by email, or to NIS 0180. **DO NOT SEND ANY RECORDS OR RESPONSIVE INFORMATION to the requester, NNSA, SSO, or any other source.** All FOIAs are routed through Corporate Contracts with the exception of classified information as indicated below.

One (1) copy of all classified responsive information must be sent to David Clark, Classification, at NIS 1174. Please notify the NNSA SSO at NIS 0180 of all responsive records that have been sent.

Please notify me by email if any of these Sandia records are **Contractor-Owned Records** according to Sandia's M&O contract, Clause I-73 (b) <http://www-irn.sandia.gov/corpdata/doe/prime/i-73.html>; therefore, they are **not agency records** and therefore not subject to FOIA.

When searching for responsive record(s) in your organization, this search should include records maintained in any format, including electronic files, active files, and retired files in the Archives. If you know responsive records are available through the following, state this in your response and provide as much bibliographical information (title, url, if on the web, author, etc.) as possible to be provided to the requester.

- Office of Science and Technical Information (OSTI)
- National Technical Information Service (NTIS)
- Public Library
- DOE Reading Room

If the record's can be located in a DOE Reading Room and the requester is within 100 miles of that location, we are not required to provide the document's; it is consider to be in a public domain.

ADDITIONAL INFORMATION (Freedom of Information Act (FOIA Exemptions) :

The following lists the nine categories of records, which are exempt from disclosure under FOIA:

1. Documents classified by executive order-(national security information)
2. Internal personnel rules and procedures—(examples: internal manuals and standard operating procedures)
3. Documents specifically exempted by statute—(restricted data, formerly restricted data, and unclassified controlled nuclear information)
4. Confidential or proprietary business information submitted to the Department of Energy—(examples: portions of contracts or proposal)
5. Records which are inter- or intra-agency memorandums or letters—(this exemption safeguards the deliberative policy-making process. Draft documents are usually considered pre-decisional, deliberative process documents. However, final decisions must be released, along with the factual information. This exemption also includes attorney-client work products)

6. Records which would be a clearly unwarranted invasion or personal privacy—(examples: documents contained in personnel or medical files)
7. Records of information compiled for "for enforcement purposes" (this would not include background investigative reports or documents concerning security clearances) to the extent that disclosure would:
 - a. Interfere with the enforcement proceedings;
 - b. Deny an individual of a right to a fair or impartial adjudication;
 - c. Be an unwarranted invasion of personal privacy;
 - d. Disclosure the identity of a confidential source;
 - e. Reveal investigator techniques or procedures;
 - f. Endanger the life or physical safety of any individual;
8. Records, which pertain to the regulation and supervision of financial institutions.
9. Maps and records containing geological and geophysical information concerning wells.

Thank you,

From: Peigler, Wanda [mailto:WPeigler@doeal.gov]
Sent: Thursday, March 24, 2011 2:39 PM
To: Pearson, Camelia D.
Cc: Deserisy, Lloyd Donald
Subject: FW: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)
Importance: High

This is an expedited request that is due by March 31, 2011. I am preparing the official request, but sending this to you prior, so you can get this out to the SMEs. Thanks.

From: Hamblen, Christina H.
Sent: Thursday, March 24, 2011 12:20 PM
To: Vigil, Geraldine J.; Harkness, Debbie; Peigler, Wanda; Wyatt, Steven L (YSO); Slack, Terri (Y12)
Subject: EXPEDITE: New FOIA Request: FOIA 11-00303-H (CAPPIELLO)
Importance: High

ALL,

EXPEDITED PROCESSING DUE DATE: March 31, 2011

Important: This FOIA is being coordinated by HQ DOE. Expedited processing was granted to the requester. Therefore, please move this FOIA to the top of your list and get it back to us as soon as possible. **DO NOT DELAY.**

Here is DOE's guidance for this request:

The interim response to this request is being review by GC/Susan Beard. There will be a consolidated response via DOE-HQ, the timeframe for the search is March 11-March 16. **1.** Index the records (categorically) as oppose to each individual document. **2.** The documents along with a signed certification sheet (attached) by an authorizing/denying official and a justification memo is to be sent/emailed to this office (SC FOIA Office). **3.** The documents should have been review by your office and any information should be bracketed and the FOIA exemption place next to the bracket. **4.** The justification memo should discuss the rational for withholding the information and how it relates to the exemption(s) being used. **5.** The memo should contain any other pertinent information about the documents that we should be aware of.

3 requests were aggregated into 1:

1. Requesting copies of all internal communications within the U.S. Department of Energy, including those to and from Energy Secretary Steven Chu, his chief of staff, and his counsel, pertaining to the Japanese nuclear incidents cause by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

The communications should include emails, faxes, and written correspondence between Energy Secretary Chu, his office and his staff, the Public Affairs Office, DOE national laboratories, and the 34 DOE personnel on the ground in Japan assisting in the response to the disaster.

NOTE: The requester later added the following individuals to the requests: Daniel Poneman; Thomas D'Agostino; Dr. Peter Lyons; Steven Aoki; Adm. Joseph Krol; and, Adm. Kirkland Donald

2. Requesting copies of all internal communications within the U.S. Department of Energy, including those to and from Energy Secretary Steven Chu, his chief of staff, and his counsel, pertaining to the Japanese nuclear incidents cause by the March 11 earthquake and tsunami. This includes problems at the following three facilities: Fukushima Dai-ichi, Fukushima Daini, and Onagawa.

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Chris

**Christina Hamblen
Information Programs Specialist
Office of Public Affairs
National Nuclear Security Administration
Service Center**

Phone: (505) 845- 4765

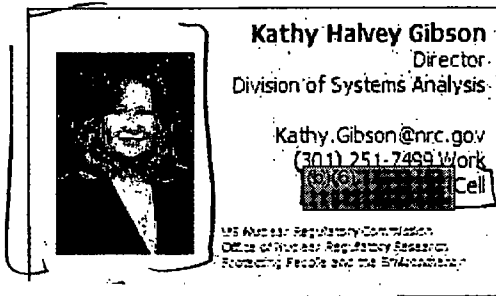
Fax: (505) 284-7205

 **SAVE PAPER - Please do not print this e-mail unless absolutely necessary.**

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 3:46 PM
To: Bush-Goddard, Stephanie
Subject: RE: 032511 Status on Japan Scheduling Note.docx
Attachments: Kathy Halvey Gibson.vcf

I think you mean Patricia **Milligan**.



From: Bush-Goddard, Stephanie
Sent: Friday, March 25, 2011 3:45 PM
To: Lewis, Robert
Cc: McDermott, Brian; Holahan, Patricia; Gibson, Kathy
Subject: 032511 Status on Japan Scheduling Note.docx

Rob ,

Attached is the draft scheduling note for the EDO Alignment Meeting on Monday, March 28th regarding the Events in Japan and NRC Radiation Protection Strategies .

I put Kevin Williams on cc since he is acting for Brian McDermott and Trish Holahan in NSIR.

I've talked to Kevin and he has a perspective on what the meeting should entail based on the task that NSIR are asked to do. However he is acting and is not speaking for NSIR.

I'll ensure Greg in EDO invites all the necessary people, including NSIR.

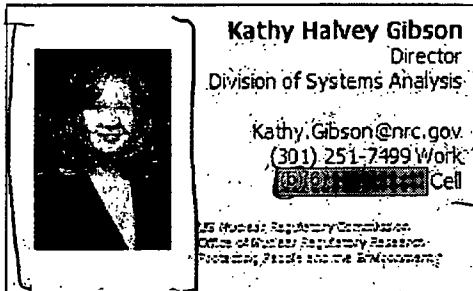
Thanks
-Stephanie

BC 158

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 2:39 PM
To: Bush-Goddard, Stephanie
Subject: RE: Suspending the PMTR GIS Analyst & PMTR Meteorologist Positions...
Attachments: Kathy Halvey Gibson.vcf

Maybe you can draw it with crayon and fax it in from home hehe ☺



From: Bush-Goddard, Stephanie
Sent: Friday, March 25, 2011 2:33 PM
To: Gibson, Kathy
Subject: FW: Suspending the PMTR GIS Analyst & PMTR Meteorologist Positions...
Importance: High

fyi

From: OST02 HOC
Sent: Friday, March 25, 2011 2:18 PM
To: Tiruneh, Nebiyu; Barnhurst, Daniel; Devlin, Stephanie; Bush-Goddard, Stephanie; Stieve, Alice; Li, Yong; Gross, Allen; Brandt, Philip; Seber, Dogan; Ahn, Hosung; Mazaika, Michael; Brown, David; Quinlan, Kevin; Imboden, Andy; Harvey, Brad
Cc: Evans, Michele; PMT01 Hoc
Subject: RE: Suspending the PMTR GIS Analyst & PMTR Meteorologist Positions...
Importance: High

Please be advised that even though we have suspended the PMTR GIS Analyst & PMTR Meteorologist positions they will remain on a "On Call" basis. You may still be called to come in for a few hours to provide support if needed.

From: OST02 HOC
Sent: Friday, March 25, 2011 12:12 PM
Subject: Suspending the PMTR GIS Analyst & PMTR Meteorologist Positions...
Importance: High

Please be advised that the position of PMTR GIS Analyst and PMTR Meteorologist has been suspended effective Pay Period 8 (Sunday, March 27).

Thank you for your support during the Japan Earthquake & Tsunami Event.

EST Admin Support

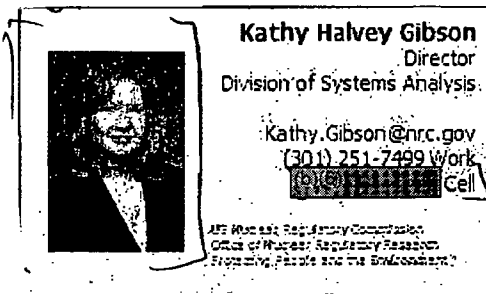
BC/159

NRC Operations Center
eMail: OST02.HOC@nrc.gov
301-816-5100 x5600

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 3:53 PM
To: Bush-Goddard, Stephanie
Subject: RE: 032511 Status on Japan Scheduling Note.docx
Attachments: Kathy Halvey Gibson2.vcf

Why Hojahan? She's on the security side.



From: Bush-Goddard, Stephanie
Sent: Friday, March 25, 2011 3:51 PM
To: Gibson, Kathy
Subject: RE: 032511 Status on Japan Scheduling Note.docx

I meant Holohan for the scheduling note.

..and Milligan (and a whole lot of other people) for the appointment on Monday.

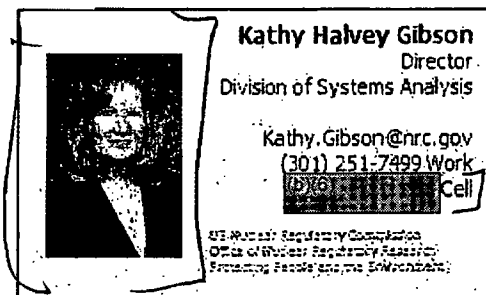
I am scheduling that now.

Regarding the scheduling note: Rob had left for today, if he has not responded by 4:30 pm. I am sending to Greg Bowman without his comments.

-Stephanie

From: Gibson, Kathy
Sent: Friday, March 25, 2011 3:46 PM
To: Bush-Goddard, Stephanie
Subject: RE: 032511 Status on Japan Scheduling Note.docx

I think you mean Patricia Milligan.



BCI 160

From: Bush-Goddard, Stephanie
Sent: Friday, March 25, 2011 3:45 PM
To: Lewis, Robert
Cc: McDermott, Brian; Holahan, Patricia; Gibson, Kathy
Subject: 032511 Status on Japan Scheduling Note.docx

Rob ,

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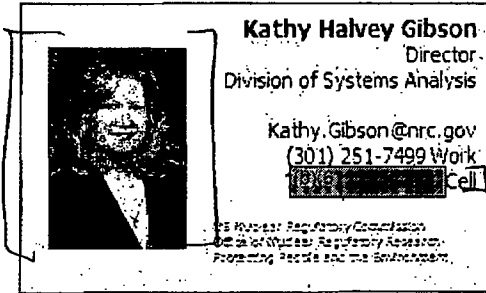
I'll ensure Greg in EDO invites all the necessary people, including NSIR.

Thanks
-Stephanie

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 6:01 PM
To: Sheron, Brian; Richards, Stuart
Cc: Case, Michael; Schaperow, Jason; Tinkler, Charles
Subject: RE: NUREG/CR-6920
Attachments: Kathy Halvey Gibson.vcf

I asked Jason and Charlie to get with DE next week and let us know.



From: Sheron, Brian
Sent: Friday, March 25, 2011 6:00 PM
To: Richards, Stuart
Cc: Gibson, Kathy; Case, Michael; Schaperow, Jason
Subject: RE: NUREG/CR-6920

Do we still agree with the probability numbers in your third bullet based on what we learned from SOARCA?

From: Richards, Stuart
Sent: Friday, March 25, 2011 5:54 PM
To: Sheron, Brian
Cc: Gibson, Kathy; Case, Michael
Subject: NUREG/CR-6920

Brian

A quick look at NUREG/CR-6920 indicates the following preliminary information:

- The purpose of 6920 was to look at the impact of assumed degradation of the containment on the probability of containment failure. For instance, 6920 assumed cases of 25% or 50% corrosion of various locations within the containment as part of the study. The study looked at both PWRs and BWRs.
- 6920 used information from NUREG-1150 as a starting point.
- NUREG-1150 estimates about a 56% probability of early containment failure at Peach Bottom (Mark I containment) from all scenarios, and about a 36% probability from a direct melt-through of the containment once the core has breached the RPV. These numbers are relatively consistent with the 6920 numbers. 6920 concluded that the corrosion scenarios don't impact the numbers much because the probability is so dominated by the core melt through scenario.
- NUREG-1150 lists station blackout as the dominant risk.

BC/161

Note that the probability of a melt-through of containment assumes a breach of the RPV. I think it also assumes a fairly quick accident progression, so the fact that the Japanese event started two weeks ago may impact the probability of containment failure.

We can provide more info on Monday.

Stu

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 5:58 PM
To: Sherbini, Sami
Cc: Bush-Goddard, Stephanie
Subject: FW: EDO Alignment: Japanese Earthquake Status – Focus on Health Effects of Radiation
Attachments: FW EDO Alignment Japanese Earthquake Status – Focus on Health Effects of Radiation.ics; Kathy Halvey Gibson.vcf

Sami,
Please support Stephanie at this meeting and provide assistance for briefing slide development.

Thanks,
Kathy

When: Monday, March 28, 2011 3:00 PM-4:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: O17-B04

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

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

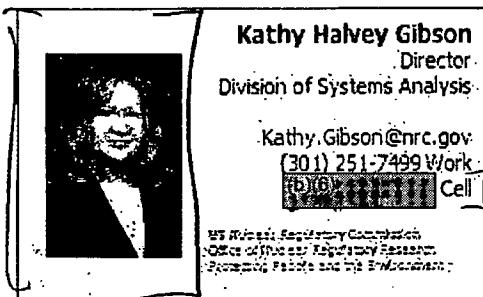
RES, FSME and NSIR,

You are cordially invited to an EDO Alignment meeting

When and Where: Monday, March 28th, in O17-B04 from 3 to 4pm.

Why: Get aligned on a Commission meeting (April 14th) to provide an update of the Japanese nuclear event, discuss NRCs radiation protection strategies in emergency situations and hear a representative sample of external stakeholder viewpoints.

Thanks
-Stephanie Bush-Goddard
Chief, Health Effects Branch
Office of Nuclear Regulatory Research
301-251-7528



BCF 162

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, March 25, 2011 6:38 PM
To: (b)(6)
Subject: FW: JAPANESE EARTHQUAKE ERO STAFFING MARCH 27 - APRIL 2 (PAYPERIOD 8, WEEK 1)
Attachments: MASTER RESPONDER SCHEDULE FOR JAPAN EARTHQUAKE.pdf

From: OST02 HOC

To: Abrams, Charlotte; Abu-Eid, Bobby; Adams, John; Afshar-Tous, Mugeh; Ahn, Hosung; Alemu, Bezakulu; Algama, Don; Alter, Peter; Anderson, Brian; Anderson, James; Arndt, Steven; Arribas-Colon, Maria; Ashkeboussi, Nima; Athey, George <george.athey@nrc.gov>; Baker, Stephen; Ballam, Nick; Barnhurst, Daniel; Barr, Cynthia; Barss, Dan; Bazian, Samuel; Bensi, Michelle; Bergman, Thomas; Berry, Rollie; Bhachu, Ujagar; Bloom, Steven; Blount, Tom; Boger, Bruce; Bonnette, Cassandra; Borchardt, Bill; Bowers, Anthony; Bowman, Gregory; Boyce, Tom (RES); Brandon, Lou; Brandt, Philip; Brenner, Eliot; Brock, Kathryn; Brown, Cris; Brown, David; Brown, Eva; Brown, Frederick; Brown, Michael; Bukharin, Oleg; Burnell, Scott; Bush-Goddard, Stephanie; Campbell, Stephen; Camper, Larry; Carpenter, Cynthia; Carter, Mary; Case, Michael; Casto, Greg; Cecere, Bethany; Cervera, Margaret; Chazell, Russell; Chen, Yen-Ju; Cheok, Michael; Chokshi, Niles; Chowdhury, Prosanta; Chung, Donald; Circle, Jeff; Clement, Richard; Clinton, Rebecca; Coggins, Angela; Collins, Frank; Cool, Donald; Correia, Richard; Corson, James; Costa, Arlon; Couret, Ivonne; Craffey, Ryan; Crutchley, Mary Glenn; Cruz, Zahira; Cuadrado, Lelra; Dacus, Eugene; DeCicco, Joseph; Decker, David; Dembek, Stephen; Devlin, Stephanie; Dimmick, Lisa; Doane, Margaret; Dorman, Dan; Dorsey, Cynthia; Dozler, Jerry; Drake, Margaret <margaret.drake@nrc.gov>; Droggitis, Spiros; Dube, Donald; Dudes, Laura; Eads, Johnny; Emche, Danielle; English, Lance; Erlanger, Craig; Esmaili, Hossein; Figueroa, Roberto; Fiske, Jonathan; Flanders, Scott; Flannery, Cindy; Floyd, Daphene; Foggie, Kirk; Foster, Jack; Fragoyannis, Nancy; Franovich, Rani; Frazier, Alan; Freshman, Steve <steve.freshman@nrc.gov>; Fuller, Edward; Galletta, Thomas; Gambone, Kimberly; Gardocki, Stanley; Gartman, Michael; Gibson, Kathy; Giitter, Joseph; Gilmer, James; Glenn, Nichole; Gordon, Dennis; Gott, William; Grant, Jeffery; Greenwood, Carol; Greenwood, Carol; Grimes, Kelly; Grobe, Jack; Gross, Allen; Gulla, Gerald; Hale, Jerry; Hardesty, Duane; Hardin, Kimberly; Hardin, Leroy; Harrington, Holly; Harris, Tim; Harrison, Donnie; Hart, Ken; Hart, Michelle; Harvey, Brad; Hasselberg, Rick; Hayden, Elizabeth; Helton, Donald; Henderson, Karen; Hiland, Patrick; Holahan, Patricia; Holahan, Vincent; Holian, Brian; HOO Hoc; Horn, Brian; Howard, Tabitha; Huffert, Anthony; Hurd, Sapna; Huyck, Doug; Imboden, Andy; Isom, James; Jackson, Karen; Jacobson, Jeffrey; Jervey, Richard; Jessie, Janelle; Johnson, Michael; Jolicoeur, John; Jones, Andrea; Jones, Cynthia; Jones, Henry; Kahler, Carolyn; Kammerer, Annie; Karas, Rebecca; Kauffman, John; Khan, Omar; Kolb, Timothy; Kotzalas, Margie; Kowalczyk, Jeffrey; Kratchman, Jessica; Kugler, Andrew; Lamb, Christopher; Lane, John; Larson, Emily; Laur, Steven; LaVie, Steve; Lewis, Robert; Li, Yong; Lichatz, Taylor; Lising, Jason; Lombard, Mark; Lubinski, John; Lui, Christiana; Lukes, Kim; Lynch, Jeffery; Ma, John; Mamish, Nader; Manahan, Michelle; Marksberry, Don; Marshall, Jane; Masao, Nagai <nagai.masao@nrc.gov>; Maupin, Cardelia; Mayros, Lauren; Mazaika, Michael; McConnell, Keith; McCoppin, Michael; McDermott, Brian; McGinty, Tim; McGovern, Denise; McIntyre, David; McMurtray, Anthony; Merritt, Christina; Meyer, Karen; Miller, Charles; Miller, Chris; Milligan, Patricia; Miranda, Samuel; Mohseni, Aby; Moore, Scott; Morlang, Gary; Morris, Scott; Mroz (Sahm), Sara; Munson, Clifford; Murray, Charles; Nerret, Amanda; Nguyen, Caroline; Norris, Michael; Norton, Charles; Opara, Stella; Ordaz, Vonna; Owens, Janice; Padovan, Mark; Parillo, John; Patel, Jay; Patel, Pravin; Patrick, Mark; Perin, Vanice; Pope, Tia; Powell, Amy; Purdy, Gary; Quinlan, Kevin; Raddatz, Michael; Ragland, Robert; Ralph, Melissa; Ramsey, Jack; Reed, Elizabeth; Reed, Sara <sara.reed@nrc.gov>; Reed, Wendy; Reeves, Rosemary; Reis, Terrence; Resner, Mark; Riley (OCA), Timothy; Riner, Kelly; Rini, Brett; Roach, Edward; Robinson, Edward; Rodriguez-Luccioni, Hector; Roggenbrodt, William; Ropon, Kimberly <kimberly.ropon@nrc.gov>; Rosales-Cooper, Cindy; Rosenberg, Stacey; Ross-Lee, MaryJane; Roundtree, Amy; Ruland, William; Russell, Tonya; Ryan, Michelle; Salay, Michael; Salter, Susan; Salus, Amy; Sanfilippo, Nathan; Santos, Daniel; Scarbrough, Thomas; Schaperow, Jason; Schmidt, Duane; Schmidt, Rebecca; Schoenebeck, Greg; Schrader, Eric; Schwartzman, Jennifer; Seber, Dogan; See, Kenneth; Shane, Raeann; Shea, James; Shepherd, Jill; Sheron, Brian; Skarda, Raymond; Skeen, David; Sloan, Scott; Smioldo, Elizabeth; Smith, Brooke; Smith, Stacy; Smith, Theodore; Stahl, Eric; Stang, Annette; Stark, Johnathan; Steger (Tucci), Christine; Stieve, Alice; Stone, Rebecca; Stranks, Robert; Sturz, Fritz; Sullivan, Randy; Summers, Robert; Sun, Casper; Tappert, John; Tegeler, Bret; Temple, Jeffrey; Thaggard, Mark; Thomas, Eric; Thorp, John; Tiruneh, Nebiyu; Tobin, Jennifer; Trefethen, Jean; Tschiltz, Michael; Turtill, Richard; Uhle, Jennifer; Valencia, Sandra; Vaughn, James; Vick, Lawrence; Virgilio, Martin; Virgilio, Rosetta; Ward, Leonard; Ward, William;

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Wastler, Sandra; Watson, Bruce; Webber, Robert; Weber, Michael; White, Bernard; Wiggins, Jim; Williams, Donna; Williams, Joseph; Williamson, Linda; Willis, Dori; Wimbush, Andrea; Wittick, Brian; Wray, John; Wright, Lisa (Gibney); Wright, Ned; Wunder, George; Young, Francis; Zimmerman, Jacob; Zimmerman, Roy

Sent: Fri Mar 25 18:16:39 2011

Subject: JAPANESE EARTHQUAKE ERO STAFFING MARCH 27 - APRIL 2 (PAYPERIOD 8, WEEK 1)

Attached is the OPS Center Watchbill for Sunday, March 27 – Saturday, April 2. All positions except the PMTR RAAD, Sunday, 3pm – 11pm, are filled through Monday days (7:00am-3:00pm). Please contact the various Team Coordinators and OST02.HOC@nrc.gov if you would like to work any open slots.

