

From: Kammerer, Annie
To: RES_DE_SGSEB; Chokshi, Nilesh; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sherron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Subject: More info
Date: Friday, March 11, 2011 8:40:18 AM

The area around fukushima is mid-way through evacuation

The coastal community around diablo canyon is on tsunami evacuation. no word on what SONGS is doing.

From goutam...

• Plant shut down but reactor cooling system damaged• No leaks at 11 nuclear powerhouses in quake zone, says PM

Cheers,
Annie

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

From: Kammerer, Annie
To: RES_DE_SGSEB; Chokshi, Nilesh; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sherron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Sent: Fri Mar 11 07:52:21 2011
Subject: preliminary unconfirmed confidential information

Fukushima (there are two plants. not sure which this occurred at): Station blackout. Loss of offsite power and the diesels didn't start. They are brining in generators from an outside facility

Onagawa 0.567g recorded at the base mat. Fire in the turbine building.

Tokai shook but no information yet.

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

(b)(6) mobile
(b)(6) BB

MMMMM/1

From: Richards, Stuart
To: Case, Michael
Subject: Friday
Date: Friday, March 11, 2011 6:25:27 PM

Mike

Kind of a crazy day. The morning was occupied with the NRR budget discussion and the IRSN meeting.

The afternoon was dominated by the Japanese earthquake.

I didn't get as much done as I had hoped, so I left some stuff on your chair.

If you need to contact me, my cell phone number is (b)(6) Stephanie and Phil both have the number also.

Thanks
Stu

mmmm/2

From: Jean.GAUVAIN@oecd.org
Subject: FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents
Date: Friday, March 11, 2011 7:52:23 AM

WGPC Members
Cc CNRA, CSNI, WGOE, WGIP, IAGE, IAGESEISM
Please read below update and correction to previous message

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

From: Akihiro YAMAMOTO [mailto:a-yamamoto@houshasen.tsuruga.fukui.jp]
Sent: Friday, March 11, 2011 13:41
Subject: [Yama] Evacuation order to residents

The people of a town near Fukushima Daiichi Units (Within 2 km) were ordered to evacuate their homes.

I was mentioned previous emails with regard to ECCS but I think this is very strange that ECCS are really being driven even diesel generators has failed to start.

Please correct that following plants are just in the emergency mode and not in the ECCS mode.

- Fukushima 1-1 - State of emergency
- Fukushima 1-2 - Call off the emergency
- Fukushima 1-3 - State of emergency
- Fukushima 2-1 - State of emergency
- Fukushima 2-2 - State of emergency
- Fukushima 2-4 - State of emergency

- Yama

+++++
Akihiro YAMAMOTO
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Nuclear Safety Measurement Division
Fukushima Prefecture Government

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E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp
+++++

From: Akihiro YAMAMOTO [mailto:a-yamamoto@houshasen.tsuruga.fukui.jp]
Sent: Friday, March 11, 2011 8:00 PM
To: 'Akihiro YAMAMOTO'; Jean.GAUVAIN@oecd.org
Cc: Javier.REIG@oecd.org; Luis.ECHAVARRI@oecd.org; Uichiro.YOSHIMURA@oecd.org;
Serge.GAS@oecd.org; Axel.BREEST@oecd.org; Elisabeth.MAUNY@oecd.org; Greg.LAMARRE@oecd.org;
Radomir.REHACEK@oecd.org; Alejandro.HUERTA@oecd.org; Diane.JACKSON@oecd.org;
Jean.GAUVAIN@oecd.org; John.NAKOSKI@oecd.org; Philippe.GRESS@oecd.org;
Lawrence.BURKHART@oecd.org; 'Carlo Vitanza'; Abdallah.amri@oecd.org
Subject: [Yama] Situation update (19:45 Japan time)

NISA is now holding a press conference.

- Fukushima 1-1 (ECCS mode)
- Fukushima 1-2 (ECCS mode) - Call off the emergency
- Fukushima 1-3 (ECCS mode)

MMMM/3

Fukushima 2-1 (ECCS mode)

The problem is that they can't monitor water injection (ECCS).
It might be a problem of the monitoring system.

In fact, TEPCO called off the emergency of unit 1-2 a while ago because they are able to monitoring the water level in the reactor now.

Yama

Akihiro YAMAMOTO
Agency Management Specialist
Nuclear Safety Measurement Division
Hokai Electric Power Corporation

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E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp

From: Akihiro YAMAMOTO [mailto:a-yamamoto@houshasen.tsuruga.fukui.jp]
Sent: Friday, March 11, 2011 7:30 PM
To: 'Jean.GAUVAIN@oecd.org'
Cc: 'Javier.RETG@oecd.org'; 'Luis.ECHAVARRI@oecd.org'; 'Uichiro.YOSHIMURA@oecd.org';
'Lydie.GUYOT@oecd.org'; 'Marie-Laure.PEYRAT@oecd.org'; 'Serge.GAS@oecd.org';
'Axel.BREEST@oecd.org'; 'Elisabeth.MAUNY@oecd.org'; 'Greg.LAMARRE@oecd.org';
'Radomir.REHACEK@oecd.org'; 'Alejandro.HUERTA@oecd.org'; 'Diane.JACKSON@oecd.org';
'Jean.GAUVAIN@oecd.org'; 'John.NAKOSKI@oecd.org'; 'Philippe.GRESS@oecd.org';
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'christele.tephanympania@oecd.org'; 'Aileen.LITTLE@oecd.org'; 'Carlo Vitanza'; 'Abdallah.amri@oecd.org'
Subject: [Yama] Situation now - ECCS mode

Dear all,

TEPCO (Tokyo Electric Power Company) declared the state of emergency of following NPPs.
Fukushima 1-1
Fukushima 1-2
Fukushima 1-3
Fukushima 2-1 (ECCS mode now)

I am trying to get information why DG can't start up (problem of intake sea water for the cooling DG system?)

There is a fire from turbine building (B1 floor) at Onagawa NPP unit 1 but the fire fighting was completely succeeded.

<http://www.yomiuri.co.jp/dy/national/20110311dy01.htm>

A while ago, Fukui (my office located) had also earthquake (M4.1). We have 15 NPPs but no damage to the NPPs.

Yama

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Fukui Prefectural Government

Telephone: +81 (0) 776 20 0314

E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp

From: Brown, Frederick
To: Roger, Roger; Leary, Eric; Grope, Jack; Benaviz, Steve; Blount, Tom; Cowie, Michael; Evans, Michele; Farrell, Kimberly; Galloway, Melanie; Gitter, Joseph; Grayson, Mary; Heland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; Lugo, Lorena; Mark, Cunningham; McGinty, Tim; Nelson, Robert; Quay, Theresa; Bullock, William; Speer, David; Wierzbicki, Scott
Subject: FW: Earthquake Update as of 11 am
Date: Friday, March 11, 2011 12:19:12 PM
Attachments: NPP Japan map2011.pdf

FYI – item 4c of most interest

From: Thomas, Eric
Sent: Friday, March 11, 2011 11:13 AM
To: Brown, Frederick
Cc: Thorp, John; Garmon-Candelaria, David; Bernardo, Robert; Haskell, Russell; Pannier, Stephen
Subject: Earthquake Update as of 11 am

Fred,

I have been monitoring the phone and email traffic as best I can this morning. There is a lot of repetition so I think it may be useful to summarize the salient points every couple of hours. Here is what I have as of 11:00. I am going over to the Ops Center to see what I can pickup on the 11:00 and 11:45 calls. Based on the amount of traffic going around, you may find it useful (or not) to forward this to ET/LT members.

The following information was gathered from several different sources. The best online source of information we have noted thus far is the Tokyo Electric Power Company (TEPCO) website: <http://www.tepco.co.jp/en/index-e.html> which is issuing hourly press releases on the status of its facilities.

1. A magnitude 8.9 earthquake occurred approximately 80 km east of Onagawa NPP and 150 km NE of Fukushima Daichi. USGS believes the quake may have actually been a 7.9. 5 aftershocks measuring between 6.2 and 7.1 on the Richter Scale have been reported.
2. Based on stack monitoring, no radiation releases have occurred from any nuclear facilities.
3. All units that were operating at the time at the Onagawa, Fukushima Daichi, Fukushima Daini, and Tokai Daini sites (11 units in all) automatically shutdown when the earthquake hit at 2:45 pm local time on 3/11.
4. The following complications occurred:
 - a. Onagawa – A small fire occurred in the turbine building and was extinguished.
 - b. Fukushima Daichi – A small fire occurred in a service building and was subsequently extinguished.
 - c. Fukushima Daichi – A first level emergency was declared at 3:42 pm local on 3/11 due to a loss of offsite power and subsequent failure of EDGs which resulted in a station blackout. The loss of EDGs may have been due to a seawater cooling issue. A backup EDG was being brought in on a truck to provide power. An evacuation has been ordered out to 3 km, and residents have been told to shelter in place out to 10 km.
 - d. Fukushima Daini – RCIC is providing cooling to all 4 units that shutdown. In

MMMM/4

Unit 1, ECCS actuated due to a possible RCS leak into containment. The first level emergency declaration also applies to Fukushima Daini Unit 1.

Eric Thomas

U.S. Nuclear Regulatory Commission

NRR/DIRS/IOEB

OWFN-7E24

eric.thomas@nrc.gov

301-415-6772 (office)

(b)(6) (mobile)

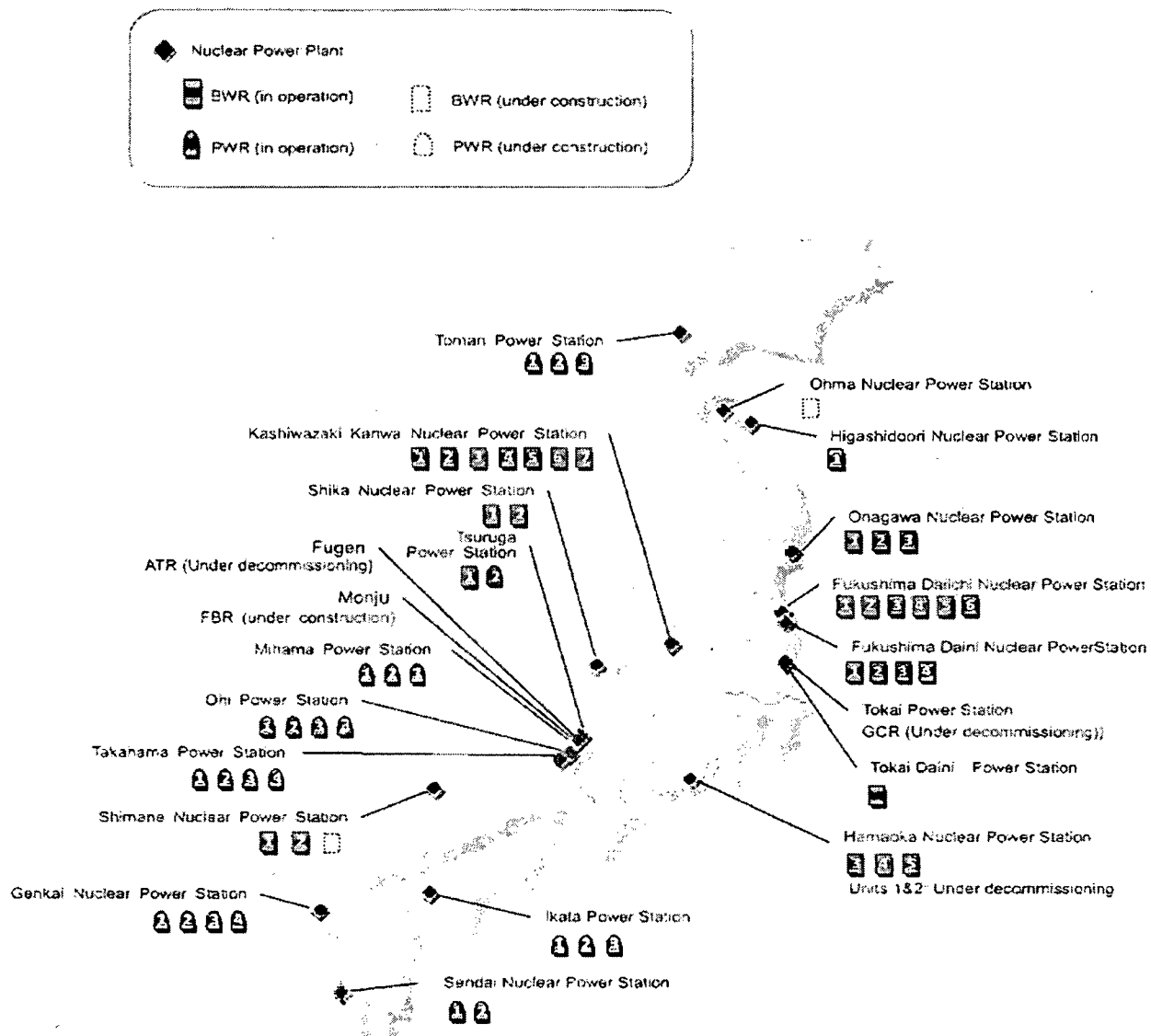


Fig. A-2 Locations of Nuclear Installations

From: Cullingford, Michael
To: Leeds, Eric; Gombé, Jack; Bonel, Bruce
Cc: Begon, Christopher; Astwood, Heather; Hopkins, Jan; Quinones, Lauren
Subject: FW: OECD/NEA - WGPC Secretariat - FW: Japan Situation update (Friday 11 March 11:45 UTC - 19:45 Japan time)
Date: Friday, March 11, 2011 7:42:39 AM
Attachments: NPP Japan mar2011.pdf

fyi

From: Jean.GAUVAIN@oecd.org [mailto:Jean.GAUVAIN@oecd.org]
Sent: Friday, March 11, 2011 7:34 AM
To: klaus.kotthoff@grs.de; yves.vandenberghe@belv.be; imj@csn.es; tanaka-nobuo@jnes.go.jp; petteri.tiippana@stuk.fi; benoit.deboeck@belv.be; Thorp, John; greg.rzentkowski@cncs-ccsn.gc.ca; jean-christophe.niel@asn.fr; bogdan@secnrs.ru; alexander.duchac@ec.europa.eu; utenkov@gosnadzor.ru; vc@aerb.gov.in; x.bernard-bruls@iaea.org; christian.kirchsteiger@ec.europa.eu; nakamura-koichiro1@meti.go.jp; olivier.veyret@asn.fr; adeline.clos@asn.fr; lauriane.giroud-giacomel@asn.fr; diane.jackson@oecd.org; toshihiko.kamada@mofa.go.jp; pierre.barras@belv.be; Cullingford, Michael; hklonk@bfs.de; jukka.laaksonen@stuk.fi; leedh@kins.re.kr; macedj.jurkowski@paa.gov.pl; michel.bieth@ec.europa.eu; silviu.pop@cncan.ro; roberto.ranieri@isprambiente.it; steve.nsd.lewis@hse.gsi.gov.uk; andrej.stritar@gov.si; ozawa-yoshihiro@jnes.go.jp; (b)(6) marli.vogels@minvrom.nl; mcasero@unesa.es; mikulas.bencat@ujd.gov.sk; jukka.kupila@stuk.fi; christine.wassilew@bmu.bund.de; wolfgang.breyer@kerntext.de; per.bystedt@ssm.se; ryh@kins.re.kr; kees.desbouvrie@minvrom.nl; ismael.yabda@tractebel.com; tlm3@wanadoo.fr; thomas.sigrist@ensi.ch; Astwood, Heather; mike.weightman@hse.gsi.gov.uk; sidorchuk@secnrs.ru; rafal.frac@oecd-poland.org; lgutierrez@cnsns.gob.mx; manfred.schrauben@fanc.fgov.be; evr@csn.es; jouko.turpeinen@fortum.com; vmgonzalez@cnsns.gob.mx; k400kmc@kins.re.kr; acm@csn.es; leekw@kins.re.kr; andreas.wielenberg@grs.de; walter.gloeckle@um.bwl.de; a.nicic@iaea.org; leopold.vrankar@gov.si; francescopaolo.michetti@isprambiente.it; watanabe.norio@jaea.go.jp; remy.bertrand@irsu.fr; jcb@csn.es; franco.malerba@esteri.it; zdenek.tipek@subj.cz; klas.idehaag@ssm.se; pavel.bobaly@ujd.gov.sk; Holahan, Gary; nnn@gan.ru; rob.campbell@hse.gsi.gov.uk; Kobetz, Timothy; g.caruso@iaea.org; dwchung@kins.re.kr; petr.brandejs@subj.cz; benoit.poulet@cncs-ccsn.gc.ca; hans.wanner@ensi.ch; benjamin.stanford@oecd.org; sabhardwaj@npcil.co.in; michael.herttrich@bmu.bund.de; jiri.vesely@subj.cz; didier.wattrelos@irsu.fr; juergen.wolf@bm u.bund.de; giorgio.grimaldi@apat.it; ktkim@kins.re.kr; Dudes, Laura; Tabatabai, Omid; rhonda.evans@arpana.gov.au; masayuki.yoneya@cao.go.jp; vince.fisher@awe.co.uk; irga@csn.es; grigoras.benescu@cncan.ro; dgawande@npcil.co.in; derek.lacey@hse.gsi.gov.uk; lux@haea.gov.hu; soda.kunihisa@jaea.go.jp; ales.janezic@gov.si; fen.creswell@hse.gsi.gov.uk; kanno-masanori@jnes.go.jp; georg.schwarz@ensi.ch; marta.ziakova@ujd.gov.sk; lennart.carlsson@ssm.se; i.sokolova@gosnadzor.ru; safety@gan.ru; hans-rudolf.fierz@ensi.ch; marc.noel@ec.europa.eu; burton.valpy@cncs-ccsn.gc.ca; julien.husse@asn.fr; Lukes, Robert; timo.vanttola@vtt.fi; swaller@cnsns.gob.mx; juhasz@haea.gov.hu; michael.maqua@grs.de; seija.suksi@stuk.fi; m.schneider@bfs.de; yhhah@kins.re.kr; dana.drabova@subj.cz; kirsi.alm-lytz@stuk.fi; kenneth.broman@ssm.se; niina.yliknuussi@ec.europa.eu; wolfgang.hilden@ec.europa.eu; yang@kins.re.kr; Leeds, Eric; michel.lemay@cncs-ccsn.gc.ca; peter.corcoran@cncs-ccsn.gc.ca; aspeskov@mnr.gov.ru; noguchi-y.asunori@meti.go.jp; m.keamey@iaea.org; kutin@gosnadzor.ru; lankin@secnrs.ru; yamamoto-yoshihiro@jnes.go.jp; mlgs@csn.es; snrao@aerb.gov.in; fred.vaniddekinge@minvrom.nl; karol.janko@ujd.gov.sk; pyw@kins.re.kr; fichtinger@haea.gov.hu; akasaka@mext.go.jp; Johnson, Michael; tamao-shigeo@jnes.go.jp; ralph.schulz@ensi.ch; je@cnsns.gob.mx; soaresjc@ci.fc.ul.pt; takahashi-masakazu@meti.go.jp; kawaguchi-ken@jnes.go.jp; motokuni.eto@cao.go.jp; kozlov-vv@atomenergoprom.ru; alexandra.brasat@amb-roumanie.fr
Subject: OECD/NEA - WGPC Secretariat - FW: Japan Situation update (Friday 11 March 11:45 UTC - 19:45 Japan time)

Dear CNRA and WGOE and WGIP Members.

Cc Other WG Chairs

Please find hereafter information about the earthquake in Japan received from our former NEA

MMMM/5

colleague that was sent earlier today by the NEA secretariat to the WGPC Flashnews network
Update of Japan NPP situation Friday 11 March at 11:45 UTC time.

Jean Gauvain - NEA/NSD - CNRA/WGPC Secretariat

From: Akihiro YAMAMOTO [mailto:a-yamamoto@houshasen.tsuruga.fukui.jp]
Sent: Friday, March 11, 2011 12:00
Subject: [Yama] Situation update (19:45 Japan time)

NISA is now holding a press conference.

Fukushima 1-1 (ECCS mode)
Fukushima 1-2 (ECCS mode) - Call off the emergency
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The problem is that they can't monitor water injection (ECCS).
It might be a problem of the monitoring system.

In fact, TEPCO called off the emergency of unit 1-2 a while ago because they are able to monitoring the water level in the reactor now.

Yama

Akihiro YAMAMOTO

From: Akihiro YAMAMOTO [mailto:a-yamamoto@houshasen.tsuruga.fukui.jp]
Sent: Friday, March 11, 2011 7:30 PM
Subject: [Yama] Situation now - ECCS mode

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Nuclear Safety Measurement Division

Fukuoka Prefectural Government

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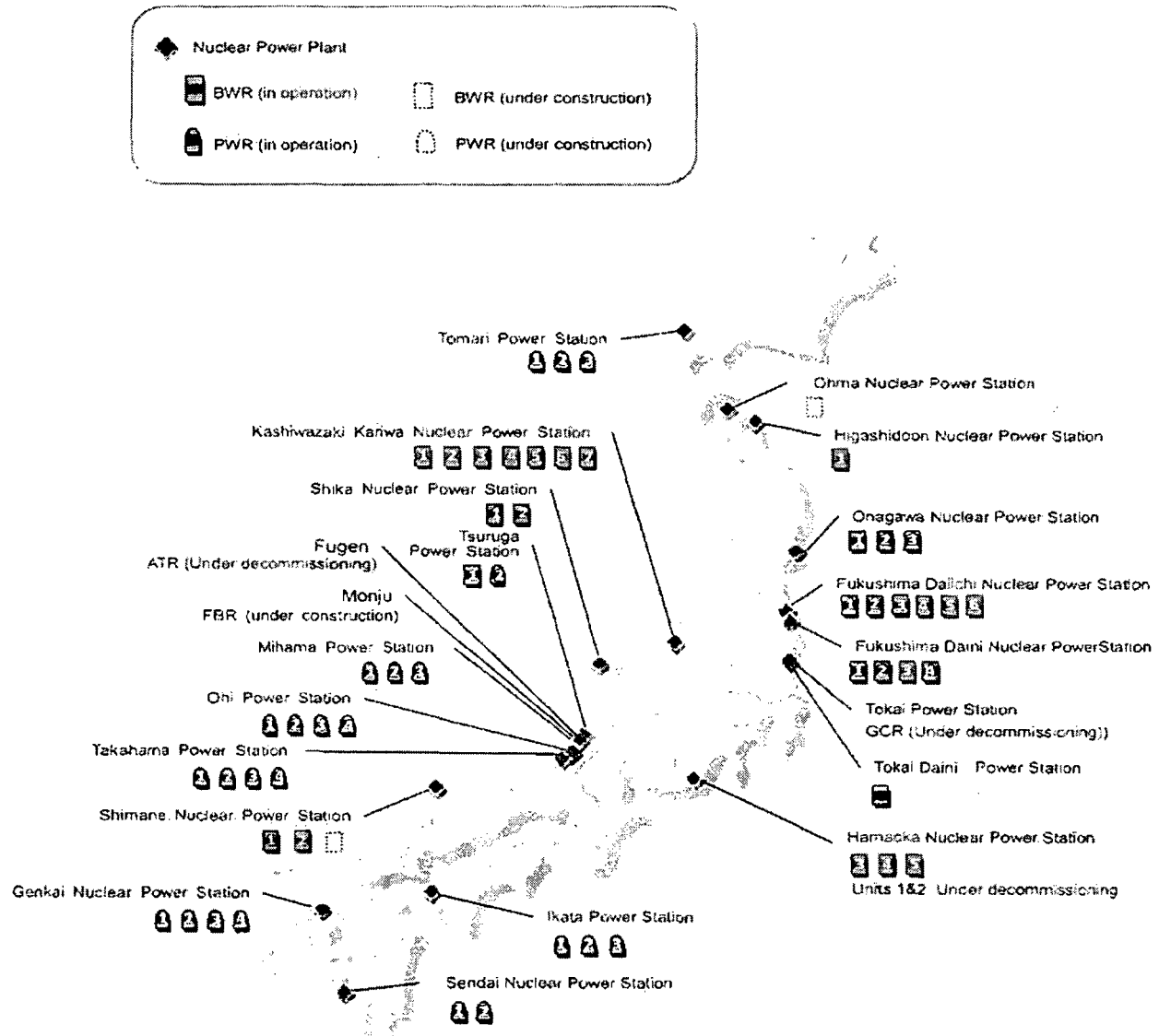


Fig. A-2 Locations of Nuclear Installations

Gray, Mel

From: Diane.JACKSON@oecd.org
Sent: Friday, March 11, 2011 7:58 AM
Subject: RE: OECD/NEA - Japan Friday 11 March 13:45 UTC - Evacuation order to residents
Attachments: 2011_03_11_(R1)Earthquake(N.Japan).doc

Dear all -

Please find attached, additional articles from Japan.

Best, Diane Jackson

From: GAUVAIN Jean, NEA/SURN
Sent: Friday, March 11, 2011 1:51 PM
To: wqpcnews@oecd-nea.org
Cc: add-cnra@oecd-nea.org; add-cnra-o@oecd-nea.org; add-wqip@oecd-nea.org; add-cnra-wqoe@oecd-nea.org; add-csni@oecd-nea.org; add-csni-o@oecd-nea.org; add-iage@oecd-nea.org; REIG Javier, NEA/SURN; JACKSON Diane, NEA/SURN; LAMARRE Greg, NEA/SURN; HUERTA Alejandro, NEA/SURN; add-iageeism@oecd-nea.org
Subject: FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

WGPC Members

Cc CNRA, CSNI, WGOE, WGIP, IAGE, IAGESEISM Please read below update and correction to previous message

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

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Yama

++++
Akihiro YAMAMOTO
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MMMM/6

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'christele.tephanympnia@oecd.org'; 'Aileen.LITTLE@oecd.org'; 'Carlo Vitanza'; 'Abdallah.amri@oecd.org'
Subject: [Yama] Situation now - ECCS mode

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Fukui Prefectural Government

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E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp <<mailto:a-yamamoto@houshasen.tsuruga.fukui.jp>>

+++++

<1> The Mainichi

<http://www.yomiuri.co.jp/dy/national/20110311dy01.htm>

Massive quake strikes northern Japan

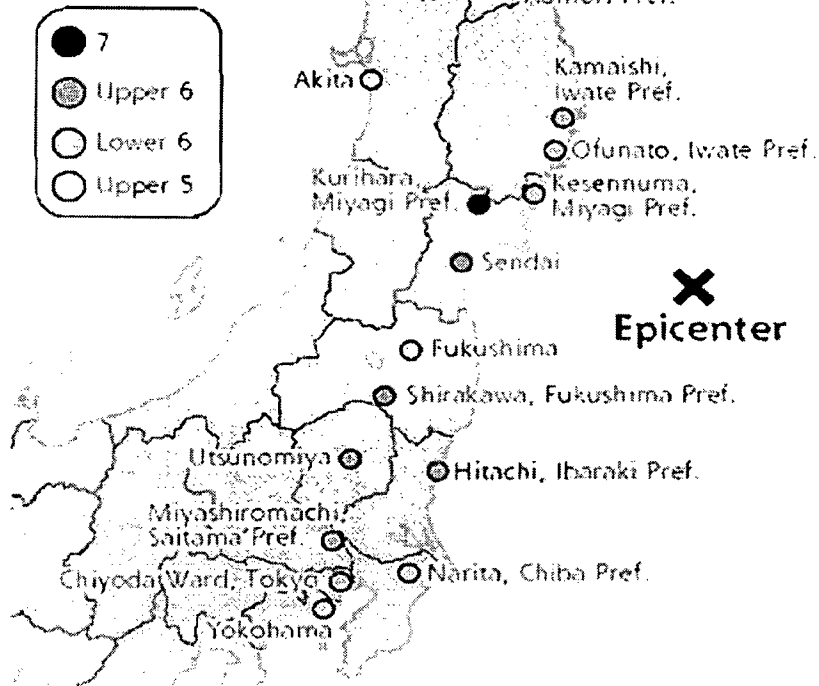
The Daily Yomiuri



Smoke billows from a building in Minato Ward, Tokyo, in a fire that broke out following a major earthquake on Friday afternoon.

Intensity on Japanese seismic scale

at 2:46 p.m. Friday



A powerful earthquake measuring magnitude 8.4 hit northern Japan on Friday afternoon, causing extensive damage in the area, the Meteorological Agency said.

The quake struck 20 kilometers deep off the Sanriku coast in Iwate Prefecture at 2:46 p.m. and lasted several minutes, the agency said. Tsunami caused by the quake struck Kamaishi, Miyako and Yamadamachi in the prefecture, washing away houses.

The quake registered a maximum 7 on the Japanese intensity scale in Kurihara, Miyagi Prefecture.

The Meteorological Agency issued tsunami warnings for Aomori, Iwate, Miyagi, Fukushima, Ibaraki and Chiba prefectures, as well as western Hokkaido along the Pacific Ocean side.

The agency warned the tsunami could reach as high as 10 meters.

Around 3 p.m. a 20-centimeter-high tsunami was observed in Ofunato, Iwate Prefecture, and a 50-centimeter-high tsunami was observed Ishinomaki in the prefecture by 2:52 p.m.

An aftershock measuring 5 on the Japanese intensity scale hit coastal areas in Iwate Prefecture at 3:08 p.m.

Strong tremors were also felt in Tokyo, registering 5 on the Japanese intensity scale.

The quake rattled buildings in central Tokyo, causing at least 10 fires, according to the Tokyo Fire Department.

Parts of the ceiling at Kudan Kaikan hall in Chiyoda Ward, Tokyo, collapsed, injuring a large number of people, according to the fire department. A graduation ceremony of a vocational school was held at that time.

The Economy, Trade and Industry Ministry said the Onagawa nuclear power plant in Onagawa, eastern Miyagi Prefecture, suspended its operations following the earthquake.

East Japan Railway Co. suspended all services on its Shinkansen bullet train and other lines in the Tokyo metropolitan area.

(Mar. 11, 2011)

National

go

Massive quake strikes northern Japan (Mar 11)

< 2 > The mainichi

<http://mdn.mainichi.jp/mdnnews/news/20110311p2g00modmo48000c.html>

Major tsunami damage in northern Japan after massive quake

TOKYO (AP) -- A magnitude 8.9 earthquake slammed Japan's eastern coast Friday, unleashing a 4-meter tsunami that swept boats, cars, buildings and tons of debris miles inland. Fires triggered by the quake burned out of control up and down the coast, including one at an oil refinery.

At least one person was killed and there were reports of several injuries in Tokyo, hundreds of kilometers away, where buildings shook violently through the main quake and the wave of massive aftershocks that followed. A tsunami warning was issued for dozens of Pacific countries, as far away as Chile.

Japan's meteorological agency said that within two hours, large tsunamis washed ashore into dozens of cities along a 2,100-kilometer stretch of the country's eastern shore -- from the northern island of Hokkaido to central Wakayama prefecture.

Prime Minister Naoto Kan said the quake caused "major damage in broad areas" but nuclear power plants in the area were not affected. The government prepared to send troops to the quake-hit areas.

"This is a rare major quake, and damages could quickly rise by the minute," said Junichi Sawada, an official with Japan's Fire and Disaster Management Agency.

TV footage showed waves of muddy waters sweeping over farmland near the city of Sendai, carrying buildings, some on fire, inland as cars attempted to drive away. Sendai airport, north of Tokyo, was inundated with cars, trucks, buses and thick mud deposited over its runways. Fires spread through a section of the city, public broadcaster NHK reported.

The tsunami also roared over embankments in Sendai city, washing cars, houses and farm equipment inland before reversing directions and carrying them out to sea. Flames shot from some of the houses, probably because of burst gas pipes.

Elsewhere, large fishing boats lay upturned on land, some distance from the sea.

Officials were trying to assess damage, injuries and deaths but had no immediate details. Police said at least one person was killed in a house collapse in Ibaraki prefecture, just northeast of Tokyo.

A large fire erupted at the Cosmo oil refinery in Ichihara city in Chiba prefecture near Tokyo and was burning out of control with 30 meter-high flames whipping into the sky.

NHK showed footage of a large ship being swept away by the tsunami and ramming directly into a breakwater in Kesennuma city in Miyagi prefecture.

In various locations along the coast, footage showed massive damage from the tsunami, with cars, boats and even buildings being carried along by waters.

Partially submerged vehicles were seen bobbing in the water.

The U.S. Geological Survey said the quake was a magnitude 8.9, while Japan's meteorological agency measured it at 8.4. It struck at 2:46 p.m. and was followed by 12 powerful aftershocks, seven of them at least 6.3, the size of the quake that struck New Zealand recently.

A tsunami warning was extended to a number of Pacific, Southeast Asian and Latin American nations, including Japan, Russia, Indonesia, New Zealand and Chile. In the Philippines, authorities said they expect a 1-meter high tsunami.

The quake struck at a depth of 10 kilometers, about 125 kilometers off the eastern coast, the agency said. The area is 380 kilometers northeast of Tokyo.

In downtown Tokyo, large buildings shook violently and workers poured into the street for safety. TV footage showed a large building on fire and bellowing smoke in the Odaiba district of Tokyo.

Several nuclear plants along the coast were partially shut down, but there were no reports of any radioactive leakage.

In central Tokyo, trains were stopped and passengers walked along the tracks to platforms. NHK said more than 4 million buildings were without power in Tokyo and its suburbs.

The ceiling in Kudan Kaikan, a large hall in Tokyo, collapsed, injuring an unknown number of people, NHK said.

Osamu Akiya, 46, was working in Tokyo at his office in a trading company when the quake hit.

It sent bookshelves and computers crashing to the floor, and cracks appeared in the walls.

"I've been through many earthquakes, but I've never felt anything like this," he said. "I don't know if we'll be able to get home tonight."

Footage on NHK from their Sendai office showed employees stumbling around and books and papers crashing from desks. It also showed a glass shelter at a bus stop in Tokyo completely smashed by the quake and a weeping woman nearby being comforted by another woman.

Several quakes had hit the same region in recent days, including a 7.3 magnitude one on Wednesday.

Thirty minutes after the main quake, tall buildings were still swaying in Tokyo and mobile phone networks were not working. Japan's Coast Guard has set up a task force and officials are standing by for emergency contingencies, Coast Guard official Yosuke Oi said.

"I'm afraid we'll soon find out about damages, since the quake was so strong," he said.

In Tokyo, hundreds of people were evacuated from Shinjuku train station, the world's busiest, to a nearby park. Trains were halted.

Tokyo's main airport was closed. A large section of the ceiling at the 1-year-old airport at Ibaraki, about 80 kilometers northeast of Tokyo, fell to the floor with a powerful crash.

Dozens of fires were reported in northern prefectures of Fukushima, Sendai, Iwate and Ibaraki. Collapsed homes and landslides were also reported in Miyagi.

Japan's worst previous quake was in 1923 in the Kanto region. That quake killed 143,000 people, according to USGS. An earthquake in Kobe city in 1996 killed 5,502 people.

(Mainichi Japan) March 11, 2011

From: Kammerer, Annie
To: RES. DE. SGSR: Richards, Stuart; Case, Michael; Lyle, Jennifer; Jones, Henry; Savone, Richard
Subject: Fw: Update - Diablo Canyon UE Following Tsunami Warning
Date: Friday, March 11, 2011 2:26:51 PM
Attachments: Document.pdf

The bulk of the tsunami seems to be over at DCNPP

Cheers,
Annie

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

From: Braisted, Jonathan
To: Miller, Geoffrey
Cc: Collins, Elmo; Kennedy, Kriss; Pruett, Troy; Howell, Linda; Wang, Alan; Deese, Rick; Denissen, Christie; Trapp, James; Dricks, Victor; Uselding, Lara; Polickoski, James; Markley, Michael; Kammerer, Annie; Howell, Art; Farnholtz, Thomas; Vogel, Anton; Peck, Michael
Sent: Fri Mar 11 14:11:32 2011
Subject: Update - Diablo Canyon UE Following Tsunami Warning

All,

Update as of 1100 hours PST: The licensee remains in an unusual event for the tsunami warning. Both units are currently stable and operating at full power. The licensee has permitted the night shift to leave via the north access road. The south (Avila Beach) access road remains closed. The licensee has resumed normal watch of the intake building. The attached document shows a plot of predicted and observed water level versus time. The licensee anticipates the tsunami warning will be lifted around noon PST and would then exit the unusual event.