If you need to change the schedule please send an email to OST02.HOC@nrc.gov and your teams coordinator

EST Admin Support
NRC Operations Center
301-816-5100 x5600

EST Admin Support
NRC Operations Center
eMail: OST02.HOC@nrc.gov

Japan Earthquake ERO Staffing Roster
 Mar 27-Apr 2, 2011
 Pay Period 8 - Week 1

Position	Date	Time	Staff
Executive Team			
ET Director			
Sat-Sun	3/26-3/27	11pm - 7am	Jennifer Uhle
Sun	27-Mar	7am - 3pm	Jim Dyer
Sun	27-Mar	3pm-11pm	Brian Sheron
Sun-Mon	3/27-3/28	11pm - 7am	Jim Wiggins
Mon	28-Mar	7am - 3pm	Mike Weber
Mon	28-Mar	3pm-11pm	Roy Zimmerman
Mon-Tue	3/28-3/29	11pm - 7am	Jim Wiggins
Tue	29-Mar	7am - 3pm	Mike Weber
Tue	29-Mar	3pm-11pm	Roy Zimmerman
Tue-Wed	3/29-3/30	11pm - 7am	Jim Wiggins
Wed	30-Mar	7am - 3pm	
Wed	30-Mar	3pm-11pm	Roy Zimmerman
Wed-Thur	3/30-3/31	11pm - 7am	Jim Wiggins
Thur	31-Mar	7am - 3pm	
Thur	31-Mar	3pm-11pm	Brian Sheron
Thur-Fri	3/31-4/1	11pm - 7am	Cynthia Carpenter
Fri	1-Apr	7am - 3pm	Mike Weber
Fri	1-Apr	3pm-11pm	
Fri-Sat	4/1-4/2	11pm-7am	Cynthia Carpenter
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	Cynthia Carpenter
ET Response Advisor			
Sat-Sun	3/26-3/27	11pm - 7am	Chris Miller
Sun	27-Mar	7am - 3pm	Tom Blount
Sun	27-Mar	3pm-11pm	Brian McDermott
Sun-Mon	3/27-3/28	11pm - 7am	Scott Morris
Mon	28-Mar	7am - 3pm	Tom Blount
Mon	28-Mar	3pm-11pm	Brian McDermott
Mon-Tue	3/28-3/29	11pm - 7am	Chris Miller
Tue	29-Mar	7am - 3pm	Tom Blount
Tue	29-Mar	3pm-11pm	Brian McDermott
Tue-Wed	3/29-3/30	11pm - 7am	Scott Morris
Wed	30-Mar	7am - 3pm	Tom Blount
Wed	30-Mar	3pm-11pm	Brian McDermott
Wed-Thur	3/30-3/31	11pm - 7am	Scott Morris
Thur	31-Mar	7am - 3pm	
Thur	31-Mar	3pm-11pm	Mark Thaggard
Thur-Fri	3/31-4/1	11pm - 7am	Scott Morris
Fri	1-Apr	7am - 3pm	
Fri	1-Apr	3pm-11pm	Mark Thaggard
Fri-Sat	4/1-4/2	11pm-7am	Scott Morris
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm-7am	Brian McDermott

Japan Earthquake ERO Staffing Roster
 Mar 27-Apr 2, 2011
 Pay Period 8 - Week 1

ET Rx Prot Measures & State Coordinator			
Sat-Sun	3/26-3/27	11pm - 7am	N/A
Sun	27-Mar	7am - 3pm	N/A
Sun	27-Mar	3pm-11pm	N/A
Sun-Mon	3/27-3/28	11pm - 7am	N/A
Mon	28-Mar	7am - 3pm	N/A
Mon	28-Mar	3pm-11pm	N/A
Mon-Tue	3/28-3/29	11pm - 7am	N/A
Tue	29-Mar	7am - 3pm	N/A
Tue	29-Mar	3pm-11pm	N/A
Tue-Wed	3/29-3/30	11pm - 7am	N/A
Wed	30-Mar	7am - 3pm	N/A
Wed	30-Mar	3pm-11pm	N/A
Wed-Thur	3/30-3/31	11pm - 7am	N/A
Thur	31-Mar	7am - 3pm	N/A
Thur	31-Mar	3pm-11pm	N/A
Thur-Fri	3/31-4/1	11pm - 7am	N/A
Fri	1-Apr	7am - 3pm	N/A
Fri	1-Apr	3pm-11pm	N/A
Fri-Sat	4/1-4/2	11pm-7am	N/A
Sat	2-Apr	7am - 3pm	N/A
Sat	2-Apr	3pm-11pm	N/A
Sat-Sun	4/2-4/3	11pm - 7am	N/A
Executive Briefing Team			
EBT Admin. Assistant			
Sat-Sun	3/26-3/27	11pm - 7am	Jonathan Fiske
Sun	27-Mar	7am - 3pm	Annette Stang
Sun	27-Mar	3pm-11pm	Carolyn Kahler
Sun-Mon	3/27-3/28	11pm - 7am	Christina Merritt
Mon	28-Mar	7am - 3pm	Louise Lovell
Mon	28-Mar	3pm-11pm	Annette Stang
Mon-Tue	3/28-3/29	11pm - 9am	Jonathan Fiske
Tue	29-Mar	9am - 3pm	Sapna Hurd
Tue	29-Mar	3pm-11pm	Tonya Russell
Tue-Wed	3/29-3/30	11pm - 7am	Christina Merritt
Wed	30-Mar	7am - 3pm	Carolyn Kahler/Sapna Hurd
Wed	30-Mar	3pm-11pm	Tonya Russell
Wed-Thur	3/30-3/31	11pm - 7am	
Thur	31-Mar	7am - 3pm	Louise Lovell
Thur	31-Mar	3pm-11pm	Sapna Hurd
Thur-Fri	3/31-4/1	11pm - 7am	
Fri	1-Apr	7am - 3pm	Annette Stang
Fri	1-Apr	3pm-11pm	Sapna Hurd
Fri-Sat	4/1-4/2	11pm-7am	
EBT Coordinator			
Sat-Sun	3/26-3/27	11pm - 7am	Jim Anderson
Sun	27-Mar	7am - 3pm	Eddie Robinson

Japan Earthquake ERO Staffing Roster
 Mar 27-Apr 2, 2011
 Pay Period 8 - Week 1

Sun	27-Mar	3pm-11pm	Nicole Glenn
Sun-Mon	3/27-3/28	11pm - 7am	Caroline Nguyen
Mon	28-Mar	7am - 3pm	Yen Chen
Mon	28-Mar	3pm-11pm	Sara Mroz
Mon-Tue	3/28-3/29	11pm - 7am	Jim Anderson
Tue	29-Mar	7am - 3pm	Yen Chen
Tue	29-Mar	3pm-11pm	Sara Mroz
Tue-Wed	3/29-3/30	11pm - 7am	Jim Anderson
Wed	30-Mar	7am - 3pm	Yen Chen
Wed	30-Mar	3pm-11pm	Sara Mroz
Wed-Thur	3/30-3/31	11pm - 7am	Jim Anderson
Thur	31-Mar	7am - 3pm	Yen Chen
Thur	31-Mar	3pm-11pm	Sara Mroz
Thur-Fri	3/31-4/1	11pm - 7am	Jim Anderson
Fri	1-Apr	7am - 3pm	Yen Chen
Fri	1-Apr	3pm-11pm	Sara Mroz
Fri-Sat	4/1-4/2	11pm-7am	Jim Anderson
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	

Executive Support Team

EST Status Officer

Sat-Sun	3/26-3/27	11pm - 7am	Jeff Grant
Sun	27-Mar	7am - 3pm	Jane Marshall
Sun	27-Mar	3pm-11pm	Bill Gott
Sun-Mon	3/27-3/28	11pm - 7am	Jeff Grant
Mon	28-Mar	7am - 3pm	Jane Marshall
Mon	28-Mar	3pm-11pm	Bill Gott
Mon-Tue	3/28-3/29	11pm - 7am	Jeff Grant
Tue	29-Mar	7am - 3pm	Jane Marshall
Tue	29-Mar	3pm-11pm	Bill Gott
Tue-Wed	3/29-3/30	11pm - 7am	Jeff Grant
Wed	30-Mar	7am - 3pm	Jane Marshall
Wed	30-Mar	3pm-11pm	Bill Gott
Wed-Thur	3/30-3/31	11pm - 7am	Jeff Grant
Thur	31-Mar	7am - 3pm	Jane Marshall
Thur	31-Mar	3pm-11pm	Bill Gott
Thur-Fri	3/31-4/1	11pm - 7am	Jeff Grant
Fri	1-Apr	7am - 3pm	Jane Marshall ?
Fri	1-Apr	3pm-11pm	Bill Gott
Fri-Sat	4/1-4/2	11pm-7am	Jeff Grant
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	

EST Actions Officer

Sat-Sun	3/26-3/27	11pm - 7am	N/A
Sun	27-Mar	7am - 3pm	Kelly Grimes

Japan Earthquake ERO Staffing Roster
 Mar 27-Apr 2, 2011
 Pay Period 8 - Week 1

Sun	27-Mar	3pm-11pm	Melissa Ralph
Sun-Mon	3/27-3/28	11pm - 7am	N/A
Mon	28-Mar	7am - 3pm	Zahira Cruz
Mon	28-Mar	3pm-11pm	Melissa Ralph
Mon-Tue	3/28-3/29	11pm - 7am	N/A
Tue	29-Mar	7am - 3pm	
Tue	29-Mar	3pm-11pm	Melissa Ralph
Tue-Wed	3/29-3/30	11pm - 7am	N/A
Wed	30-Mar	7am - 3pm	Wendy Reed
Wed	30-Mar	3pm-11pm	Melissa Ralph
Wed-Thur	3/30-3/31	11pm - 7am	N/A
Thur	31-Mar	7am - 3pm	Jonathan Fiske
Thur	31-Mar	3pm-11pm	Melissa Ralph
Thur-Fri	3/31-4/1	11pm - 7am	N/A
Fri	1-Apr	7am - 3pm	Wendy Reed
Fri	1-Apr	3pm-11pm	Melissa Ralph
Fri-Sat	4/1-4/2	11pm-7am	Don Algama
Sat	2-Apr	7am - 3pm	Anthony Bowers
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	N/A
EST Coordinator			
Sat-Sun	3/26-3/27	11pm - 7am	Steve Campbell
Sun	27-Mar	7am - 3pm	Tonya Russell
Sun	27-Mar	3pm-11pm	Stella Opara
Sun-Mon	3/27-3/28	11pm - 7am	Taylor Lichatz
Mon	28-Mar	7am - 3pm	Tony McMurtray
Mon	28-Mar	3pm-11pm	Rebecca Stone
Mon-Tue	3/28-3/29	11pm - 7am	Stacy Smith
Tue	29-Mar	7am - 3pm	Anthony Bowers
Tue	29-Mar	3pm-11pm	Tony McMurtray
Tue-Wed	3/29-3/30	11pm - 7am	Rebecca Stone
Wed	30-Mar	7am - 3pm	Taylor Lichatz
Wed	30-Mar	3pm-11pm	Tony McMurtray
Wed-Thur	3/30-3/31	11pm - 7am	Rebecca Stone
Thur	31-Mar	7am - 3pm	Anthony Bowers
Thur	31-Mar	3pm-11pm	Tony McMurtray
Thur-Fri	3/31-4/1	11pm - 7am	Rebecca Stone
Fri	1-Apr	7am - 3pm	Steve Campbell
Fri	1-Apr	3pm-11pm	Tony McMurtray
Fri-Sat	4/1-4/2	11pm-7am	Rebecca Stone
Sat	2-Apr	7am - 3pm	Stacy Smith
Sat	2-Apr	3pm-11pm	Steve Campbell
Sat-Sun	4/2-4/3	11pm - 7am	Rebecca Stone
EST Chronology Officer			
Sat-Sun	3/26-3/27	11pm - 7am	Thomas Scarbrough
Sun	27-Mar	7am - 3pm	Hector Rodriguez
Sun	27-Mar	3pm-11pm	Rebecca Karas

Japan Earthquake ERO Staffing Roster
 Mar 27-Apr 2, 2011
 Pay Period 8 - Week 1

Sun-Mon	3/27-3/28	11pm - 7am	Thomas Scarbrough
Mon	28-Mar	7am - 3pm	Hector Rodriguez
Mon	28-Mar	3pm-11pm	Rebecca Karas
Mon-Tue	3/28-3/29	11pm - 7am	
Tue	29-Mar	7am - 3pm	Vanice Perin
Tue	29-Mar	3pm-11pm	Rebecca Karas
Tue-Wed	3/29-3/30	11pm - 7am	
Wed	30-Mar	7am - 3pm	Hector Rodriguez
Wed	30-Mar	3pm-11pm	Rebecca Karas
Wed-Thur	3/30-3/31	11pm - 7am	Thomas Scarbrough
Thur	31-Mar	7am - 3pm	Vanice Perin
Thur	31-Mar	3pm-11pm	Rebecca Karas
Thur-Fri	3/31-4/1	11pm - 7am	Nick Ballam
Fri	1-Apr	7am - 3pm	Sandra Valencia
Fri	1-Apr	3pm-11pm	Rebecca Karas
Fri-Sat	4/1-4/2	11pm-7am	Nick Ballam
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	
EST Response Ops Mgr			
Sat-Sun	3/26-3/27	11pm - 7am	Roberto Figueroa
Sun	27-Mar	7am - 3pm	Omar Khan
Sun	27-Mar	3pm-11pm	Cris Brown
Sun-Mon	3/27-3/28	11pm - 7am	Roberto Figueroa
Mon	28-Mar	7am - 3pm	Karen Jackson
Mon	28-Mar	3pm-11pm	Cris Brown
Mon-Tue	3/28-3/29	11pm - 7am	Omar Khan
Tue	29-Mar	7am - 3pm	Bob Stransky
Tue	29-Mar	3pm-11pm	Cris Brown
Tue-Wed	3/29-3/30	11pm - 7am	Karen Jackson
Wed	30-Mar	7am - 3pm	Omar Khan
Wed	30-Mar	3pm-11pm	Cris Brown
Wed-Thur	3/30-3/31	11pm - 7am	Bob Stransky
Thur	31-Mar	7am - 3pm	Karen Jackson
Thur	31-Mar	3pm-11pm	Omar Khan
Thur-Fri	3/31-4/1	11pm - 7am	Bob Stransky
Fri	1-Apr	7am - 3pm	Roberto Figueroa
Fri	1-Apr	3pm-11pm	Karen Jackson
Fri-Sat	4/1-4/2	11pm-7am	Omar Khan
Sat	2-Apr	7am - 3pm	Roberto Figueroa
Sat	2-Apr	3pm-11pm	Karen Jackson
Sat-Sun	4/2-4/3	11pm - 7am	Omar Khan
EST Admin. Assistant			
Sat-Sun	3/26-3/27	11pm - 7am	N/A
Sun	27-Mar	7am - 3pm	Karen Meyer
Sun	27-Mar	3pm-11pm	Cynthia Dorsey
Sun-Mon	3/27-3/28	11pm - 7am	N/A

Japan Earthquake ERO Staffing Roster
 Mar 27-Apr 2, 2011
 Pay Period 8 - Week 1

Mon	28-Mar	7am - 3pm	Michelle Manahan
Mon	28-Mar	3pm-11pm	Carol Greenwood
Mon-Tue	3/28-3/29	11pm - 7am	N/A
Tue	29-Mar	7am - 3pm	Michelle Manahan
Tue	29-Mar	3pm-11pm	Mary Glenn Crutchley
Tue-Wed	3/29-3/30	11pm - 7am	N/A
Wed	30-Mar	7am - 3pm	Cynthia Dorsey
Wed	30-Mar	3pm-11pm	Mary Glenn Crutchley
Wed-Thur	3/30-3/31	11pm - 7am	N/A
Thur	31-Mar	7am - 3pm	Amy Salus
Thur	31-Mar	3pm-11pm	Tabitha Howard
Thur-Fri	3/31-4/1	11pm - 7am	N/A
Fri	1-Apr	7am - 3pm	Carol Greenwood
Fri	1-Apr	3pm-11pm	Tabitha Howard
Fri-Sat	4/1-4/2	11pm-7am	N/A
Sat	2-Apr	7am - 3pm	Karen Meyer
Sat	2-Apr	3pm-11pm	Cynthia Dorsey
Sat-Sun	4/2-4/3	11pm - 7am	N/A

Liaison Team

LT Director

Sat-Sun	3/26-3/27	11pm - 7am	Marissa Bailey
Sun	27-Mar	7am - 3pm	Mike Tschiltz
Sun	27-Mar	3pm-11pm	Marrisa Bailey
Sun-Mon	3/27-3/28	11pm - 7am	Mark Thaggard
Mon	28-Mar	7am - 3pm	Allen Howe
Mon	28-Mar	3pm-11pm	Marrisa Bailey
Mon-Tue	3/28-3/29	11pm - 7am	
Tue	29-Mar	7am - 3pm	Allen Howe
Tue	29-Mar	3pm-11pm	Marrisa Bailey
Tue-Wed	3/29-3/30	11pm - 7am	
Wed	30-Mar	7am - 3pm	Allen Howe
Wed	30-Mar	3pm-11pm	Marrisa Bailey
Wed-Thur	3/30-3/31	11pm - 7am	
Thur	31-Mar	7am - 3pm	John Adams
Thur	31-Mar	3pm-11pm	Mark Lombard
Thur-Fri	3/31-4/1	11pm - 7am	Bob Webber
Fri	1-Apr	7am - 3pm	John Adams
Fri	1-Apr	3pm-11pm	Mark Lombard
Fri-Sat	4/1-4/2	11pm-7am	Tom Bergman
Sat	2-Apr	7am - 3pm	John Adams
Sat	2-Apr	3pm-11pm	Mark Lombard
Sat-Sun	4/2-4/3	11pm - 7am	Tom Bergman

LT Coordinator

Sat-Sun	3/26-3/27	11pm - 7am	Milt Murray
Sun	27-Mar	7am - 3pm	Lisa Gibney
Sun	27-Mar	3pm-11pm	Jeff Temple
Sun-Mon	3/27-3/28	11pm - 7am	Milt Murray

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Mon	28-Mar	7am - 3pm	Jeff Temple
Mon	28-Mar	3pm-11pm	Rani Franovich
Mon-Tue	3/28-3/29	11pm - 7am	Janelle Jessie
Tue	29-Mar	7am - 3pm	Milt Murray
Tue	29-Mar	3pm-11pm	Rani Franovich
Tue-Wed	3/29-3/30	11pm - 7am	Janelle Jessie
Wed	30-Mar	7am - 3pm	Milt Murray
Wed	30-Mar	3pm-11pm	Jeff Temple
Wed-Thur	3/30-3/31	11pm - 7am	Janelle Jessie
Thur	31-Mar	7am - 3pm	Milt Murray
Thur	31-Mar	3pm-11pm	Jeff Temple
Thur-Fri	3/31-4/1	11pm - 7am	Rani Franovich
Fri	1-Apr	7am - 3pm	Jeff Temple
Fri	1-Apr	3pm-11pm	Janelle Jessie
Fri-Sat	4/1-4/2	11pm-7am	Rani Franovich
Sat	2-Apr	7am - 3pm	Jeff Temple
Sat	2-Apr	3pm-11pm	Milt Murray
Sat-Sun	4/2-4/3	11pm - 7am	
LT State Liaison			
Sat-Sun	3/26-3/27	9pm-7am	A. Rivera/A. Noonan (ON CALL)
Sun	27-Mar	7am-2pm	Alison Rivera (ON CALL)
Sun	27-Mar	2pm-9pm	Alison Rivera (ON CALL)
Sun-Mon	3/27-3/28	9pm-7am	Alison Rivera (ON CALL)
Mon	28-Mar	7am-2pm	C. Maupin/C. Flannery (ON CALL)
Mon	28-Mar	2pm-9pm	Stuart Easson
Mon-Tue	3/28-3/29	9pm-7am	R. Virgilio (ON CALL)
Tue	29-Mar	7am-2pm	C. Maupin/C. Flannery (ON CALL)
Tue	29-Mar	2pm-9pm	Stuart Easson
Tue-Wed	3/29-3/30	9pm-7am	Richard Turtill (ON CALL)
Wed	30-Mar	7am-2pm	Cindy Flannery
Wed	30-Mar	2pm-9pm	Michelle Ryan
Wed-Thur	3/30-3/31	9pm-7am	Richard Turtill (ON CALL)
Thur	31-Mar	7am-2pm	Amanda Noonan
Thur	31-Mar	2pm-9pm	Michelle Ryan
Thur-Fri	3/31-4/1	9pm-7am	Richard Turtill (ON CALL)
Fri	1-Apr	7am-2pm	Kim Lukes
Fri	1-Apr	2pm-9pm	Alison Rivera
Fri-Sat	4/1-4/2	9pm-7am	Richard Turtill (ON CALL)
Sat	2-Apr	7am-2pm	Amanda Noonan (ON CALL)
Sat	2-Apr	2pm-9pm	Amanda Noonan (ON CALL)
Sat-Sun	2-Apr	9pm-7am	Amanda Noonan (ON CALL)
LT Federal Liaison (2)			
Sat-Sun	3/26-3/27	11pm - 7am	Scott Sloan
Sun	27-Mar	7am - 3pm	Susan Salter / Lisa Gibney
Sun	27-Mar	3pm-11pm	Jerry Hale
Sun-Mon	3/27-3/28	11pm - 7am	Scott Sloan
Mon	28-Mar	7am - 3pm	Susan Salter / Lisa Gibney

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Mon	28-Mar	3pm-11pm	Lisa Wright
Mon-Tue	3/28-3/29	11pm - 7am	Ned Wright
Tue	29-Mar	7am - 3pm	Susan Salter / Jerry Hale
Tue	29-Mar	3pm-11pm	Lisa Wright
Tue-Wed	3/29-3/30	11pm - 7am	Ned Wright
Wed	30-Mar	7am - 3pm	Bethany Cecere / Jerry Hale
Wed	30-Mar	3pm-11pm	Lisa Wright
Wed-Thur	3/30-3/31	11pm - 7am	Ned Wright
Thur	31-Mar	7am - 3pm	Jeff Temple / Jason Lising
Thur	31-Mar	3pm-11pm	Ted Smith
Thur-Fri	3/31-4/1	11pm - 7am	Ned Wright
Fri	1-Apr	7am - 3pm	Jeff Lynch / Beth Reed
Fri	1-Apr	3pm-11pm	Jerry Hale
Fri-Sat	4/1-4/2	11pm-7am	Jason Lising
Sat	2-Apr	7am - 3pm	Beth Reed
Sat	2-Apr	3pm-11pm	Bethany Cecere
Sat-Sun	4/2-4/3	11pm - 7am	Jason Lising

LT Congressional Liaison (2)

Sat-Sun	3/26-3/27	11pm - 7am	Amy Powell (ON CALL)
Sun	27-Mar	7am - 3pm	Amy Powell (ON CALL)
Sun	27-Mar	3pm-11pm	Amy Powell (ON CALL)
Sun-Mon	3/27-3/28	11pm - 7am	Amy Powell (ON CALL)
Mon	28-Mar	7am - 3pm	Amy Powell (ON CALL)
Mon	28-Mar	3pm-11pm	Amy Powell (ON CALL)
Mon-Tue	3/28-3/29	11pm - 7am	Amy Powell (ON CALL)
Tue	29-Mar	7am - 3pm	Amy Powell (ON CALL)
Tue	29-Mar	3pm-11pm	Amy Powell (ON CALL)
Tue-Wed	3/29-3/30	11pm - 7am	Amy Powell (ON CALL)
Wed	30-Mar	7am - 3pm	Amy Powell (ON CALL)
Wed	30-Mar	3pm-11pm	Amy Powell (ON CALL)
Wed-Thur	3/30-3/31	11pm - 7am	Amy Powell (ON CALL)
Thur	31-Mar	7am - 3pm	Amy Powell (ON CALL)
Thur	31-Mar	3pm-11pm	Amy Powell (ON CALL)
Thur-Fri	3/31-4/1	11pm - 7am	Amy Powell (ON CALL)
Fri	1-Apr	7am - 2pm	Amy Powell (ON CALL)
Fri	1-Apr	2pm-9pm	Amy Powell (ON CALL)
Sat	2-Apr	7am - 2pm	Amy Powell (ON CALL)
Sat	2-Apr	2pm-9pm	Amy Powell (ON CALL)
Sun	3-Apr	7am-2pm	Amy Powell (ON CALL)

LT International Liaison (2)

Sat-Sun	3/26-3/27	11pm - 7am	Cindy Rosales/ Elizabeth Smiroldo
Sun	27-Mar	7am - 3pm	Jill Shepard/ Karen Henderson
Sun	27-Mar	3pm-11pm	Nancy Fragoyannis/ Jenny Tobin
Sun-Mon	3/27-3/28	11pm - 7am	Steve Baker / Brian Wittick
Mon	28-Mar	7am - 3pm	Jill Shepard/ Karen Henderson
Mon	28-Mar	3pm-11pm	Nancy Fragoyannis / Cindy Rosales
Mon-Tue	3/28-3/29	11pm - 7am	Steve Baker / Brian Wittick

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Tue	29-Mar	7am - 3pm	Jill Shepard/ Karen Henderson
Tue	29-Mar	3pm-11pm	Nancy Fragoyannis / Gerri Fehst
Tue-Wed	3/29-3/30	11pm - 7am	Steve Baker / Brian Wittick
Wed	30-Mar	7am - 3pm	Eric Stahl / Lauren Mayros (J. Tobin 12-3)
Wed	30-Mar	3pm-11pm	Danielle Emche / Mugah Afshar-Tous
Wed-Thur	3/30-3/31	11pm - 7am	Jen Schwartzman / Charlotte Abrams
Thur	31-Mar	7am - 3pm	Jill Shepard / Lauren Mayros
Thur	31-Mar	3pm-11pm	Gerri / Mugah Afshar-Tous
Thur-Fri	3/31-4/1	11pm - 7am	Jen Schwartzman / Charlotte Abrams
Fri	1-Apr	7am - 3pm	Cindy Rosales/ Lauren Mayros
Fri	1-Apr	3pm-11pm	Gerri/ Mugah Afshar-Tous
Fri-Sat	4/1-4/2	11pm-7am	Jen Schwartzman / Charlotte Abrams
Sat	2-Apr	7am - 3pm	Steve Bloom/ Karen Henderson
Sat	2-Apr	3pm-11pm	Janice Owens / Jenny Tobin
Sat-Sun	4/2-4/3	11pm - 7am	Gerri Fehst / Elizabeth Smiroldo

Protective Measures Team

PMTR Director

Sat-Sun	3/26-3/27	11pm - 7am	Randy Sullivan
Sun	27-Mar	7am - 3pm	Don Cool
Sun	27-Mar	3pm-11pm	Vince Holahan
Sun-Mon	3/27-3/28	11pm - 7am	John Tappert
Mon	28-Mar	7am - 3pm	Don Cool
Mon	28-Mar	3pm-11pm	Vince Holahan
Mon-Tue	3/28-3/29	11pm - 7am	John Tappert
Tue	29-Mar	7am - 3pm	Terry Reis
Tue	29-Mar	3pm-11pm	Vince Holahan
Tue-Wed	3/29-3/30	11pm - 7am	Patricia Milligan
Wed	30-Mar	7am - 3pm	Terry Reis
Wed	30-Mar	3pm-11pm	Vince Holahan
Wed-Thur	3/30-3/31	11pm - 7am	Patricia Milligan
Thur	31-Mar	7am - 3pm	Randy Sullivan
Thur	31-Mar	3pm-11pm	Terry Reis
Thur-Fri	3/31-4/1	11pm - 7am	Christiana Lui
Fri	1-Apr	7am - 3pm	Randy Sullivan
Fri	1-Apr	3pm-11pm	Don Cool
Fri-Sat	4/1-4/2	11pm-7am	Christiana Lui
Sat	2-Apr	7am - 3pm	Randy Sullivan
Sat	2-Apr	3pm-11pm	Don Cool
Sat-Sun	4/2-4/3	11pm - 7am	Christiana Lui

PMTR Coordinator

Sat-Sun	3/26-3/27	11pm - 7am	Lou Brandon
Sun	27-Mar	7am - 3pm	Ryan Craffey
Sun	27-Mar	3pm-11pm	Jay Patel
Sun-Mon	3/27-3/28	11pm - 7am	Lou Brandon
Mon	28-Mar	7am - 3pm	Duane Hardesty
Mon	28-Mar	3pm-11pm	Nima Ashkeboussi
Mon-Tue	3/28-3/29	11pm - 7am	Lou Brandon

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Tue	29-Mar	7am - 3pm	Duane Hardesty
Tue	29-Mar	3pm-11pm	Nima Ashkeboussi
Tue-Wed	3/29-3/30	11pm - 7am	Lou Brandon
Wed	30-Mar	7am - 3pm	Michael Raddatz
Wed	30-Mar	3pm-11pm	Jay Patel
Wed-Thur	3/30-3/31	11pm - 7am	Ryan Craffey
Thur	31-Mar	7am - 3pm	Duane Hardesty
Thur	31-Mar	3pm-11pm	Michael Raddatz
Thur-Fri	3/31-4/1	11pm - 7am	
Fri	1-Apr	7am - 3pm	Duane Hardesty
Fri	1-Apr	3pm-11pm	Nima Ashkeboussi
Fri-Sat	4/1-4/2	11pm-7am	
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	

PMTR Prot Actions Asst Dir

Sat-Sun	3/26-3/27	11pm - 7am	Greg Casto
Sun	27-Mar	7am - 3pm	Kevin Williams
Sun	27-Mar	3pm-11pm	Tim Harris
Sun-Mon	3/27-3/28	11pm - 7am	Greg Casto/Jessical Kratchman
Mon	28-Mar	7am - 3pm	Sandra Wastler
Mon	28-Mar	3pm-11pm	Mike McCoppin
Mon-Tue	3/28-3/29	11pm - 7am	Greg Casto/Jessical Kratchman
Tue	29-Mar	7am - 3pm	
Tue	29-Mar	3pm-11pm	Tim Harris
Tue-Wed	3/29-3/30	11pm - 7am	Greg Casto
Wed	30-Mar	7am - 3pm	Alemu Bezakulu
Wed	30-Mar	3pm-11pm	Sandra Wastler
Wed-Thur	3/30-3/31	11pm - 7am	Greg Casto
Thur	31-Mar	7am - 3pm	Jessica Kratchman
Thur	31-Mar	3pm-11pm	Tim Harris
Thur-Fri	3/31-4/1	11pm - 7am	
Fri	1-Apr	7am - 3pm	Sandra Wastler/Jessica Kratchman
Fri	1-Apr	3pm-11pm	
Fri-Sat	4/1-4/2	11pm-7am	
Sat	2-Apr	7am - 3pm	Alemu Bezakulu
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	

PMTR RAAD

Sat-Sun	3/26-3/27	11pm - 7am	Mike Norris
Sun	27-Mar	7am - 3pm	Michelle Hart
Sun	27-Mar	3pm-11pm	
Sun-Mon	3/27-3/28	11pm - 7am	Mike Norris
Mon	28-Mar	7am - 3pm	Steve LaVie
Mon	28-Mar	3pm-11pm	Michelle Hart
Mon-Tue	3/28-3/29	11pm - 7am	Mike Norris
Tue	29-Mar	7am - 3pm	