Regards,
Jon

Jonathan D. Braisted
Diablo Canyon Resident Office
U.S. Nuclear Regulatory Commission
(805) 595-2354 - Office
(805) 595-2355 - Fax

From: Peck, Michael
Sent: Friday, March 11, 2011 7:10 AM
To: Miller, Geoffrey

MMMM/7

Cc: Collins, Elmo; Kennedy, Kriss; Pruett, Troy; Howell, Linda; Wang, Alan; Deese, Rick; Denissen, Christie; Braisted, Jonathan; Trapp, James; Dricks, Victor; Uselding, Lara; Polickoski, James; Markley, Michael; Kammerer, Annie; Howell, Art; Farnholtz, Thomas; Vogel, Anton
Subject: FYI: Update - Diablo Canyon UE Following Tsunami Warning

Geoff,

(Update as of 0700 hours PST): The Tsunami is expected to arrive at Diablo Canyon at 0803 hours (PST). The licensee anticipates about a 3 foot wave surge at the plant intake. The Shift Manager decided to maintain both units at full power during the event. The Shift Manager expects about 3 feet NPSH margin for the condenser circulating pumps and about 15 feet margin for the auxiliary saltwater pumps (ultimate heat sink). The Shift Manager has release all non-essential personnel from the site.

County authorities are evacuating low lying coastal areas, including Port St. Luis, Avila Beach, parts of Moore Bay and Pismo Beach.

Michael Peck,
SRI

From: Peck, Michael
Sent: Friday, March 11, 2011 4:12 AM
To: Miller, Geoffrey
Cc: Collins, Elmo; Kennedy, Kriss; Pruett, Troy; Howell, Linda; Wang, Alan; Deese, Rick; Denissen, Christie; Braisted, Jonathan; Trapp, James; Dricks, Victor; Uselding, Lara
Subject: FYI: Diablo Canyon - UE Following Tsunami Warning

Geoff,

(Update as of 0400 hours PST): The Diablo Canyon Shift Manager declared an Unusual Event at 0123 hours (PST) on March 11, 2011, after receiving a Tsunami Warning from the West California Emergency Management Agency. The Tsunami Warning was generated after an estimated 8.9 M earthquake occurred off the eastern Japanese coast. The Pacific Gas and Electric Geosciences Department is monitoring reports from ocean buoys and Pacific locations as the Tsunami travels across the Pacific Ocean. Geosciences personnel have concluded that the Tsunami is unlikely to cause damage at either Diablo Canyon or Humboldt Bay facilities. The Shift Manager implemented the station casualty procedure for a Tsunami Warning. These actions included:

- Evacuation of personnel from the station inlet structure (except minimum security watch)
- Briefed control operators on the rapid shutdown procedure
- Established communications with the San Luis Obispo Emergency Operations Center
- Established Fire Brigade and local command center

The resident inceptors responded to the site following the declaration of the Unusual Event.

Michael Peck, Ph.D
Senior Resident Inspector
Diablo Canyon Power Plant
Office: (805) 595-2354
Cell: (b)(6)

Murphy, Andrew

From: Rivera-Lugo, Richard
Sent: Friday, March 11, 2011 8:10 AM
To: Murphy, Andrew
Subject: FW: preliminary unconfirmed confidential information

FYI – I just got this from Goutam

From: Bagchi, Goutam
Sent: Friday, March 11, 2011 8:09 AM
To: Pires, Jose; Kammerer, Annie; RES_DE_SGSEB; Chokshi, Nilesh; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart; Flanders, Scott
Subject: RE: preliminary unconfirmed confidential information

There was a mechanical break down of the cooling system at Fukushima. Excerpt from Guardian:
Japan's Fukushima nuclear plant under state of emergency after quake

- Plant shut down but reactor cooling system damaged
- No leaks at 11 nuclear powerhouses in quake zone, says PM

*Thank you,
Goutam Bagchi*

From: Pires, Jose
Sent: Friday, March 11, 2011 7:59 AM
To: Kammerer, Annie; RES_DE_SGSEB; Chokshi, Nilesh; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Subject: RE: preliminary unconfirmed confidential information

Annie,
Apparently, at Fukushima I (TEPCO) all 6 units were safely shutdown but a nuclear emergency (evacuation) was declared. I understand that a nuclear emergency also was declared at Onagawa (Tohoku Power). Other plant sites were also safely shutdown and I understand that emergencies were not declared at those sites

From: Kammerer, Annie
Sent: Friday, March 11, 2011 7:52 AM
To: RES_DE_SGSEB; Chokshi, Nilesh; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Subject: preliminary unconfirmed confidential information

Fukushima (there are two plants...not sure which this occurred at): Station blackout. Loss of offsite power and the diesels didn't start. They are brining in generators from an outside facility

Onagawa 0.567g recorded at the base mat. Fire in the turbine building.

Tokai shook but no information yet.

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

Murphy/8

(b)(6)

mobile

(b)(6)

BB

Hogan, Rosemary

From: Richards, Stuart
Sent: Friday, March 11, 2011 7:56 AM
To: Kammerer, Annie; Hogan, Rosemary
Subject: FW: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan
Attachments: 110311_press_release_on_earthquake1.pdf

Rosemary/Annie

See below. I'm sure it goes without saying.

Stu

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

From: Foggie, Kirk
Sent: Friday, March 11, 2011 5:15 AM
To: Doane, Margaret; Mamish, Nader
Cc: Abrams, Charlotte
Subject: Fw: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

FYI. I will send any additional information to you via email.

There are about 5 NISA/JNES seismic specialist in D.C. meeting with RES today. I hope RES allows them to postpone the meeting and offers to provide assistance where possible.

Kirk
Sent from Blackberry.

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

From: bannai-toshihiro@meti.go.jp <bannai-toshihiro@meti.go.jp>
To: Foggie, Kirk
Cc: Hidehiko Yamachika <yamachika-hidehiko@jnes-usa.org>
Sent: Fri Mar 11 03:15:12 2011
Subject: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

Dear Kirk-san,

Sorry for my frequent e-mail.
10 NPPs in Japan were automatically shut down in consequence of an earthquake occurring at 14:46 on 11th of March JST.
Attached is a prompt report from NISA sent diplomatically.
FYI.

Toshihiro

MMMA/9

Effect of the earthquake on the Nuclear Facilities in North-east area of Japan
(as of 2:46pm, 11of March, 2011)

Effect of earthquake on the Nuclear Facilities from the earthquake

Current status of nuclear facilities are as follows:

1. Onagawa Nuclear Power Station

-Units 1,2 and 3: Automatically shut down.

2. Fukushima-Daini Nuclear Power Station

- Units 1,2 and 3: Automatically shut down.

- Units 4,5 and 6: in periodic inspection outage

3. Fukushima-Daini Nuclear Power Station

-Units 1,2,3 and Unit4 : Automatically shut down.

4. Higashi-Dori Nuclear Power Station

- in periodic inspection outage

5. Rokkasho reprocessing facility

- emergency diesel generator is supplying electricity

6. Tokai Dai-ri Nuclear Power Station:automatically shut down

7. Hamaoka Nuclear Power Station

-Units 4 and 5: are operating

-Unit 3:in periodic inspection outage

8. Kashiwazaki-Kariwa Nuclear Power Station

-Units 1,5,6 and 7: are operating

-Units 2,3 and 4: in periodic inspection outage

9. Tomari Nuclear Power Station

-Units 1,2 and 3: are operating

There is no report of abnormal monitoring readings around NPPs that indicate irregular value at this time.

There are no reports of fire or failure.

Staff of NISA are gathering information

Contacts: +81-(0)3-3501-1087

International Affairs Office

Nuclear and Industrial Safety Agency(NISA)

Hogan, Rosemary

From: Bagchi, Goutam
Sent: Friday, March 11, 2011 8:09 AM
To: Pires, Jose; Kammerer, Annie; RES_DE_SGSEB; Chokshi, Niles; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart; Flanders, Scott
Subject: RE: preliminary unconfirmed confidential information

There was a mechanical break down of the cooling system at Fukushima. Excerpt from Guardian:
Japan's Fukushima nuclear plant under state of emergency after quake

- Plant shut down but reactor cooling system damaged
- No leaks at 11 nuclear powerhouses in quake zone, says PM

*Thank you,
Goutam Bagchi*

From: Pires, Jose
Sent: Friday, March 11, 2011 7:59 AM
To: Kammerer, Annie; RES_DE_SGSEB; Chokshi, Niles; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Subject: RE: preliminary unconfirmed confidential information

Annie,
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From: Kammerer, Annie
Sent: Friday, March 11, 2011 7:52 AM
To: RES_DE_SGSEB; Chokshi, Niles; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Subject: preliminary unconfirmed confidential information

Fukushima (there are two plants...not sure which this occurred at): Station blackout. Loss of offsite power and the diesels didn't start. They are brining in generators from an outside facility

Onagawa 0.567g recorded at the base mat. Fire in the turbine building.

Tokai shook but no information yet.

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

(b)(6)	mobile
(b)(6)	BB

Hogan, Rosemary

From: Kammerer, Annie
Sent: Friday, March 11, 2011 8:40 AM
To: RES_DE_SGSEB; Chokshi, Nilesh; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Subject: More info

The area around fukushima is mid-way through evacuation

The coastal community around diablo canyon is on tsunami evacuation. no word on what SONGS is doing.

From goutam ..

• Plant shut down but reactor cooling system damaged• No leaks at 11 nuclear powerhouses in quake zone, says PM

Cheers,
Annie

Sent from an NRC blackberry

Annie Kammerer

mobile(b)(6)

bb(b)(6)

annie.kammerer@nrc.gov

From: Kammerer, Annie
To: RES_DE_SGSEB; Chokshi, Nilesh; Bagchi, Goutam; Manoly, Kamal; Karas, Rebecca; Cook, Christopher; Sheron, Brian; Uhle, Jennifer; Case, Michael; Richards, Stuart
Sent: Fri Mar 11 07:52:21 2011
Subject: preliminary unconfirmed confidential information

Fukushima (there are two plants...not sure which this occurred at): Station blackout. Loss of offsite power and the diesels didn't start. They are brining in generators from an outside facility

Onagawa 0.567g recorded at the base mat. Fire in the turbine building.

Tokai shook but no information yet.

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

(b)(6) mobile

(b)(6) BB

Weaver, Tonna

From: Smith, Brooke
Sent: Friday, April 01, 2011 2:13 AM
To: LIA03 Hoc; Liaison Japan
Cc: LIA02 Hoc
Subject: Re: Notification of your arrival in the U.S.

I'm home.

Sent from an NRC Blackberry.
Brooke G. Smith
Senior International Policy Analyst
Office of International Programs
(b)(6) (mobile)
301-415-2347 (office)

From: LIA03 Hoc
To: Liaison Japan
Cc: LIA02 Hoc
Sent: Thu Mar 31 19:10:09 2011
Subject: Notification of your arrival in the U.S.

Dear NRC Japan Team - Upon your return, please "reply All" to this email and let the International Liaison Team know that you're back in the U.S.

Thank you in advance.
Mugeh
On behalf of the International Liaison Team

mmmm/10

Wagner, Brian

From: Wagner, Brian
Sent: Friday, March 11, 2011 10:43 AM
To: 'Michaela Eddy'
Cc: Adam Hoffman
Subject: RE: RE: TEPCO fail

Both. Flying in batteries to keep a reactor from melting down isn't really part of the gameplan. If they can't get the batteries to work, or the Turbine-Driven Pump (TDP) fails for whatever reason, the core will be uncooled and will eventually become uncovered and core damage will occur. The reactor is ruined at that point and the health consequences will depend on containment performance.

Ok this is interesting http://www.world-nuclear-news.org/RS_Massive_earthquake_hits_Japan_1103111.html
There are 2 Fukushima sites, Fukushima Daiichi and Fukushima Daini. This article says stopped after one hour, leaving units 1, 2 and 3 with no power for important cooling functions. And that at Daini cooling water is being maintained by injection using the reactor core isolation cooling systems of units 1 to 4. At unit 1 an increase in reactor containment pressure has been noted, and "assumed to be caused by leakage of reactor coolant in the reactor containment" this led Tepco to notify government of another emergency status.

From: Michaela Eddy [mailto:(b)(6)]
Sent: Friday, March 11, 2011 10:27 AM
To: Wagner, Brian
Cc: Adam Hoffman
Subject: Re: RE: TEPCO fail

Is this safety bad or economics bad?

On Mar 11, 2011 8:01 AM, "Wagner, Brian" <Brian.Wagner@nrc.gov> wrote:

> AJ said they were flying in batteries, but I can't find any news that includes technical details.

>

> From: Adam Hoffman [mailto:(b)(6)]

> Sent: Friday, March 11, 2011 9:52 AM

> To: Wagner, Brian

> Cc: Michaela Eddy

> Subject: Re: TEPCO fail

>

> I thought TDPs were standard on US BWRs. They're really reliable and should substantially reduce CDF. Of course, EDGs are supposed to be quite reliable as well.

>

> Also, I looked at the press release again and just noticed that all 3 units lost their EDGs. It is unclear whether they were somehow shared, but I would think not, as it takes nearly an entire EDG to provide power for the necessary functions during an accident.

>

> Another press release says that they've evacuated the area near the plant.

>

> <http://www.tepco.co.jp/en/press/corp-com/release/11031106-e.html>

>

> The current status is that all units are cooled on RCIC right now and water levels are under control.

>
> But yeah, a station blackout is a big deal. When was the last time we had one in the US? I'm thinking 15-20 years ago.

> On Fri, Mar 11, 2011 at 9:42 AM, Wagner, Brian

<Brian.Wagner@nrc.gov<mailto:Brian.Wagner@nrc.gov>> wrote:

> Do they even have a TDP? Those aren't necessarily standard are they? I'm not as familiar with BWRs (especially Japanese ones) but my understanding is that this is a Station Blackout and if they don't get some kind of power back it's only a matter of time before core damage. This is a really big deal.

>
> From: Adam Hoffman [mailto:(b)(6)]

> Sent: Friday, March 11, 2011 9:29 AM

> To: Wagner, Brian; Michaela Eddy

> Subject: TEPCO fail

>
> Earthquake in Japan causes 3 unit reactor shutdown due to loss of offsite power. EDGs start as required, but in a little less than an hour both EDGs failed, leading to a complete loss of AC. A later press release (which I can't find but saw in another email) said that ECC could not be confirmed. Decay heat should be pretty low at this point (less than 1%, IIRC), but I still think it would provide enough steam to run the turbine driven pump. In any case, failure of both EDGs is a big deal.

>
> <http://www.tepco.co.jp/en/press/corp-com/release/11031102-e.html>

>
>
>
>
>
>
>
>
> Today at approximately 2:46PM, turbines and reactors of Tokyo Electric

>
> Power Company's Fukushima Daiichi Nuclear Power Station Unit 1 (Boiling

>
> Water Reactor, rated output 460 Megawatts) and Units 2 and 3 (Boiling

>
> Water Reactor, Rated Output 784 Megawatts) that had been operating at

>
> rated power automatically shutdown due to the Miyagiken-oki Earthquake.

>
>
>
>
> For the above 3 units, off-site power was lost due to malfunction of one

>
> out of two off-site power system, leading to automatic startup of

>
> emergency diesel generators.

>
>
>
>
> Subsequently, at 3:41PM, emergency diesel generators shutdown due to

>
> malfunction resulting in the complete loss of alternating current for

>

> all three units.
 >
 >
 >
 > Hence, at 3:42PM, it was decided that a specific incident stipulated
 >
 > in Article 10, Clause 1 of the Act on Special Measures Concerning
 >
 > Nuclear Emergency Preparedness*1 has occurred and a "First Level Emergency"
 >
 > was declared and in accordance with the aforementioned Act, the Minister
 >
 > of Economy, Trade, and Industry, the Governor of Fukushima Prefecture,
 >
 > the Mayor of Okuma Town, and the Mayor of Futaba Town along with other
 >
 > involved organizations were notified of the incident.
 >
 >
 >
 > TEPCO is taking steps to determine the exact cause behind the shutdown
 >
 > of the emergency diesel generators and is working towards their restoration.
 >
 > The exhaust pipe's monitor reading indicates that radiation levels have
 >
 > remained unchanged and presently there have been no confirmed radioactivity
 >
 > impact to external environment. Further details are in the process of
 >
 > being confirmed.
 >
 >
 >
 > *1 Specific Incident Stipulated in Article 10, Clause 1 of the Act on
 >
 > Special Measures Concerning Nuclear Emergency Preparedness
 >
 > The objective of the Act on Special Measures Concerning Nuclear Emergency
 >
 > Preparedness is to protect the welfare, physical wellbeing and property
 >
 > of Japan's citizens. To this end, when accidents and equipment breakdown
 >
 > have reached certain levels at nuclear power plants, the Act obligates
 >
 > us to notify the nation, prefectures, cities and towns in order for them
 >
 > to take necessary actions and to grasp information in a timely manner.
 >
 > Notifications are issued out under circumstances such as when the nuclear

- >
- > reactor cannot be shut down and/or when the water supply to the reactor is cut off.
- >
- > is cut off.
- >

Cartwright, William

From: Thomas, Eric
Sent: Friday, March 11, 2011 2:46 PM
To: Brown, Frederick; Thorp, John
Cc: Skeen, David; Hiland, Patrick; Westreich, Barry
Subject: RE: Lessons Learned from Japan

Fred,

We discussed whether to go ahead and screen this in today at the clearinghouse meeting. I am sure we will screen the event in shortly, but the consensus today was to hold off on an IFR or OpE COMM until we know more factual information.

Eric

Eric Thomas
U.S. Nuclear Regulatory Commission
NRR/DIRS/IOEB
OWFN-7E24
eric.thomas@nrc.gov
301-415-6772 (office)
(b)(6) (mobile)

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

From: Brown, Frederick
Sent: Friday, March 11, 2011 2:05 PM
To: Thorp, John; Thomas, Eric
Cc: Skeen, David; Hiland, Patrick; Westreich, Barry
Subject: Lessons Learned from Japan

Eric, John:

Let's make sure we know whether our plant EDGs are subject to the condition that effected the Japanese EDGs post-earthquake (IFR?)

MMMM/12

Cartwright, William

From: Thorp, John
Sent: Friday, March 11, 2011 1:21 PM
To: Thomas, Eric
Subject: RE: Fukushima Daichi water levels

Thanks for asking this question Eric. I was having the same thoughts and in fact responded with a RCIC/HPCI answer to similar questions from my wife who said everyone in their office was wondering if there was any real core damaging scenario in progress.

John

From: Thomas, Eric
Sent: Friday, March 11, 2011 12:49 PM
To: Diane.JACKSON@oecd.org
Cc: Lawrence.BURKHART@oecd.org; Thorp, John
Subject: Fukushima Daichi water levels

Diane or Larry,

I am filling in for John Thorp here at the office today. I am trying to reconcile the multitude of information coming in from email and CNN. We are hearing that units 1 and/or 2 at Fukushima Daichi are having trouble supplying cooling water and maintaining level. We also heard earlier that they did not have EDGs available.

Since they are BWRs, shouldn't they have RCIC and HPCI/HPCS available, which do not rely on electric pumps but have turbine driven pumps instead? Therefore, the failed EDGs would not challenge their ability to put water in the core.

If you have any additional information that clarifies the situation I would appreciate it. From the attached, it appears Mr. Yamamoto believes the problem may be that they don't have indications to tell how much water is being injected into the core by HPCI/RCIC and where exactly level is.

If there is a good explanation of the situation that I can feed to the Executive Team here, it would be a big help.

Thanks, Eric

Eric Thomas
U.S. Nuclear Regulatory Commission
NRR/DIRS/IOEB
OWFN-7E24
eric.thomas@nrc.gov
301-415-6772 (office)
(b)(6) (mobile)

Cartwright, William

From: Thomas, Eric
Sent: Friday, March 11, 2011 2:09 PM
To: Akihiro YAMAMOTO; Lawrence.BURKHART@oecd.org; Diane.JACKSON@oecd.org
Cc: Thorp, John
Subject: RE: [Japan Yama]RE: Fukushima Daichi water levels

Thank you.

Eric Thomas

U.S. Nuclear Regulatory Commission

NRR/DIRS/IOEB

OWFN-7E24

eric.thomas@nrc.gov

301-415-6772 (office)

(b)(6) (mobile)

From: Akihiro YAMAMOTO [<mailto:a-yamamoto@houshasen.tsuruga.fukui.jp>]
Sent: Friday, March 11, 2011 1:53 PM
To: Lawrence.BURKHART@oecd.org; Thomas, Eric; Diane.JACKSON@oecd.org
Cc: Thorp, John
Subject: [Japan Yama]RE: Fukushima Daichi water levels

Hello,

This is a quick response. I am trying to get new information now.

(This is official information)

METI minister held a press conference a while ago that TEPCO is planning to carry out pressure release through off-gas system. It is expected that the release is very low.

(This is not official information)

- First it seems that the root cause of DG not starting is a flooding by the tsunami wave
- Second at least 4 mobile DG had arrived at the plant (currently cooling was running with batteries 7 hour capacity after having run with steam turbine).

<Question>

- >Since they are BWRs, shouldn't they have RCIC and HPCI/HPCS available,
- >which do not rely on electric pumps but have turbine driven pumps instead?

Glitter, Joseph

From: Glitter, Joseph
Sent: Friday, March 11, 2011 5:47 PM
To: Norton, Charles
Subject: RE: Emergency in Japan

Chuck- I appreciate your willingness to help. I put you at the top of DORL's list. However, don't report until/unless you get a call.

From: Norton, Charles
Sent: Friday, March 11, 2011 5:45 PM
To: Glitter, Joseph
Subject: Emergency in Japan

Joe,

I can be ready at any time to report to the Operations Center. I live less than a mile away and can report within 45 minutes of being called. I was a shift manager for many years at a BWR 4. I was a resident at a BWR 6. I am also familiar with BWR 5 technology.

Before you called me, I was planning to report to the Operations Center around 6AM tomorrow to see if I could help out. Unless I hear differently I will still report at that time.

Chuck Norton

(b)(6)

mmmm/10

Cartwright, William

From: Thorp, John
Sent: Friday, March 11, 2011 1:21 PM
To: Thomas, Eric
Subject: RE: Fukushima Daichi water levels

Thanks for asking this question Eric. I was having the same thoughts and in fact responded with a RCIC/HPCI answer to similar questions from my wife who said everyone in their office was wondering if there was any real core damaging scenario in progress.

John

From: Thomas, Eric
Sent: Friday, March 11, 2011 12:49 PM
To: Diane.JACKSON@oecd.org
Cc: Lawrence.BURKHART@oecd.org; Thorp, John
Subject: Fukushima Daichi water levels

Diane or Larry,

I am filling in for John Thorp here at the office today. I am trying to reconcile the multitude of information coming in from email and CNN. We are hearing that units 1 and/or 2 at Fukushima Daichi are having trouble supplying cooling water and maintaining level. We also heard earlier that they did not have EDGs available.

Since they are BWRs, shouldn't they have RCIC and HPCI/HPCS available, which do not rely on electric pumps but have turbine driven pumps instead? Therefore, the failed EDGs would not challenge their ability to put water in the core.

If you have any additional information that clarifies the situation I would appreciate it. From the attached, it appears Mr. Yamamoto believes the problem may be that they don't have indications to tell how much water is being injected into the core by HPCI/RCIC and where exactly level is.

If there is a good explanation of the situation that I can feed to the Executive Team here, it would be a big help.

Thanks, Eric

Eric Thomas

U.S. Nuclear Regulatory Commission
NRR/DIRS/IOEB
OWFN-7E24
eric.thomas@nrc.gov
301-415-6772 (office)

(b)(6)

MMMM/16

Cartwright, William

From: Thomas, Eric
Sent: Friday, March 11, 2011 2:11 PM
To: Watson, Wallace D
Subject: RE: Japan earthquake

Yeah...I've been dealing with this all day.

Eric Thomas
U.S. Nuclear Regulatory Commission
NRR/DIRS/IOEB
OWFN-7E24
eric.thomas@nrc.gov
301-415-6772 (office)

(b)(6)

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

From: Watson, Wallace D [<mailto:wallace.d.watson@lmco.com>]
Sent: Friday, March 11, 2011 2:10 PM
To: Thomas, Eric
Subject: Japan earthquake

Hi Eric

Just saw this.

Japanese authorities to release radioactive vapour to ease pressure at Fukushima nuclear reactor, from AP Japan.

Would this be an international event you guys would track?

Wallace

Wallace Watson, PMP
Sr. Project Manager
LM NRC SSC
C: (b)(6)

MMMM/17

Valentine, Nicholee

From: McGinty, Tim
Sent: Friday, March 11, 2011 8:02 AM
To: Adams, John
Subject: Re: Tsunami Concern - Are there any RTRs in close proximity to the Pacific Coast

Follow Up Flag: Follow up
Flag Status: Flagged

Sure. Underway.

Sent from my NRC blackberry

Tim McGinty

(b)(6)

From: Adams, John
To: McGinty, Tim
Sent: Fri Mar 11 07:42:06 2011
Subject: RE: Tsunami Concern - Are there any RTRs in close proximity to the Pacific Coast

Can I sit in on the call?

From: McGinty, Tim
Sent: Friday, March 11, 2011 7:41 AM
To: Adams, John; Eads, Johnny; Quichocho, Jessie; Isaac, Patrick; Adams, Alexander
Cc: Blount, Tom; Quay, Theodore
Subject: RE: Tsunami Concern - Are there any RTRs in close proximity to the Pacific Coast

Thanks John. There is a conference call with the Ops Center at 8 a.m., I will be on it from a 13th floor conference room next to Leeds' office. Tim

From: Adams, John
Sent: Friday, March 11, 2011 7:21 AM
To: Eads, Johnny; Quichocho, Jessie; Isaac, Patrick; Adams, Alexander
Cc: Blount, Tom; McGinty, Tim
Subject: Tsunami Concern - Are there any RTRs in close proximity to the Pacific Coast
Importance: High

As you may or may not be aware of there was a magnitude 8.9 earthquake in Japan last night. This will result in a Tsunami on the US Pacific coast. I can't think of any RTRs on the coast but having not been to all of them I am not certain if there are any RTRs susceptible to a Tsunami. If there are we probably should contact the facility for details on their preparatory actions, if any.

Mmmmm/18

Valentine, Nicholee

From: McGinty, Tim
Sent: Friday, March 11, 2011 9:04 AM
To: Astwood, Heather
Subject: Re:

Follow Up Flag: Follow up
Flag Status: Flagged

Thanks. Mike went to pick up the visitors, and we have guided them to the Ops Center to try and help them get the best access to info and whether U.S. can help.

Sent from my NRC blackberry
Tim McGinty

(b)(6)

From: Astwood, Heather
To: McGinty, Tim
Sent: Fri Mar 11 08:46:32 2011
Subject: FW:

One more

From: Foggie, Kirk
Sent: Friday, March 11, 2011 8:35 AM
To: Hopkins, Jon
Cc: Boger, Bruce; Regan, Christopher; Cullingford, Michael; Emche, Danielle; Astwood, Heather; Mamish, Nader; Abrams, Charlotte; Ramsey, Jack; Stahl, Eric
Subject: RE:

Jon et al.,

Attached are the press releases NISA provided last night/early this morning.

We are getting information realtime from NISA and JNES staff still here in the U.S. after attending the RIC. The most recent information has been forwarded to NSIR to be used in the ET brief currently taking place. Jon, I will update you with information as it comes in today.

Kirk

From: Hopkins, Jon
Sent: Friday, March 11, 2011 7:55 AM
To: Foggie, Kirk
Cc: Boger, Bruce; Regan, Christopher; Cullingford, Michael; Emche, Danielle; Astwood, Heather
Subject:

Kirk,

If you could let NRR know of any info. that you find out about the status of Japan's NPPs, it will be appreciated.

If you need assistance, please let me know.

MMMM/19

Jon

Hokuriku Electric Co said on Friday all of three reactors at its Onagawa nuclear plant in northern Japan shut down automatically after the quake.

Kyodo news agency said a fire broke out at Tohoku Electric Power Company's Onagawa nuclear plant in northeastern Japan following the earthquake.

Separately, Fukushima Prefecture, the site of a Tokyo Electric Power nuclear power plant, said on Friday the plant's reactor cooling system was functioning, denying an earlier report that it was malfunctioning.

<http://www.baltimoresun.com/news/nation-world/la-fgw-quake-nuclear-20110312.0.6542180.story>

<http://in.reuters.com/article/2011/03/11/idINIndia-55498320110311>

<http://washingtonexaminer.com/news/2011/03/japan-issues-emergency-nuke-plant-no-leak>

<http://www.dw-world.de/dw/article/0,,14905150,00.html>

Valentine, Nicholee

From: McGinty, Tim - *mlh*
Sent: Friday, March 11, 2011 8:44 AM
To: Astwood, Heather
Subject: Re: Japan initiates emergency protocol after earthquake

Follow Up Flag: Follow up
Flag Status: Flagged

Thanks. Just got off call with ops center. Although we are monitoring U.S. plants for potential tsunami effects (and all other licensees), clarity on the reports and whether we can be of assistance to Japan will be a big part of activities on this. These emails are valuable. Thanks.

Sent from my NRC blackberry
Tim McGinty

(b)(6)

From: Astwood, Heather
To: Leeds, Eric; Boger, Bruce; McGinty, Tim; Valentine, Nicholee; Titus, Brett; Susco, Jeremy; Roquecruz, Carla; Nguyen, Quynh; Meighan, Sean; Heida, Bruce; Fields, Leslie; Cusumano, Victor; Cartwright, William; Azeem, Almas
Cc: Cullingford, Michael; Hopkins, Jon; Quinones, Lauren; Regan, Christopher; Rodriguez, Veronica
Sent: Fri Mar 11 08:32:27 2011
Subject: FW: Japan initiates emergency protocol after earthquake

FYI

From: Breskovic, Clarence
Sent: Friday, March 11, 2011 6:39 AM
To: Breskovic, Clarence
Subject: Japan initiates emergency protocol after earthquake

Japan initiates emergency protocol after earthquake

11 March 2011

Nuclear Engineering International

Onagawa, Fukushima Daiichi, Fukushima Daini and Tokai nuclear power stations have automatically shut down following a magnitude 8.8 earthquake off the northeast coast of the largest island of Japan, Honshu.

All four operating plants on that coast have automatically shut down, or SCRAMmed, according to Japan Atomic Information Forum (JAIF). Higashidori 1, which is also located on Honshu's northeast coast, was shut down for a periodic inspection.

The earthquake struck at 2:45pm local time. A 6:45 pm local time report from the Japan Nuclear and Industrial Safety Agency contained more information of damage and other problems in a site-by-site report.

-A C02 fire has broken out at Onagawa nuclear power station.

-Utility TEPCO has requested the establishment of a nuclear emergency response programme for Fukushima Daiichi 1&3 and Fukushima Daini 1.

MMMM/20

JAIF reported that Fukushima Daiichi 1, 2 and 3 automatically shut down; units 4, 5 and 6 were in maintenance outages. Fukushima Daini 1, 2, 3 and 4 automatically shut down.

JAIF has reported that TEPCO sent the emergency report because emergency diesel generators at the two sites are out of order. It said that there is no report that the radiation was detected out of the site. It said that an emergency headquarters has been set up and will issue information hourly.

JAIF also reported that the Rokkasho reprocessing facility was being powered by emergency diesel generators. No other unusual events or radiation leaks have been reported. Nuclear power stations at Hamaoka, Kashiwazaki-Kariwa and Tomari are continuing normal operation, according to JAIF.

After an accident occurs at a nuclear power plant, the licensee must notify the national Nuclear and Industrial Safety Agency by law.

A minister in its controlling organisation, the Ministry of Economy, Trade and Industry, notifies the prime minister's office. The central nuclear emergency response headquarters (NERHQ) of the national government issues a nuclear emergency declaration, which also includes instructions about preventative measures. It receives technical advice from the Nuclear Safety Commission. The NERHQ sends a specialist and the NSC sends a commissioner to the site.

After the emergency declaration is received, the local office of the national government's NERHQ arranges prevention measures based on factors including facility information, climate and monitoring.

Nuclear emergency response operations are coordinated in one of 20 so-called off-site centres spread across Japan, which are close to, but not inside, nuclear facilities. The off-site centre's role is to be the main centre of information, incident analysis, and emergency plan organisation and direction. Two or three senior specialists for nuclear emergency preparedness work in each OFC. In normal conditions, the specialists work as nuclear power safety inspectors, checking plant operation from the viewpoint of regulation. During an emergency, the specialists organize prevention measures as a secretariat and report it to a joint council for nuclear emergency response. The joint council includes not only the local office of the national government's NERHQ and the senior specialists, but also representatives of the Nuclear Safety Commission and prefectural and municipal NERHQs.

The joint council devises instructions to residents for evacuation and/or sheltering. It also instructs the emergency services and coast guard, self-defence force, Japan Nuclear Energy Safety Organisation (JNES), the National Institute of Radiological Sciences, the Japan Atomic Energy Agency, and other bodies.

JNES has constructed a dedicated high-speed network system connecting the 20 off-site centres and other agencies called Emergency Preparedness Response Network (EPRNet). It includes video conferencing systems, e-mail, telephone, fax, and connections to a meteorological information service, a plant information collection, diagnosis, prognosis and analytical prediction tool (called ERSS), and an emergency environmental dose prediction tool (called SPEEDI).

Valentine, Nicholee

From: McGinty, Tim
Sent: Friday, March 11, 2011 10:16 PM
To: Blount, Tom; LIA05 Hoc; Howell, Linda
Subject: Region 4

Follow Up Flag: Follow up
Flag Status: Flagged

When R4 stood down today, they designated Linda Howell as the contact for followup and overall event cognizance. It would be helpful to keep her in the loop on NRC response activities (and it also serves to keep R4 apprised. Tim

Sent from my NRC blackberry

Tim McGinty

(b)(6)

mmmm/21

~~Carswright, William~~

From: Thomas, Eric
Sent: Friday, March 11, 2011 12:49 PM
To: Diane JACKSON@oecd.org
Cc: Lawrence.BURKHART@oecd.org; Thorp, John
Subject: Fukushima Daichi water levels
Attachments: FW: OECD/NEA - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Diane or Larry,

I am filling in for John Thorp here at the office today. I am trying to reconcile the multitude of information coming in from email and CNN. We are hearing that units 1 and/or 2 at Fukushima Daichi are having trouble supplying cooling water and maintaining level. We also heard earlier that they did not have EDGs available.

Since they are BWRs, shouldn't they have RCIC and HPCI/HPCS available, which do not rely on electric pumps but have turbine driven pumps instead? Therefore, the failed EDGs would not challenge their ability to put water in the core.

If you have any additional information that clarifies the situation I would appreciate it. From the attached, it appears Mr. Yamamoto believes the problem may be that they don't have indications to tell how much water is being injected into the core by HPCI/RCIC and where exactly level is.

If there is a good explanation of the situation that I can feed to the Executive Team here, it would be a big help.

Thanks, Eric

Eric Thomas

U.S. Nuclear Regulatory Commission

NRR/DIRS/IOEB

OWFN-7E24

eric.thomas@nrc.gov

301-415-6772 (office)

(b)(6) (mobile)

From: RMTPACTSU_AC
To: Ulises, Anthony; LIA02 Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Trapp, James
Subject: RE: NRC DART Assistance
Date: Saturday, March 12, 2011 8:34:23 AM

Tony,

We will try to get you our OFDA blackberry.

Thank you for the update.

Regards
~Natalya

*Admin Coordinator
Pacific Tsunami and Inland Earthquake Response Management Team
USAID/DHCA/OFDA
RMTPACTSU_AC@ofda.gov
202-712-0039*

From: Ulises, Anthony [mailto:Anthony.Ulises@nrc.gov]
Sent: Saturday, March 12, 2011 8:33 AM
To: RMTPACTSU_AC; LIA02 Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Trapp, James
Subject: Re: NRC DART Assistance

Natalya,

Thanks. We are fueling here at LAX and I expect to leave soon. I have been talking with Chris on the plane.

I am told that my BB is not Japan qualed so I will use the sat phone for now.

Thanks,

Tony

Sent from NRC BlackBerry
Anthony Ulises
(b)(6)

From: RMTPACTSU_AC <RMTPACTSU_AC@ofda.gov>
To: LIA02 Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID] <njohnson@USAID.GOV>; Ulises, Anthony; Trapp, James
Sent: Sat Mar 12 08:26:27 2011
Subject: RE: NRC DART Assistance

Thanks much.

MMMM/23

Dear Tony and Jim – I will appreciate if you can provide me with ongoing updates on your whereabouts (wheels up, departure, arrival, hotel, etc).

My direct numbers are 202-712-0031 and 571-354-9086. My alternate email is njohnson@usaid.gov.

Please get in touch with other DART team members as soon as you're in Tokyo. You are on DART distribution list DART_PACTSU@ofda.gov

We are working on sending blackberries to you with OFDA.GOV email access (we will provide you with OFDA email accounts). Please stay tuned.