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Tue	29-Mar	3pm-11pm	
Tue-Wed	3/29-3/30	11pm - 7am	Mike Norris
Wed	30-Mar	7am - 3pm	
Wed	30-Mar	3pm-11pm	Steve LaVie
Wed-Thur	3/30-3/31	11pm - 7am	
Thur	31-Mar	7am - 3pm	Michelle Hart
Thur	31-Mar	3pm-11pm	
Thur-Fri	3/31-4/1	11pm - 7am	
Fri	1-Apr	7am - 3pm	
Fri	1-Apr	3pm-11pm	Steve LaVie
Fri-Sat	4/1-4/2	11pm-7am	Michelle Hart
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	
PMTR Dose Assessment (RASCAL) - Need 2			
Sat-Sun	3/26-3/27	11pm - 7am	John Parillo/Ron LaVera
Sun	27-Mar	7am - 3pm	Tony Huffert
Sun	27-Mar	3pm-11pm	Casper Sun/Ed Roach
Sun-Mon	3/27-3/28	11pm - 7am	Margaret Cervera/John Parillo
Mon	28-Mar	7am - 3pm	Rich Clement/Tony Huffert
Mon	28-Mar	3pm-11pm	Bernie White/Casper Sun
Mon-Tue	3/28-3/29	11pm - 7am	Margaret Cervera/John Parillo
Tue	29-Mar	7am - 3pm	Tony Huffert/Rich Clement
Tue	29-Mar	3pm-11pm	Casper Sun
Tue-Wed	3/29-3/30	11pm - 7am	Margaret Cervera/Bernie White
Wed	30-Mar	7am - 3pm	Tony Huffert/Rich Clement
Wed	30-Mar	3pm-11pm	Casper Sun
Wed-Thur	3/30-3/31	11pm - 7am	Margaret Cervera/John Parillo
Thur	31-Mar	7am - 3pm	Rich Clement/Joe DeCicco
Thur	31-Mar	3pm-11pm	Bernie White (Maybe)/Casper Sun
Thur-Fri	3/31-4/1	11pm - 7am	John Parillo
Fri	1-Apr	7am - 3pm	/Rich Clement
Fri	1-Apr	3pm-11pm	Casper Sun
Fri-Sat	4/1-4/2	11pm-7am	John Parillo
Sat	2-Apr	7am - 3pm	Tony Huffert
Sat	2-Apr	3pm-11pm	Casper Sun
Sat-Sun	4/2-4/3	11pm - 7am	
PMTR GIS Analyst			
Sat-Sun	3/26-3/27	11pm - 7am	N/A
Sun	27-Mar	7am - 3pm	(ON CALL)
Sun	27-Mar	3pm-11pm	N/A
Sun-Mon	3/27-3/28	11pm - 7am	N/A
Mon	28-Mar	7am - 3pm	(ON CALL)
Mon	28-Mar	3pm-11pm	N/A
Mon-Tue	3/28-3/29	11pm - 7am	N/A
Tue	29-Mar	7am - 3pm	(ON CALL)
Tue	29-Mar	3pm-11pm	N/A

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Tue-Wed	3/29-3/30	11pm - 7am	N/A
Wed	30-Mar	7am - 3pm	(ON CALL)
Wed	30-Mar	3pm-11pm	N/A
Wed-Thur	3/30-3/31	11pm - 7am	N/A
Thur	31-Mar	7am - 3pm	(ON CALL)
Thur	31-Mar	3pm-11pm	N/A
Thur-Fri	3/31-4/1	11pm - 7am	N/A
Fri	1-Apr	7am - 3pm	(ON CALL)
Fri	1-Apr	3pm-11pm	N/A
Fri-Sat	4/1-4/2	11pm-7am	N/A
Sat	2-Apr	7am - 3pm	(ON CALL)
Sat	2-Apr	3pm-11pm	N/A
Sat-Sun	4/2-4/3	11pm - 7am	N/A

PMTR Meteorologist

Sat-Sun	3/26-3/27	11pm - 7am	N/A
Sun	27-Mar	7am - 3pm	(ON CALL)
Sun	27-Mar	3pm-11pm	N/A
Sun-Mon	3/27-3/28	11pm - 7am	N/A
Mon	28-Mar	7am - 3pm	(ON CALL)
Mon	28-Mar	3pm-11pm	N/A
Mon-Tue	3/28-3/29	11pm - 7am	N/A
Tue	29-Mar	7am - 3pm	(ON CALL)
Tue	29-Mar	3pm-11pm	N/A
Tue-Wed	3/29-3/30	11pm - 7am	N/A
Wed	30-Mar	7am - 3pm	(ON CALL)
Wed	30-Mar	3pm-11pm	N/A
Wed-Thur	3/30-3/31	11pm - 7am	N/A
Thur	31-Mar	7am - 3pm	(ON CALL)
Thur	31-Mar	3pm-11pm	N/A
Thur-Fri	3/31-4/1	11pm - 7am	N/A
Fri	1-Apr	7am - 3pm	(ON CALL)
Fri	1-Apr	3pm-11pm	N/A
Fri-Sat	4/1-4/2	11pm-7am	N/A
Sat	2-Apr	7am - 3pm	(ON CALL)
Sat	2-Apr	3pm-11pm	N/A
Sat-Sun	4/2-4/3	11pm - 7am	N/A

Reactor Safety Team

RST Director

Sat-Sun	3/26-3/27	11pm - 7am	Dave Skeen
Sun	27-Mar	7am - 3pm	Pat Hiland
Sun	27-Mar	3pm-11pm	Fred Brown
Sun-Mon	3/27-3/28	11pm - 7am	Dave Skeen
Mon	28-Mar	7am - 3pm	Pat Hiland
Mon	28-Mar	3pm-11pm	Fred Brown
Mon-Tue	3/28-3/29	11pm - 7am	Dave Skeen
Tue	29-Mar	7am - 3pm	Jennifer Uhle
Tue	29-Mar	3pm-11pm	Fred Brown

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Tue-Wed	3/29-3/30	11pm - 7am	Dave Skeen
Wed	30-Mar	7am - 3pm	Jennifer Uhle
Wed	30-Mar	3pm-11pm	Fred Brown
Wed-Thur	3/30-3/31	11pm - 7am	Mike Case
Thur	31-Mar	7am - 3pm	Jennifer Uhle
Thur	31-Mar	3pm-11pm	Bill Ruland
Thur-Fri	3/31-4/1	11pm - 7am	Mike Case
Fri	1-Apr	7am - 3pm	Jennifer Uhle
Fri	1-Apr	3pm-11pm	Bill Ruland
Fri-Sat	4/1-4/2	11pm-7am	Mike Case
Sat	2-Apr	7am - 3pm	Brian Holian
Sat	2-Apr	3pm-11pm	Bill Ruland
Sat-Sun	4/2-4/3	11pm - 7am	Mike Case

RST Coordinator

Sat-Sun	3/26-3/27	11pm - 7am	Brett Rini
Sun	27-Mar	7am - 3pm	Peter Alter
Sun	27-Mar	3pm-11pm	Rick Hasselberg
Sun-Mon	3/27-3/28	11pm - 7am	Frank Collins
Mon	28-Mar	7am - 3pm	Peter Alter
Mon	28-Mar	3pm-11pm	Rick Hasselberg
Mon-Tue	3/28-3/29	11pm - 7am	Mike Morlang
Tue	29-Mar	7am - 3pm	Peter Alter
Tue	29-Mar	3pm-11pm	Greg Schoenebeck
Tue-Wed	3/29-3/30	11pm - 7am	Mike Morlang
Wed	30-Mar	7am - 3pm	Peter Alter
Wed	30-Mar	3pm-11pm	Greg Schoenebeck
Wed-Thur	3/30-3/31	11pm - 7am	Frank Collins
Thur	31-Mar	7am - 3pm	Peter Alter
Thur	31-Mar	3pm-11pm	Greg Schoenebeck
Thur-Fri	3/31-4/1	11pm - 7am	Frank Collins
Fri	1-Apr	7am - 3pm	Brett Rini
Fri	1-Apr	3pm-11pm	
Fri-Sat	4/1-4/2	11pm-7am	Frank Collins
Sat	2-Apr	7am - 3pm	Peter Alter
Sat	2-Apr	3pm-11pm	Brett Rini
Sat-Sun	4/2-4/3	11pm - 7am	Oleg Bukharin

Severe Accident/PRA

Sat-Sun	3/26-3/27	11pm - 7am	Ray Skarda
Sun	27-Mar	7am - 3pm	Andy Howe
Sun	27-Mar	3pm-11pm	Jeff Mitman
Sun-Mon	3/27-3/28	11pm - 7am	Jim Gilmer
Mon	28-Mar	7am - 3pm	Jeff Circle
Mon	28-Mar	3pm-11pm	Len Ward
Mon-Tue	3/28-3/29	11pm - 7am	Steve Arndt
Tue	29-Mar	7am - 3pm	Hossein Esmaili
Tue	29-Mar	3pm-11pm	Ed Fuller
Tue-Wed	3/29-3/30	11pm - 7am	Steve Arndt

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Wed	30-Mar	7am - 3pm	Jim Gilmer
Wed	30-Mar	3pm-11pm	Hossein Esmaili
Wed-Thur	3/30-3/31	11pm - 7am	Steve Arndt
Thur	31-Mar	7am - 3pm	Don Chung
Thur	31-Mar	3pm-11pm	Hossein Esmaili
Thur-Fri	3/31-4/1	11pm - 7am	Steve Arndt
Fri	1-Apr	7am - 3pm	Jeff Mitman
Fri	1-Apr	3pm-11pm	Don Hilton
Fri-Sat	4/1-4/2	11pm-7am	Ray Skarda
Sat	2-Apr	7am - 3pm	
Sat	2-Apr	3pm-11pm	
Sat-Sun	4/2-4/3	11pm - 7am	

BWR Expertise

Sat-Sun	3/26-3/27	11pm - 7am	Eva Brown
Sun	27-Mar	7am - 3pm	Mike Brown
Sun	27-Mar	3pm-11pm	Chuck Norton
Sun-Mon	3/27-3/28	11pm - 7am	Eva Brown
Mon	28-Mar	7am - 3pm	Mike Brown
Mon	28-Mar	3pm-11pm	Chuck Norton
Mon-Tue	3/28-3/29	11pm - 7am	Jim Shea
Tue	29-Mar	7am - 3pm	Mike Brown
Tue	29-Mar	3pm-11pm	Chuck Norton
Tue-Wed	3/29-3/30	11pm - 7am	Jim Shea
Wed	30-Mar	7am - 3pm	Mike Brown
Wed	30-Mar	3pm-11pm	Chuck Norton
Wed-Thur	3/30-3/31	11pm - 7am	Jim Shea
Thur	31-Mar	7am - 3pm	Mike Brown
Thur	31-Mar	3pm-11pm	Chuck Norton
Thur-Fri	3/31-4/1	11pm - 7am	Jim Shea
Fri	1-Apr	7am - 3pm	Mike Brown
Fri	1-Apr	3pm-11pm	Chuck Norton
Fri-Sat	4/1-4/2	11pm-7am	Eva Brown
Sat	2-Apr	7am - 3pm	Mike Brown
Sat	2-Apr	3pm-11pm	Chuck Norton
Sat-Sun	4/2-4/3	11pm - 7am	Eva Brown

RST Comm/ERDS Operator

Sat-Sun	3/26-3/27	11pm - 7am	Denise McGovern
Sun	27-Mar	7am - 3pm	Mark Padovan
Sun	27-Mar	3pm-11pm	Bill Roggenbrodt
Sun-Mon	3/27-3/28	11pm - 7am	Denise McGovern
Mon	28-Mar	7am - 3pm	Mark Padovan
Mon	28-Mar	3pm-11pm	Rick Jervey
Mon-Tue	3/28-3/29	11pm - 7am	Brian Horn
Tue	29-Mar	7am - 3pm	John Thorp
Tue	29-Mar	3pm-11pm	Andy Kugler
Tue-Wed	3/29-3/30	11pm - 7am	Brian Horn
Wed	30-Mar	7am - 3pm	Steve Bloom

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Wed	30-Mar	3pm-11pm	Bill Roggenbrodt
Wed-Thur	3/30-3/31	11pm - 7am	
Thur	31-Mar	7am - 3pm	Jerry Dozier
Thur	31-Mar	3pm-11pm	John Thorp
Thur-Fri	3/31-4/1	11pm - 7am	
Fri	1-Apr	7am - 3pm	Andy Kugler
Fri	1-Apr	3pm-11pm	
Fri-Sat	4/1-4/2	11pm-7am	Liliana Ramadan
Sat	2-Apr	7am - 3pm	John Thorp
Sat	2-Apr	3pm-11pm	Mark Padovan
Sat-Sun	4/2-4/3	11pm - 7am	

RST Support (Seismology Q&A)

Sat-Sun	3/26-3/27	11pm - 7am	(ON CALL)
Sun	27-Mar	7am - 3pm	(ON CALL)
Sun	27-Mar	3pm-11pm	(ON CALL)
Sun-Mon	3/27-3/28	11pm - 7am	(ON CALL)
Mon	28-Mar	7am - 3pm	(ON CALL)
Mon	28-Mar	3pm-11pm	(ON CALL)
Mon-Tue	3/28-3/29	11pm - 7am	(ON CALL)
Tue	29-Mar	7am - 3pm	(ON CALL)
Tue	29-Mar	3pm-11pm	(ON CALL)
Tue-Wed	3/29-3/30	11pm - 7am	(ON CALL)
Wed	30-Mar	7am - 3pm	(ON CALL)
Wed	30-Mar	3pm-11pm	(ON CALL)
Wed-Thur	3/30-3/31	11pm - 7am	(ON CALL)
Thur	31-Mar	7am - 3pm	(ON CALL)
Thur	31-Mar	3pm-11pm	(ON CALL)
Thur-Fri	3/31-4/1	11pm - 7am	(ON CALL)
Fri	1-Apr	7am - 3pm	(ON CALL)
Fri	1-Apr	3pm-11pm	(ON CALL)
Fri-Sat	4/1-4/2	11pm-7am	(ON CALL)
Sat	2-Apr	7am - 3pm	(ON CALL)
Sat	2-Apr	3pm-11pm	(ON CALL)
Sat-Sun	4/2-4/3	11pm - 7am	(ON CALL)

RST Support (Structural)

Sat-Sun	3/26-3/27	11pm - 7am	Off (ON CALL)
Sun	27-Mar	7am - 3pm	Off (ON CALL)
Sun	27-Mar	3pm-11pm	Off (ON CALL)
Sun-Mon	3/27-3/28	11pm - 7am	Off (ON CALL)
Mon	28-Mar	7am - 3pm	Off (ON CALL)
Mon	28-Mar	3pm-11pm	Off (ON CALL)
Mon-Tues	3/28-3/29	11pm - 7am	Off (ON CALL)
Tues	29-Mar	7am - 3pm	Off (ON CALL)
Tues	29-Mar	3pm-11pm	Off (ON CALL)
Tues-Wed	3/29-3/30	11pm - 7am	Off (ON CALL)
Wed	30-Mar	7am - 3pm	Off (ON CALL)
Wed	30-Mar	3pm-11pm	Off (ON CALL)

Japan Earthquake ERO Staffing Roster
Mar 27-Apr 2, 2011
Pay Period 8 - Week 1

Wed-Thur	3/30-3/31	11pm - 7am	Off (ON CALL)
Thur	31-Mar	7am - 3pm	Off (ON CALL)
Thur	31-Mar	3pm-11pm	Off (ON CALL)
Thur-Fri	3/31-4/1	11pm - 7am	Off (ON CALL)
Fri	1-Apr	7am - 3pm	Off (ON CALL)
Fri	1-Apr	3pm-11pm	Off (ON CALL)
Fri-Sat	4/1-4/2	11pm-7am	Off (ON CALL)

Greenwood, Carol

From: Gibson, Kathy
Sent: Saturday, March 26, 2011 10:40 AM
To: Scott, Michael
Cc: Uhle, Jennifer; Zaki, Tarek
Subject: Re: [LOFC project] Situation Oarai after the March 11 earthquake

Agree. I'll talk to him next week.

From: Scott, Michael
To: Gibson, Kathy
Cc: Uhle, Jennifer; Zaki, Tarek
Sent: Sat Mar 26 02:34:42 2011
Subject: FW: [LOFC project] Situation Oarai after the March 11 earthquake

Looks like HTTR meeting may actually happen. I'll just stay here until May! (Not)

If it does happen, we really need to sort out the Mayfield-canceled-funding issue.

Mike

From: Jean.GAUVAIN@oecd.org [Jean.GAUVAIN@oecd.org]
Sent: Friday, March 25, 2011 7:39 AM
To: hans.gougar@inl.gov; bernnat@ike.uni-stuttgart.de; parisoffice@jaea.fr; stempniewicz@nrg.eu; kunitomi.kazuhiko@jaea.go.jp; [REDACTED]; tothi@aeki.kfki.hu; iyoku.tatsuo@jaea.go.jp; tachibana.yukio@jaea.go.jp; mhkim@kaeri.re.kr; olivier.baudrand@irsln.fr; mayer@aeki.kfki.hu; salih.guentay@psi.ch; whitea@aecl.ca; thorsten.fass@grs.de; fuketa.toyoshi@jaea.go.jp; jlcobos@iqn.upv.es; luisen.herranz@ciemat.es; dst@ujv.cz; heikki.suikkanen@lut.fi; Gibson, Kathy; Scott, Michael; junjisu@kaeri.re.kr; vanheek@nrg.eu; geoffrey.vaughan@hse.gsi.gov.uk; andreas.pautz@grs.de; len.creswell@hse.gsi.gov.uk; k401hcw@kins.re.kr; jean.couturier@irsln.fr; daniel.blanc@irsln.fr; u.rohde@fz-rossendorf.de; jean.gauvain@oecd.org; michel.durin@cea.fr; krz@ujv.cz
Subject: RE: [LOFC project] Situation Oarai after the March 11 earthquake

Dear Tatsuo-san

Thank you very much for you comprehensive e-mail.
On behalf of the NEA I would like to tell you again that all our thoughts are with Japan after the dramatic earthquake.

I forward you information status to the people involved in the project and also to some other persons familiar with HTTR reactor.

We keep in contact regarding the May meeting but I hope that participants can postpone hotel reservations for a few weeks.

Best Regards

Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile (b)(5) [REDACTED]

From: iyoku.tatsuo [mailto:iyoku.tatsuo@jaea.go.jp]
Sent: Friday, March 25, 2011 12:04
To: GAUVAIN Jean, NEA/SURN
Cc: komori.yoshihiro@jaea.go.jp; nishihara.tetsuo@jaea.go.jp; takada.shoji@jaea.go.jp; kunitomi.kazuhiko@jaea.go.jp; FUKETA Toyoshi [Japan]; ogawa.masuro@jaea.go.jp; hirano.masashi@jaea.go.jp; REIG Javier, NEA/SURN;

BA/164

soda.kunihisa@jaea.go.jp; sakaba.nariaki@jaea.go.jp
Subject: Re: Situation Oarai after the March 11 earthquake

Dear Jean-san,

I apologize for the delay of the contact to you. We, HTTR team, were busily occupied to recovery efforts after the Big earthquake.

We were investigating the damage situation of the HTTR nuclear facility by the earthquake. Big damage was not founded in the HTTR building and facility. The Oarai Research Center is not causing big damage either. However, it is necessary to confirm the structural integrity and performance of the HTTR components and equipments by running the active components at cold condition (not power-up condition). The schedule of this cold operation is not yet decided.

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.

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.

I think that we can hold the meeting in May at Oarai site. I properly inform the restoration situation in the future to you.

I wish to express my gratitude for your understanding.

Best Regards,

Tatsuo Iyoku

(2011/03/25 17:03), Jean.GAUVAIN@oecd.org wrote:

Dear Tatsuo-san,

You last e-mail to us was sent just one hour before the terrible earthquake that stroke Japan two weeks ago. As you may know the thought of the international community are with Japan.

At the NEA got some news from other JAEA colleagues working from Oarai but nothing from the HTTR team so we are concerned.

We hope that everybody is safe together with their families.

We would appreciate to get some news from your side that we could forward to the other countries, in particular those involved in LOFC Project

Best Regards

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



Greenwood, Carol

From: Gibson, Kathy
Sent: Saturday, March 26, 2011 10:43 AM
To: Tinkler, Charles; Schaperow, Jason
Subject: Fw: NUREG/CR-6920

More

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

From: Richards, Stuart
To: Sheron, Brian
Cc: Case, Michael; Hogan, Rosemary; Graves, Herman; Gibson, Kathy
Sent: Fri Mar 25 23:32:36 2011
Subject: FW: NUREG/CR-6920

Brian

As Herman notes below, NUREG/CR-6920 is cited by Ed Lyman in a Time magazine website article from earlier in the week. This might be the source of the question that you got today on your conference call.

fyi
Stu

From: Graves, Herman
Sent: Friday, March 25, 2011 6:49 PM
To: Richards, Stuart
Cc: Hogan, Rosemary; Case, Michael
Subject: RE: NUREG/CR-6920

Stu,

This is the Times article that may be the source of the inquiry (title of NUREG/CR-6920 is cited in the 2nd to the last paragraph of article).

<http://www.time.com/time/world/article/0,8599,2058700,00.html>

<<Herman>>
<<301.251.7625>>
mail to: Herman.Graeves@nrc.gov<mailto:Herman.Graeves@nrc.gov>

From: Richards, Stuart
Sent: Friday, March 25, 2011 6:03 PM
To: Sheron, Brian
Cc: Gibson, Kathy; Case, Michael; Hogan, Rosemary; Graves, Herman
Subject: RE: NUREG/CR-6920

Brian

We'll work with DSA on Monday.

Stu

BA | 165

From: Gibson, Kathy
Sent: Friday, March 25, 2011 6:01 PM
To: Sheron, Brian; Richards, Stuart
Cc: Case, Michael; Schaperow, Jason; Tinkler, Charles
Subject: RE: NUREG/CR-6920

I asked Jason and Charlie to get with DE next week and let us know.

[cid:image001.jpg@01CBEB1D.6F8865E0]

From: Sheron, Brian
Sent: Friday, March 25, 2011 6:00 PM
To: Richards, Stuart
Cc: Gibson, Kathy; Case, Michael; Schaperow, Jason
Subject: RE: NUREG/CR-6920

Do we still agree with the probability numbers in your third bullet based on what we learned from SOARCA?

From: Richards, Stuart
Sent: Friday, March 25, 2011 5:54 PM
To: Sheron, Brian
Cc: Gibson, Kathy; Case, Michael
Subject: NUREG/CR-6920

Brian

A quick look at NUREG/CR-6920 indicates the following preliminary information:

- The purpose of 6920 was to look at the impact of assumed degradation of the containment on the probability of containment failure. For instance, 6920 assumed cases of 25% or 50% corrosion of various locations within the containment as part of the study. The study looked at both PWRs and BWRs.
- 6920 used information from NUREG-1150 as a starting point.
- NUREG-1150 estimates about a 56% probability of early containment failure at Peach Bottom (Mark I containment) from all scenarios, and about a 36% probability from a direct melt-through of the containment once the core has breached the RPV. These numbers are relatively consistent with the 6920 numbers. 6920 concluded that the corrosion scenarios don't impact the numbers much because the probability is so dominated by the core melt through scenario.
- NUREG-1150 lists station blackout as the dominant risk.

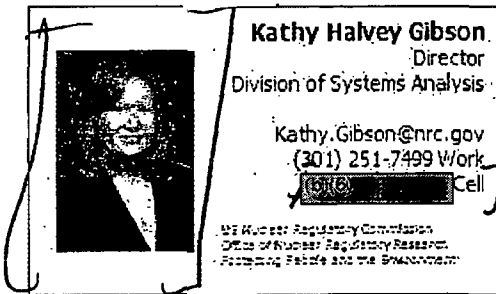
Note that the probability of a melt-through of containment assumes a breach of the RPV. I think it also assumes a fairly quick accident progression, so the fact that the Japanese event started two weeks ago may impact the probability of containment failure.

We can provide more info on Monday.

Stu

Greenwood, Carol

From: Gibson, Kathy
Sent: Tuesday, March 29, 2011 4:53 PM
To: Armstrong, Kenneth
Subject: FW: ACTION: RESPONSE - News Article on SOARCA
Attachments: Kathy Halvey Gibson3.vcf



From: Wilson, George
Sent: Tuesday, March 29, 2011 4:51 PM
To: Gibson, Kathy
Subject: Re: ACTION: RESPONSE - News Article on SOARCA

Yes

Sent from nrc blackberry
George Wilson
(b)(6)

From: Gibson, Kathy
To: Wilson, George
Sent: Tue Mar 29 15:31:07 2011
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

Thanks, George. Do I understand this correctly?

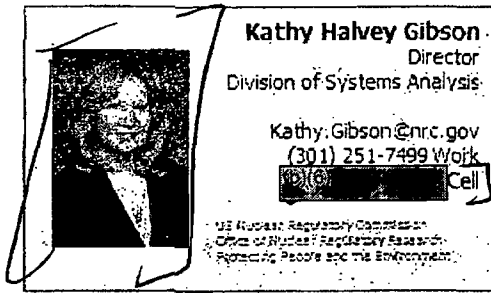
The plants had to analyze based on the things you listed in Question 2 how long it would take them to get offsite power back or a diesel generator, and that is their plant specific coping time.

If their coping time was 4 hours or less, they could use batteries. If their coping time was longer than 4 hours then they have to have another AC source to make up the difference.

The b.5.b measures are additive to these requirements.

Is that correct?

BC/166



From: Wilson, George
Sent: Tuesday, March 29, 2011 3:21 PM
To: Gibson, Kathy
Subject: FW: ACTION: RESPONSE - News Article on SOARCA

fyi

From: Wilson, George
Sent: Tuesday, March 29, 2011 3:18 PM
To: Armstrong, Kenneth; Wertz, Trent; Nguyen, Quynh; Nelson, Robert; Milligan, Patricia
Cc: Mathew, Roy; Matharu, Gurcharan; Hiland, Patrick; Skeen, David; Leeds, Eric; Virgilio, Martin; Uhle, Jennifer; Sheron, Brian; Weber, Michael
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

Question 1. 93 of the U.S. plants only had a 4-hour coping capacity for SBO. The rest could cope for 8 hours. Is this valid? (NRR)

No that is not correct, the NRC only allows up to a 4 hour coping analysis with batteries, anything longer requires an alternate AC source, the coping time for an alternate AC source ranges from 2 to a maximum of 16 hours. 44 plants are battery coping plants, 60 plants are alternate AC source plants. The definition of coping is the time until off site power is restored or an emergency diesel generator is restored (i.e. on site or off site power is restored)

Two methods of coping with a SBO event:

- I. AC independent (relying on Battery power only)
 - II. Alternate AC
1. AC independent (Battery coping) plants have to satisfy all the requirements for maintaining a plant in a safe condition for a maximum duration of 4 hours. Hence plants relying on battery power alone have adequate battery capacity for only FOUR HOURS based on the SBO loads and using the existing safety related batteries. 44 plants fall in this category.
 2. If the configuration of offsite power (the grid system), onsite power (emergency diesel generators) and reliability of these sources could be affected by weather related events, and IF restoration of these sources was not possible within 4 hours, then the plants had to use an alternate AC (AAC) source. Therefore, these plants decided to comply with SBO rule by using the AAC source. Plants using AAC source had a variable coping duration between 2 hours and 16 hours. 60 plants fall in this category (4-16 hours).

In summary,
44 plants adopted AC independent method and have battery power for 4 hours.

43 plants use AAC methodology and can restore AC (EDG or Offsite) power within 4 hours. Hence have a coping duration of 4 hours.

14 plants use AAC methodology and can restore AC (EDG or Offsite) power within 8 hours

3 plants uses AAC and have a 16 hour duration for restoration of AC power. This site (3 units) had originally assumed a 4 hour duration but EDG reliability and LOOP events affected the calculated duration that this plant had to consider.

Question 2. Does this take into consideration the B5b mitigating measures? (NRR, NSIR)

No the SBO rule was made before B5b, the following was used to analyze the coping time. The specified SBO duration is based on the following factors:

- The redundancy of the onsite emergency ac power sources
- The reliability of the onsite emergency ac power sources
- The expected frequency of loss of offsite power
- The probable time needed to restore offsite power

Question 3. What power is available for SFP cooling in US plants? (Diesels, batteries, etc?) (NRR)

SBO rule does not address this. But the power supply bus that provides power to the SFP pumps is normally powered from off- site power and can be backed up or powered by the EDG's.

From: Armstrong, Kenneth
Sent: Tuesday, March 29, 2011 2:39 PM
To: Wilson, George
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

George,

Thanks for your help, I am pooling information together for a consolidated response back to Mike, please let me know if you are able to address the questions below or if you are developing your own Q&As.