Regards

~Natalya Johnson

Admin Coordinator

Pacific Tsunami and Japan Earthquake Response Management Team

USAID/DHCA/OFDA

Rmtpactsu_ac@ofda.gov

202-712-0039

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]

Sent: Saturday, March 12, 2011 8:21 AM

To: RMTPACTSU_AC

Cc: Johnson, Natalya (DHCA/OFDA) [USAID]; Ulises,Anthony; Trapp, James

Subject: RE: NRC DART Assistance

Tony's doesn't have an international blackberry, but is carrying a international satellite phone. The number is (b)(6) His email address is Anthony.ulises@nrc.gov

Jim's email address is james.trapp@nrc.gov. His doesn't have a blackberry that works internationally. He will buy one there.

From: RMTPACTSU_AC [mailto:RMTPACTSU_AC@ofda.gov]

Sent: Saturday, March 12, 2011 7:59 AM

To: LIA02 Hoc

Cc: Johnson, Natalya (DHCA/OFDA) [USAID]

Subject: FW: NRC DART Assistance

Good morning, Eric and Kirk:

Thanks much for the information. I need email addresses as well as phone/BB numbers for both Jim and Anthony.

~Natalya

Admin Coordinator

Pacific Tsunami and Japan Earthquake Response Management Team

USAID/DHCA/OFDA

Rmtpactsu_ac@ofda.gov

202-712-0039

From: LIA02 Hoc <LIA02.Hoc@nrc.gov>
To: Johnson, Natalya (DCHA/OFDA)
Sent: Sat Mar 12 07:45:55 2011
Subject: FW: NRC DART Assistance

From: LIA02 Hoc
Sent: Saturday, March 12, 2011 7:38 AM
To: 'rmtpactsu_ac@ofda.gov'
Cc: 'rmtpactsu_dmo@ofda.gov'; 'rmtpactsu_lc@ofda.gov'
Subject: NRC DART Assistance

Natalia --

Country Clearance Information

Name: James Trapp

Emergency Contact Name, Relationship and Phone: (b)(6)

In addition, please find a statement-of-work and bios for Mr. Trapp and Mr. Ulises attached.

Do you know who will meet Mr. Trapp in Norita airport?

NRC is working to get a liaison back down to USAID.

At this point, I leave you in my colleague Kirk Foggie's very able hands. Is there anything else you need?

Thanks,
Eric

From: RMTPACTSU_AC
To: LIA02_Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Ulses, Anthony; Trapp, James
Subject: RE: NRC DART Assistance
Date: Saturday, March 12, 2011 8:33:20 AM

Thank you for the update. Please keep me posted. This will give us time to have the blackberry ready for Jim's pickup.

~Natalya

*Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DHCA/OFDA
RMTPACTSU_AC@ofda.gov
202-712-0039*

From: LIA02_Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: Saturday, March 12, 2011 8:31 AM
To: RMTPACTSU_AC
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Ulses, Anthony; Trapp, James
Subject: RE: NRC DART Assistance

We were just notified that Jim's departure from Dulles has been delayed until 16:35.

Eric

From: RMTPACTSU_AC [mailto:RMTPACTSU_AC@ofda.gov]
Sent: Saturday, March 12, 2011 8:26 AM
To: LIA02_Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Ulses, Anthony; Trapp, James
Subject: RE: NRC DART Assistance

Thanks much.

Dear Tony and Jim – I will appreciate if you can provide me with ongoing updates on your whereabouts (wheels up, departure, arrival, hotel, etc).

My direct numbers are 202-712-0031 and 571-354-9086. My alternate email is njohnson@usaid.gov.

Please get in touch with other DART team members as soon as you're in Tokyo. You are on DART distribution list DART_PACTSU@ofda.gov
We are working on sending blackberries to you with OFDA.GOV email access (we will provide you with OFDA email accounts). Please stay tuned.

Regards
~Natalya Johnson

mmmm/24

*Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DHCA/OFDA
Rmtpactsu_ac@ofda.gov
202-712-0039*

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: Saturday, March 12, 2011 8:21 AM
To: RMTPACTSU_AC
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Ulses,Anthony; Trapp, James
Subject: RE: NRC DART Assistance

Tony's doesn't have an international blackberry, but is carrying a international satellite phone. The number is (b)(6) His email address is Anthony.ulses@nrc.gov

Jim's email address is james.trapp@nrc.gov. His doesn't have a blackberry that works internationally. He will buy one there.

From: RMTPACTSU_AC [mailto:RMTPACTSU_AC@ofda.gov]
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To: LIA02 Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]
Subject: FW: NRC DART Assistance

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~Natalya

*Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DHCA/OFDA
Rmtpactsu_ac@ofda.gov
202-712-0039*

From: LIA02 Hoc <LIA02.Hoc@nrc.gov>
To: Johnson, Natalya (DCHA/OFDA)
Sent: Sat Mar 12 07:45:55 2011
Subject: FW: NRC DART Assistance

From: LIA02 Hoc
Sent: Saturday, March 12, 2011 7:38 AM
To: 'rmtpactsu_ac@ofda.gov'
Cc: 'rmtpactsu_dmo@ofda.gov'; 'rmtpactsu_lc@ofda.gov'
Subject: NRC DART Assistance

Natalia —

Country Clearance Information

Name: James Trapp

Emergency Contact Name, Relationship and Phone:

(b)(6)

In addition, please find a statement-of-work and bios for Mr. Trapp and Mr. Ulses attached.

Do you know who will meet Mr. Trapp in Norita airport?

NRC is working to get a liaison back down to USAID.

At this point, I leave you in my colleague Kirk Foggie's very able hands. Is there anything else you need?

Thanks,
Eric

From: Trapp, James
To: RMTPACTSU_AC
Subject: RE: NRC/DOE DART Assistance
Date: Saturday, March 12, 2011 11:05:21 AM

From: RMTPACTSU_AC [RMTPACTSU_AC@ofda.gov]
Sent: Saturday, March 12, 2011 11:02 AM
To: Trapp, James
Subject: FW: NRC/DOE DART Assistance

Jim -- do you have hotel reservation? Thanks /natalya

Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DHCA/OFDA
Rmtpactsu_ac@ofda.gov<mailto:Rmtpactsu_ac@ofda.gov>
202-712-0039

From: RMTPACTSU_AC
Sent: Saturday, March 12, 2011 10:59 AM
To: 'LIA02.Hoc@nrc.gov'; Trapp, James; Trapp, James; Sink, Amy (BFS) [USAID]; Ulses, Anthony; Potts, Sarah(DCHA/OFDA) [USAID]; Beed, John [USAID]; Berger, William (RDMA/OFDA) [USAID]; Brown, Courtney; Remick, Alan; nitops@nnsa.doe.gov
Subject: NRC/DOE DART Assistance
Importance: High

Good morning:

Jim Trapp: can you please confirm your ETD/ETA? Also, send me your new itinerary, if available. Thanks much! Also, we are working on setting up OFDA email accounts for you, Tony Ulses and Alan Remick (DOE). These accounts will be set up on OFDA Blackberries. We will request your assistance in carrying these BBs to Japan. Please get in touch with me ASAP to coordinate blackberries delivery/pick up time and place. You have been added to the email distribution list dart_pactsu@ofda.gov<mailto:dart_pactsu@ofda.gov>.

Please note that your initial POC in Tokyo is Amy Sink (b)(6) She takes care of logistics and hotel reservations (among many other things) until Sarah Potts arrives in country on Sunday (her number is (b)(6)) She will be able to put you in touch with a POC at the Embassy and respective POCs with Government of Japan.

Please note that the DART Team Leader is Bill Berger, who's already in Tokyo. His email (cc'ed here) is wberger@usaid.gov<<mailto:wberger@usaid.gov>> or wberger@ofda.gov<<mailto:wberger@ofda.gov>>. His Deputy Team Leader, Courtney Brown, arrives in country on March 14th. His email is cobrown@ofda.gov<<mailto:cobrown@ofda.gov>>.

I will be sending you the internal contact list shortly.

Please do not hesitate to contact me with any questions or concerns.

~Natalya Johnson

Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DHCA/OFDA
Rmtpactsu_ac@ofda.gov<mailto:Rmtpactsu_ac@ofda.gov>

mmmm/25

(b)(6)

From: LIA02 Hoc <LIA02.Hoc@nrc.gov>
To: OFDAGOV: RMTPACTSU_AC
Cc: Johnson, Natalya (DCHA/OFDA); Ulses, Anthony <Anthony.Ulses@nrc.gov>; Trapp, James <James.Trapp@nrc.gov>
Sent: Sat Mar 12 08:30:46 2011
Subject: RE: NRC DART Assistance
We were just notified that Jim's departure from Dulles has been delayed until 16:35.

Eric

From: RMTPACTSU_AC [mailto:RMTPACTSU_AC@ofda.gov]
Sent: Saturday, March 12, 2011 8:26 AM
To: LIA02 Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Ulses, Anthony; Trapp, James
Subject: RE: NRC DART Assistance

Thanks much.

Dear Tony and Jim – I will appreciate if you can provide me with ongoing updates on your whereabouts (wheels up, departure, arrival, hotel, etc).

My direct numbers are 202-712-0031 and 571-354-9086. My alternate email is njohnson@usaid.gov <<mailto:njohnson@usaid.gov>>.

Please get in touch with other DART team members as soon as you're in Tokyo. You are on DART distribution list DART_PACTSU@ofda.gov <mailto:DART_PACTSU@ofda.gov>
We are working on sending blackberries to you with OFDA.GOV email access (we will provide you with OFDA email accounts). Please stay tuned.

Regards
~Natalya Johnson

Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DHCA/OFDA
Rmtpactsu_ac@ofda.gov <mailto:Rmtpactsu_ac@ofda.gov>
202-712-0039

From: LIA02 Hoc [<mailto:LIA02.Hoc@nrc.gov>]
Sent: Saturday, March 12, 2011 8:21 AM
To: RMTPACTSU_AC
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]; Ulses, Anthony; Trapp, James
Subject: RE: NRC DART Assistance

Tony's doesn't have an international blackberry, but is carrying a international satellite phone. The number is (b)(6). His email address is Anthony.ulses@nrc.gov <<mailto:Anthony.ulses@nrc.gov>>

Jim's email address is james.trapp@nrc.gov <<mailto:james.trapp@nrc.gov>>. His doesn't have a blackberry that works internationally. He will buy one there.

From: RMTPACTSU_AC [mailto:RMTPACTSU_AC@ofda.gov]
Sent: Saturday, March 12, 2011 7:59 AM
To: LIA02 Hoc
Cc: Johnson, Natalya (DCHA/OFDA) [USAID]
Subject: FW: NRC DART Assistance

Good morning, Eric and Kirk:

Thanks much for the information. I need email addresses as well as phone/BB numbers for both Jim and Anthony.

~Natalya

Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DHCA/OFDA
Rmtpactsu_ac@ofda.gov <mailto:Rmtpactsu_ac@ofda.gov>
202-712-0039

From: LIA02 Hoc <LIA02.Hoc@nrc.gov>
To: Johnson, Natalya (DCHA/OFDA)
Sent: Sat Mar 12 07:45:55 2011
Subject: FW: NRC DART Assistance

From: LIA02 Hoc
Sent: Saturday, March 12, 2011 7:38 AM
To: 'rmtpactsu_ac@ofda.gov'
Cc: 'rmtpactsu_dmo@ofda.gov'; 'rmtpactsu_lc@ofda.gov'
Subject: NRC DART Assistance

Natalia –

Country Clearance Information

Name: James Trapp

Emergency Contact Name, Relationship and Phone: (b)(6)

In addition, please find a statement-of-work and bios for Mr. Trapp and Mr. Ulises attached.

Do you know who will meet Mr. Trapp in Norita airport?

NRC is working to get a liaison back down to USAID.

At this point, I leave you in my colleague Kirk Foggie's very able hands. Is there anything else you need?

Thanks,
Eric

Arndt, Steven

From: Arndt, Steven
Sent: Saturday, March 12, 2011 7:33 AM
To: Hiland, Patrick
Subject: My travel

Pat,

I will be back in washington this evening. I was planning to leave for Germany tomorrow evening. I can cancel and be available to the op center and you if needed (at one time I ran the MECORE and severe accident program for RES).

I don't want to get in the way if you don't need me, but if you do I can be there. If you have time please let me know.

Thanks

Sent from a NRC blackberry
Steven Arndt

(b)(6)

MMMM/26

Weaver, Tonna

From: Uises, Anthony
Sent: Saturday, March 12, 2011 3:58 PM
To: Mendiola, Anthony
Subject: Re: Japan

Well, believe it or not I am currently in Anchorage, Alaska on my way to Japan in support of USAID. Will keep you posted as I can.

Tony

Sent from NRC BlackBerry

Anthony Uises

(b)(6)

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

From: Mendiola, Anthony
To: Uises, Anthony
Sent: Sat Mar 12 13:57:19 2011
Subject: Japan

Hopefully you are away from work by now. If not, let me know if there is anything we can do to help. My staff and I have been thinking, what about the other plants onsite, do they have AC power? What about the other sites on the coast or experiencing the LOOP for an extended period of time? EDG fuel beyond 7 days? Remember Turkey point and the hurricane. Also what about spent fuel cooling? Lots to think about for an extended period of time.

Sent from an NRC Blackberry

Anthony Mendiola

(b)(6)

mmmm/27

Weaver, Tonna

From: Ulises, Anthony
Sent: Saturday, March 12, 2011 1:17 AM
To: LIA02 Hoc
Subject: Re: questions

Brooke,

Negative on dosimetry. We are flying to LA first (arriving about 0500) and then going on. Can you try and check on dosimetry availability in LA?

Thanks,

Tony

Sent from NRC BlackBerry

Anthony Ulises

(b)(6)

From: LIA02 Hoc
To: Ulises, Anthony
Sent: Sat Mar 12 00:09:14 2011
Subject: questions

Tony –

If you can, please let us know :

- 1) If USAID has dosimetry
- 2) What time you expect to land in Japan
- 3) Where you will be landing in Japan.

Thanks,
Brooke

mmmm/28

From: Sheron, Brian
To: Virgilio, Martin; Weber, Michael; Borchardt, Bill; Leeds, Eric; Uhle, Jennifer
Subject: FW: Earthquake Impact
Date: Saturday, March 12, 2011 11:42:13 AM

See below. Not sure if you have this level of information.

From: Bari, Robert A [bari@bnl.gov]
Sent: Saturday, March 12, 2011 8:03 AM
To: shunsuke.kondo@cao.go.jp (b)(6)
Cc: Horak, William C; Braverman, Joseph I; Hofmayer, Charles H; Sheron, Brian; Genzer, Peter A
Subject: RE: Earthquake Impact

Dear Shunsuke

Thank you for this. It helps to now understand the course of events, so far.

Yesterday I was interview by ABC News in NYC about the event at the reactors. The discussion was quite general on protection of plants during earthquakes.

Very early this morning (4 AM EST) I was called by the newsman about the evolving situation as they understood it. I was about to do a formal interview with them via skype from my home when they informed me that they were switching their news coverage to a horrible bus accident in NYC that killed several people. They said that they would get in touch with us at a later time.

I am now studying your scenario and may have some additional questions in a subsequent email.

I understand that the reactors are BWR Mark I with RCIC. Is that correct?

I will not share any of your information with the press unless you say that it is OK.

Best regards,

Bob

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

From: shunsuke.kondo@cao.go.jp [mailto:shunsuke.kondo@cao.go.jp]
Sent: Saturday, March 12, 2011 7:07 AM
To: Bari, Robert A (b)(6)
Cc: Horak, William C; Braverman, Joseph I; Hofmayer, Charles H; Sheron, Brian
Subject: RE: Earthquake Impact

Dear Bob

Thank you very much for your kind email. We are still in the midst of the fight for cooling down the core of the plants, experiencing after shock almost every hour since the main shock yesterday.

Enclosed please find my personal note on the current situation at the site, just for your information.

Yours,
Shunsuke Kondo

Current (15:30 of 2011/03/12) Situation of Fukushima Daiichi (1F, six units) and Fukushima Daini (2F, four units) Nuclear Power Plants Hit by Tohoku-chiho Taiheiyoku-oki Earthquake (TT-EQ) on March 11, 2011

MMMM / 29

The TT-EQ caused automatic shutdown of all operating units of 1F, i.e. unit 1, 2, 3 and 2F, i.e. unit 1, 2, 3, 4. Simultaneously, the off-site powers to these units were lost due to the damage of many fossil and some of hydro power generating stations in the network with which these units were connected. Furthermore, most of the emergency diesel generators (EDGs) of these units could not continue operation due to lack of cooling caused by extraordinary high Tsunami. In essence these units were put into the situation called "total blackout".

The regulatory authority recommended every operator to prepare so-called (severe) accident management procedure and features that should be followed in such situation ten years ago and currently all operators have this procedure as a part of operation manual. Therefore TEPCO team has started the operation to cool the core based on this procedure.

The team was faced with difficulty in the execution, however, as the vital power source was not available also due to the flooding of the building; this power source is important as it is to supply power to sustain I&C system that is used to monitor plant status and operate motor-operated valve (MOV) necessary in this operation.

Therefore TEPCO gathered power supply trucks, DC batteries and fire-fighting engines from available sources near-by and the team started their fight to minimize the probability of occurrence of large-scale release, utilizing them.

1F Unit 1: Although RCIC is available to remove heat from the core, the reactor water level has decreased gradually to the level below the top of active core possibly due to some leakage from RPV boundary (containment pressure is now almost equal to RPV pressure) and the radiation level around the unit started to rise gradually at around 4:00 AM today.

The team has started the water injection using fire-fighting car or fire engines to stabilize core condition and challenged to open the valves in the scrubbing venting line under high radiation condition. As Iodine and Cesium are recognized in the environment in parallel, though quite minor, the government asked evacuation to the people within 10 km from the plant as a precaution. We were very lucky that the wind direction was from land to sea at this time.

The team has succeeded to open the valves in the venting line at around 14:00 and then the containment pressure started to decrease significantly. As for the water level in RPV, though it was decreasing at first irrespective of the injection of the water but then has been stabilized though it is significantly below the top of the core.

It is under discussion to use sea water as makeup water after the exhaustion of water in fire-fighting water tank.