Thanks!
Kenneth

From: Wilson, George
Sent: Tuesday, March 29, 2011 2:19 PM
To: Armstrong, Kenneth; Milligan, Patricia
Subject: Re: ACTION: RESPONSE - News Article on SOARCA

We are working on this

Sent from nrc blackberry
George wilson



From: Armstrong, Kenneth
To: Milligan, Patricia; Wilson, George

Sent: Tue Mar 29 13:49:29 2011

Subject: FW: ACTION: RESPONSE - News Article on SOARCA

Patricia and George,

Kathy drafted the 5 questions below in response to Mike Weber's info request pertaining to the recent AP article on SOARCA (link below). Would you please provide a response where appropriate before 3:00PM today if possible?

http://news.yahoo.com/s/ap/20110329/ap_on_re_us/us_us_japan_nuclear_blackouts_2

Thanks for your time,
Kenneth

From: Gibson, Kathy

Sent: Tuesday, March 29, 2011 1:44 PM

To: Sheron, Brian

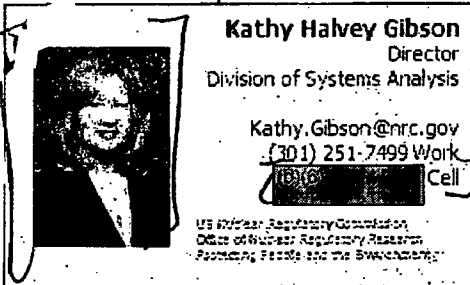
Cc: Armstrong, Kenneth; Tinkler, Charles

Subject: RE: ACTION: RESPONSE - News Article on SOARCA

These are the questions we are working on. Ken Armstrong will reach out to NRR (Wilson), NSIR (Milligan), and Charlie is working on SOARCA insights. Ideally we will try to get NRR and NSIR to provide their answers to us so we can provide one package to EDO. This is the plan I agreed to with Roger Rihm.

1. 93 of the U.S. plants only had a 4-hour coping capacity for SBO. The rest could cope for 8 hours. Is this valid? (NRR)
2. Does this taken into consideration the B5b mitigating measures? (NRR, NSIR)
3. What power is available for SFP cooling in US plants? (Diesels, batteries, etc?) (NRR)
4. SOARCA insights relevant to AP article. (RES, Charlie)
5. Was SBO considered among the scenarios that resulted in the U.S. decision to establish the nominal exposure pathway EPZ at 10 miles?) (NSIR, Trish)
6. Do we need a bigger EPZ? (NSIR, Trish)

I'm also trying to contact Scott Burnell to see if we already have Q's and A's on these topics to draw from and not duplicate. Also OCA.



From: Sheron, Brian

Sent: Tuesday, March 29, 2011 1:37 PM

To: Gibson, Kathy

Subject: FW: ACTION: RESPONSE - News Article on SOARCA

From: Wilson, George
Sent: Tuesday, March 29, 2011 1:21 PM
To: Leeds, Eric; Hiland, Patrick
Cc: Weber, Michael; Skeen, David; Sheron, Brian; Uhle, Jennifer; Virgilio, Martin
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

I am already working on this

From: Leeds, Eric
Sent: Tuesday, March 29, 2011 12:48 PM
To: Wilson, George; Hiland, Patrick
Cc: Weber, Michael; Skeen, David; Sheron, Brian; Uhle, Jennifer; Virgilio, Martin
Subject: ACTION: RESPONSE - News Article on SOARCA

George -

Please see Mike's comments and questions below. Could you please comment on the SBO coping times that UCS has provided and clarify as appropriate for me and Mike. I'll be giving a presentation at the National Governors Association meeting next Monday and the info will be helpful.

Thanks!

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

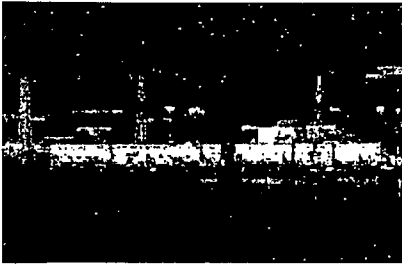
From: Weber, Michael
Sent: Tuesday, March 29, 2011 12:14 PM
To: Sheron, Brian
Cc: Virgilio, Martin; Leeds, Eric; Johnson, Michael; Wiggins, Jim; Rihm, Roger; Milligan, Patricia; Wittick, Brian; Brenner, Eliot; Hayden, Elizabeth; Schmidt, Rebecca; Powell, Amy; Muessle, Mary; Andersen, James; Bowman, Gregory
Subject: RESPONSE - News Article on SOARCA

Thanks, Brian. I'll need to be prepared to respond to this concern in tomorrow morning's hearing and the Chairman will need to be prepared to respond at his hearings tomorrow. Please work with OEDO staff (Roger Rihm/Brian Wittick) to ensure that we develop a short-response by COB today that we can use tomorrow in case this comes up.

David Lochbaum reported at this morning's hearing that 93 of the U.S. plants only had a 4-hour coping capacity for SBO. The rest could cope for 8 hours. Is this valid? Does this taken into consideration the B5b mitigating measures? Was SBO considered among the scenarios that resulted in the U.S. decision to establish the nominal exposure pathway EPZ at 10 miles?

AP IMPACT: Long blackouts pose risk to US reactors

AP Associated Press



AP – Only Unit 2 is covered with white concrete housing, seen on left of an iron tower on right, at the stricken ...

By DINA CAPPIELLO, Associated Press Dina Cappiello, Associated Press – Tue Mar 29, 3:13 am ET

WASHINGTON – Long before the nuclear emergency in Japan, U.S. regulators knew that a power failure lasting for days at an American nuclear plant, whatever the cause, could lead to a radioactive leak. Even so, they have only required the nation's 104 nuclear reactors to develop plans for dealing with much shorter blackouts on the assumption that power would be restored quickly.

In one nightmare simulation presented by the Nuclear Regulatory Commission in 2009, it would take less than a day for radiation to escape from a reactor at a Pennsylvania nuclear power plant after an earthquake, flood or fire knocked out all electrical power and there was no way to keep the reactors cool after backup battery power ran out. That plant, the Peach Bottom Atomic Power Station outside Lancaster, has reactors of the same older make and model as those releasing radiation at Japan's Fukushima Dai-ichi plant, which is using other means to try to cool the reactors.

And like Fukushima Dai-ichi, the Peach Bottom plant has enough battery power on site to power emergency cooling systems for eight hours. In Japan, that wasn't enough time for power to be restored. According to the International Atomic Energy Agency and the Nuclear Energy Institute trade association, three of the six reactors at the plant still can't get power to operate the emergency cooling systems. Two were shut down at the time. In the sixth, the fuel was removed completely and put in the spent fuel pool when it was shut down for maintenance at the time of the disaster. A week after the March 11 earthquake, diesel generators started supplying power to two other two reactors, Units 5 and 6, the groups said.

The risk of a blackout leading to core damage, while extremely remote, exists at all U.S. nuclear power plants, and some are more susceptible than others, according to an Associated Press investigation. While regulators say they have confidence that measures adopted in the U.S. will prevent or significantly delay a core from melting and threatening a radioactive release, the events in Japan raise questions about whether U.S. power plants are as prepared as they could and should be.

"We didn't address a tsunami and an earthquake, but clearly we have known for some time that one of the weak links that makes accidents a little more likely is losing power," said Alan Kolaczowski, a retired nuclear engineer who worked on a federal risk analysis of Peach Bottom released in 1990 and is familiar with the updated risk analysis.

Risk analyses conducted by the plants in 1991-94 and published by the commission in 2003 show that the chances of such an event striking a U.S. power plant are remote, even at the plant where the risk is the highest, the Beaver Valley Power Station in Pennsylvania.

These long odds are among the reasons why the United States since the late 1980s has only required nuclear power plants to cope with blackouts for four or eight hours, depending on the risk. That's about how much time batteries would last. After that, it is assumed that power would be restored. And so far, that's been the case.

Equipment put in place after the Sept. 11, 2001, terrorist attacks could buy more time. Otherwise, the reactor's radioactive core could begin to melt unless alternative cooling methods were employed. In Japan, the utility has tried using portable generators and dumped tons of seawater, among other things, on the reactors in an attempt to keep them cool.

A 2003 federal analysis looking at how to estimate the risk of containment failure said that should power be knocked out by an earthquake or tornado it "would be unlikely that power will be recovered in the time frame to prevent core meltdown."

In Japan, it was a one-two punch: first the earthquake, then the tsunami.

Tokyo Electric Power Co., the operator of the crippled plant, found other ways to cool the reactor core and so far avert a full-scale meltdown without electricity.

"Clearly the coping duration is an issue on the table now," said Biff Bradley, director of risk assessment for the Nuclear Energy Institute. "The industry and the Nuclear Regulatory Commission will have to go back in light of what we just observed and rethink station blackout duration."

David Lochbaum, a former plant engineer and nuclear safety director at the advocacy group Union of Concerned Scientists, put it another way: "Japan shows what happens when you play beat-the-clock and lose."

Lochbaum plans to use the Japan disaster to press lawmakers and the nuclear power industry to do more when it comes to coping with prolonged blackouts, such as having temporary generators on site that can recharge batteries.

A complete loss of electrical power, generally speaking, poses a major problem for a nuclear power plant because the reactor core must be kept cool, and back-up cooling systems — mostly pumps that replenish the core with water — require massive amounts of power to work.

Without the electrical grid, or diesel generators, batteries can be used for a time, but they will not last long with the power demands. And when the batteries die, the systems that control and monitor the plant can also go dark, making it difficult to ascertain water levels and the condition of the core.

One variable not considered in the NRC risk assessments of severe blackouts was cooling water in spent fuel pools, where rods once used in the reactor are placed. With limited resources, the commission decided to focus its analysis on the reactor fuel, which has the potential to release more radiation.

An analysis of individual plant risks released in 2003 by the NRC shows that for 39 of the 104 nuclear reactors, the risk of core damage from a blackout was greater than 1 in 100,000. At 45 other plants the risk is greater than 1 in 1 million, the threshold NRC is using to determine which severe accidents should be evaluated in its latest analysis.

The Beaver Valley Power Station, Unit 1, in Pennsylvania had the greatest risk of core melt — 6.5 in 100,000, according to the analysis. But that risk may have been reduced in subsequent years as NRC regulations required plants to do more to cope with blackouts. Todd Schneider, a spokesman for FirstEnergy Nuclear Operating Co., which runs Beaver Creek, told the AP that batteries on site would last less than a week.

In 1988, eight years after labeling blackouts "an unresolved safety issue," the NRC required nuclear power plants to improve the reliability of their diesel generators, have more backup generators on site, and better train personnel to restore power. These steps would allow them to keep the core cool for four to eight hours if they lost all electrical power. By contrast, the newest generation of nuclear power plant, which is still awaiting

approval, can last 72 hours without taking any action, and a minimum of seven days if water is supplied by other means to cooling pools.

Despite the added safety measures, a 1997 report found that blackouts — the loss of on-site and off-site electrical power — remained "a dominant contributor to the risk of core melt at some plants." The events of Sept. 11, 2001, further solidified that nuclear reactors might have to keep the core cool for a longer period without power. After 9/11, the commission issued regulations requiring that plants have portable power supplies for relief valves and be able to manually operate an emergency reactor cooling system when batteries go out.

The NRC says these steps, and others, have reduced the risk of core melt from station blackouts from the current fleet of nuclear plants.

For instance, preliminary results of the latest analysis of the risks to the Peach Bottom plant show that any release caused by a blackout there would be far less rapid and would release less radiation than previously thought, even without any actions being taken. With more time, people can be evacuated. The NRC says improved computer models, coupled with up-to-date information about the plant, resulted in the rosier outlook.

"When you simplify, you always err towards the worst possible circumstance," Scott Burnell, a spokesman for the Nuclear Regulatory Commission, said of the earlier studies. The latest work shows that "even in situations where everything is broken and you can't do anything else, these events take a long time to play out," he said. "Even when you get to releasing into environment, much less of it is released than actually thought."

Exelon Corp., the operator of the Peach Bottom plant, referred all detailed questions about its preparedness and the risk analysis back to the NRC. In a news release issued earlier this month, the company, which operates 10 nuclear power plants, said "all Exelon nuclear plants are able to safely shut down and keep the fuel cooled even without electricity from the grid."

Other people, looking at the crisis unfolding in Japan, aren't so sure.

In the worst-case scenario, the NRC's 1990 risk assessment predicted that a core melt at Peach Bottom could begin in one hour if electrical power on- and off-site were lost, the diesel generators — the main back-up source of power for the pumps that keep the core cool with water — failed to work and other mitigating steps weren't taken.

"It is not a question that those things are definitely effective in this kind of scenario," said Richard Denning, a professor of nuclear engineering at Ohio State University, referring to the steps NRC has taken to prevent incidents. Denning had done work as a contractor on severe accident analyses for the NRC since 1975. He retired from Battelle Memorial Institute in 1995.

"They certainly could have made all the difference in this particular case," he said, referring to Japan. "That's assuming you have stored these things in a place that would not have been swept away by tsunami."

From: Chang, Richard

Sent: Tuesday, March 29, 2011 7:35 AM

To: Schaperow, Jason; Tinkler, Charles; Santiago, Patricia; Ghosh, Tina; Armstrong, Kenneth

Subject: FYI- News Article on SOARCA

http://news.yahoo.com/s/ap/20110329/ap_on_re_us/us_japan_nuclear_blackouts_2

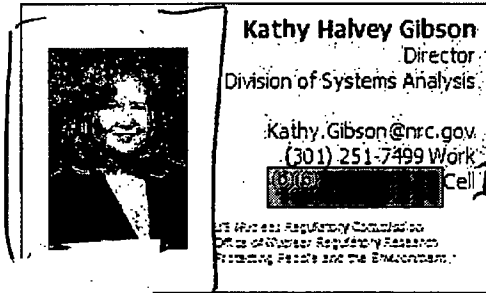
Richard Chang

Program Manager
RES/DSA/SPB
301-251-7980

Greenwood, Carol

From: Gibson, Kathy
Sent: Tuesday, March 29, 2011 4:55 PM
To: Wilson, George
Subject: RE: ACTION: RESPONSE - News Article on SOARCA
Attachments: Kathy Halvey Gibson3.vcf

Thanks, George. We also receive a relevant Q and A from OPA that we added and then summarized your info. So I think we're good.



From: Wilson, George
Sent: Tuesday, March 29, 2011 4:53 PM
To: Gibson, Kathy
Subject: Re: ACTION: RESPONSE - News Article on SOARCA

The stuff that I bolded is the most important other info extra based questions we have received

Sent from nrc blackberry
George wilson

From: Gibson, Kathy
To: Wilson, George
Sent: Tue Mar 29 15:45:26 2011
Subject: Re: ACTION: RESPONSE - News Article on SOARCA

In other words, we need to boil this down into a short answer.

From: Gibson, Kathy
To: Wilson, George
Sent: Tue Mar 29 15:31:07 2011
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

Thanks, George. Do I understand this correctly?

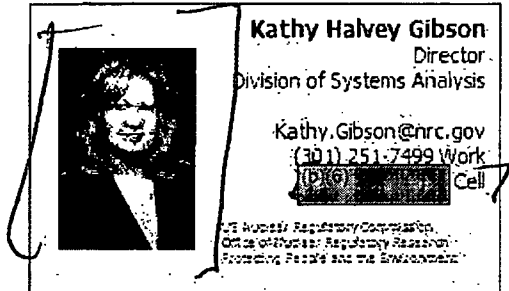
The plants had to analyze based on the things you listed in Question 2 how long it would take them to get offsite power back or a diesel generator, and that is their plant specific coping time.

If their coping time was 4 hours or less, they could use batteries. If their coping time was longer than 4 hours then they have to have another AC source to make up the difference.

BC/167

The b.5.b measures are additive to these requirements.

Is that correct?



From: Wilson, George
Sent: Tuesday, March 29, 2011 3:21 PM
To: Gibson, Kathy
Subject: FW: ACTION: RESPONSE - News Article on SOARCA

fyi

From: Wilson, George
Sent: Tuesday, March 29, 2011 3:18 PM
To: Armstrong, Kenneth; Wertz, Trent; Nguyen, Quynh; Nelson, Robert; Milligan, Patricia
Cc: Mathew, Roy; Matharu, Gurcharan; Hiland, Patrick; Skeen, David; Leeds, Eric; Virgilio, Martin; Uhle, Jennifer; Sheron, Brian; Weber, Michael
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

Question 1. 93 of the U.S. plants only had a 4-hour coping capacity for SBO. The rest could cope for 8 hours. Is this valid? (NRR)

No that is not correct, the NRC only allows up to a 4 hour coping analysis with batteries, anything longer requires an alternate AC source, the coping time for an alternate AC source ranges from 2 to a maximum of 16 hours. 44 plants are battery coping plants, 60 plants are alternate AC source plants. The definition of coping is the time until off site power is restored or an emergency diesel generator is restored (i.e. on site or off site power is restored)

Two methods of coping with a SBO event:

- I. AC independent (relying on Battery power only)
 - II. Alternate AC
1. AC independent (Battery coping) plants have to satisfy all the requirements for maintaining a plant in a safe condition for a maximum duration of 4 hours. Hence plants relying on battery power alone have adequate battery capacity for only FOUR HOURS based on the SBO loads and using the existing safety related batteries. 44 plants fall in this category.
 2. If the configuration of offsite power (the grid system), onsite power (emergency diesel generators) and reliability of these sources could be affected by weather related events, and IF restoration of these sources was not possible within 4 hours, then the plants had to use an alternate AC (AAC) source.

Therefore, these plants decided to comply with SBO rule by using the AAC source. Plants using AAC source had a variable coping duration between 2 hours and 16 hours. 60 plants fall in this category (4-16 hours).

In summary,

44 plants adopted AC independent method and have battery power for 4 hours.

43 plants use AAC methodology and can restore AC (EDG or Offsite) power within 4 hours. Hence have a coping duration of 4 hours.

14 plants use AAC methodology and can restore AC (EDG or Offsite) power within 8 hours

3 plants uses AAC and have a 16 hour duration for restoration of AC power. This site (3 units) had originally assumed a 4 hour duration but EDG reliability and LOOP events affected the calculated duration that this plant had to consider.

Question 2. Does this take into consideration the B5b mitigating measures? (NRR, NSIR)

No the SBO rule was made before B5b, the following was used to analyze the coping time. The specified SBO duration is based on the following factors:

- The redundancy of the onsite emergency ac power sources
- The reliability of the onsite emergency ac power sources
- The expected frequency of loss of offsite power
- The probable time needed to restore offsite power

Question 3. What power is available for SFP cooling in US plants? (Diesels, batteries, etc?) (NRR)

SBO rule does not address this. But the power supply bus that provides power to the SFP pumps is normally powered from off- site power and can be backed up or powered by the EDG's.

From: Armstrong, Kenneth
Sent: Tuesday, March 29, 2011 2:39 PM
To: Wilson, George
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

George,

Thanks for your help, I am pooling information together for a consolidated response back to Mike, please let me know if you are able to address the questions below or if you are developing your own Q&As.

Thanks!
Kenneth

From: Wilson, George
Sent: Tuesday, March 29, 2011 2:19 PM
To: Armstrong, Kenneth; Milligan, Patricia
Subject: Re: ACTION: RESPONSE - News Article on SOARCA

We are working on this

Sent from nrc blackberry
George wilson



From: Armstrong, Kenneth
To: Milligan, Patricia; Wilson, George
Sent: Tue Mar 29 13:49:29 2011
Subject: FW: ACTION: RESPONSE - News Article on SOARCA

Patricia and George,

Kathy drafted the 5 questions below in response to Mike Weber's info request pertaining to the recent AP article on SOARCA (link below). Would you please provide a response where appropriate before 3:00PM today if possible?

http://news.yahoo.com/s/ap/20110329/ap_on_re_us/us_japan_nuclear_blackouts_2

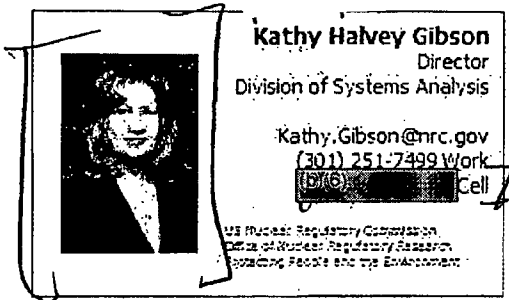
Thanks for your time,
Kenneth

From: Gibson, Kathy
Sent: Tuesday, March 29, 2011 1:44 PM
To: Sheron, Brian
Cc: Armstrong, Kenneth; Tinkler, Charles
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

These are the questions we are working on. Ken Armstrong will reach out to NRR (Wilson), NSIR (Milligan), and Charlie is working on SOARCA insights. Ideally we will try to get NRR and NSIR to provide their answers to us so we can provide one package to EDO. This is the plan I agreed to with Roger Rihm.

1. 93 of the U.S. plants only had a 4-hour coping capacity for SBO. The rest could cope for 8 hours. Is this valid? (NRR)
2. Does this taken into consideration the B5b mitigating measures? (NRR, NSIR)
3. What power is available for SFP cooling in US plants? (Diesels, batteries, etc?) (NRR)
4. SOARCA insights relevant to AP article. (RES, Charlie)
5. Was SBO considered among the scenarios that resulted in the U.S. decision to establish the nominal exposure pathway EPZ at 10 miles?) (NSIR, Trish)
6. Do we need a bigger EPZ? (NSIR, Trish)

I'm also trying to contact Scott Burnell to see if we already have Q's and A's on these topics to draw from and not duplicate. Also OCA.



From: Sheron, Brian
Sent: Tuesday, March 29, 2011 1:37 PM
To: Gibson, Kathy
Subject: FW: ACTION: RESPONSE - News Article on SOARCA

From: Wilson, George
Sent: Tuesday, March 29, 2011 1:21 PM
To: Leeds, Eric; Hiland, Patrick
Cc: Weber, Michael; Skeen, David; Sheron, Brian; Uhle, Jennifer; Virgilio, Martin
Subject: RE: ACTION: RESPONSE - News Article on SOARCA

I am already working on this

From: Leeds, Eric
Sent: Tuesday, March 29, 2011 12:48 PM
To: Wilson, George; Hiland, Patrick
Cc: Weber, Michael; Skeen, David; Sheron, Brian; Uhle, Jennifer; Virgilio, Martin
Subject: ACTION: RESPONSE - News Article on SOARCA

George --

Please see Mike's comments and questions below: Could you please comment on the SBO coping times that UCS has provided and clarify as appropriate for me and Mike. I'll be giving a presentation at the National Governors Association meeting next Monday and the info will be helpful.

Thanks!

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

From: Weber, Michael
Sent: Tuesday, March 29, 2011 12:14 PM
To: Sheron, Brian
Cc: Virgilio, Martin; Leeds, Eric; Johnson, Michael; Wiggins, Jim; Rihm, Roger; Milligan, Patricia; Wittick, Brian; Brenner, Eliot; Hayden, Elizabeth; Schmidt, Rebecca; Powell, Amy; Muessle, Mary; Andersen, James; Bowman, Gregory
Subject: RESPONSE - News Article on SOARCA

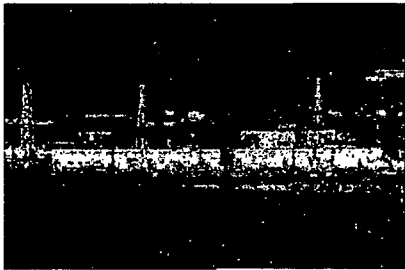
Thanks, Brian. I'll need to be prepared to respond to this concern in tomorrow morning's hearing and the Chairman will need to be prepared to respond at his hearings tomorrow. Please work with OEDO staff (Roger

Rihm/Brian Wittick) to ensure that we develop a short-response by COB today that we can use tomorrow in case this comes up.

David Lochbaum reported at this morning's hearing that 93 of the U.S. plants only had a 4-hour coping capacity for SBO. The rest could cope for 8 hours. Is this valid? Does this taken into consideration the B5b mitigating measures? Was SBO considered among the scenarios that resulted in the U.S. decision to establish the nominal exposure pathway EPZ at 10 miles?

AP IMPACT: Long blackouts pose risk to US reactors

AP Associated Press



AP – Only Unit 2 is covered with white concrete housing, seen on left of an iron tower on right, at the stricken ...

By DINA CAPIELLO, Associated Press Dina Capiello, Associated Press – Tue Mar 29, 3:13 am ET

WASHINGTON – Long before the nuclear emergency in Japan, U.S. regulators knew that a power failure lasting for days at an American nuclear plant, whatever the cause, could lead to a radioactive leak. Even so, they have only required the nation's 104 nuclear reactors to develop plans for dealing with much shorter blackouts on the assumption that power would be restored quickly.

In one nightmare simulation presented by the Nuclear Regulatory Commission in 2009, it would take less than a day for radiation to escape from a reactor at a Pennsylvania nuclear power plant after an earthquake, flood or fire knocked out all electrical power and there was no way to keep the reactors cool after backup battery power ran out. That plant, the Peach Bottom Atomic Power Station outside Lancaster, has reactors of the same older make and model as those releasing radiation at Japan's Fukushima Dai-ichi plant, which is using other means to try to cool the reactors.

And like Fukushima Dai-ichi, the Peach Bottom plant has enough battery power on site to power emergency cooling systems for eight hours. In Japan, that wasn't enough time for power to be restored. According to the International Atomic Energy Agency and the Nuclear Energy Institute trade association, three of the six reactors at the plant still can't get power to operate the emergency cooling systems. Two were shut down at the time. In the sixth, the fuel was removed completely and put in the spent fuel pool when it was shut down for maintenance at the time of the disaster. A week after the March 11 earthquake, diesel generators started supplying power to two other two reactors, Units 5 and 6, the groups said.

The risk of a blackout leading to core damage, while extremely remote, exists at all U.S. nuclear power plants, and some are more susceptible than others, according to an Associated Press investigation. While regulators say they have confidence that measures adopted in the U.S. will prevent or significantly delay a core from melting

and threatening a radioactive release, the events in Japan raise questions about whether U.S. power plants are as prepared as they could and should be.

"We didn't address a tsunami and an earthquake, but clearly we have known for some time that one of the weak links that makes accidents a little more likely is losing power," said Alan Kolaczowski, a retired nuclear engineer who worked on a federal risk analysis of Peach Bottom released in 1990 and is familiar with the updated risk analysis.

Risk analyses conducted by the plants in 1991-94 and published by the commission in 2003 show that the chances of such an event striking a U.S. power plant are remote, even at the plant where the risk is the highest, the Beaver Valley Power Station in Pennsylvania.

These long odds are among the reasons why the United States since the late 1980s has only required nuclear power plants to cope with blackouts for four or eight hours, depending on the risk. That's about how much time batteries would last. After that, it is assumed that power would be restored. And so far, that's been the case.

Equipment put in place after the Sept. 11, 2001, terrorist attacks could buy more time. Otherwise, the reactor's radioactive core could begin to melt unless alternative cooling methods were employed. In Japan, the utility has tried using portable generators and dumped tons of seawater, among other things, on the reactors in an attempt to keep them cool.

A 2003 federal analysis looking at how to estimate the risk of containment failure said that should power be knocked out by an earthquake or tornado it "would be unlikely that power will be recovered in the time frame to prevent core meltdown."

In Japan, it was a one-two punch: first the earthquake, then the tsunami.

Tokyo Electric Power Co., the operator of the crippled plant, found other ways to cool the reactor core and so far avert a full-scale meltdown without electricity.

"Clearly the coping duration is an issue on the table now," said Biff Bradley, director of risk assessment for the Nuclear Energy Institute. "The industry and the Nuclear Regulatory Commission will have to go back in light of what we just observed and rethink station blackout duration."

David Lochbaum, a former plant engineer and nuclear safety director at the advocacy group Union of Concerned Scientists, put it another way: "Japan shows what happens when you play beat-the-clock and lose."

Lochbaum plans to use the Japan disaster to press lawmakers and the nuclear power industry to do more when it comes to coping with prolonged blackouts, such as having temporary generators on site that can recharge batteries.

A complete loss of electrical power, generally speaking, poses a major problem for a nuclear power plant because the reactor core must be kept cool, and back-up cooling systems — mostly pumps that replenish the core with water — require massive amounts of power to work.

Without the electrical grid, or diesel generators, batteries can be used for a time, but they will not last long with the power demands. And when the batteries die, the systems that control and monitor the plant can also go dark, making it difficult to ascertain water levels and the condition of the core.

One variable not considered in the NRC risk assessments of severe blackouts was cooling water in spent fuel pools, where rods once used in the reactor are placed. With limited resources, the commission decided to focus its analysis on the reactor fuel, which has the potential to release more radiation.

An analysis of individual plant risks released in 2003 by the NRC shows that for 39 of the 104 nuclear reactors, the risk of core damage from a blackout was greater than 1 in 100,000. At 45 other plants the risk is greater than 1 in 1 million, the threshold NRC is using to determine which severe accidents should be evaluated in its latest analysis.

The Beaver Valley Power Station, Unit 1, in Pennsylvania had the greatest risk of core melt — 6.5 in 100,000, according to the analysis. But that risk may have been reduced in subsequent years as NRC regulations required plants to do more to cope with blackouts. Todd Schneider, a spokesman for FirstEnergy Nuclear Operating Co., which runs Beaver Creek, told the AP that batteries on site would last less than a week.

In 1988, eight years after labeling blackouts "an unresolved safety issue," the NRC required nuclear power plants to improve the reliability of their diesel generators, have more backup generators on site, and better train personnel to restore power. These steps would allow them to keep the core cool for four to eight hours if they lost all electrical power. By contrast, the newest generation of nuclear power plant, which is still awaiting approval, can last 72 hours without taking any action, and a minimum of seven days if water is supplied by other means to cooling pools.

Despite the added safety measures, a 1997 report found that blackouts — the loss of on-site and off-site electrical power — remained "a dominant contributor to the risk of core melt at some plants." The events of Sept. 11, 2001, further solidified that nuclear reactors might have to keep the core cool for a longer period without power. After 9/11, the commission issued regulations requiring that plants have portable power supplies for relief valves and be able to manually operate an emergency reactor cooling system when batteries go out.

The NRC says these steps, and others, have reduced the risk of core melt from station blackouts from the current fleet of nuclear plants.

For instance, preliminary results of the latest analysis of the risks to the Peach Bottom plant show that any release caused by a blackout there would be far less rapid and would release less radiation than previously thought, even without any actions being taken. With more time, people can be evacuated. The NRC says improved computer models, coupled with up-to-date information about the plant, resulted in the rosier outlook.

"When you simplify, you always err towards the worst possible circumstance," Scott Burnell, a spokesman for the Nuclear Regulatory Commission, said of the earlier studies. The latest work shows that "even in situations where everything is broken and you can't do anything else, these events take a long time to play out," he said. "Even when you get to releasing into environment, much less of it is released than actually thought."

Exelon Corp., the operator of the Peach Bottom plant, referred all detailed questions about its preparedness and the risk analysis back to the NRC. In a news release issued earlier this month, the company, which operates 10 nuclear power plants, said "all Exelon nuclear plants are able to safely shut down and keep the fuel cooled even without electricity from the grid."

Other people, looking at the crisis unfolding in Japan, aren't so sure.

In the worst-case scenario, the NRC's 1990 risk assessment predicted that a core melt at Peach Bottom could begin in one hour if electrical power on- and off-site were lost, the diesel generators — the main back-up source of power for the pumps that keep the core cool with water — failed to work and other mitigating steps weren't taken.

"It is not a question that those things are definitely effective in this kind of scenario," said Richard Denning, a professor of nuclear engineering at Ohio State University, referring to the steps NRC has taken to prevent incidents. Denning had done work as a contractor on severe accident analyses for the NRC since 1975. He retired from Battelle Memorial Institute in 1995.

"They certainly could have made all the difference in this particular case," he said, referring to Japan. "That's assuming you have stored these things in a place that would not have been swept away by tsunami."

From: Chang, Richard

Sent: Tuesday, March 29, 2011 7:35 AM

To: Schaperow, Jason; Tinkler, Charles; Santiago, Patricia; Ghosh, Tina; Armstrong, Kenneth

Subject: FYI- News Article on SOARCA

http://news.yahoo.com/s/ap/20110329/ap_on_re_us/us_us_japan_nuclear_blackouts_2

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

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 30, 2011 9:41 AM
To: Uhle, Jennifer; Lee, Richard; Armstrong, Kenneth
Subject: Re: Response - Question from the Chairman's Office (COB today)

Ken, please check with Greg or Roger and see that our answer got or gets to the Chmn.

We sent up two responses to two different requests, so it may have gotten lost in the confusion.

From: Uhle, Jennifer
To: Gibson, Kathy; Lee, Richard
Sent: Wed Mar 30 09:36:22 2011
Subject: RE: Response - Question from the Chairman's Office (COB today)

Thanks. I don't think RES answer got to the Chairman...

From: Gibson, Kathy
Sent: Wednesday, March 30, 2011 9:35 AM
To: Uhle, Jennifer; Armstrong, Kenneth; Lee, Richard
Subject: Re: Response - Question from the Chairman's Office (COB today)

Richard and his staff were all over this yesterday. All requests related to Japan are going to and through Richard - he is our single POC.

Welcome back!

From: Uhle, Jennifer
To: Armstrong, Kenneth; Lee, Richard; Gibson, Kathy
Sent: Wed Mar 30 09:31:54 2011
Subject: RE: Response - Question from the Chairman's Office (COB today)

Ken, anything related to source term go to Richard. We developed a NUREG on MOX impact on source term.

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

From: Weber, Michael
To: Aissa, Mourad
Cc: Sheron, Brian; Uhle, Jennifer; Rihm, Roger; Powell, Amy; Andersen, James; Muessle, Mary; Bowman, Gregory; Frazier, Alan

BC / 168

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 to 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

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

From: Gibson, Kathy
Sent: Wednesday, March 30, 2011 1:34 PM
To: Sheron, Brian; Uhle, Jennifer
Subject: Re: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

Charlie and Richard are all over this.

From: Sheron, Brian
To: Uhle, Jennifer; Gibson, Kathy
Sent: Wed Mar 30 13:29:16 2011
Subject: FW: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

FYI.

From: Boger, Bruce
Sent: Wednesday, March 30, 2011 1:00 PM
To: Weber, Michael; Wiggins, Jim; Zimmerman, Roy; Sheron, Brian
Subject: FW: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

FYI—(b)(5)

(b)(5)

From: Hoc, PMT12
Sent: Wednesday, March 30, 2011 12:37 PM
To: (b)(5) Fetter, Steve
Cc: OST02 HOC; Blount, Tom; Miller, Marie; Jackson, Todd; Cool, Donald; Boger, Bruce; FOIA Response.hoc Resource; Holahan, Vincent; LIA01 Hoc; NITOPS; 'narak@linl.gov'; Hoc, PMT12; PMT02 Hoc; David.Bowman@nnsa.doe.gov
Subject: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

(b)(5)

BC/169

(b)(5)

Protective Measures Team
Nuclear Regulatory Commission

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 30, 2011 3:45 PM
To: Uhle, Jennifer; Santiago, Patricia; Chang, Richard
Cc: Sheron, Brian; Lee, Richard
Subject: Re: SOARCA study put on hold for Japan reviews?

Perfect.

Richard Chang, Pat, Tina, are still working mostly SOARCA, SNL has some new staff working it. Ken Armstrong is rotating to SPB to help out as well as an MA. I'm trying to maintain some semblance of momentum so we can complete it as soon as possible. There will be heightened interest...

From: Uhle, Jennifer
To: Gibson, Kathy; Santiago, Patricia; Chang, Richard
Cc: Sheron, Brian; Lee, Richard
Sent: Wed Mar 30 15:37:02 2011
Subject: RE: SOARCA study put on hold for Japan reviews?

Okay, I did not think anyone was left...

How about:

NRC is continuing its efforts on the State of the Art Reactor Consequence Analysis (SOARCA) project at a reduced pace since many of the staff and contractors working on SOARCA are assisting NRC's efforts regarding the Fukushima event. The NRC has not yet determined the length of the project's delay.

From: Gibson, Kathy
Sent: Wednesday, March 30, 2011 3:32 PM
To: Uhle, Jennifer; Santiago, Patricia; Chang, Richard
Cc: Sheron, Brian; Lee, Richard
Subject: Re: SOARCA study put on hold for Japan reviews?

We have NOT put SOARCA on hold. We and SNL are working it with staff not completely consumed by Japan support and main staff (charlie, jason, randy gauntt) as they can. This will certainly delay SOARCA but have not yet assessed the length of the delay since Japan support is fluid. Yes delayed, NOT on hold.

From: Uhle, Jennifer
To: Santiago, Patricia; Gibson, Kathy; Chang, Richard
Cc: Sheron, Brian
Sent: Wed Mar 30 15:24:54 2011
Subject: RE: SOARCA study put on hold for Japan reviews?

This is what I would say about SOARCA delays

NRC's efforts on the State of the Art Reactor Consequence Analysis (SOARCA) are currently on hold because the NRC staff and contractors working on SOARCA are assisting NRC's efforts regarding the Fukushima event.

Do you agree?

BC/170

From: Hayden, Elizabeth
Sent: Wednesday, March 30, 2011 3:04 PM
To: Uhle, Jennifer
Cc: Sheron, Brian
Subject: FW: SOARCA study put on hold for Japan reviews?

Can someone help us out in Scott Burnell's absence?

Thanks,

Beth

From: Dolley, Steven [mailto:Steven_Dolley@platts.com]
Sent: Wednesday, March 30, 2011 2:56 PM
To: OPA Resource
Cc: Hayden, Elizabeth
Subject: RE: SOARCA study put on hold for Japan reviews?

Could someone please confirm or disconfirm Neil's statement that the NRC Soarca study is on hold pending the Japan reviews? I'm not sure why he can't, but he referred me to HQ.

Thanks,
Steve

Steven Dolley
Managing Editor, Inside NRC
Platts Nuclear
202-383-2166 Office
202-383-2187 Fax

From: Sheehan, Neil [mailto:Neil.Sheehan@nrc.gov]
Sent: Wednesday, March 30, 2011 2:51 PM
To: Dolley, Steven
Cc: Burnell, Scott
Subject: FW: SOARCA study put on hold for Japan reviews?

Steve,

I would refer you to Scott Burnell on this. He may be out today.

Neil
NRC Public Affairs



From: Dolley, Steven [mailto:Steven_Dolley@platts.com]
Sent: Wednesday, March 30, 2011 2:49 PM
To: Sheehan, Neil
Subject: SOARCA study put on hold for Japan reviews?

Neil, Can you confirm this? If so, how long will the Soarca review be on hold?

• Thanks, Steve

That study has been put on hold, though, because the NRC is busy reviewing facilities to make sure vulnerabilities identified from what happened in Japan after the March 11 earthquake and tsunami are not found in U.S. plants, Sheehan said.

http://www.timesonline.com/news/figures-showing-high-risk-of-meltdown-at-beaver-valley-outdated/article_2b061d5c-5a5a-11e0-b6b3-0017a4a78c22.html

Steven Dolley
Managing Editor, Inside NRC
Platts Nuclear
202-383-2166 Office
202-383-2187 Fax

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Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, March 30, 2011 5:14 PM
To: Tinkler, Charles
Subject: Re: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

Is there any indication that they've used the source term info provided previously?

From: Tinkler, Charles
To: Gibson, Kathy
Sent: Wed Mar 30 16:59:07 2011
Subject: RE: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

We met this afternoon with PMT and RST staff in the Op Center to coordinate this and to understand exactly what was being requested. (and their underlying assumptions and premises)

From: Gibson, Kathy
Sent: Wednesday, March 30, 2011 1:34 PM
To: Sheron, Brian; Uhle, Jennifer
Subject: Re: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

Charlie and Richard are all over this.

From: Sheron, Brian
To: Uhle, Jennifer; Gibson, Kathy
Sent: Wed Mar 30 13:29:16 2011
Subject: FW: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

FYI.

From: Boger, Bruce
Sent: Wednesday, March 30, 2011 1:00 PM
To: Weber, Michael; Wiggins, Jim; Zimmerman, Roy; Sheron, Brian
Subject: FW: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

FYI—We've already started to work on the Ambassador's request, because DOE had also received a similar request and alignment was reached. A couple of folks from RES are coming down to the Ops Center this afternoon for discussions with RST and PMT to shape the source term requested. We won't launch fully until agreement from the White House is received.

From: Hoc, PMT12
Sent: Wednesday, March 30, 2011 12:37 PM
To: (b)(5); Fetter, Steve
Cc: OST02 HOC; Blount, Tom; Miller, Marie; Jackson, Todd; Cool, Donald; Boger, Bruce; FOIA Response.hoc Resource; Holahan, Vincent; LIA01 Hoc; NITOPS; 'narak@linl.gov'; Hoc, PMT12; PMT02 Hoc; David.Bowman@nnsa.doe.gov
Subject: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

(b)(5)



BC | 171

(b)(5)

Protective Measures Team
Nuclear Regulatory Commission

Greenwood, Carol

From: Gibson, Kathy
Sent: Friday, April 01, 2011 1:36 PM
To: Tinkler, Charles
Subject: Fw: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run
Attachments: source term in response to PMT on 3-30.2011 pre-decisional.doc

Are you talking about this source term?

From: Lee, Richard
To: PMT02 Hoc
Cc: Schaperow, Jason; Tinkler, Charles; Esmaili, Hossein; PMT01 Hoc; PMT01 Hoc; Salay, Michael; Gibson, Kathy; Wagner, Katie
Sent: Thu Mar 31 18:21:13 2011
Subject: RE: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

The attached is RES response to the request to provide a realistic, up-to-date estimation of source terms for dose projections to address future potential radiological releases from the Fukushima Unit 1 reactor and the Unit 4 spent fuel pool.

From: PMT02 Hoc
Sent: Wednesday, March 30, 2011 12:41 PM
To: Tinkler, Charles; Esmaili, Hossein; PMT01 Hoc; PMT01 Hoc
Cc: Lee, Richard; Schaperow, Jason
Subject: FW: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

Please see recent email for your information.

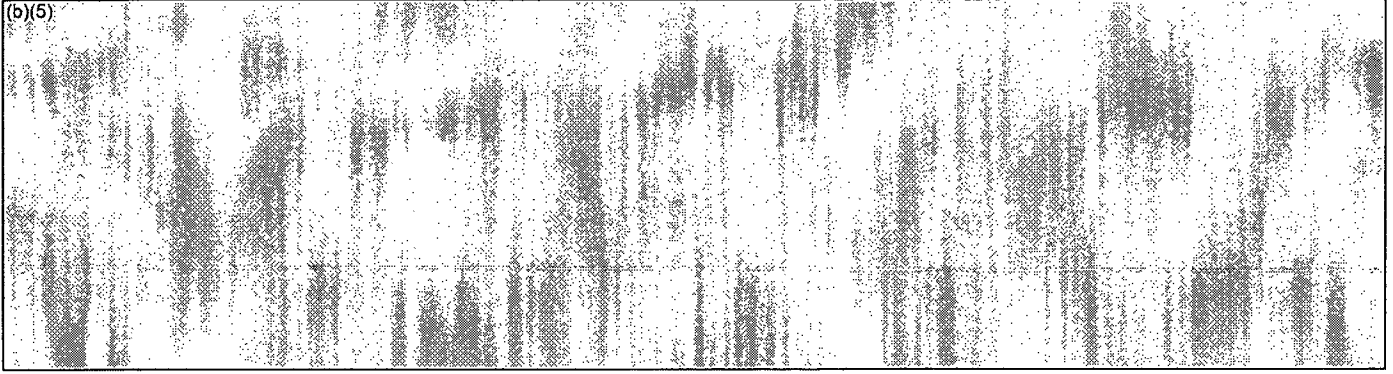
Tony Huffert
Rich Clement
PMT NRC Operations Center
301-816-5402

From: Hoc, PMT12
Sent: Wednesday, March 30, 2011 12:37 PM
To: (b)(6) Fetter, Steve
Cc: OST02 HOC; Blount, Tom; Miller, Marie; Jackson, Todd; Cool, Donald; Boger, Bruce; FOIA Response.hoc Resource; Holahan, Vincent; LIA01 Hoc; NITOPS; 'narak@lnl.gov'; Hoc, PMT12; PMT02 Hoc; David.Bowman@nnsa.doe.gov
Subject: Draft: Request from U.S. Ambassador in Japan for Pessimistic Case Modeling Run

(b)(5)



(b)(5)

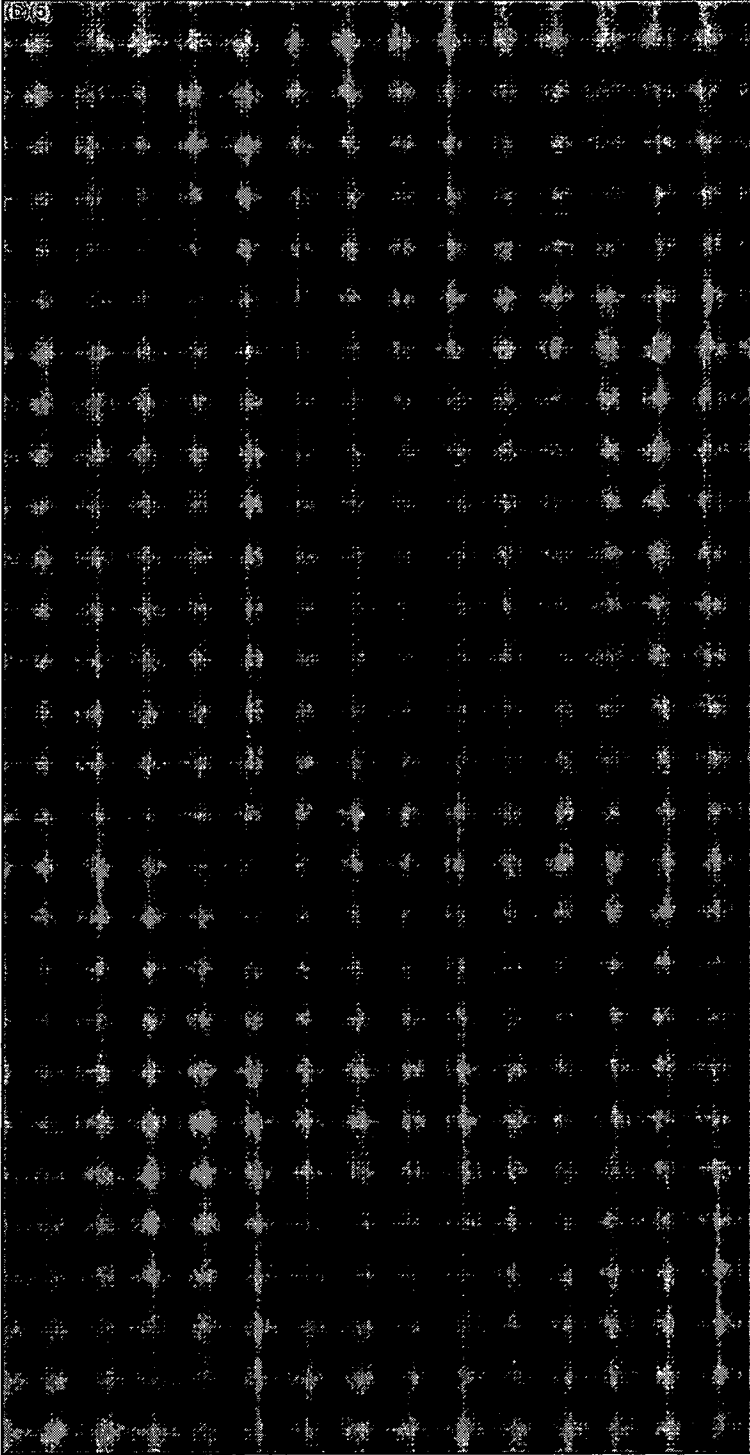


**Protective Measures Team
Nuclear Regulatory Commission**

(b)(5)

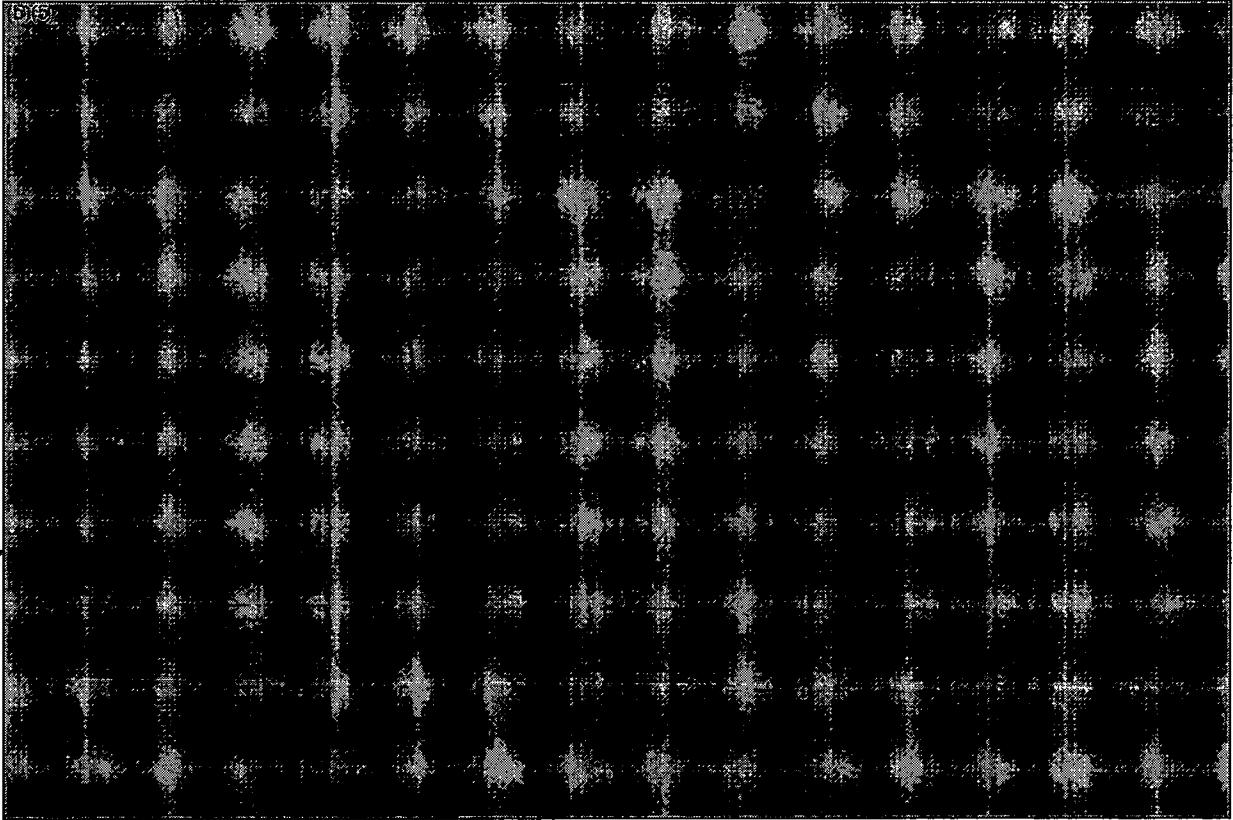
Charles Tinkler
Jason Schaperow
March 31, 2011

Pre-1



Professional

1F4 SFP Boil-off Calculation

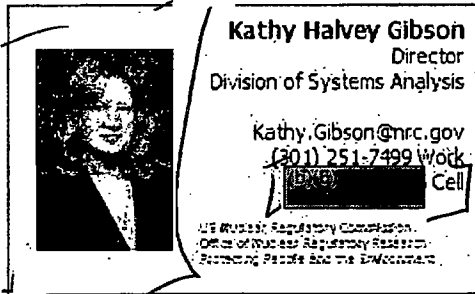


Pre-De

Greenwood, Carol

From: Gibson, Kathy
Sent: Wednesday, April 20, 2011 4:48 PM
To: Flory, Shirley
Cc: Esmaili, Hossein; Lee, Richard
Subject: RE: COMPARATIVE RISK ASSESSMENT: FUEL STORAGE IN SFP vs. DRY CASK

I am at Penn State Wed and off Thurs and Fri. Can we do this Tues?



Kathy Halvey
Gibson.vcf

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

From: Flory, Shirley
Sent: Wednesday, April 20, 2011 4:45 PM
To: Sheron, Brian; Esmaili, Hossein; Helton, Donald; Murphy, Andrew; Lee, Richard; Hogan, Rosemary; Coyne, Kevin; Gibson, Kathy; Scott, Michael; Correia, Richard; Coe, Doug; Case, Michael; Richards, Stuart; Tinkler, Charles
Cc: Uhle, Jennifer; Hudson, Daniel; Stutzke, Martin
Subject: COMPARATIVE RISK ASSESSMENT: FUEL STORAGE IN SFP vs. DRY CASK
When: Wednesday, April 27, 2011 10:45 AM-11:45 AM (GMT-05:00) Eastern Time (US & Canada).
Where: C- 5C19

Hossein: If this date/time does not work for you, please let me know and I will try again, but I would probably have to re-schedule to the week of May 2. I was trying to accommodate Brian's and Kathy's schedule. Mike S. is on travel all next week.

Thanks -- Shirley
301-251-7400

BC/173

Greenwood, Carol

From: Gibson, Kathy
Sent: Monday, March 14, 2011 2:08 PM
To: Sheron, Brian; Scott, Michael; Uhle, Jennifer
Subject: Re: SNL response to NRC request to help Japan

Thank you! I was hoping we weren't considering sacrificing SOARCA schedule and funding when I am certain there are other better alternatives! (b)(5)

From: Sheron, Brian
To: Scott, Michael; Uhle, Jennifer; Gibson, Kathy
Sent: Mon Mar 14 14:02:18 2011
Subject: RE: SNL response to NRC request to help Japan

Please don't put anyone on a plane!!!!!!!!!!!!!!!!!!!!

All we were looking for was names and their potential availability. The agency has already selected the team of 6 they plan to send over.

From: Scott, Michael
Sent: Monday, March 14, 2011 1:53 PM
To: Uhle, Jennifer; Gibson, Kathy; Sheron, Brian
Subject: Fw: SNL response to NRC request to help Japan

Forwarded is over-the-top Sandia support proposal.

Note: Dana Powers is in Rockville. I'm going to attempt to contact him.

Meanwhile, suggest we get Gauntt and Leonard on a plane. Do you know La Chance?

Sent from my NRC blackberry

Michael Scott

(b)(5)

From: Pickering, Susan Y <sypicke@sandia.gov>
To: Scott, Michael
Cc: Orrell, Stanley A <sorrell@sandia.gov>; Gauntt, Randall O <rogaunt@sandia.gov>; Lachance, Jeffrey Lynn <jllacha@sandia.gov>; Ross, Kyle Wayne <kwross@sandia.gov>; Burns, Shawn <spburns@sandia.gov>
Sent: Mon Mar 14 13:04:54 2011
Subject: SNL response to NRC request to help Japan

Mike,

Per our phone calls, here is my proposal:

Purpose: provide real-time, Boiling Water Reactor (BWR) severe accident expertise to Japanese officials in their Emergency Operations Center.

BC/174

Personnel to send to Japan and their areas of expertise:

- Randy Gauntt – senior spokesman, severe accident analysis, MELCOR, MACCS
- Jeff LaChance – conducted Individual Plant Examinations for every BWR in the US, severe accident management response
- Mark Leonard (contractor) – BWR accident modeling

People to remain in US to provide technical support and their areas of expertise:

- Kyle Ross, Jesse Phillips – BWR design & response, BWR accident modeling
- Ray Jun, Nate Bixler – consequence assessment, MACCS
- Jason Petti – structural analysis of containment vessels
- Shawn Burns – spent fuel pool fires and structural integrity
- Eric Webb – fluent in Japanese, hydrologist, nuclear waste

Dana Powers is currently in Rockville. Have call into his hotel.