It was reported at 15:35 that the Reactor Building of 1F1 was ruptured after a rather strong earthquake with the sound of explosion and that the level of radiation at the site boundary was suddenly doubled from 500 micro Sv/hr of that after venting operation to 1mSv/hr. The explosion is considered due to explosion of hydrogen leaked from the primary coolant boundary caused by the impact of the earthquake.

The team decided to complete the preparation to perform this type of feed and bleed (F&B) operation in parallel with making their best to recover sea-water line, as key operation in these situation is the F&B operation utilizing venting line until we can recover the operation of sea water system as a heat sink and can use ECCS system.

Accordingly, in the cases of 1F Unit 2 & 3, though reactor water level is above the top of the core and core makeup system (either by RIC or HPCI) is in operation, containment venting is in preparation in case the channel to the ultimate heat sink (seawater) is not resumed.

Also in the case of every units of 2F, containment venting is in preparation though offsite power is now available as the path to UHS (sea) is not established.

In the case of 1F 4, 5, 6, they were not in operation they were in shutdown state for refueling and maintenance outage.

From: Bari, Robert A [<mailto:bari@bnl.gov>]

Sent: Friday, March 11, 2011 10:19 PM

To: 近藤 駿介(子力 員会)(shunsuke.kondo); 近藤 駿介(子力 員会)

Cc: Horak, William C; Braverman, Joseph I; Hofmayer, Charles H; Sheron, Brian

Subject: Earthquake Impact

Dear Shunsuke

Please accept my sympathy as you and the Japanese people endure this unfortunate tragedy.

Brookhaven stands ready to provide appropriate assistance as you might request.

As you know, we have a long-standing program on Japan-US cooperation on seismic safety for nuclear plants with sponsorship by the USNRC.

Sincerely,

Bob

Weaver, Tonna

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 4:38 PM
To: LIA03 Hoc
Subject: I am in a car heading to the embassy - eom

Sent from NRC BlackBerry
Anthony Ulises

(b)(6)

MMMM/30

Weaver, Tonna

From: Ulses, Anthony
Sent: Sunday, March 13, 2011 4:14 PM
To: LIA03 Hoc
Subject: Re:

By the way, the DTRA meeting was an exchange of contact information so we can communicate. I also passed along the number for the HOO.

Sent from NRC BlackBerry

Anthony Ulses

(b)(6)

From: LIA03 Hoc
To: Ulses, Anthony
Cc: Smith, Brooke; LIA02 Hoc; LIA03 Hoc
Sent: Sun Mar 13 16:06:42 2011
Subject:

Tony –

FYI. We are transitioning here at the Ops Center. Kirk Foggie (LIA02.hoc@nrc.gov) and Karen Henderson (LIA03.hoc@nrc.gov) will be here for the next 8 hours. They can assist you as the International Liaisons. I believe you have a room booked at Hotel Okura. It is just across the street from the Embassy. Jim Trapp is at the Embassy now. Good luck!

Brooke

Weaver, Tonna

From: Ulses, Anthony
Sent: Sunday, March 13, 2011 4:14 PM
To: LIA03 Hoc
Subject: Re:

Still working on the sleep, but good otherwise.

Tony

Sent from NRC BlackBerry
Anthony Ulses

(b)(6)

From: LIA03 Hoc
To: Ulses, Anthony
Sent: Sun Mar 13 16:13:15 2011
Subject: RE:

Jim doesn't have a BB. Happy to hear you made it to Yokota. How are you doing. Have you gotten any sleep/rest?

From: Ulses, Anthony
Sent: Sunday, March 13, 2011 4:11 PM
To: LIA03 Hoc
Subject: Re:

Thanks. I am the ground at Yokota awaiting transport to the Embassy. Does Jim have a BB?

Tony

Sent from NRC BlackBerry
Anthony Ulses

(b)(6)

From: LIA03 Hoc
To: Ulses, Anthony
Cc: Smith, Brooke; LIA02 Hoc; LIA03 Hoc
Sent: Sun Mar 13 16:06:42 2011
Subject:

Tony -

FYI. We are transitioning here at the Ops Center. Kirk Foggie (LIA02.hoc@nrc.gov) and Karen Henderson (LIA03.hoc@nrc.gov) will be here for the next 8 hours. They can assist you as the International Liaisons. I believe you have a room booked at Hotel Okura. It is just across the street from the Embassy. Jim Trapp is at the Embassy now. Good luck!

Brooke

Mmm/32

Weaver, Tonna

From: Patterson, Mark H LtCol USAF PACAF 35 FW/JA (b)(6)
Sent: Sunday, March 13, 2011 6:31 AM
To: Perks, Dewey(DCHA/OFDA)
Cc: OFDALogistics; Lyons, Thomas H; Beed, John A; Young, Joseph M; OFDAGC, RMTPACTSU_LC; Lane, Aikojean CIV OSD POLICY; applegate@usgs.gov; Atteberry, Christopher L Col (USAF) OSD POLICY; Basalla, Suzanne I; Beed, John; Benjamin, Bevan COL USA USFJ J5; LACOUNTY: John Boyle; Bradford, John F LCDR (USN) OSD POLICY; Brunette-Chen, Rachel; Caballero, Leo F LTC USA USFJ J52; charles.mcreery@noaa.gov; Beed, Christine M (Asuncion); Clark, Ngoc CIV OSD POLICY; Cote, Benjamin F LCDR USN USFJ J52; Cowie, Courtney A CIV OSD POLICY; OFDAGOV: DART_PACTSU; Stone, Dave (USAR LA County); LACOUNTY: Stephen Davis; Deming, Rust M; Donovan, Joseph R; Dresser, Heather L (EAP/J); EAP-J-Office-DL; Epstein, Daren A GS-14 USFJ J5; Green, Christopher L; Hanlon, Melissa, CIV, OSD-POLICY; Hefner, Timothy B; Hinds, Lynda J; Huntington, Miki T LTC USA USFJ J54; (b)(6) Pischnotte, Zeb W Col USAF USFJ J06
Subject: RE: RMT Pacific Tsunami Logistics Update

Mr. Dewey—Base officials are working several angles to try to support your teams. We have contractor translation support lined up (more details forthcoming). We are soliciting volunteers in the base community, but communications options are limited. We have also identified Air Force members assigned to Misawa who are Japanese-language speakers with varying degrees of proficiency. I can't make any representations as to whether military members can be used, however—just wanted to see who they are and where they are right now.

r/Lt Col Patterson
35th Fighter Wing
Staff Judge Advocate

From: Perks, Dewey(DCHA/OFDA); [mailto:dperks@usaid.gov]
Sent: Sunday, March 13, 2011 5:32 PM
To: Lyons, Thomas H; Beed, John A; Young, Joseph M; OFDAGOV: RMTPACTSU_LC; Lane, Aikojean CIV OSD POLICY; applegate@usgs.gov; Atteberry, Christopher L Col (USAF) OSD POLICY; Basalla, Suzanne I; Beed, John; Benjamin, Bevan COL USA USFJ J5; LACOUNTY: John Boyle; Bradford, John F LCDR (USN) OSD POLICY; Brunette-Chen, Rachel; Caballero, Leo F LTC USA USFJ J52; charles.mcreery@noaa.gov; Beed, Christine M (Asuncion); Clark, Ngoc CIV OSD POLICY; Cote, Benjamin F LCDR USN USFJ J52; Cowie, Courtney A CIV OSD POLICY; OFDAGOV: DART_PACTSU; Stone, Dave (USAR LA County); LACOUNTY: Stephen Davis; Deming, Rust M; Donovan, Joseph R; Dresser, Heather L (EAP/J); EAP-J-Office-DL; Epstein, Daren A GS-14 USFJ J5; Green, Christopher L; Hanlon, Melissa, CIV, OSD-POLICY; Hefner, Timothy B; Hinds, Lynda J; Huntington, Miki T LTC USA USFJ J54; (b)(6)
Cc: OFDALogistics; Patterson, Mark H LtCol USAF PACAF 35 FW/JA
Subject: Re: RMT Pacific Tsunami Logistics Update

Ok - we are being assigned to Iwate Prefecture; Ofuntau City...does this mean we're losing them...

From: Lyons, Thomas H <LyonsTH@state.gov>
To: (b)(6)

(b)(6)

MMMMM/33

(b)(6)

Cc: OFDALogistics; Patterson, Mark H LtCol USAF PACAF 35 FW/JA (b)(6)

Sent: Sun Mar 13 04:27:54 2011

Subject: RE: RMT Pacific Tsunami Logistics Update

All,

Please note that the interpreters from Misawa were only willing to work locally.

V/r,

Tom Lyons

Consul

CONGEN Sapporo

SBU

This email is UNCLASSIFIED.

From: Beed, John A

Sent: Sunday, March 13, 2011 5:14 PM

To:

(b)(6)

Cc: OFDALogistics

Subject: RE: RMT Pacific Tsunami Logistics Update

We're on the line now with the USAR lead in the field – he has just confirmed that there are no Japanese speakers on the teams HOWEVER Misawa has made available sufficient number of interpreters for the team to operate.

John A. Beed

Counselor for Development Cooperation

U.S. Embassy Tokyo -- USAID

Tel: 81-3-3224-5015

Fax: 81-3-3224-5880

Email: beedia@state.gov - w/h

This email is UNCLASSIFIED.

From: Young, Joseph M

Sent: Sunday, March 13, 2011 4:56 PM

To:

(b)(6)

Cc: OFDALogistics

Subject: RE: RMT Pacific Tsunami Logistics Update

Need to know how many Japanese speakers arrived with the team.
Many thanks,

Joe Young

Political-Military Unit Chief

U.S. Embassy, Tokyo

(b)(6)

From: RMTPACTSU_LC [mailto:RMTPACTSU_LC@ofda.gov]

Sent: Sunday, March 13, 2011 4:50 PM

To:

(b)(6)

Cc: RMTPACTSU_LC; OFDALogistics

Subject: RMT Pacific Tsunami Logistics Update

Here is an over of the USAR flights into Misawa:

Passengers:

The Commercial 767 flight carrying Urban Search and Rescue personnel **has landed** in Misawa. Official landing time: 13 March at 0622z

NOTE: Local time in Japan was 1522 hours

Cargo:

USA 2 (Cargo) has arrived via DoD C-17 in Misawa. Official landing time: 13 March at 0005z

NOTE: Local time in Japan was 0905 hours

USA 1 (Cargo) departed Andrews Air Force Base in a DoD C-17 and is currently airborne. DoD is reporting an **updated** estimated arrival time of 13 March 1438z (Local time in Japan 2338hours)

An aerial refueling is scheduled for this flight, which will help shorten their flight time.

Regards,

~Pat

Todd Horne / Pat Long
Pacific Tsunami Japan Earthquake
Logistics Coordinator
202-712-0039 x-5706
Rmtprtsu_lc@ofda.gov
ofdalogistics@usaid.gov

Weaver, Tonna

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 1:31 PM
To: LIA03 Hoc
Subject: Update

I have been asked to meet a DTRA team at the flight line at Yakoto. Will advise.

Tony

Sent from NRC BlackBerry
Anthony Ulises

(b)(6)

mmmm/34

Weaver, Tonna

From: Uises, Anthony
Sent: Sunday, March 13, 2011 1:08 PM
To: LIA03 Hoc
Subject: NISA Briefing

Did we get a download from the NISA briefing?

Also, my ride is here so I should be out of here soon.

Thanks,

Tony

Sent from NRC BlackBerry

Anthony Uises

(b)(6)

MMMM/35

Weaver, Tonna

From: Uises, Anthony
Sent: Sunday, March 13, 2011 6:05 PM
To: LIA03 Hoc
Subject: Clearances

Can you please pass clearances for Jim and I so we can have better embassy access?

Thanks,

Tony

Sent from NRC BlackBerry

Anthony Uises
(b)(6)

mmmm/36

Weaver, Tonna

From: Uises, Anthony
Sent: Sunday, March 13, 2011 5:17 PM
To: LIA03 Hoc
Subject: Re: Onagawa

Thanks. I was just talking to the RST when my cell voice coverage faded.

Sent from NRC BlackBerry

Anthony Uises

(b)(6)

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

From: LIA03 Hoc
To: Uises, Anthony
Sent: Sun Mar 13 17:15:54 2011
Subject: RE: Onagawa

We are checking for you and will get back to you asap.

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

From: Uises, Anthony
Sent: Sunday, March 13, 2011 4:56 PM
To: LIA03 Hoc
Subject: Onagawa

Just read the SITREP. Do we suspect that there has been a release from Onagawa as well?

Sent from NRC BlackBerry

Anthony Uises

(b)(6)

MMMM/37

Weaver, Tonna

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 5:29 PM
To: LIA03 Hoc
Subject: Re: Onagawa

Thanks.

Sent from NRC BlackBerry
Anthony Ulises
(b)(6)

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

From: LIA03 Hoc
To: Ulises, Anthony
Sent: Sun Mar 13 17:25:52 2011
Subject: RE: Onagawa

I was just told that they have no indication pointing to a release.

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

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 4:56 PM
To: LIA03 Hoc
Subject: Onagawa

Just read the SITREP. Do we suspect that there has been a release from Onagawa as well?

Sent from NRC BlackBerry
Anthony Ulises
(b)(6)

MMMM/38

Weaver, Tonna

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 12:35 PM
To: LIA03 Hoc
Subject: Contact info

What is the direct dial to the Liaison Team room so I can stop bothering the HOO?

Thanks,

Tony

BTW, I will be out of Misawa at 0330 local time and I "believe" I have transportation to the embassy. Lacking that, I know how to use the trains so barring another plane problem I will make the meeting.

Sent from NRC BlackBerry
Anthony Ulises

(b)(6)

mmmm/39

Weaver, Tonna

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 10:38 AM
To: LIA03 Hoc
Subject: Re: Message from Executive Team

Oki-doki. The e-mail will work.

Sent from NRC BlackBerry
Anthony Ulises
(b)(6)

From: LIA03 Hoc
To: Ulises, Anthony
Sent: Sun Mar 13 10:34:44 2011
Subject: RE: Message from Executive Team

I just learned...we are going to do the travel authorization on Monday for you. Brooke

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 10:33 AM
To: LIA03 Hoc
Subject: Re: Message from Executive Team

Thanks. I do not think it needs to be that formal, but you never know.

Tony

Sent from NRC BlackBerry
Anthony Ulises
(b)(6)

From: LIA03 Hoc
To: Ulises, Anthony
Sent: Sun Mar 13 10:31:44 2011
Subject: RE: Message from Executive Team

Tony –

Mike Tschiltz verbally authorized your transport. We will work on drafting a travel authorization for you so you have papers. Mike is leading the Liaison Team.

Brooke

From: Ulises, Anthony
Sent: Sunday, March 13, 2011 10:23 AM
To: LIA03 Hoc
Subject: Re: Message from Executive Team

Brooke,

MMMM/40

Thanks. Here is the deal. Military lift to Yakoto and then I need to grab a bus to Haneda followed by cab to the embassy. Got any better ideas?

Also, the military folks said I should ask you for either an e-mail (or my travel orders) to ensure that I can get on the plane.

Please advise.

Thanks,

Tony

Sent from NRC BlackBerry

Anthony Ulses

(b)(6)

From: LIA03 Hoc
To: Ulses, Anthony
Cc: LIA02 Hoc
Sent: Sun Mar 13 10:12:55 2011
Subject: Message from Executive Team

Tony –

I wanted to pass along this message from the ET. They wanted you (and Jim) to be clear that your job in Japan is to provide technical advice and assistance to the US Ambassador and send information back to the NRC Ops Center. Your role is not to advise the Japanese Government. NRC's Office of International Programs is working on a statement. If I can, I will pass that on to you as additional guidance on how to view NRC's role in this situation.

Let me know if you need anything. I've provided your status to USAID and NRC's reps at USAID. Just trying to keep all bases covered.

Brooke

Caponiti, Kathleen

From: Taylor, Robert
Sent: Sunday, March 13, 2011 2:16 PM
To: (b)(6)
Subject: RE: An Idea for the Nuclear Reactor Emergency in Japan

Mr. Hoffheiser,

Thank you for sending your idea to us. We understand that the Japanese are aware of this technique and would employ it if circumstances warrant. Since the containment structure remains intact, the dropping of water at this time would land on the top of the containment building and not provide meaningful cooling for the reactor fuel.

We are continuing to monitor the Japanese response to this event and will provide any technical expertise and support requested by the Japanese government.

Again, thanks for sharing your idea with us.

Regards,

Rob Taylor
Office of Public Affairs
U.S. Nuclear Regulatory Commission

From: Chuck Hoffheiser (b)(6)
Sent: Sunday, March 13, 2011 1:25 PM
To: OPA Resource
Subject: An Idea for the Nuclear Reactor Emergency in Japan

I've been following the coverage of the nuclear reactor situation in Japan, and a thought occurred --- could we outfit helicopters with the fire-fighting water carrying devices often used in wildfires in the US? I don't know how to get in touch with the NRC experts in Japan, and their offices in the US probably are closed today. Perhaps someone at NRC is monitoring e-mail today so perhaps you could transmit my idea to them.

Is there any way these "water-helicopters" could be used to slowly release water into the reactor containment structures? Various reports say Japanese crews are pumping seawater into the structures, and maybe this is a way to supplement the amount of water and add it more quickly. Additionally, if there are any mid-air refueling Air Force planes in the region, could they be filled with water rather than jet fuel, then used for the same purpose?

Naturally, the crews would have to be outfitted with radiation protection, and that might make this idea unworkable.

Thanks for keeping us informed. I've provided my phone number below, just in case.

Chuck Hoffheiser

(b)(6)

(b)(6)

mmmm/41

Weaver, Tonna

From: Panicker, Mathew
Sent: Sunday, March 13, 2011 12:25 AM
To: Mendiola, Anthony
Subject: RE: FYI

Follow Up Flag: Follow up
Flag Status: Completed

Latest articles from WNN. Detailed descriptions in articles. Access to the plants may not be possible. Control rooms may be not accessible. Right now they are using sea water to cool the core which means the reactors may not be able to be clean up after the disaster is over. May be if it were PWRs the damage could have been minimized. BWRs should never be built near oceans which are tsunami prone. Heated arguments have already started in India which is trying to built several ABWRs, EPRs, and VVERs near the Indian ocean

May be the designers have to design extra cooling tanks (non-destructible) which can cool independently during such a disaster.

Perhaps, now the Japanese need massive help in the form of technical help from heath physicists, radiation engineers, and dose analysts. Since the damage is done, and the since the plants are damaged to a severe extent (?), what can reactor engineers/system engineers do? Do you want me to go there, I am already closer to Japan :)) Good luck to you during the crisis.