Admin actions:

- Making one-way flight reservations for Randy and Jeff to fly to Narita/Tokyo for 3/15 and 3/16 (refundable). Will coordinate other logistics w/ NRC contingent.
- Will use SOARCA funding for initial costs. Will need to discuss additional funding needs and impacts to on-going SOARCA.
- Will take care of internal approvals, e.g., foreign travel; and risk management, e.g., dosimetry, iodine pills.

Thank you for considering Sandia. We are ready to support NRC and Japan.

syp

Susan Y. Pickering
Senior Manager, Nuclear Energy Safety Technologies
P.O. Box 5800
Albuquerque, NM 87185-0736
Phone (505) 284-4800
Fax (505) 844-0955
Email: sypicke@sandia.gov

From: Uhle, Jennifer
Sent: Wednesday, March 16, 2011 8:22 AM
To: Santiago, Patricia; Gibson, Kathy; Scott, Michael
Subject: Fw: MELCOR input deck for Germany

We should be able to do this from our aircraft impact SFP work. Charlie knows. J

From: Diane.JACKSON@oecd.org <Diane.JACKSON@oecd.org>
To: Uhle, Jennifer
Sent: Wed Mar 16 08:18:04 2011
Subject: MELCOR input deck for Germany

Hello Jennifer –

How are you? I am sure overly busy with Japan, as many of us are. We have requests for information from all over in many forms.

As I am sure you know, the German government has ordered the shutdown of 7 of their plants that were built before 1980. GRS would like to run MELCOR on Mark 1 containments to fight back with some analysis.

Would NRC/RES be able to share an input deck for Mark 1 containment with GRS? Maybe someone from SOARCA branch could talk with someone in GRS?

If so, I can send along a NRC name and number or I can get my German colleague here to give me the GRS contact, so that NRC can contact GRS directly.



Diane Jackson, Nuclear Safety Specialist
Nuclear Safety Division, OECD Nuclear Energy Agency (NEA)
Tel.: +33 (0)1 45.24 10 55, Diane.Jackson@oecd.org

Update your bookmarks! On 1 December 2010, the NEA is moving to: www.oecd-nea.org

From: LIA01 Hoc
Sent: Monday, March 28, 2011 7:33 PM
To: ET07 Hoc; LIA07 Hoc; LIA08 Hoc; LIA06 Hoc; Hoc, PMT12; RST01 Hoc
Subject: FW: OSD EXSUM Operation Tomodachi March 28, 2011 - 7:00 PM EDT
Attachments: FINAL_Japan Earthquake_EXSUM_1900_032811.pdf

For your information—latest Sit Rep from the Office of the Secretary of Defense.

From: (b)(6) CTR OSD POLICY [mailto:(b)(6)ctr@osd.mil] **On Behalf Of** OSD Watch, OSD-POLICY
Sent: Monday, March 28, 2011 7:07 PM
To: (b)(6)



Subject: OSD EXSUM Operation Tomodachi March 28, 2011 - 7:00 PM EDT

OSD EXSUM
Operation Tomodachi
March 28, 2011 – 7:00 PM EDT

1. (U) Command and Control

BC / 175

- U.S. Ambassador to Japan: John Roos
- Commander, U.S. Pacific Command (USPACOM): ADM Robert F. Willard, USN
- Commander, U.S. Forces Japan, (USFJ): Lt. Gen. Burton M. Field, USAF

2. (U) Situation Update

- (U) According to Japanese National Police Agency, as of 1800 EDT March 28: 11,044 people have died (including 1 U.S. citizen); 2,776 are injured; and 17,339 are missing. Approximately 210,000 people have been displaced and 192,000 homes remain without power.
- (U) Winds are blowing WSW 2-6 kt, becoming SSW by 1100 EDT, 29 March.
- (U//~~FOUO~~) Fukushima Nuclear Power Plant No. 1 (Daiichi): The U.S. Nuclear Regulatory Committee (NRC) reports that boronated fresh water is being used to cool reactors 1 and 3. Nothing significant to report at reactors 5 and 6. Open sources report that Plutonium was found on 28 March in soil in the Fukushima-1 compound. Tokyo Electric Power Co (TEPCO) claims that the levels are not hazardous to humans.
 - (U//~~FOUO~~) Reactor 1 (NRC Priority 1): Core damaged, fuel partially or fully exposed. Electric power available, checking equipment before energizing. TEPCO reports that flooding (radioactive water) around reactor 1 limited workers' efforts, but this contaminated water has been removed, as of 1800 EDT 28 March. Freshwater injection continues at ~30 gallons per minute.
 - (S//~~FOUO~~) Reactor 2 (NRC Priority 2): Core damaged, fuel partially or fully exposed. Spent fuel pool is covered. External A/C power has reached the unit, checking equipment before energizing. According to TEPCO Vice President Muto, radiation levels in water leaking from Reactor 2 are 100,000 times higher than normal; the spike in radiation appears limited to unit No. 2. Temporary electrical pump being used to inject fresh water.
 - (U//~~FOUO~~) Reactor 3 (NRC Priority 3): Core damaged, fuel partially or fully exposed. Spent fuel pool has a low water level. External A/C power has reached the unit, checking equipment before energizing. Freshwater injection continues at ~60 gallons per minute.
 - (U//~~FOUO~~) Reactor 4 (NRC Priority 4): Core was defueled before incident. Spent fuel pool has a low water level, cooling being conducted with seawater. External A/C power has reached the unit, checking equipment before energizing.
- (U) A magnitude 6.5 earthquake off the coast of Honshu prompted a brief tsunami warning on 28 March. No damage was reported.

3. (U) U.S. Government (USG) Operations Update

- (U) The U.S. Department of Energy (DOE) reports that an assessment of measurements gathered through 27 March shows that radiation levels are consistently below actionable levels in areas outside 25 miles of Fukushima-1 and that there are decreasing levels of radioactivity in areas of previous deposition. Radiological material has not deposited in significant quantities in the areas measured since March 19th. GOJ has instructed evacuation for local residents within a 20 km radius and sheltering in place out to 30 km.
- (U) The USG and USNORTHCOM have established radiation screening processes and resources to aid individuals returning to the U.S. from affected areas. Please see www.usa.gov/japan2011.shtml for more information.
- The U.S. NRC is working with TEPCO to identify a method to remove contaminated water from reactors 2, 3, and 4.

4. (U) DoD Update. The Secretary of Defense authorized up to \$35M in Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) funding for humanitarian assistance to Japan. A request for an additional \$45M in

OHDACA funds has been approved by the Deputy Secretary of Defense. DoD has expended \$48.1M as of 26 March, with a daily burn rate of ~\$3.2M per day.

- (U) The DoD and the Department of State (DOS) authorized voluntary departure from Japan for eligible family members of USG personnel near affected areas. USPACOM reports as of 1600 EDT 28 March, 5,265 eligible family members have been transported. One DoD chartered flight departed on 28 March with 115 passengers with an ETA of 1710 EDT. No additional charter flights are scheduled at this time. Joint Task Force-505 established to manage EFM travel to designated alternate locations. The Joint Staff reports that the total costs to date for the voluntary departure effort is over \$10M.
- (U) As of 1300 EDT on 28 March, DoD forces supporting Humanitarian Assistance/Disaster Response (HA/DR) have provided 167 tons of food, 2.6M gallons of water, 17.8K gallons of fuel, and 46 tons of other HA supplies.
- (U) Operations continue to support improving habitability at the Sendai airfield, humanitarian supply distribution, fuel piping inspection and assistance in debris clearing. The USNS SAFEGUARD, a salvage ship, may begin port clearing operations in Miyako as early as 29 March.
- (U) USPACOM reports that 19 ships and 140 aircraft of the U.S. Seventh Fleet are supporting Operation Tomodachi. Joint Support Forces report that 15,601 personnel are supporting the effort. To date, 838 fixed wing sorties and 730 helicopter sorties have been flown.
- (U) DoD is conducting overhead flights and ground based radiation readings in order to optimize data gathering and interpretation. As of 1600 EDT on 28 March, USPACOM reports that a total of 62 intelligence, surveillance, and reconnaissance sorties have been flown to date.
- (U) USPACOM guidance has been updated to reduce the radius for the distribution of KI to all DoD personnel and their families within 100 nautical miles of the Fukushima Nuclear Power Plant. As of 0001 EDT on 28 March, the USFJ and USPACOM report that they have distributed a seven day supply of KI to 96% (of approximately 55,127) eligible individuals.
- (U) Two U.S. Navy fresh water barges were requested by the GOJ, the first barge was delayed and arrived at Fukushima on 27 March; piping and pumping system have been installed and tested. As of 1600 EDT 28 March, the second barge has arrived in Onahama. Nuclear Regulatory Commission personnel expect to begin pumping fresh water by 29 March. Bechtel pumping gear for use at Fukushima is scheduled to arrive in Yokota on 30 March.

5. (U) Interagency Meetings

- (U) The next IPC meeting is scheduled for 1500 - 1600 EDT on Tuesday, March 29.
- (U) The next Deputies Committee meeting will occur from 0800 - 0915 EDT on Wednesday, March 30.

(b)(6)

OSD Watch

(b)(6)

OSD EXSUM

Operation Tomodachi

March 28, 2011 – 7:00 PM EDT

1. (U) Command and Control

- U.S. Ambassador to Japan: John Roos
- Commander, U.S. Pacific Command (USPACOM): ADM Robert F. Willard, USN
- Commander, U.S. Forces Japan, (USFJ): Lt. Gen. Burton M. Field, USAF

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Changes from the previous EXSUM are in blue.

OSD EXSUM**Operation Tomodachi****March 28, 2011 – 7:00 PM EDT**

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OSD EXSUM

Operation Tomodachi

March 28, 2011 – 7:00 PM EDT

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Changes from the previous ENSUM are in blue.

From: LIA08 Hoc
Sent: Tuesday, April 05, 2011 3:31 PM
To: LIA06 Hoc
Subject: FW: FYI -- FW: Requests for USG Assistance: TRACKING MATRICES
Attachments: JAPANESE TRACKER (Master) (version 2).xlsb; Nuclear Team Asks and Offers Tracker 03-05-2011.xlsx

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

From: RMTFACTSU_ELNRC [mailto:RMTFACTSU_ELNRC@ofda.gov]
Sent: Tuesday, April 05, 2011 3:29 PM
To: LIA11 Hoc; LIA01 Hoc; LIA07 Hoc; LIA02 Hoc; LIA08 Hoc; LIA12 Hoc; Harrington, Holly; McIntyre, David; Burnell, Scott; ET07 Hoc
Subject: FYI -- FW: Requests for USG Assistance: TRACKING MATRICES

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

From: (b)(6) OSD POLICY [mailto:(b)(6)]
Sent: Tuesday, April 05, 2011 3:23 PM
To: RMTFACTSU_RM; RMTFACTSU_DOE; RMTFACTSU_ELNRC; 'Green, Christopher L'
Subject: Requests for USG Assistance: TRACKING MATRICES

Colleagues,

Please see attached the Embassy Tokyo spreadsheet and Master tracker developed since last week to track requests for USG assistance.

Best,

Ngoc

(b)(6)

Foreign Affairs Specialist
OUSD(Policy) - SO/LIC & IC - PSO
703-692-0122

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

From: (b)(6) COL (USA) OSD POLICY
Sent: Tuesday, April 05, 2011 3:01 PM
To: POL HADR; POL Japan; POL CBRN JAPAN
Subject: TRACKING MATRICES

All,

Attached are two documents:

BC/176

1. The USEMBASSY TOKYO's Tracker (Nuclear Team Asks...)
2. The Tracking Matrix we started last week that the JS was refining over the weekend. (Japanese Tracker Master)

<<...>>

<<...>>



US-Japan Nuclear-Related Assistance Tracker

Last update: April 5 - 1715 hrs.														
Equipment/Supplies/Services Requested by GOJ														
No.	NRC No.	Equipment/Service Being Requested	Quantity	Date of request	Requesting GOJ Office	GOJ POC	USG Action Office	USG POC	Target Date	Training Needed?	Reimbursement (Y/N)	Status of response	Open/Closed	Comments
1	16	Aerial survey for AMS measurement, data sharing and analysis	N/A	3/25 GOJ list	MEXT, NSC, NISA, MAFF		DOE	Cherry, Duncan	N/A			DOE coordinates with MEXT, NSC, NISA, MOFF, MOFA. Daily sharing of AMS data and products. Per 4/4 meeting with GOJ, agreement on joint aerial surveys 4/6-4/12. Joint Staff is sharing U.S. aerial survey info USF-Hchigaya.	0	NRC's PMT provided this info to the white house (NITOPS). The feedback was that NITOPS won't task NARAC to run analysis until approval is received from the White House
2a	22	Ground radiation monitoring devices, mobile and stationary		3/25 GOJ list	MEXT, NSC, NISA, MOFA		DOE	Cherry				Mobile ground monitoring began 3/17. Discussions ongoing re fixed ground-based monitors. Need GOJ approval to proceed; MOFA is coordinating.	0	Mobile monitoring is closed. Stationary monitoring is the open item. This was a GOJ request and the idea is to possibly install a system such as the EPA Radnet system.
2b		incl radiation fristers -hand /foot monitors)		3/28 Cab mtng	MEXT, NSC, NISA, MOFA		NRC/INPO	Blaney				Elaborates on request above - 20 hand/foot detectors (Bruce Howard), STP, San Onofre	0	This activity is awaiting authorization of commercial transport for Bruce monitors. (U.S. Embassy to advise). INPO to query utility-arranged transport of SONGS and STP equipment. Process of approving transportation needs to be solidified Shipping payments are being investigated as to who will pay for shipments. STP has 1 parcel that is internally contaminated that may be shipped to Bruce to be included in their shipment to Japan. Alan Blaney will attempt to have to moved forward quickly through the DART team.
3	18	Conduct simulation by radiation diffusion model (compare with SPEEDI data)	N/A		NSC, MEXT		DOE	Cherry, Duncan				DOE coordinates with NSC. NSC is the leading POC with the GOJ. GOJ has provided SPEEDI source term to NRC 3/25 and meteorological data with NARAC.	0	Models haven't been shared. Clarification needed between NARAC and Japanese POCs. DOE having discussions 4/04/11 to discuss technical preparations.
4	19	Germanium semiconductor detectors		3/25 GOJ list	MEXT, NISA, MAFF		DOE					INPO - US industry does not have spare detectors at this time (3/29). One detector has been loaned & training is underway. DOE to provide 1 detector each to MAFF and MHLW, due 4/6; 4 more for MAFF & MHLW, delivery TBD. NISA requested 1 HPE, under discussion.	0	DOE delivering 2 detectors on 4/05/11. 2-4 more detectors will ship the same week.
5	21	Robotic monitoring devices		3/25 list, quantity set	MEXT, NISA, TEPCO	MEXT: Hatada	DOE	Cherry, Duncan		yes-DOE proposed training through Genetic Japan office		DOE coordinates with NRC, DOD/USFJ. U.S. confirmed 3/26 Cabinet meeting can provide Genetic Talon, M2, Radiation-hardened cameras. Per 3-31 WG meeting, DOE will also provide additional radiation sensor kits.	0	DOE is handling Ground robotics and hardened cameras only. UAVs and handhelds are separate DOE is looking to send 1) Robotics expert and 2) camera's expert....plans are still in the making.
5a		Information on Radiation shielding materials for vehicles.		3/26 cabinet meeting; 3/29 list	MEXT, NISA		NRC, DOE					NRC provided information on tungsten materials; METI told DOE 3/28 in Remote/Robotics WG that it doesn't need shielding materials, just information.	0	

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5b		Radiation-hardened cameras & Gamma Camera		3/26 cabinet meeting	METI, NISA	DOE			4/6/2011 shipment expected	US confirmed at 3/26 cabinet meeting that it can provide camera and system for mapping gamma rays. DOE to send five cameras and one gamma cam.	O
5c		Westinghouse working on the UAV request and coordinating with Texas A&M expert								Westinghouse working with Texas A&M University expert. This has been closed out. [Confirm how and by whom?]	O
5d		GOJ request for shielding			WPO						C
6	21a	Robotic debris clearing machines		3/25 list, quantity set 3/26	METI, NISA	DOE	Cherry, Duncan	N/A	N/A	DOE coordinates with NRC, DOD/USFJ. Japan dropped request for equipment 3/28; still wants advice on shielding for heavy equipment.	O
7	22	Provision of data obtained from UAVs	N/A	3/25 list	MOD, MOFA	DOD				GOJ is receiving Global Hawk images	C
8	23	Unmanned helicopter - GOJ is looking for helicopter to spray nondispersant.		1.3/25 list	MOD, NISA, MOFA	DOD	DAO			MOD looking into DOD options (KS); repeated by Mr. Nagashima on 3/27 as unmanned helicopter with camera. NRC agreed 3/27 to follow using specs provided by Japan; NISA promised documents stating Japan's needs. MOD is not interested in KMAX.	O
9	24	Transportation of fresh water by barges and delivery of pumps		3/25 list	MOD, NISA, MUT, JCG		POL-MIL, DAO			Provided. Arrangement made for three vendor support representatives to stay and train.	C
9a	24	Water barges			MOD		J4, PACOM			Per J4 the barges have been outfitted and tested and are 10 hrs from the NPP site and should arrive Weds. Need ETA	C
9b	24	Fresh water supply pumps from Bechtel								First train in Japan	C
10	3	High quality pumps and hoses.		3/26 meeting and previous discussion	MOD (TEPCO)	NRC	NRC			CLOSED: NRC rec'd info 3/26 on possible hose and said would investigate further; request withdrawn at 3/29 Cab meeting.	C
11	3	High pressure hose (3 x 500 m) and couplers (for cooling reactor)		3/25 list and previous discussion	NISA	NRC/DOD	NRC, DOD			Hose delivered as part of Australia/Bechtel equipment; in J-Village.	O

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12		Protective body armor, radioactive survey meters and dosimeters, radioactive measuring instruments, iodine absorption masks, separation materials.		3/25 list	NISA, MOD	NISA, MOD				Japan repeated 3/27. (note: USAID has already provided 10,000 sets of protective clothing). Supply chain: Materials sourced; to be obtained commercially. Info sent to GOJ through AI Hochevar GOJ to establish need. Communicated to them that they are payers by Hochevar.	O	
13	34	2100+ radiation survey meters	2100+	3/28 meeting		NISA, MOD	DART			probably existing request repeated/elaborated. Dosimeters referred to DART.	O	List provided to Alan Blamey and AI Hochevar for cabinet meeting 4/2/11.
13a	34	Request for the following: 2100 units-Rad Survey Meters 2500 units-Personal Dosimetry 5100 units- iodine shielding masks					DART			Need status update	O	List provided to Alan Blamey and AI Hochevar for cabinet meeting 4/2/11.
14	34	5100+ masks for iodine absorption	5100+	3/28 meeting		NISA, MOD	DART			Nos. 14-16: probably existing request repeated/elaborated. Per INPO (A. Hochevar, 678-451-3017); these supplies can be obtained commercially by GOJ. Referred to DART.	O	List provided to Alan Blamey and AI Hochevar for cabinet meeting 4/2/11.
15		33,000+ iodine absorption cans	33K	3/29 draft list		NISA, MOD	DART				O	
16		Separation materials for masks (as many as possible)		3/29 draft list		NISA, MOD	DART				O	
17	34	2,000 personal radiation dosimeters (PRD)	2000	3/28 meeting	MEXT, RIKEN				yes	Comment: State (Randy Thur) email 3/24 said "MEXT has declined to provide a statement of needs" and said it will not be needing the units; need to check status"	O	List provided to Alan Blamey and AI Hochevar for cabinet meeting 4/2/11.
17a	34	2600+ personal dosimeters	2600+	3/28 meeting	NISA				yes	Probably existing request repeated/elaborated	O	List provided to Alan Blamey and AI Hochevar for cabinet meeting 4/2/11.
18	27	Potassium Iodide (KI) preparation	1 million 17-dose bottles	3/25 list	NISA, MHLW, MOFA	HHS to provide; USAID to transport	Dr. Coleman and team (NIH via HHS), Robert Gabor Econ liaison with MOFA			MOFA said 3/30 it would accept the 1 million bottles (17 doses each) of liquid KI offered; requested via note verbale to DOS in D.C. (3/30); USG to share grant document text with GOJ before shipping.	O	Industry had tablets available, but HHS had liquid tablets that they were to provide. A. Blamey to verify with GOJ. May be caught up in logistics. Coming from USAID and CDC
19	29	Bottled water for infant formula		3/25 list	MHLW	USAID	USAID/OFDA	4/01 - 4/02		USAID and USFJ responded with initial stocks; paperwork underway at USAID/State for possible delivery April 1-2	O	On the Embassy list for tracking

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20		Heat exchanger to be used in spent fuel pool.	3/27 Nagashima; 3/29 list	NISA	NRC	INPO (Al Hochevar, 678-451-3017 (cell), expect source identified by 4/02/2011.		INPO is currently providing sources of comm'l heat exchangers that can be used to cool a spent fuel pool. (This will not result in purchase of heat exchanger.)	O	
21		Devices for condensing radiation contaminated water & Information on evaporation technology	3/29 draft list TBD		DOE, DOD	DOE Cherry, Duncan; DOD Adm. Gregory		Expanded request: On March 28 DCCS Fukuyama asked for information on measures to remove contaminated water.	O	
21a	30, 31 & 32-	Assistance in dealing with accumulated radioactive water in turbine buildings	3/27 meeting		DOE/NRC	Cherry, Duncan		DOE paper provided to Amb. Roos and Amb. Fujisaki on 3/29/11. Management of cont. water. NISA asks info on specs, usage, installation. Asks if more are available. Request under consideration by USG. Need GOJ confirmation of request.	O	
21b	30 & 31	Water storage tanks and a trailer for contaminated water at 1F	4/01, NISA-DOE mtg	NISA, TEPCO	Umino	DOE	Cherry, Duncan	No	O	
21c	32	Information on "evaporation technologies"	3/28 - DCCS Fukuyama			DOE	Cherry, Duncan		O	
21d	108	Obtain contact info for industry personnel with experience in handling and disposal of open pools/trenches of high dose rate(>100 R/hr) water. Rcvd Mar 29 from Al Hochevar from Hoson						40632	Contacts developed and provided through INPO-Al Hochevar	C
21e	13	Direct request from GOJ to Pacific Northwest Labs for technical assistance with water decontamination and storage issues.			DOE	Cherry, Duncan				O
21f		Determine whether temporary radwaste processing skids are available or would be a good idea (for removing contaminated water)				INPO				O
21g	30	Temporary holding tanks (for removing contaminated water)			DOE; DOD; INPO				Develop recommendations for removal of water in basements of Units 1,2 and 3 per Task Tracker #3235. The Toshiba Team has investigated the use of large storage bladders to be used as temporary contaminated water storage. These bladders can hold up to 189,000 liters per bladder. Bladders can eventually be handled as a relatively small volume of solid waste. Need to develop a single water management team to handle all water issues once decision is made on how to proceed forward.	O

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21h	31	Tanker trucks as a temporary holding area (for removing contaminated water)			DOE; DOD; INPO					O	Develop recommendations for removal of water in basements of Units 1,2 and 3 per Task Tracker #3235. The Toshiba team is concerned that the relative capacity of tanker trucks is small and that the trucks will have to remain onsite once contaminated. This option should be reserved for special situations.
21i	32	Investigate whether there is a technology that would absorb contaminated materials from water (for removing contaminated water)			DOE					O	Secretary Chu reportedly told this to the Japanese. The Toshiba Team has developed draft plans for water treatment with a focus on fission product removal and minimization of solids waste processing.
22		INFO: UGVs with radiation mapping capacity	3/29 draft list	METI	DOE/DOD				initial request on March 25 list was for information on UGVs. Discussed in Remote/Robotics WG attended by DOE. (See nos. 5,6)	O	
23		INFO: Technical support on radiation technology, nuclear technology, and health effects	3/25 list	MHLW	DOE, USAID	Dr. Coleman (NIH via HHS)					
23a		Information on KI and drinking water								C	
23b		Health cooperation in three areas: environmental monitoring; KI policy; risk communication		CAO	Dr. Akashi	USAID, State, NIH, CDC, USDA, DOD	Dr. Coleman		Both sides agreed to continue discussions and include other personnel to arrive later.	C	
24		Medical triage re: exposure to radiation (decontamination capability)	3/25 list	MHLW	DOD, DOE, USAID	Dr. Coleman (NIH via HHS)			MOD initially identified as principal action ministry along with MHLW, subsequently changed 3/29. Chem Bio Initial Response Force (CBIRF) provided for this purpose.	O	
25	28	INFO: Extinguishant/coolant	3/25 list	NISA					Request further info from GOJ.	C	A. Blamey to Verify with GOJ what is exactly needed in this request
26		Incorporate PNL into crisis mgmt dialogue/Spent Fuel WG	3/26, 3/28 - DCCS Fukuyama	TBD	DOE/NRC	Cherry			PNNL team in Tokyo and providing support.	O	
27		U.S. cooperation in bringing private sector engineers into Shielding WG	3/26 meeting - Nagashima		NRC				Not included on draft 3/29 request list	O	
28		Assessment of possible fuel damage in units 1, 2, 3	3/27 - Hosono		NRC				NRC provided brief response at meeting.	C	
29		Assessment of structural stability of spent fuel pools	3/27 - Nagashima ; 3/28 - Fukuyama		NRC	NRC reactor Safety Team			In preparation for decisions on shielding. NRC completed assessment of current spent fuel pool weight. Further analysis needed.	O	
29a	107	Information on shielding for individual rooms and for the facility in general							Provided to GOJ through INPO-AI Hochevar.	C	

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29b	33	Japan asked for NRC expertise on temporary shielding options, to determine whether the NPP Plant buildings are strong enough to hold up under additional pressure			NRC		From Cabinet Office Crisis Mgt. Team Meeting notes 3-28-2011	C	NRC has completed a gross analysis and does not have sufficient information to perform a detailed analysis for shielding. From Cabinet Office Crisis Management Team Meeting notes, 3/28/11. A. Blamey to discuss further with Japan
30	106	Information on tools/methods for moving damaged fuel, plus contacts of those with experience at TMI-2 and Chernobyl. From Mr. Hosono.			Hosono's Office	40632	Provided to GOJ through INPO-AI Hochevar on 3/30.	C	
31	110	SAMG Technical Document					Guidance has been sent to INPO contact in Japan and is being updated (Rev.1) and will be discussed 4/01; will include injection rate and best assessment to plant conditions; (need to confirm that INPO has received)	O	
32	111	GEH is following up on the Nitrogen purge issue analysis					GE is following	O	
33		Clarify for RST the indications that can be used to assess RPV integrity and location of core. (RST request)			NRC	40632	ongoing project, comments that shift focus are received during 1100 status call 3/29	O	
34		List alternative flowpaths that can be used for purging, given accessibility challenges. (RST request)			NRC	40632	GE to provide 3/29 list, INPO providing technical review	O	
35		Confirm RST recommendation that RPV injection can be maximized once containment has been purged and vented (RST)			NRC	40632	Technical: Ongoing project, comments that shift focus are received during 1100 status call 3/29	O	
36	118	Requests for military air transport			J4, PACOM		PACOM is involved in review and approval of all requests for military airlift to Japan. Requests should include weight and dimensions of the cargo. 1st choice should be commercial carrier for timely delivery; should limit requests to materiel that is difficult for commercial carriers to deliver.	C	

U.S. Offers				
	date offered	USG agency	Embassy office responsible	status
balloons for unmanned radiation measurement	3/26/2011	NOAA	ECON	Japan accepted in principle; Japan to identify appropriate ministry
200-300 pieces of radiation measurement equipment		INPO through NRC		3/26 Japan said it would take all equipment offered
provide info on options for spent fuel transfer	3/26/2011	NRC		
U.S. expert on radiological tolerance of food to travel to Japan for consultations with FCS	3/26/2011	FDA	FAS	DCCS Fukuyama asked that FDA and FSC communicate directly
Canadian power plant to provide equipment for hand/foot monitoring	3/27/2011	INPO		
information on contamination control	3/28/2011			

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Last update: April 4 - 1815 hrs.								
Equipment/Supplies/Services Requested by GOJ								
No.	Equipment/Service Being Requested	Date of request	Requesting GOJ Office	GOJ POC	USG Action Office	USG POC	Status of response	Open/ Closed
1	Aerial survey for AMS measurement, data sharing and analysis	3/25 GOJ list	MEXT, NSC, NISA, MAFF		DOE	Cherry, Duncan	DOE coordinates with MEXT, NSC, NISA, MOFF, MOFA. Daily sharing of AMS data and products. Per 4/4 meeting with GOJ, agreement on joint aerial surveys 4/6-4/12. Joint Staff is sharing U.S. aerial survey info USFJ-Ichigaya.	O
2a	Ground radiation monitoring devices, mobile and stationary	3/25 GOJ list	MEXT, NSC, NISA, MOFA		DOE	Cherry	Mobile ground monitoring began 3/17. Discussions ongoing re fixed ground-based monitors. Need GOJ approval to proceed; MOFA is coordinating.	O
2b	(incl radiation friskers --hand /foot monitors)	3/28 Cab mtng	MEXT, NSC, NISA, MOFA		NRC/INPO	Blamey	Elaborates on request above - 20 hand/foot detectors (Bruce Howard), STP, San Onofre	O
3	Conduct simulation by radiation diffusion model (compare with SPEEDI data)		NSC, MEXT		DOE	Cherry, Duncan	DOE coordinates with NSC. NSC is the leading POC with the GOJ. GOJ has provided SPEEDI source term to NRC 3/25 and meteorological data with NARAC.	O
4	Germanium semiconductor detectors	3/25 GOJ list	MEXT, NISA, MAFF		DOE		INPO - US industry does not have spare detectors at this time (3/29). One detector has been loaned & training is underway. DOE to provide 1 detector each to MAFF and MHLW, due 4/6; 4 more for MAFF & MHLW, delivery TBD. NISA requested 1 HPE, under discussion.	O

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9	Transportation of fresh water by barges and delivery of pumps	3/25 list	MOD, NISA, MLIT, JCG		POL-MIL, DAO	Provided. Arrangement made for three vendor support representatives to stay and train.	
9a	Water barges		MOD		J4, PACOM	Per J4 the barges have been outfitted and tested and are 10 hrs from the NPP site and should arrive Weds. Need ETA	C
9b	Fresh water supply pumps from Bechtel					First train in Japan	C
10	High quality pumps and hoses.	3/26 meeting and previous discussion	MOD (TEPCO)	NRC	NRC	CLOSED: NRC rec'd info 3/26 on possible hose and said would investigate further; request withdrawn at 3/29 Cab meeting.	O
11	High pressure hose (3 x 500 m) and couplers (for cooling reactor)	3/25 list and previous discussion	NISA	NRC/DOD	NRC, DOD	Hose delivered as part of Australia/Bechtel equipment; in J-Village.	O
12	Protective body armor, radioactive survey meters and dosimeters, radioactive measuring instruments, iodine absorption masks, separation materials.	3/25 list	NISA, MOD	NISA, MOD		Japan repeated 3/27. (note: USAID has already provided 10,000 sets of protective clothing). Supply chain: Materials sourced; to be obtained commercially. Info sent to GOJ through Al Hochevar GOJ to establish need. Communicated to them that they are payers by Hochevar.	O
13	2100+ radiation survey meters	3/28 meeting	NISA, MOD	DART		probably existing request repeated/elaborated. Dosimeters referred to DART.	O
13a	Request for the following: 2100 units-Rad Survey Meters 2500 units-Personal Dosimetry 5100 units- iodine shielding masks			DART		Need status update	O

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14	5100+ masks for iodine absorption	3/28 meeting		NISA, MOD	DART		Nos. 14-16: probably existing request repeated/elaborated. Per INPO (A. Hochevar, 678-451-3017): these supplies can be obtained commercially by GOJ. Referred to DART.	0
15	33,000+ iodine absorption cans	3/29 draft list		NISA, MOD	DART			0
16	Separation materials for masks (as many as possible)	3/29 draft list		NISA, MOD	DART			0
17	2,000 personal radiation dosimeters (PRD)	3/28 meeting	MEXT, RIKEN				Comment; State (Randy Thur) email 3/24 said "MEXT has declined to provide a statement of needs" and said it will not be needing the units ; need to check status"	0
17a	2600+ personal dosimeters	3/28 meeting	NISA				Probably existing request repeated/elaborated	0
18	Potassium iodide (KI) preparation	3/25 list	NISA, MHLW, MOFA		HHS to provide; USAID to transport	Dr. Coleman and team (NIH via HHS), Robert Gabor Econ liaison with MOFA	MOFA said 3/30 it would accept the 1 million bottles (17 doses each) of liquid KI offered; requested via note vebale to DOS in D.C. (3/30); USG to share grant document text with GOJ before shipping.	0
19	Bottled water for infant formula	3/25 list	MHLW		USAID	USAID/OFDA	USAID and USFJ responded with initial stocks; paperwork underway at USAID/State for possible delivery April 1-2	0

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20	Heat exchanger to be used in spent fuel pool.	3/27 Nagashima; 3/29 list	NISA		NRC	INPO (AI Hochevar, 678-451-3017 (cell), expect source identified by 4/02/2011.	INPO is currently providing sources of comm'l heat exchangers that can be used to cool a spent fuel pool. (This will not result in purchase of heat exchanger.)	O
21	Devices for condensing radiation contaminated water & Information on evaporation technology	3/29 draft list	TBD		DOE, DOD	DOE Cherry, Duncan; DOD Adm. Gregory	Expanded request: On March 28 DCCS Fukuyama asked for information on measures to remove contaminated water.	O
21a	Assistance in dealing with accumulated radioactive water in turbine buildings	3/27 meeting			DOE/NRC	Cherry, Duncan	DOE paper provided to Amb. Roos and Amb Fujisaki on 3/29/11. Management of cont. water.	O
21b	Water storage tanks and a trailer for contaminated water at 1F	4/01, NISA-DOE mtg	NISA, TEPCO	NISA - Oshima;T EPCO - Umino	DOE	Cherry, Duncan	NISA asks info on specs, usage, installation. Asks if more are available. Request under consideration by USG. Need GOJ confirmation of request.	O
21c	Information on "evaporation technologies"	3/28 - DCCS Fukuyama			DOE	Cherry, Duncan		
21d	Obtain contact info for industry personnel with experience in handling and disposal of open pools/trenches of high dose rate(>100 R/hr) water. Rcvd Mar 29 from AI Hochevar from Hososn						Contacts developed and provided through INPO-AI Hochevar	C
21e	Direct request from GOJ to Pacific Northwest Labs for technical assistance with water decontamination and storage issues.				DOE	Cherry, Duncan		O

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20	Heat exchanger to be used in spent fuel pool.	3/27 Nagashim a; 3/29 list	NISA	NRC	INPO (AI Hochevar, 678-451-3017 (cell), expect source identified by 4/02/2011.	INPO is currently providing sources of comm'l heat exchangers that can be used to cool a spent fuel pool. (This will not result in purchase of heat exchanger.)	O
21	Devices for condensing radiation contaminated water & Information on evaporation technology	3/29 draft list	TBD	DOE, DOD	DOE Cherry, Duncan; DOD Adm. Gregory	Expanded request: On March 28 DCCS Fukuyama asked for information on measures to remove contaminated water.	O
21a	Assistance in dealing with accumulated radioactive water in turbine buildings	3/27 meeting		DOE/NRC	Cherry, Duncan	DOE paper provided to Amb. Roos and Amb Fujisaki on 3/29/11. Management of cont. water.	O
21b	Water storage tanks and a trailer for contaminated water at 1F	4/01, NISA-DOE mtg	NISA, TEPCO	NISA - Oshima;T EPCO - Umino DOE	Cherry, Duncan	NISA asks info on specs, usage, installation. Asks if more are available. Request under consideration by USG. Need GOJ confirmation of request.	O
21c	Information on "evaporation technologies"	3/28 - DCCS Fukuyama		DOE	Cherry, Duncan		
21d	Obtain contact info for industry personnel with experience in handling and disposal of open pools/trenches of high dose rate(>100 R/hr) water. Rcvd Mar 29 from AI Hochevar from Hososn					Contacts developed and provided through INPO-AI Hochevar	C
21e	Direct request from GOJ to Pacific Northwest Labs for technical assistance with water decontamination and storage issues.			DOE	Cherry, Duncan		O

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21f	Determine whether temporary radwaste processing skids are available or would be a good idea (for removing contaminated water)				INPO					O
21g	Temporary holding tanks (for removing contaminated water)				DOE; DOD; INPO					O
21h	Tanker trucks as a temporary holding area (for removing contaminated water)				DOE; DOD; INPO					O
21i	Investigate whether there is a technology that would absorb contaminated materials from water (for removing contaminated water)				DOE					O
22	INFO: UGVs with radiation mapping capacity	3/29 draft list	METI		DOE/DOD			Initial request on March 25 list was for information on UGVs. Discussed in Remote/Robotics WG attended by DOE. (See nos. 5,6)		O
23	INFO: Technical support on radiation technology, nuclear technology, and health effects	3/25 list	MHLW		DOE, USAID	Dr. Coleman (NIH via HHS)				
23a	Information on KI and drinking water									C
23b	Health cooperation in three areas: environmental monitoring; KI policy; risk communication		CAO	Dr. Akashi	USAID, State, NIH, CDC, USDA, DOD	Dr. Coleman	Both sides agreed to continue discussions and include other personnel to arrive later.			C
24	Medical triage re: exposure to radiation (decontamination capability)	3/25 list	MHLW		DOD, DOE, USAID	Dr. Coleman (NIH via HHS)	MOD initially identified as principal action ministry along with MHLW, subsequently changed 3/29. Chem Bio Initial Response Force (CBIRF) provided for this purpose.			O

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25	INFO: Extinguishant/coolant	3/25 list	NISA			Request further info from GOJ.	C
26	Incorporate PNL into crisis mgmt dialogue/Spent Fuel WG	3/26, 3/28 - DCCS Fukuyama	TBD	DOE/NRC	Cherry	PNNL team in Tokyo and providing support.	O
27	U.S. cooperation in bringing private sector engineers into Shielding WG	3/26 meeting - Nagashima		NRC		Not included on draft 3/29 request list	O
28	Assessment of possible fuel damage in units 1, 2, 3	3/27 - Hosono		NRC		NRC provided brief response at meeting.	C
29	Assessment of structural stability of spent fuel pools	3/27 - Nagashima ; 3/28 - Fukuyama		NRC	NRC reactor Safety Team	In preparation for decisions on shielding. NRC completed assessment of current spent fuel pool weight. Further analysis needed.	O
29a	Information on shielding for individual rooms and for the facility in general					Provided to GOJ through INPO-AI Hochevar.	C
29b	Japan asked for NRC expertise on temporary shielding options, to determine whether the NPP Plant buildings are strong enough to hold up under additional pressure				NRC	From Cabinet Office Crisis Mgt. Team Meeting notes 3-28-2011	C
30	Information on tools/methods for moving damaged fuel, plus contacts of those with experience at TMI-2 and Chernobyl. From Mr. Hosono.		Hosono's Office			Provided to GOJ through INPO-AI Hochevar on 3/30.	C

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31	SAMG Technical Document		Guidance has been sent to INPO contact in Japan and is being updated (Rev.1) and will be discussed 4/01; will include injection rate and best assessment to plant conditions; (need to confirm that INPO has received)	0
32	GEH is following up on the Nitrogen purge issue analysis		GE is following	0
33	Clarify for RST the indications that can be used to assess RPV integrity and location of core. (RST request)	NRC	ongoing project, comments that shift focus are received during 1100 status call 3/29	0
34	List alternative flowpaths that can be used for purging, given accessibility challenges. (RST request)	NRC	GE to provide 3/29 list, INPO providing technical review	0
35	Confirm RST recommendation that RPV injection can be maximized once containment has been purged and vented (RST)	NRC	Technical: Ongoing project, comments that shift focus are received during 1100 status call 3/29	0
36	Requests for military air transport	J4, PACOM	PACOM is involved in review and approval of all requests for military airlift to Japan. Requests should include weight and dimensions of the cargo. 1st choice should be commercial carrier for timely delivery; should limit requests to materiel that is difficult for commercial carriers to deliver.	C

From: M.Svab@iaea.org
To: cgv@csn.es; Albert.Frischknecht@ensi.ch; M.Lipar@iaea.org
Cc: [REDACTED] Grobe, Jack
Subject: RE: Regarding Raporteur task (personal communication)
Date: Wednesday, March 16, 2011 3:57:23 AM

Dear Carlos,

Thank you very much for your generous offer. We all try Japanese colleagues to help as best we can. I hope I'll find somebody to back up Mr Kudo soon and your help will not be necessary.

Once again, thank you very much.
Best regards
Miroslav

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

From: cgv@csn.es [mailto:cgv@csn.es]
Sent: Wednesday, 16 March 2011 00:49
To: SVAB, Miroslav; Albert.Frischknecht@ensi.ch; LIPAR, Miroslav
Cc: [REDACTED] Jack.Grobe@nrc.gov
Subject: RE: Regarding Raporteur task (personal communication)

Dear colleagues,

first of all, sorry for the delay in answering these mails, but today I am outside my office in an inspection in Cofrentes NPP and the mail server that works for posts outside the CSN was not working (as a matter of fact, right now I am using my hotel wireless to write this).

The next important thing to do is to wish Mr. Kudo as much luck as possible in these dire times, and to offer him my humble, and, I'm afraid pretty useless, support. I am really looking forward to hearing better news as soon as possible.

The last thing I want to say is that, although it may become a pretty irregular option (considering my own country is in the group) and it is not exactly the plan I had concerning next month's Convention, I'd like to offer my experience and disposition to act as Rapporteur in the groups if it finally ends up being necessary. I don't know if that is a good choice or not, but I feel it is the least I can do to help.

Best regards
Carlos

De: M.Svab@iaea.org [M.Svab@iaea.org]
Enviado el: martes, 15 de marzo de 2011 10:10
Para: Albert.Frischknecht@ensi.ch; M.Lipar@iaea.org
CC: [REDACTED] Jack.Grobe@nrc.gov; GARCIA VEGAS CARLOS
Asunto: RE: Regarding Raporteur task (personal communication)

Dear Albert,

As discussed on phone we cannot count on someone else is coming from Japan. I'll contact several former Rapporteurs to help if needed.

Best regards
Miroslav

From: Albert.Frischknecht@ensi.ch [mailto:Albert.Frischknecht@ensi.ch]
Sent: Tuesday, 15 March 2011 09:23
To: LIPAR, Miroslav; SVAB, Miroslav

BC/177

Cc: [REDACTED] Jack.Grobe@nrc.gov; cgv@csn.es
Subject: AW: Regarding Rapporteur task (personal communication)

Dear colleagues

I fully understand that Mr. Kudo is needed to support his colleagues and the people in Japan coping with this extreme situation.

Can we prepare something for the eventuality that Mr. Kudo could not act as Rapporteur?

Best regards

Albert

Von: [REDACTED] [mailto:[REDACTED]]
Gesendet: Dienstag, 15. März 2011 04:26
An: Frischknecht Albert; Jack.Grobe@nrc.gov; cgv@csn.es; M.Lipar@iaea.org; M.Svab@iaea.org
Betreff: Regarding Rapporteur task (personal communication)

Dear Colleagues in Country Group 1

From Fumio Kudo (Kudough)

Personal communication

As you know, Fukushima Dai-ichi Nuclear Power Station is in a critical condition.

After coming back from Vienna I was preparing NSC's Rapportuer task, but I was dispatched to the Government Emergency Response Center (ERC) in the NISA office immediately after the occurrence of the earthquake

(15:00 11th, March).

(NISA: Nuclear and Industrial Safety Agency)

I worked at the ERC until the next morning.

Since then I was in a midnight shift.

My task was to prepare English disseminating documents regarding earthquake and tsunami damage of nuclear power stations.

Since this morning (15th) I have returned back to a day shift at JNES to prepared NSC's Rapporteur task.

Currently, Fukushima Dai-ichi Unit 2 is in a critical conditon, as you know, and I am likely to be dispatched again to the ERC.

Currently since my schedule to go to Vienna has not been changed yet, I'm continuing my best to prepare the Rapporteur task.

On the other hand, the situation of Unit 2 is worsening hourly.

(Sheltering area has been augmented to 30km radius this morning.) (Evacuation area is already set as 20km radius.)

In view of the current situation, in my personal view, my visit itself to Vienna could be cancelled by the Government.

(This is not certain of course.)

In that case, I should have to ask a Rapporteur substitution to someone.

This is, of course, my personal view and this is a personal alerting mail just in case.

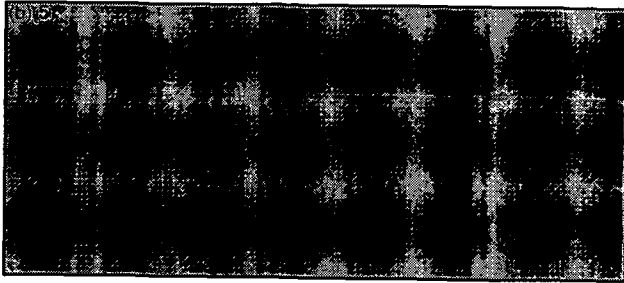
Best Regards;

Fumio

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Riley (OCA), Timothy

From: Droggitis, Spiros
Sent: Wednesday, March 16, 2011 7:18 AM
To: Powell, Amy; Dacus, Eugene; Decker, David; Weil, Jenny; Riley (OCA), Timothy; Shane, Raeann
Cc: Schmidt, Rebecca
Subject: Re: Q&As re: Japan



From: Powell, Amy
To: Droggitis, Spiros; Dacus, Eugene; Decker, David; Weil, Jenny; Riley (OCA), Timothy; Shane, Raeann
Cc: Schmidt, Rebecca
Sent: Wed Mar 16 07:11:36 2011
Subject: Re: Q&As re: Japan

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

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

Sent from my Blackberry

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

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

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

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

BC/178

(b)(5)

Thanks
Amy

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

Sent from my Blackberry

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

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

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

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

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

Angela,

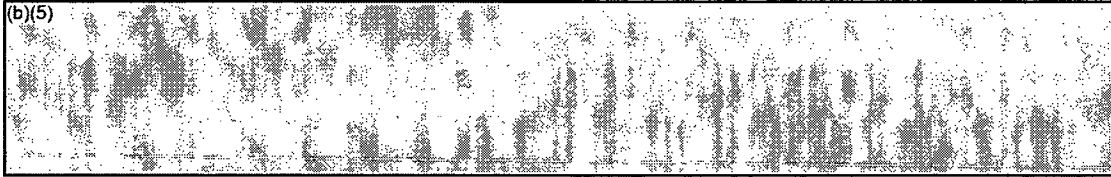
(b)(5)

(b)(5)

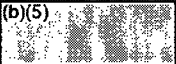
Regards,

From: Nelson, Robert
To: Boger, Bruce; Leeds, Eric; Ruland, William
Cc: Glitter, Joseph; Howe, Allen; Chernoff, Harold
Subject: RE: DORL Initiative
Date: Wednesday, March 16, 2011 9:32:38 AM

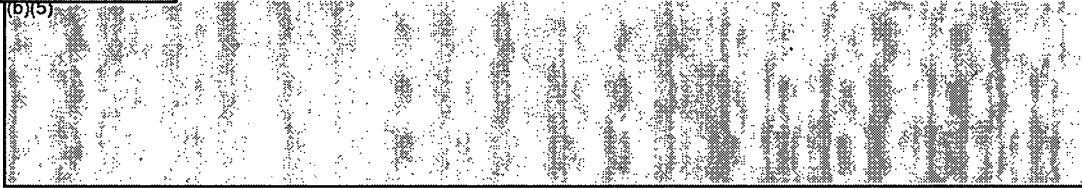
(b)(5)



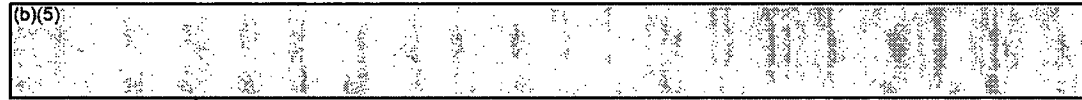
(b)(5)



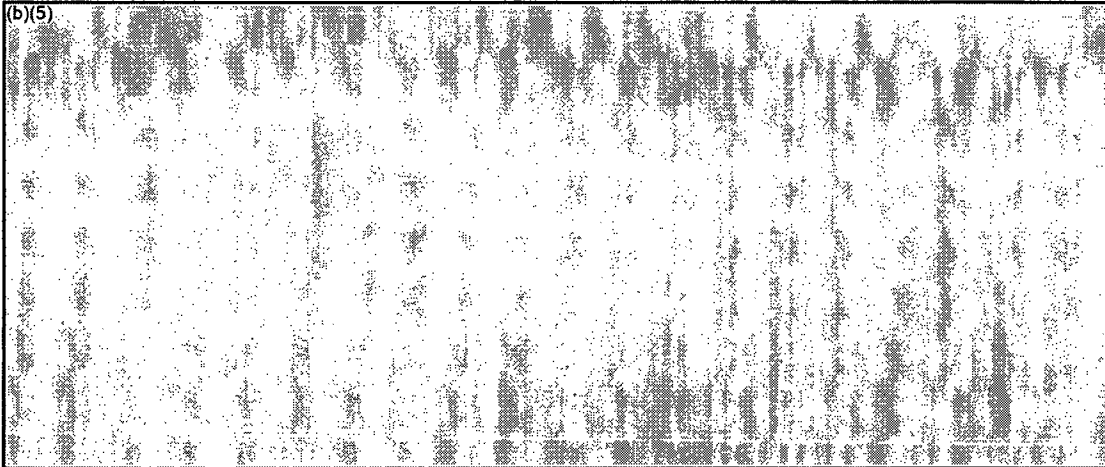
(b)(5)



(b)(5)



(b)(5)



Harold Chernoff made this suggestion and is working with the DORL BCs to finalize the process.

We'll keep you informed.

NELSON

From: Boger, Bruce
Sent: Wednesday, March 16, 2011 9:09 AM
To: Glitter, Joseph; Howe, Allen; Nelson, Robert
Subject: Fw: DORL Initiative

BC/179

Please advise us of any licensing actions that require delay or adjustment as a result of this appropriate focus. Thanks.

From: Leeds, Eric
To: Boger, Bruce; Ruland, William; Grobe, Jack
Cc: Giitter, Joseph
Sent: Tue Mar 15 17:27:51 2011
Subject: RE: DORL Initiative

Thank you! I need to know if any are influenced by the Japanese events.

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

From: Boger, Bruce
Sent: Tuesday, March 15, 2011 3:53 PM
To: Leeds, Eric; Ruland, William; Grobe, Jack
Cc: Giitter, Joseph
Subject: DORL Initiative

FYI—DORL has started to take a look at licensing actions that are ready for issuance with a sensitivity to potential considerations from the Japanese situation.

From: Leeds, Eric
To: Virgilio, Martin; Weber, Michael
Cc: Borchardt, Bill; Boger, Bruce; Grobe, Jack; Rutland, William; Johnson, Michael; Sheron, Brian; Evans, Michele
Subject: NRR Actions: near-term
Date: Wednesday, March 16, 2011 1:13:50 PM
Importance: High

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

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

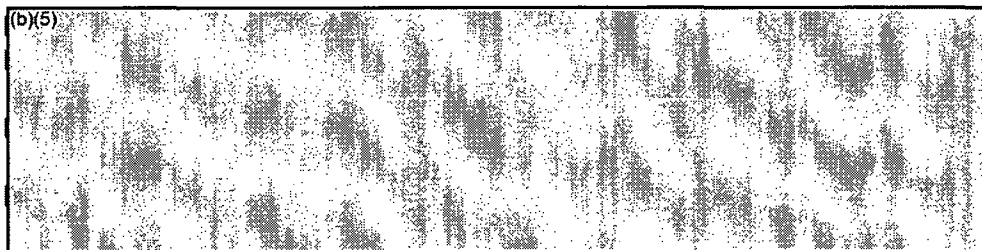
Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

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

FYI

From: Brown, Frederick
Sent: Wednesday, March 16, 2011 11:17 AM
To: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven
Cc: Vegal, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry
Subject: Action: Consider potential on-site activities in near-term
Importance: High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:



If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

BC/180

Thanks,
Fred

Rini, Brett

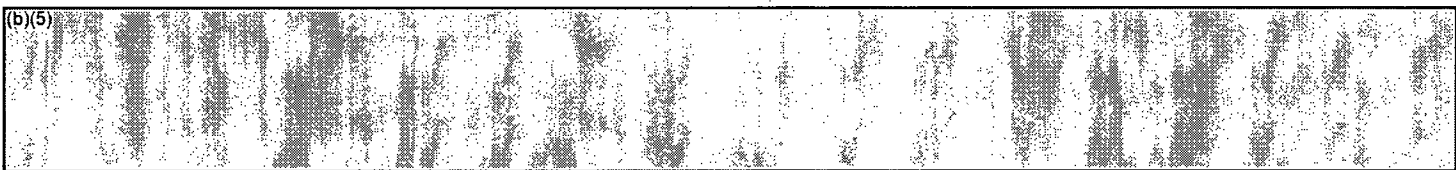
From: Sheron, Brian
Sent: Wednesday, March 16, 2011 9:17 PM
To: Sangimino, Donna-Marie
Cc: Valentin, Andrea; Dion, Jeanne
Subject: RE: Request for staff that can support OIP Additional Staff requirements outside Ops Center Long Term Staffing

Agreed.

From: Sangimino, Donna-Marie
Sent: Wednesday, March 16, 2011 4:53 PM
To: Sheron, Brian
Cc: Valentin, Andrea; Dion, Jeanne
Subject: RE: Request for staff that can support OIP Additional Staff requirements outside Ops Center Long Term Staffing

Brian,

(b)(5)



Thanks

Donna-Marie

From: Sheron, Brian
Sent: Wednesday, March 16, 2011 10:35 AM
To: Sangimino, Donna-Marie
Cc: Valentin, Andrea; Dion, Jeanne
Subject: RE: Request for staff that can support OIP Additional Staff requirements outside Ops Center Long Term Staffing

Send me the names. We are getting two requests from two different sources, and I'm not sure they are talking to each other.

From: Sangimino, Donna-Marie
Sent: Wednesday, March 16, 2011 9:52 AM
To: Sheron, Brian
Cc: Valentin, Andrea; Dion, Jeanne
Subject: FW: Request for staff that can support OIP Additional Staff requirements outside Ops Center Long Term Staffing
Importance: High

Brian,

As discussed at our 845, I'll forward proposed names suitable for assisting OIP and the international liaison position at the Ops Ctr to Jeanne by 3pm today.

Donna-Marie

BC/181

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

From: Leeds, Eric
To: Virgilio, Martin
Cc: Grobe, Jack; Boger, Bruce; Howe, Allen; Milligan, Patricia
Subject: RE: NRR Actions: near-term
Date: Thursday, March 17, 2011 7:47:00 AM

Thanks, Marty. A different thought (b)(5)

(b)(5)

(b)(5)

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

From: Virgilio, Martin
Sent: Thursday, March 17, 2011 6:08 AM
To: Leeds, Eric; Weber, Michael; Brown, Frederick
Cc: Borchardt, Bill; Boger, Bruce; Grobe, Jack; Ruland, William; Johnson, Michael; Sheron, Brian; Evans, Michele
Subject: RE: NRR Actions: near-term

Eric

(b)(5)

Marty

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

(b)(5)

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

BCI 182

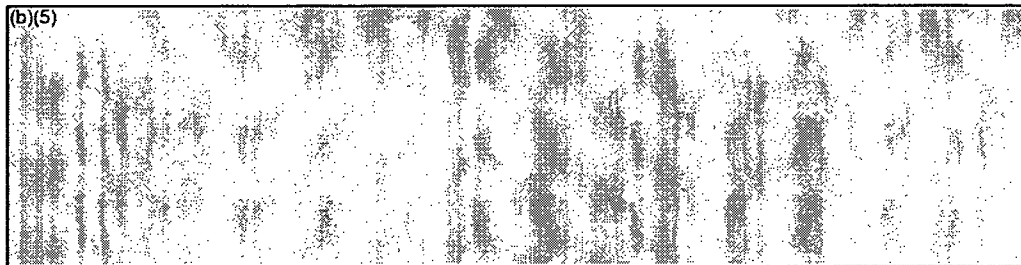
Eric J. Leeds, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
301-415-1270

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

FYI

From: Brown, Frederick
Sent: Wednesday, March 16, 2011 11:17 AM
To: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven
Cc: Vegal, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry
Subject: Action: Consider potential on-site activities in near-term
Importance: High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:



If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,
Fred

From: [Nguyen, Quynh](#)
To: [Leeds, Eric](#); [Grobe, Jack](#); [Roger, Bruce](#)
Cc: [Douglas Stone](#); [Sheila Heen](#); [Heather Sulejman](#); [Deeds, Erin](#); [Ruland, William](#)
Subject: COMMAND DECISION: Postpone Difficult Conversations?
Date: Thursday, March 17, 2011 9:01:03 AM
Importance: High

Either way... I'll work with Triad to implement.