PS. We will see a flood of complaints and concerns from anti-nuclear elements from now onwards

Mathew

Venting at Fukushima Daiichi 3
13 March 2011

Operations to relieve pressure in the containment of Fukushima Daiichi 3 have taken place after the failure of a core coolant system.

The news comes one day after the plant's first reactor was effectively written off as a result of a hydrogen explosion and the move to inject seawater to make certain of cooling the reactor core. Two days ago were the earthquake and tsunami that have proven Japan's worst ever natural disaster.

Reactors 1, 2 and 3 were in operation at Tokyo Electric Power Company's (Tepco's) east coast power station when the earthquake struck. Three other reactors were already shut for inspection and all three operating units underwent automatic shutdown as expected. Because plant power and grid power were unavailable during the earthquake, diesel generators started automatically to supply power for decay heat removal.

This situation continued for one hour until the plant was hit by the tsunami wave, which stopped the generators and left the plant in black-out conditions. The loss of power meant inevitable rises in temperature within the reactor system as well increases in pressure. Engineers fought for many hours to install mobile power units to replace the diesels and managed to stabilise conditions at units 2 and 3.

However, there was not enough power to provide sufficient coolant to unit 1, which came under greater and greater strain from falling water levels and steady pressure rises. Tepco found it necessary yesterday to vent steam from the reactor containment. Next, the world saw a sharp hydrogen explosion destroy a portion of the reactor building roof. Prime minister Naoto Kan ordered the situation brought under control by the injection of seawater to the reactor vessel.

1
mmmm/42

Now Tepco has reported it has not been able to restart unit 3's high pressure injection system after an automatic stop. This has left the reactor without sufficient coolant and obligated Tepco to notify government of an emergency situation.

Preparations for potential pressure relief had already been underway for many hours. Noriyuki Shikata, director of global communications in the prime minister's office, said the operation was expected to cool the containment, noting that "minute quantities of radioactive materials are released." When this occurred at unit 1, the International Atomic Energy Agency said the emission would be filtered to retain radioactive materials within the containment.

A ten kilometre evacuation order is in effect and some 200,000 people have been moved from their homes so far.

Researched and written

Battle to stabilise earthquake reactors
12 March 2011
UPDATE 14: 23.44 pm GMT

Attention remains focused on the Fukushima Daiichi and Daini nuclear power plants as Japan struggles to cope in the aftermath of its worst earthquake in recorded history. A dramatic explosion did not damage containment and sea water injection continues through the night.

Three of Fukushima Daiichi's six reactors were in operation when yesterday's quake hit, at which point they shut down automatically and commenced removal of residual heat with the help of emergency diesel generators. These suddenly stopped about an hour later, and this has been put down to tsunami flooding by the International Atomic Energy Agency (IAEA).

The loss of the diesels led the plant owners Tokyo Electric Power Company (Tepco) to immediately notify the government of a technical emergency situation, which allows officials to take additional precautionary measures.

For many hours the primary focus of work at the site was to connect enough portable power modules to fully replace the diesels and enable the full operation of cooling systems.

Pressure and releases

Without enough power for cooling systems, decay heat from the reactor cores of units 1, 2 and 3 has gradually reduced coolant water levels through evaporation. The consequent increase in pressure in the coolant circuit can be managed via pressure release valves. However, this leads to an increase in pressure within the reactor

building containment. Tepco has said that the pressure within the containment of Fukushima Daiichi 1 reached levels of around 840 kPa, compared to reference levels of 400 kPa.

The company decided to manage this "for those units that cannot confirm certain levels of water injection" by means of a controlled release of air and water vapour to the atmosphere. Because this water has been through the reactor core, this would inevitably mean a certain release of radiation. The IAEA said this would be filtered to retain radiation within the containment. Tepco has confirmed it was in the process of relieving pressure at unit 1 while preparing to do the same for units 2 and 3.

Explosion

Television cameras trained on the plant captured a dramatic explosion surrounding Fukushima Daiichi 1 at around 6pm. Amid a visible pressure release and a cloud of dust it was not possible to immediately know the extent of any damage. Later television shots showed a naked steel frame remaining at the top of the reactor building. The external building structure does not act as the containment, which is an airtight engineered boundary within.

This cutaway diagram shows the central reactor vessel and thick concrete containment in a typical boiling water reactor of the same era as Fukushima Daiichi 1

Chief cabinet secretary Yukio Edano appeared on television to clarify that the explosion had damaged the walls and roof of the reactor building but had not compromised the containment.

Monitoring of Fukushima Daiichi 1 had previously shown an increase in radiation levels detected near to the unit emerging via routes such as the exhaust stack and the discharge canal. These included caesium-137 and iodine-131, Nisa said, noting that levels began to decrease after some time.

Nevertheless the amount of radiation detected at the site boundary reached 500 microSieverts per hour - exceeding a regulatory limit and triggering another set of emergency precautions. It also meant the incident has been rated at Level 4 on the International Nuclear Event Scale (INES) - an 'accident with local consequences'.

To protect the public from potential health effects of radioactive isotopes of iodine that could potentially be released, authorities have made preparations to distribute tablets of non-radioactive potassium-iodide. This is quickly taken up by the body and its presence prevents the take-up of iodine-131 should people be exposed to it.

Fukushima Daiichi

Unit 1

- 439 MWe BWR, 1971
- Automatically shut down
- Water level decreasing
- Pressure release implemented
- Explosion observed
- Containment believed intact
- Seawater injection has started
- Radiation levels did not rise after explosion

Unit 2

- 760 MWe BWR, 1974
- Automatically shut down
- Water level lower but steady
- Preparations for pressure release

Unit 3

- 760 MWe BWR, 1976
- Automatically shut down
- Preparations for pressure release

Unit 4

- 760 MWe BWR, 1978
- Shut for periodic inspection

Unit 5

- 760 MWe BWR, 1978
- Shut for periodic inspection

Unit 6

- 1067 MWe BWR, 1979
- Shut for periodic inspection

Fukushima Daini

Unit 1

- 1067 MWe BWR, 1982
- Automatically shut down
- Offsite power available
- Water level stable
- Preparations for pressure release

Unit 2

- 1067 MWe BWR, 1984
- Automatically shut down
- Offsite power available
- Water level stable
- Preparations for pressure release

Unit 3

- 1067 MWe BWR, 1985
- Automatically shut down
- Offsite power available
- Water level stable
- Preparations for pressure release

Unit 4

- 1067 MWe BWR, 1987
- Automatically shut down
- Offsite power available
- Water level stable
- Preparations for pressure release

Over the last several hours evacuation orders for local residents have been incrementally increased and now cover people living within 20 kilometres of the power plant.

Seawater injection

The injection of seawater into parts of the building near the reactor started at 8.20pm and this is planned to be followed by addition of boric acid, which is used to inhibit nuclear reactions. Tepco had to put the operation on hold for a time when another tsunami was predicted, but work recommenced after the all-clear.

Raised temperatures

Meanwhile at adjacent Fukushima Daini, where four reactors have been shut down safely since the earthquake hit, Tepco has notified government of another emergency status.

Unit 1's reactor core isolation cooling system had been operating normally, and this was later supplemented by a separate make-up water condensate system. However, the latter was lost at 5.32am local time when its suppression chamber reached 100°C. This led Tepco to notify government of another technical emergency situation.

Tepco has announced it has decided to prepare for controlled releases to ease pressure in the containments of all four units at Fukushima Daini.

A ten kilometre evacuation is in progress and across both sites, some 200,000 people have been moved from the homes so far.

Workers

A seriously injured worker was trapped within Fukushima Daiichi unit 1 in the crane operating console of the exhaust stack and is now confirmed to have died. Four workers were injured by the explosion at the same reactor and have been taken to hospital. A contractor was found unconscious and taken to hospital.

Two workers of a 'cooperative firm' were injured, said Tepco; one with a broken bone. A Tepco employee who was unable to stand and grasping his left chest was taken to hospital.

At Fukushima Daiichi unit 3 one worker received a radiation dose of 106 mSv. This is a notable dose, but comparable to levels deemed acceptable in emergency situations by some national nuclear safety regulators.

The whereabouts of two Tepco workers remains unknown.

Researched and written

by World Nuclear News

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

From: Mendiola, Anthony
Sent: Saturday, March 12, 2011 1:09 PM
To: Kaizer, Joshua; Attard, Anthony; Heller, Kevin; Lehning, John; Orechwa, Yuri; Panicker, Mathew; Proffitt, Andrew; 'tattard1@gmail.com'; Ward, Leonard; Wu, Shih-Liang
Cc: Parks, Benjamin; Clifford, Paul
Subject: Re: FYI

Thanks Josh. I agree we will get a lot of questions for weeks to come.

We are all pretty much in a technical support role waiting for a phone call or email. The Ops center is keeping tabs on the situation. So stand by.

Sent from an NRC Blackberry

Anthony Mendiola

(b)(6)

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

From: Kaizer, Joshua
To: Mendiola, Anthony; Attard, Anthony; Heller, Kevin; Lehning, John; Orechwa, Yuri; Panicker, Mathew; Proffitt, Andrew; Tony Attard (HOME) <tattard1@gmail.com>; Ward, Leonard; Wu, Shih-Liang
Cc: Parks, Benjamin; Clifford, Paul
Sent: Sat Mar 12 10:41:57 2011
Subject: FYI

I have been following the events in Japan since late last night and pretty early this morning on the internet. There is a TON of sensationalism (so far, the best story was that we were sending over coolant to Japan, which the Secretary of State misspoke, but which many news agencies told the public without bothering to check if it even made sense). I can imagine we will get a lot of questions from friends and family who know

what we do, so I thought I would pass along some news sites which seem to have pretty good summary of where things stand.

Wikipedia article (while anyone can update it, the editors have been doing a very good job of clearing out all of the bad entries)

http://en.wikipedia.org/wiki/Fukushima_I_Nuclear_Power_Plant

ANS nuclear cafe (doesn't get updated as fast as the Wikipedia article, but it does a good job of giving a more official update).

<http://ansnuclearcafe.org/>

... josh

Helton, Donald

From: Helton, Donald
Sent: Monday, March 14, 2011 3:59 PM
To: Coyne, Kevin; Kuritzky, Alan
Subject: RE: Self Assessment of Expertise

Kevin / Alan

Just some additional info, as if you didn't have enough to keep in mind...

(b)(6)

As you know, my presentation is on Wednesday morning. If it is warranted to leave sooner than that, I wouldn't begrudge the decision. People can always read the paper...

Also, my normal (and qualified) position in the OpCenter is Protective Measures Team Interface with the Reactor Safety Team, if that comes up for any reason.

Anyway, I'll continue to be on standby...

Don

From: Coyne, Kevin
Sent: Monday, March 14, 2011 3:03 PM
To: Helton, Donald; Kuritzky, Alan
Subject: RE: Self Assessment of Expertise

Don -

Thanks for the update. I think we're good so far and I informed Jennifer about your availability. I think at this point you're good to continue at the PSA conference, but I'll let you and Alan know if anything should change. For what it's worth, Jason Schaperow was down at the ops center today working on Q and A's as part of the 'partial' reactor safety team and indicated that it was not a fulfilling assignment....

Hope the conference is going well!

Kevin

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

From: Helton, Donald
Sent: Monday, March 14, 2011 1:10 PM
To: Coyne, Kevin; Kuritzky, Alan
Subject: Self Assessment of Expertise

Kevin / Alan:

In the interest of striking a balance between wanting to be responsive but also not wanting to engender false expectations of how I can contribute, the following is my self assessment of my expertise in relevant technical areas:

BWR design and EOPs: minimal

BWR accident phenomenology and accident management: minimal PWR design and EOPs: moderate PWR accident phenomenology and accident management: moderate to extensive SFP phenomenology: moderate to extensive Consequence analysis: minimal to moderate Health effects of ionizing radiation and radiological assessment: minimal

Referring back to an earlier discussion with Kevin, I think that folks like Charlie/Jason (internal) and Mark/KC/Mohsen (external) bring a lot more to the table than I do. Folks like John Parillo (internal) and John Lehner/Trevor/Vinod bring more to the table in specific areas.

Having said all that, I'm here to help in whatever way I can...be it not at all, remotely from Wilmington, returning to DC to help out in the OpCenter, or elsewhere...

Best,
Don

Scott, Michael

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)(6)

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.

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

Satorius, Mark

From: Pederson, Cynthia
Sent: Monday, March 14, 2011 12:58 PM
To: Satorius, Mark
Subject: Re: Confirmation of names for Japan

Too bad
(sent from Blackberry device)

From: Satorius, Mark
To: Pederson, Cynthia
Sent: Mon Mar 14 13:57:12 2011
Subject: RE: Confirmation of names for Japan

Yes – Mark Ring was picked and going, (b)(6)

From: Pederson, Cynthia
Sent: Monday, March 14, 2011 12:55 PM
To: Satorius, Mark
Subject: Re: Confirmation of names for Japan

Interesting group to include Casto and Monninger.
(sent from Blackberry device)

From: Satorius, Mark
To: Boland, Anne; Pederson, Cynthia; Shear, Gary; Holt, BJ; Louden, Patrick; OBrien, Kenneth; Sotiropoulos, Dina; Reynolds, Steven; West, Steven
Sent: Mon Mar 14 13:44:03 2011
Subject: FW: Confirmation of names for Japan

From: Leeds, Eric
Sent: Monday, March 14, 2011 12:11 PM
To: Collins, Elmo; Satorius, Mark; McCree, Victor; Dean, Bill; Sheron, Brian; Tracy, Glenn; Hudson, Jody; Johnson, Michael; Miller, Charles; Haney, Catherine; Zimmerman, Roy; Stewart, Sharon; Virgilio, Martin; Weber, Michael; Borchartt, Bill; Mamish, Nader; Doane, Margaret; Muessle, Mary
Cc: Boger, Bruce; Grobe, Jack; Ruland, William; Meighan, Sean
Subject: Confirmation of names for Japan

Folks –

Thanks so much for your help – we have a strong database of names/expertise to support the Japanese. For this first wave, we are sending Chuck Casto, John Monninger, Tony Nakanishi, Tim Kolb, Jack Foster and Richard Devercelly. I believe that Bruce Boger has contacted all those going to join Tony Ulsis and Jim Trapp in Japan.

I imagine that at some point we may need to send a second wave of responders to relieve our first wave. We will let you know as soon as we know if this needs to be done. We are also sensitive not to over-burden any one office.

Thanks again for your support!

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

From: LIA06 Hoc
To: Nguyen, Quynh
Cc: Leeds, Eric; Brenner, Eliot; Virgilio, Rosetta; Miller, Charles; Boger, Bruce; Mroz (Sahm), Sara; McDermott, Brian; Miller, Chris; Thaggard, Mark; Noonan, Amanda; LIA04 Hoc; Turtul, Richard; Ryland, William; Hilland, Patrick; Skeen, David; Grobe, Jack; Burnell, Scott; Piccone, Josephine; Jackson, Deborah
Subject: FW: ACTION: Do States Require Additional Information?
Date: Monday, March 14, 2011 8:03:43 PM
Attachments: Questions from the States.doc

Quynh – please see the email chain below and the attached set of questions. Per a discussion between Marty Virgilio and Eric Leeds, NRR is taking the lead on responding. Note that the primary stakeholder(s) that we are trying to be responsive to are the States. As such, coordination with FSME and the NSIR EP group is very important, and we should follow their advice on how to effectively interface with the RSLO's as well.

Thanks, Tim McGinty (Liaison Team Director, Swing Shift, Ops Center)

From: LIA04 Hoc
Sent: Monday, March 14, 2011 6:25 PM
To: Virgilio, Rosetta; LIA06 Hoc; Thaggard, Mark; McGinty, Tim
Cc: Noonan, Amanda; Brenner, Eliot; Mroz (Sahm), Sara; Miller, Charles; Leeds, Eric; Virgilio, Martin
Subject: RE: ACTION: Do States Require Additional Information?

I think it is important to make sure that NSIR/EP is looped in on the development and distribution of any answers. This is for a few reasons: 1) to maintain consistency with existing EP messaging; 2) to ensure consistency with FEMA REPP communications; and 3) to allow for consistency with any future messaging.

-Sara (from the LT room)

Sara Mroz
Outreach and Communications
Office of Nuclear Security and Incident Response
Sara.Mroz@nrc.gov

From: Virgilio, Rosetta
Sent: Monday, March 14, 2011 6:13 PM
To: LIA06 Hoc; Thaggard, Mark; McGinty, Tim
Cc: Noonan, Amanda; LIA04 Hoc; Brenner, Eliot; Mroz (Sahm), Sara; Miller, Charles; Leeds, Eric; Virgilio, Martin
Subject: RE: ACTION: Do States Require Additional Information?

Thank you, Tim. In my conversation with OEDO (just prior to receiving your email) I was informed that NRR/Eric Leeds has taken on the responsibility (Quynh Nguyen is the POC) for the collection of questions and development of answers for responding to our stakeholders on the events involving the earthquake in Japan and the implications for NRC licensees. That being the case, shouldn't we provide the State Qs to NRR to address?

From: LIA06 Hoc

mmmm/416

Sent: Monday, March 14, 2011 5:56 PM

To: Thaggard, Mark; LIA04 Hoc; Miller, Charles; Virgilio, Rosetta; Brenner, Eliot; Mroz (Sahm), Sara; Noonan, Amanda

Subject: RE: ACTION: Do States Require Additional Information?

This email is primarily for Charlie and Rosetta, to close the loop. We discussed the need for providing consistent information to the States, via the RSLO's, with the Executive Team and the Chairman a few minutes ago. The Chairman directed us to coordinate with FEMA since they have an established relationship with the States. We settled on working with OPA to provide the information tailored to our best extent to the questions and concerns that would be expressed by the States, and provide to FEMA for awareness and commonality, and then the RSLO's for sharing.

A broad conference call with all States is not currently being contemplated, we'd like to see how providing a common set of information works first. Tim McGinty, LT Director

From: Tifft, Doug

Sent: Monday, March 14, 2011 3:44 PM

To: McNamara, Nancy; LIA04 Hoc; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill; LIA06 Hoc

Cc: Turtill, Richard; Virgilio, Rosetta; Rautzen, William; Lukes, Kim; Flannery, Cindy; Trojanowski, Robert

Subject: RE: ACTION: Do States Require Additional Information?