Thanks,
Quynh

PS Doug, thanks for the email!

From: Douglas Stone [mailto:stone@diffcon.com]
Sent: Thursday, March 17, 2011 8:41 AM
To: Nguyen, Quynh
Cc: Sheila Heen; Heather Sulejman
Subject: Re: Next Week


Hi Quynh,

As the difficult events in Japan grow worse, and there is the possibility of attendance attrition for our work with you all next week, Sheila and I wanted to put out some possible options.

Our goal is to train the full raft of NRC folks as efficiently and economically as possible. All the options below work equally well from our point of view, so the only question is what works best for you all. We would treat any postponements as an "act of God," so no workshops fees to us would be incurred.

- (1) We could keep next week's set up as it is.
- (2) We could postpone Monday's follow up sessions, and still teach the third workshop on Tuesday and Wednesday. We could then merge the follow up for the three groups into two overall sessions (on one day) down the road, at an overall cost savings to you.
- (3) We could postpone both the follow up workshops and the third workshop, and re-schedule for a time when attendance will be stronger and easier for participants.

As I mention, the contract states that canceling or postponing at this late date results in a full fee payment. However, due to the events in Japan, we would waive that provision and charge no fees until the workshops are re-scheduled (which would mean no additional fees for postponement). I should note that we have incurred some out of pocket costs on airline fees, and so we'd investigate changing those tickets (with some possible resulting fees that would need to be passed through to you all).

We are, of course, prepared and eager to come down next week, but we want to do what is best for the NRC in terms of the overall impact of our work with you. So, let us know your thoughts. Please call me when you get this and we can discuss. My number at Triad is (617) 547-1728, ext. 

Talk soon,

BC/183

Doug

From: [Case, Michael](#)
To: N.Tricot@iaea.org
Cc: [Rini, Brett](#); M.Modro@iaea.org; M.Svab@iaea.org
Subject: RE: DS 367 - rev. 6.2
Date: Thursday, March 17, 2011 10:19:00 AM

Hi Nicolas:

Things are certainly busy over here with the Japanese earthquake and I'm sure they are for you as well. I think your approach sound great. I had heard that MDEP has been doing some work in the safety classification area. Have you heard anything about that? I'll get to work on an expert to support you!

Best regards,

Mike Case

From: N.Tricot@iaea.org [<mailto:N.Tricot@iaea.org>]
Sent: Wednesday, March 16, 2011 11:52 AM
To: Case, Michael
Cc: Rini, Brett; M.Modro@iaea.org; M.Svab@iaea.org
Subject: RE: DS 367 - rev. 6.2

Dear Mr Case,

I would like to thank you for your comments and for your last e-mail dated 14 March 2011.

By the way, it was our mistake that not all of the US comments were properly implemented in the draft version that was uploaded on the NUSCC website. I also agree with your remark that we should reach a minimum of consensus with the industry. This is one of our most important concern although the Industry is not an official NUSCC member.

In this regard, I have implemented a Consultancy Meeting on 9-10 March 2011, that involved some representatives from the industry. This was initially scheduled to include the expected NUSCC members comments for a tentative submission to CSS. We did slight modifications aimed at adjusting the document to better reflect the NUSCC members' comments. Regarding the USA, I guess that we are now very close to a version that would be acceptable to you. Of course there is still more work to be done in finding a resolution to the comments made by ENISS/Cordel and France (available on the NUSCC website) who also did not support the submission of the document to the CSS.

As already mentioned by Mr Svab, it has been decided not to submit the document to the CSS next May. However, after having also contacted France, I am still confident that we may be able to reach a consensus on an updated version for a new submission to NUSCC by the end of this year.

In this regard, I would like to implement a Consultancy Meeting with ENISS/Cordel, USA and French representatives, in order to make sure that the resolution of their comments (or concerns) will be correctly considered (accepted or rejected) in an updated version of the document. I would

BCI 184

therefore appreciate it if you could let me know whether you could propose to us a representative from the USA to attend a 3 days Consultancy Meeting in Vienna by mid of this year. I will let you know later about the tentative dates.

Should you need any further information, please do not hesitate to contact me.

I would like to thank you for your kind support,

With my best regards,

Nicolas

Nicolas TRICOT
Safety Assessment Section
Division of Nuclear Installation Safety
Wagramer Strasse 5, Room B0649
A-1400 Vienna, Austria
Tel: 0043 1 2600 25992

From: SVAB, Miroslav
Sent: Tuesday, 08 March 2011 11:43
To: 'Michael.Case@nrc.gov'
Cc: Rini, Brett; 'Geoffrey.Vaughan@hse.gsi.gov.uk'; Al-MADHI, Balsam; TRICOT, Nicolas; MODRO, S. Michael
Subject: RE: DS 367 - rev. 6.2

Dear Mike,

Thank you very much for your position. The document will not be submitted to CSS.

Best regards

Miroslav Svab

From: Michael.Case@nrc.gov [mailto:Michael.Case@nrc.gov]
Sent: Friday, 04 March 2011 21:00
To: Al-MADHI, Balsam; TRICOT, Nicolas; SVAB, Miroslav
Cc: Rini, Brett
Subject: RE: DS 367 - rev. 6.2

Dear Colleagues,

I hope all is going well for you. As was requested at the last NUSC meeting, we have been considering the latest revision of DS 367 on Safety Classification. We believe that it would be best if it were not forwarded for CSS review at this time. As part of the post-NUSC review, we provided some comments that were not included in the final draft and

we would like to understand your reasoning better. Of particular importance to us were the ones concerning Safety Class 4. Also, we think that this guide is one where industry input would be most valuable. Therefore, moving forward without addressing some of the concerns expressed by industry on this guide may not be the best approach.

We hoping that some additional work on this guide will result in an improved product with a broad consensus. I appreciate all the hard work you have put into the guide and want to be supportive in getting it done. Let me know your thoughts and insights. I look forward to our next meeting.

Best regards,

Mike Case

From: B.Al-Madhi@iaea.org [mailto:B.Al-Madhi@iaea.org]

Sent: Monday, February 07, 2011 5:15 AM

To: gdooffice@tnrc.org; Adorjan@haea.gov.hu; salten@taek.gov.tr; anhar@batan.go.id; azlina@aelb.gov.my; souad.baccouche@cnsn.mrt.tn; baranaev@ippe.ru; Mark.Bassett@hse.gsi.gov.uk; giovanni.bava@isprambiente.it; jean-pierre.berger@foratom.org; lucian.biro@cncan.ro; Borysova@world-nuclear.org; jean-paul.bouard@edf.fr; Rini, Brett; walter.cabral@amr.miem.gub.uy; anunezc@cnsns.gob.mx; Case, Michael; benoit.deboeck@belv.be; m.demcenko@vatesi.it; pdemetriades@dli.mlsi.gov.cy; [REDACTED] gemi-reynolds@idngh.com; fabien.feron@asn.fr; peter.flury@ensi.ch; bernard.fourest@edf.fr; thomas.froehmel@eon-energie.com; adrian.george@british-energy.com; Y.Gledachev@bnra.bg; ian.grant@fanr.gov.ae; gromann@cnen.gov.br; a.habib@pnra.org; anders.hallman@ssm.se; tezuka-hiroko@jnes.go.jp; hirshfel@soreq.gov.il; miroslav.holan@cez.cz; khk@kins.re.kr; George.Ishack@cncs-ccsn.gc.ca; Jacqueline.Patel@hsl.gov.uk; marja-leena.jarvinen@stuk.fi; maciej.iurkowski@paa.gov.pl; sirichai@oep.go.th; hklonk@bfs.de; li.jingxi@sepa.gov.cn; [REDACTED]; aj.muzumdar@candu.org; nemoto.takumi@jaea.go.jp; nicolaou@ee.duth.gr; ogiso-zenichi@jnes.go.jp; oshima-toshiyuki@meti.go.jp; vesselina.rangelova@ec.europa.eu; javier.reig@oecd.org; SRokita@nnr.co.za; greg.rzentkowski@cncs-ccsn.gc.ca; asadigzadeh@aeoi.org.ir; Pekka.Salminen@stuk.fi; Diana.Seefeldt@grs.de; bernard.sevestre@cea.fr; steven.sholly@boku.ac.at; shumkova@mintop.energy.gov.ua; soufi@cnesten.org.ma; milan.sykora@cez.cz; peter.uhrik@ujd.gov.sk; ivo.valcic@dzns.hr; Keijo.Valtonen@stuk.fi; geoffrey.vaughan@hse.gsi.gov.uk; kkvaze@barc.gov.in; serge.vigne@ec.europa.eu; djordje.vojnovic@gov.si; rwaldman@arn.gob.ar; christine.wassilew@bmu.bund.de; ewestermeier@bfs.de; louis.vanderwiell@minvrom.nl; dr.werner.zaiss@foratom.org; jzj@csn.es

Cc: M.Svab@iaea.org; N.Tricot@iaea.org

Subject: DS 367 - rev. 6.2

Dear Colleagues,

Let me inform you that DS 367, rev. 6.2 has been uploaded to the NUSSC webpage, under:

<http://www-ns.iaea.org/committees/comments/default.asp?lg=a&fd=1006>

As it was agreed at 30th NUSSC Meeting, I expect to receive your position whether this document can be submitted to CSS or not. Should you have any minor comments, please, send them to the Technical Officer, Mr Nicolas Tricot (in copy to me). Your position as well as comments should be sent before 4 March 2011.

If you don't reply by 4 March 2011, I assume that everything is OK with DS 367, rev.6.2, and it can be submitted to CSS.

Thank you very much.

Best regards

Mr. Miroslav Svab

Scientific Secretary for NUSSC

Department of Nuclear Safety and Security

Regulatory Activities Section (RAS)

International Atomic Energy Agency (IAEA)

P.O.Box 100, A-1400 Vienna, Austria

Tel: (+43-1) 2600 26629

E-mail: M.Svab@iaea.org

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From: Nelson, Robert
To: Meighan, Sean; Nguyen, Quynh
Cc: Leeds, Eric; Pannier, Stephen
Subject: Action: Potential Questions for EOC meetings
Date: Thursday, March 17, 2011 10:27:00 AM

Please screen for Qs that have already been answered & work with Eric for Ops Center support.

NELSON

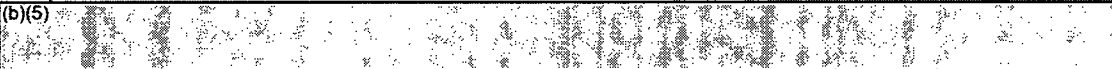
From: Croteau, Rick
Sent: Wednesday, March 16, 2011 4:03 PM
To: Nelson, Robert
Subject: FW: Potential questions for EOC meetings

Nelson,
These are the questions I fed up a few days ago through Vic as possible EOC questions. Not sure who is working on agency responses to these, or if they are being worked. Our first EOC meeting is 3/24 at Robinson and I will be there.
Rick

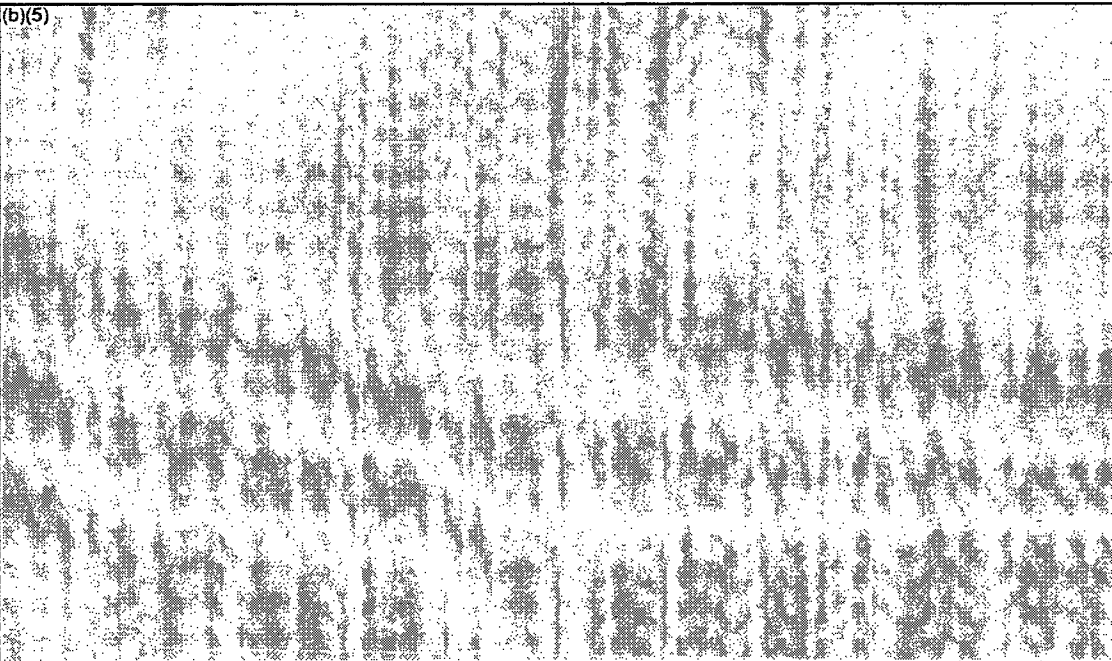
From: Croteau, Rick
Sent: Monday, March 14, 2011 4:35 PM
To: McCree, Victor
Cc: Wert, Leonard; Jones, William
Subject: Potential questions for EOC meetings

Vic.

(b)(5)

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(b)(5)

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BC/185

(b)(5)

Rick

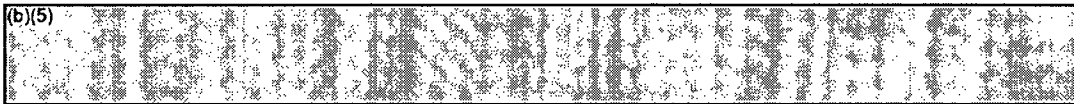
From: Holian, Brian
To: Lew, David; Dean, Bill; Boger, Bruce; Leeds, Eric
Cc: Galloway, Melanie; Pham, Bo; Burnell, Scott; Dacus, Eugene; Nelson, Robert; Glitter, Joseph; Howe, Allen; Screnci, Diane; Sheehan, Neil; Roberts, Darrell; Wilson, Peter; Spencer, Mary; Pelton, David
Subject: VY...Lic Ren
Date: Thursday, March 17, 2011 10:38:09 AM

As of today, we plan to issue the VY license on Monday.

The timing has not been discussed... I would expect we may sign it prior to the 0900 Commission meeting on the Japan event. (I will try and firm up a time today and get back to you).

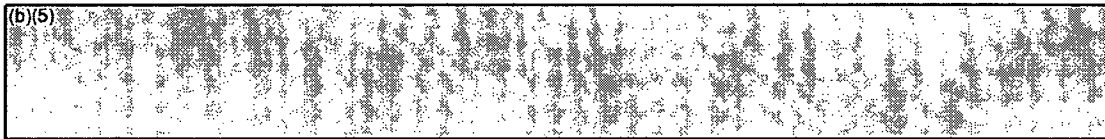
DLR will fax it to the licensee after it is signed.

(b)(5)



The basic answer to questions on "why renew now"...will be that the applicant has satisfied the requirements of Part 54. The staff has completed an extensive review. In light of the event in Japan, the NRC is doing, and will complete, an extensive review – and any regulatory changes (short term or long term) will be applied through Part 50 on the applicable plants (irrespective of whether a plant has gone through license renewal or not).

(b)(5)



- Brian

BCI 186

From: Nelson, Robert
To: Leeds, Eric; Boger, Bruce
Cc: Ruland, William; Gitter, Joseph; Meighan, Sean; Nguyen, Ouynh
Subject: Request: Message Regarding My Role as Comm Coordinator
Date: Thursday, March 17, 2011 11:05:00 AM
Attachments: SUGGESTED COMMUNICATION.docx

Please see attached for a suggested e-mail. Also included are the suggested recipients. I take no pride in authorship so please revise as needed.

Thanks for your help.

NELSON

BC/187

SUGGESTED COMMUNICATION

I've assigned Bob Nelson, Deputy Director, Division of Operating Reactor Licensing, as the NRR Coordinator for External Communications related to NRR's response to the recent events in Japan. Nelson and his team will be responsible for coordinating the development and review of related Qs & As, and coordinating the response to related controlled correspondence tasked to NRR, including related 2.206 petitions. Assisting Nelson will be Sean Meighan and Quynh Nguyen from the NRR front office, Eric Thomas from DIRS and a communications "tiger team" being formulated in DORL headed by Mike Markley. Harold Chernoff will also provide assistance as needed. Please forward all of your requests for support in this area to Nelson. (Extension [REDACTED] and cell: [REDACTED])

TO:

NRR ET
NRR Div Dirs & Deputies
Op Center Liaison Team
Annie Kammerer
Mindy Landau
Brian Wittick
Brian McDermott
Scott Morris
Jane Marshall
Bill Gott
Elliot Brenner
Elizabeth Hayden

CC:

Marty Virgilio
John Thorp
Sean Meighan
Quynh Nguyen
Mike Markley
Harold Chernoff
Eric Thomas

From: Grobe, Jack
To: Weerakkody, Sunil; Leeds, Eric; Boger, Bruce
Cc: Sheron, Brian; Uhle, Jennifer; Wiggins, Jim; Evans, Michele
Subject: Re: Question w.r.t. NRC's New Strategic Plan for Out Years for you to ponder
Date: Thursday, March 17, 2011 12:52:21 PM

Sunil

(b)(5) However it is really too early to say definitively.
Jack Grobe, Deputy Director, NRR

From: Weerakkody, Sunil
To: Leeds, Eric; Boger, Bruce; Grobe, Jack
Cc: Sheron, Brian; Uhle, Jennifer; Wiggins, Jim; Evans, Michele
Sent: Thu Mar 17 11:14:31 2011
Subject: Question w.r.t. NRC's New Strategic Plan for Out Years for you to ponder

Eric\Jack\Bruce,

As the NRR representative overseeing the NRC Strategic Plan development activities, I have the following question for you to ponder among yourself and share your views, when time permits, so that I can effectively represent NRR. I will be posing this same question to members of the Steering Group to initiate a dialogue among the members.

(b)(5)

Sunil D. Weerakkody
Deputy Director - DRS (Acting)
NRC - RGN I
Tel: 610-337-5128

BC/188

From: Weerakkody, Sunil
To: Wiggins, Jim
Cc: Leeds, Eric; Grobe, Jack
Subject: RE: Question w.r.t. NRC's New Strategic Plan for Out Years for you to ponder
Date: Thursday, March 17, 2011 12:55:58 PM

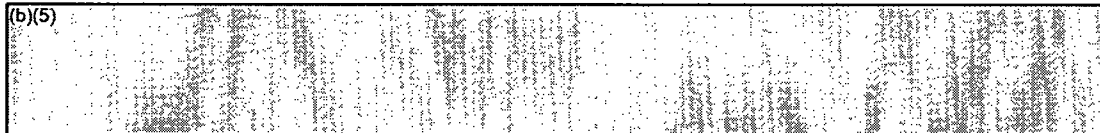
Jim,

At a minimum, I'll check whether plan embraces the concept of learning from events and accidents EXPLICITLY. I'll be re-reading the whole plan during this weekend.

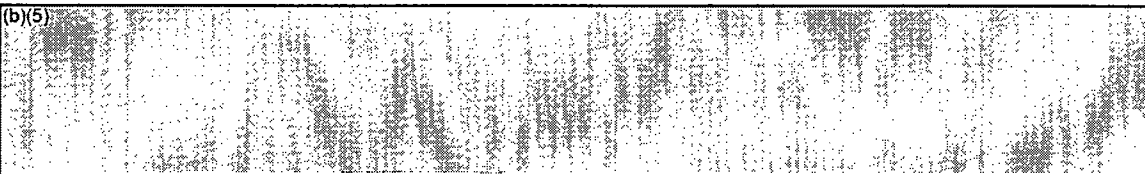
Sunil

From: Wiggins, Jim
Sent: Thursday, March 17, 2011 12:51 PM
To: Weerakkody, Sunil
Cc: Leeds, Eric
Subject: RE: Question w.r.t. NRC's New Strategic Plan for Out Years for you to ponder

(b)(5)



(b)(5)

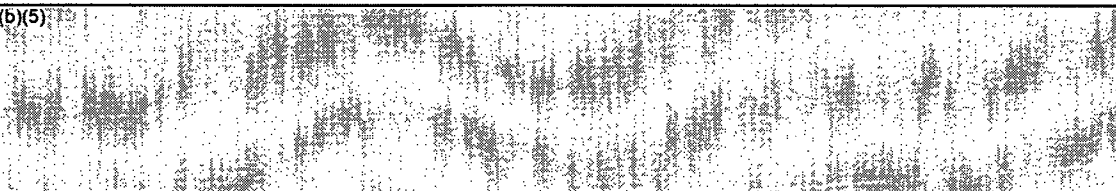


From: Weerakkody, Sunil
Sent: Thursday, March 17, 2011 11:15 AM
To: Leeds, Eric; Boger, Bruce; Grobe, Jack
Cc: Sheron, Brian; Uhle, Jennifer; Wiggins, Jim; Evans, Michele
Subject: Question w.r.t. NRC's New Strategic Plan for Out Years for you to ponder

Eric\Jack\Bruce,

As the NRR representative overseeing the NRC Strategic Plan development activities, I have the following question for you to ponder among yourself and share your views, when time permits, so that I can effectively represent NRR. I will be posing this same question to members of the Steering Group to initiate a dialogue among the members.

(b)(5)



Sunil D. Weerakkody

BC/189

Deputy Director - DRS (Acting)

NRC - RGN I

Tel: 610-337-5128

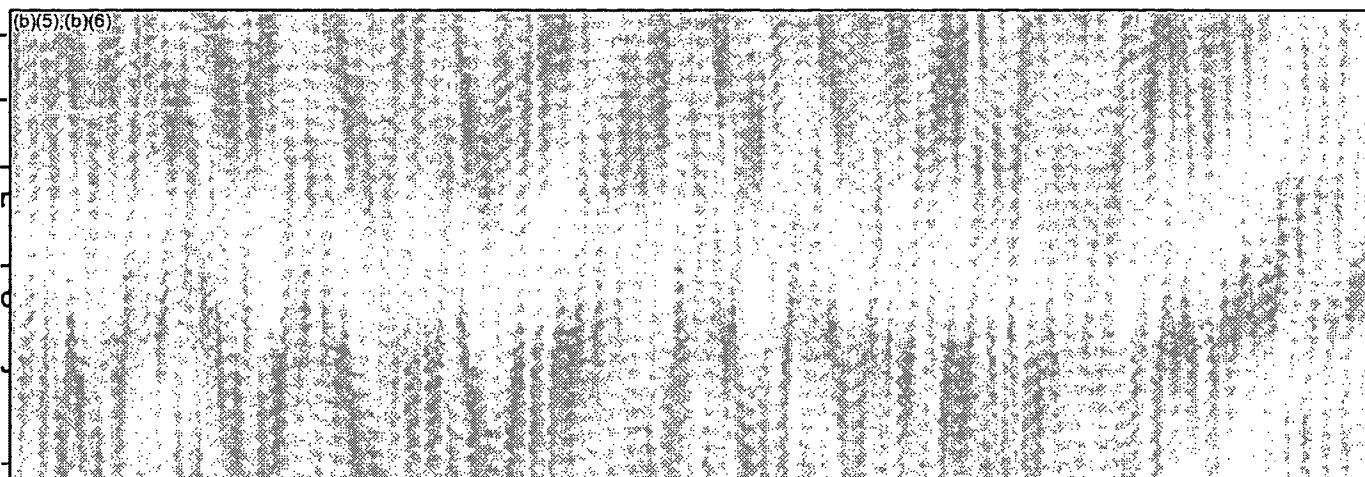
Rini, Brett

From: Sheron, Brian
Sent: Wednesday, March 16, 2011 9:12 PM
To: Dion, Jeanne
Cc: Uhle, Jennifer
Subject: FW: IRC Staffing

From: Boyce, Tom (RES)
Sent: Wednesday, March 16, 2011 5:15 PM
To: Case, Michael
Cc: Richards, Stuart; Sheron, Brian
Subject: RE: IRC Staffing

The following people have expressed interest from RGDB:

IRC staffing:



From: Case, Michael
Sent: Wednesday, March 16, 2011 7:16 AM
To: Graves, Herman; Hogan, Rosemary; Csontos, Aladar; Koshy, Thomas; Lin, Bruce; Boyce, Tom (RES); Ali, Syed; Murphy, Andrew; Tregoning, Robert; Gavrilas, Mirela; Sydnor, Russell; Lorette, Phillip
Cc: Richards, Stuart
Subject: FW: IRC Staffing

Can you all start to think about this and let me know of any potential names by around noon?

From: Sheron, Brian
Sent: Tuesday, March 15, 2011 5:27 PM
To: Coyne, Kevin; Case, Michael; Coe, Doug; Correia, Richard; Gibson, Kathy; Lui, Christiana; Richards, Stuart; Sangimino, Donna-Marie; Scott, Michael; Uhle, Jennifer; Valentin, Andrea
Cc: Dion, Jeanne
Subject: IRC Staffing

I participated on a conference call with other ODs and led by Michele Evans, acting deputy OD in NSIR at 4 pm today.

BC1190

The purpose of the conference call was to discuss staffing for the IRC for the near future. The IRC is currently staffed with members of the Reactor safety team, the Protective Measures team, Liaison Team, etc. There is also an ET member there. None of the teams are at their full compliment. What Michele is looking for is people that can staff the IRC and relieve the staff that are currently there. She said they are currently running 3 shifts (11pm-7am, 7am – 3pm, and 3pm to 11 pm). They would like to find staff that can work shifts for 4 days in a row (I think she wants 4 days on, 3 days off). She said the staff do not have to have had IRC training.

Several of us said we would certainly canvas our staff to see who was qualified to work in the IRC and could work there, but we needed to know what technical disciplines they were looking for. Michele did not have a list of needed disciplines, but said she would generate one and send it out. As of 5:15 pm I have not received a list yet.

However, I am assuming they will be looking for staff with expertise in such areas as systems analysis, severe accidents, radiological dose assessment, etc. In anticipation that these are the technical disciplines of interest, can you please start identifying your staff that you believe have some of the requisite skills needed for the IRC, and start asking if they would be available to work shifts in the IRC if asked to. HR said they would be eligible for normal overtime compensation.

Also, they will be looking for staff to go to Japan and relieve the technical staff that recently went there. There were 2 BWR experts that left over the weekend, and a team of 9 more (6 engineers and 3 OIP staff) left yesterday. The thinking is that the staff that recently went over would come back in 2 weeks, which is when they want to send a replacement team over there. So please check to see if you have any staff with the proper technical credentials, are reasonably good communicators, and would be willing to spend about 2 weeks in Japan as part of the team there..

I will forward the list of desired disciplines as soon as I receive them from Michele. Michele said she will be looking for the list of potential IRC replacements by COB tomorrow (3/16/11), thus, I will need your candidates by mid-afternoon.

For the team that will replace the one that was just sent to Japan, she said she would like us to update the list we previously sent by COB 3/17.