Amanda,

We just got off a conference call with all the Region 1 state liaison officers and emergency directors. Bill Dean opened the meeting. A strong message the states sent Bill was that they need to be informed before information hits the public.

Here are some of the questions we heard. I broke them into the two categories you requested. I think we need answers to the hypothetical questions ASAP as well. (I know we'll be looking for this for our upcoming annual assessment meetings, that start for Region 1 next week.)

Questions related to event in Japan:

Could this happen at [X plant]?

What is the sequence of events at the Japanese reactors?

What is the magnitude of the release at the Japanese facility? (There are conflicting reports in the press.) (ie, offsite dose rates)

Who are the Federal Contacts (for the state) to get information on what DOE & EPA are doing?

When will the plume hit the US?

What are the environmental consequences to the US?

What dose rates do we expect to see in the US?

How do the Japanese reactor designs compare to the US reactor designs of similar vintage?

When the states receive questions from the public / media that the NRC

would be better to answer, where should they direct these calls?
What is the NRC doing to correct misinformation in the public / media?

Hypothetical questions related to US plants:

What would the effect be on [plant X] if a 9.0 earthquake hit?

What would the effect be on [plant X] if a subsequent tsunami hit?

Why is Indian Point safe if there is a fault line underneath it?

-Doug

From: McNamara, Nancy

Sent: Monday, March 14, 2011 1:27 PM

To: LIA04 Hoc; Tift, Doug; Woodruff, Gena; Barker, Allan; Logaras, Haral; Maier, Bill; LIA06 Hoc

Cc: Turtill, Richard; Virgilio, Rosetta; Rautzen, William; Lukes, Kim; Flannery, Cindy

Subject: RE: ACTION: Do States Require Additional Information?

Absolutely. We are having a conf. call at 1:30 w/all our states to hear their opinions. But the more we can give, the better. We've been getting questions all morning and Bill Dean has a call with a NY congressional arranged through OCA.

From: LIA04 Hoc

Sent: Monday, March 14, 2011 1:24 PM

To: McNamara, Nancy; Tift, Doug; Woodruff, Gena; Barker, Allan; Logaras, Haral; Maier, Bill; LIA06 Hoc

Cc: Turtill, Richard; Virgilio, Rosetta; Rautzen, William; Lukes, Kim; Flannery, Cindy

Subject: ACTION: Do States Require Additional Information?

Nancy, Doug, Bob, Gena, Alan, Haral, and Bill:

It is our understanding that a few additional questions from SLOs have come in from states following distribution/communication of recent Q&As and Press Releases.

In view of this, we are assessing whether additional information may be needed/if there are additional pressing questions about **the radiological fallout from Japan**.

Currently the Operation Center is responding to an International Emergency and any possible implications from this event that may affect the United States. If States have specific questions about Reactors in the United States they should be answered by the RSLO's if it reasonable. If the questions are regarding hypothetical events at U.S. Reactors these questions can be collected and answered, if possible, at a later date.

BOTTOM LINE: do we sense a need to provide additional Q&As and other information pieces that respond to State needs? We respectfully request that you

It's just the ex-reporter in me but I notice the news release doesn't specify how big an earthquake or how great a tsunami that CA nuclear power plants are built to withstand. Anybody know that? See attached draft responses – not approved by OPA.

Michael Sicilia
Assistant Deputy Director
Office of Public Affairs
California Department of Public Health
916.440.7259 office

(b)(6)

The California Department of Public Health is dedicated to optimizing the health and well-being of the people in California.

Needless to say, there are a lot of questions being asked because of the devastation in Japan. The Director, Secretary of EOPSS and Governor's office have been asking questions and I have been sending out information I have received on the plants in Japan. I would like all three plants to answer the following questions that I have been asked.

- What is the seismic limit that Pilgrim Station, Seabrook Station and Vermont Yankee have been built to withstand?
- Please explain that outcome at each plant if it was hit with a 8.9 earthquake the same as what hit Japan?
- For Pilgrim Station and Seabrook Station, what design and safety precautions have been installed at your plant to sustain a devastating tsunami that would hit as did the tragedy at the Japanese plants?
- If the same tragedy hit our plants would we be having the same major issues that the Japanese plants have? Please explain yes or not

Please let me know when I can expect an answer to these questions or if you would like to meet and discuss that would be ok

Thanks and let me know if you have any questions
John

John Giarrusso, Jr.
Planning and Preparedness Division Chief
MEMA
508-820-2040 (w)
(b)(6)

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How do the Japanese reactor designs compare to the US reactor designs of similar vintage?

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What would the effect be on [plant X] if a subsequent tsunami hit?

Why is Indian Point safe if there is a fault line underneath it?

Doug Tift

Nancy - I obviously don't have enough facts to do a proper accident assessment, but it does seem that the loss of electrical power supply is at the heart of much of the problems. Loss of on-site generation, loss of off-site generation, loss of emergency diesel generators, and loss of battery supply taking out the steam driven RCIC pumps. My initial questions are:

What specific design features of the US plants are similar to any of the failed features at the Japanese plants and if we are "better" how is that evidenced. Example - design of off-site and back-up power supplies.

In Japan the battery life was designed for 8 hours then failed, as expected. How does the US plant battery life design compare; and for those plants with only 4-hour back-up, how does that bode as an acceptable/better design?

Boron or boric acid injection into the primary coolant in BWR's (Standby Liquid Control System) is intended to kill the reaction. It appears that either this was not a design feature of the Japanese plants, they did not activate this system, or power failures rendered it useless. As sea water was being pumped into the PC, reports indicate that they added boric acid.

For the plants I'm familiar with, they all have the ability to inject city/river/lake/sea water as an emergency measure. My question then is: during last ditch efforts to inject alternate source water, is the injection of boric acid along with the water injection part of the plans and procedures for the US plants?

From: paul_eddy@dps.state.ny.us [mailto:paul_eddy@dps.state.ny.us]

Sent: Monday, March 14, 2011 2:56 PM

To: McNamara, Nancy

Cc: Tiff, Doug; michael_worden@dps.state.ny.us; Alyse Peterson

Subject: Re: Getting Information for our States

From: Leeds, Eric
To: Cohen, Miriam; Tracy, Glenn
Cc: Hudson, Jody
Subject: Heads up: Suggestion for Personnel to Japan
Date: Monday, March 14, 2011 9:27:00 AM

I'll try to contact you today on this. I have a 9:30 call with the other ODs/RAs if you can join me –

(b)(6)

(b)(6)

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

From: Franovich, Mike
Sent: Monday, March 14, 2011 8:31 AM
To: Virgilio, Martin
Cc: Leeds, Eric; Dudes, Laura; Skeen, David
Subject: Suggestion for Personnel to Japan

Marty,

This morning at 07:30 it was mentioned that a larger response effort from the US is underway and that we may be sending folks to man up an EOC in Japan. You might want to consider using the TTC BWR instructors as a resource. Their knowledge and insights are tremendous and it may ease the burden on the RST resources.

Mike Franovich
Technical Assistant for Reactors
Office of Commissioner Ostendorff
301-415-1784

mmmm/47

From: Monninger, John
To: LIA03 Hoc; Ramsey, Jack; Nakanishi, Tony; Kolb, Timothy; Foggie, Kirk; Smith, Brooke; Casto, Chuck; Foster, Jack; Devercelly, Richard; Cook, William
Cc: Doane, Margaret; Mamish, Nader; LIA02 Hoc; Leeds, Eric; Boger, Bruce; Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Stewart, Sharon; Kozal, Jason; midpsualum@yahoo.com
Subject: RE: CONTACT FROM USAID
Date: Monday, March 14, 2011 7:21:01 PM

I received my e-ticket and heading to Dulles by 2000 for 2305 United Flight 0924 to London, connecting to British Airways 0005.

Many thanks,
John Monninger

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

From: LIA03 Hoc
Sent: Monday, March 14, 2011 6:08 PM
To: Ramsey, Jack; Nakanishi, Tony; Kolb, Timothy; Foggie, Kirk; Smith, Brooke; Casto, Chuck; Monninger, John; Foster, Jack; Devercelly, Richard; Cook, William
Cc: Doane, Margaret; Mamish, Nader; LIA02 Hoc; Leeds, Eric; Boger, Bruce; Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Stewart, Sharon; Kozal, Jason; midpsualum@yahoo.com
Subject: CONTACT FROM USAID

Mike Dudek and Jason Kozal will be contacting you about travel arrangements tonight to Tokyo.

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

From: Ramsey, Jack
Sent: Monday, March 14, 2011 5:37 PM
To: Nakanishi, Tony; Kolb, Timothy; Foggie, Kirk; Smith, Brooke; Casto, Chuck; Monninger, John; Foster, Jack; Devercelly, Richard; Cook, William
Cc: Doane, Margaret; Mamish, Nader; LIA02 Hoc; LIA03 Hoc; Leeds, Eric; Boger, Bruce; Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Stewart, Sharon
Subject: RE: 8 NRC people to Japan ASAP
Importance: High

NRC folks,

Apologies for any confusion. As you can tell by the exchange of messages with the NSC and DOD, we're exploring all possible angles on how to get you to Japan as quickly and efficiently as possible.

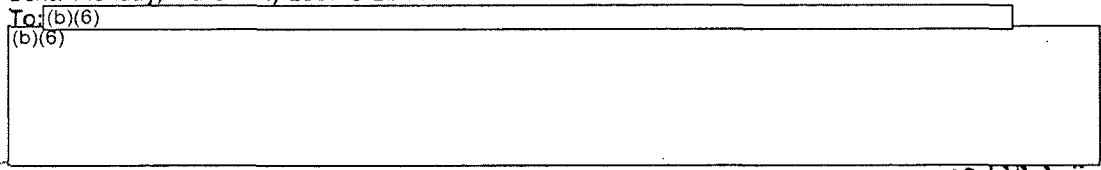
I understand that USAID is making your travel arrangements. Best guess is that the WashDC folks will be on a flight (maybe British Air) that leaves Dulles around 23:00 or so (plus or minus a little). There will be a connection through London Heathrow, then on to Tokyo. We don't have any insight on what USAID might arrange for the non-WashDC folks.

Either way, please coordinate through the International Liaison desk at the Ops Center (301-816-5192).

Jack

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

From: Nakanishi, Tony
Sent: Monday, March 14, 2011 5:25 PM
To: (b)(6)
(b)(6)



(b)(6)

Subject: RE: 8 NRC people to Japan ASAP

I can also make it to any DC airport before 2200.
Tony Nakanishi

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

From: Kolb, Timothy

Sent: Monday, March 14, 2011 5:22 PM

To: Zerr, (b)(6)

(b)(6)

Subject: RE: 8 NRC people to Japan ASAP

I can make it to any DC airport before 2200. Just need to know which one and which flight.
Tim Kolb

From: Zerr, Thomas J. (b)(6)

Sent: Monday, March 14, 2011 5:11 PM

To: (b)(6)

(b)(6)

Subject: Re: 8 NRC people to Japan ASAP

If I did my conversion right it looks like we will not make the Nellis flight.

So I would ask the NRC to get their nine to DC as soon as possible. If my expedia search is right I think they all could make it here by about 2200 assuming they all close to their airports. NRC-pls let us

know when you can get everyone here.

From there we will see what DOD can support out of the DC area. Under this model we will be positioned for the comm air option and anything DOD can support.
TJ

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

From: Tidd, Kurt W. RADM JCS VDI-3 (b)(6)

To: (b)(6)

(b)(6)

Subject: RE: 8 NRC people to Japan ASAP

TJ -- ensure ALCON know/understand that this TRANSCOM planning remains TENTATIVE until positively confirmed. A lot of moving pieces here, so we MOST STRONGLY recommend NRC retain their commercial air plans. It will be a challenge for NRC folks to get to Vegas, then over to Nellis, and we do not intend to hold up the flight for them. For the moment, here is what the DOE lift looks like:

Mission Number: PJM112471073-

C-17 alert NLT 14/1800Z

Dep Travis AFB CA (KSUU) 14/2100Z

Arr/Dep Nellis AFB NV (KLSV) - 14/2200Z - 15/0045Z

Arr/Dep Elmendorf AFB for gas (PAED) - 15/0545Z - 15/0730Z

Arr Yokota AFB Japan (RJTY) - 15/1545Z

Please stress again -- this flight sked remains TENTATIVE!! We've got a bunch of folks scrambling hard to make it happen, but please remain

flexible.

RADM Kurt W. Tidd, USN
Vice Director for Operations, J3
3000 Joint Staff Pentagon
Rm 2D882
Washington DC 20318-3000
Tel: (703) 695-0987
DSN: 225-0987
Fax: (703) 614-1755
Red Switch: (b)(6)
Blackberry: (b)(6)
Email: (b)(6)
SIPR: (b)(6)

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

From: Zerr, Thomas J. (b)(6)
Sent: Monday, March 14, 2011 4:42 PM
To: (b)(6)
(b)(6)
(b)(6)

Subject: Re: 8 NRC people to Japan ASAP

Thanks Admiral.

NRC-Once we get TRANSCOM flight data we will need to move quick to see if we can get your nine to the launch point in time.

As previously stated please keep planning to execute the commercial flight option if the mil air ends up not working out.

TJ

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

From: (b)(6)

To: (b)(6)

(b)(6)

(b)(6)

Sent: Mon Mar 14 16:32:13 2011
Subject: RE: 8 NRC people to Japan ASAP

TJ -- we're moving DOE AMS and Consequence Management teams as quickly as we can spool up the lift; have looped in our POC's on the cc line. Would not recommend delaying any flights while we await the NRC personnel, but if there's room, and if they can get themselves to the lift site (Nellis AFB - Las Vegas), we have SECDEF authorization to carry non-DOD personnel in support of this crisis.

JLOC -- As soon as we have the TRANSCOM flight info, please push to alcon and we'll see if we can provide an alternative to commercial air. Again,

unless
otherwise directed, recommend we not hold up the DOE flights, but if we
can
kill two birds, let's do it.

RADM Kurt W. Tidd, USN
Vice Director for Operations, J3
3000 Joint Staff Pentagon
Rm 2D882
Washington DC 20318-3000
Tel: (703) 695-0987
DSN: 225-0987
Fax: (703) 614-1755
Red Switch: (b)(6)
Blackberry: (b)(6)
Email: (b)(6)
SIIPR: (b)(6)

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

From: Gallagher, Shawn P. (b)(6)
Sent: Monday, March 14, 2011 4:05 PM
To: 'Clark, Ngoc CIV OSD POLICY'; 'Ramsey, Jack'; Abrams, Charlotte;
Zerr, Thomas J.; Zenner, Todd LCDR JCS J5 DDASIA NEAD NE ASIA BR;
Hulley, Paul, SES, OSD-POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd,
Kurt W RADM JCS VDJ-3; Engle, Thomas E Lt Col JCS J3/NMCC; Severs, Paul
J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL
JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5
POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J3; NJOIC JLOC OFFICER JCS J3;
Kremer, Kyle Col JCS J4 DISTRIBUTION
Cc: Wormuth, Christine; 'TaskForce1Mailbox@state.gov'; Russel, Daniel
R.; Duncan, Shawn H.; Bentz, Julie A.; Doane, Margaret; Mamish, Nader;
Foggie, Kirk; Smith, Brooke; LIA02 Hoc; LIA03 Hoc; Marshall, Jane;
Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster,
Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce;
Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones,
Andrea; Schwartzman, Jennifer; Cook, William; Baden, Tim; Dolan, Edward
M.; Donnell, Charles D.; Gelman, Jeffrey D.; Hepburn, Matthew; Kamoie,
Brian E.; Kern, Dab; Kim, Paul; Landau, Zachary L.; Marcozzi, David E.;
Mecher, Carter E.; Panketh, Eric J. (NSC); Reed, Richard A.; Tribble,
Ahsha; Zelvin, Lawrence K.; Holgate, Laura
Subject: RE: 8 NRC people to Japan ASAP

Again looping in resilience here at NSC. Thanks all!

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

From: Clark, Ngoc CIV OSD POLICY (b)(6)
Sent: Monday, March 14, 2011 3:58 PM
To: 'Ramsey, Jack'; Abrams, Charlotte; Zerr, Thomas J.; Zenner, Todd
LCDR JCS J5 DDASIA NEAD NE ASIA BR; Hulley, Paul, SES, OSD-POLICY;
Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3; Engle,
Thomas E Lt Col JCS J3/NMCC; Severs, Paul J CAPT JCS J5 AP; NEWELL, JOHN
Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL JCS J5 ASIA NEA; BROWN,
ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5 POLICY JCS J-3; NJOIC BATTLE
CAPTAIN JCS J3; NJOIC JLOC OFFICER JCS J3; Kremer, Kyle Col JCS J4
DISTRIBUTION
Cc: Wormuth, Christine; 'TaskForce1Mailbox@state.gov'; Russel, Daniel

R.; Duncan, Shawn H.; Gallagher, Shawn P.; Bentz, Julie A.; Doane, Margaret; Mamish, Nader; Foggie, Kirk; Smith, Brooke; LIA02 Hoc; LIA03 Hoc; Marshall, Jane; Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster, Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce; Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Cook, William
Subject: RE: 8 NRC people to Japan ASAP

Looping in J-4 colleagues with the details of the request.

Ms. Ngoc Clark
Foreign Affairs Specialist

Humanitarian Assistance, Disaster Relief, and Global Health Directorate
Office of Partnership Strategy & Stability Operations (PSO)
OUSD(Policy) - SO/LIC & IC
5C653
703-692-0122

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

From: Ramsey, Jack [mailto:Jack.Ramsey@nrc.gov]
Sent: Monday, March 14, 2011 3:54 PM
To: (b)(6) Zenner, Todd LCDR
JCS J5 DDASIA NEAD NE ASIA BR; Hulley, Paul, SES, OSD-POLICY; Clark, Ngoc CIV OSD POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3; Engle, Thomas E Lt Col JCS J3/NMCC; Severs, Paul J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5 POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J3
Cc: (b)(6) 'TaskForce1Mailbox@state.gov';
(b)(6)
(b)(6) Doane, Margaret; Mamish, Nader; Foggie, Kirk; Smith, Brooke; LIA02 Hoc; LIA03 Hoc; Marshall, Jane; Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster, Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce; Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Cook, William
Subject: RE: 8 NRC people to Japan ASAP

All,

As the message below indicates, we now have an additional person (for a total of 9) from our regional office outside Philadelphia.

Jack Ramsey

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

From: Abrams, Charlotte
Sent: Monday, March 14, 2011 3:52 PM
To: (b)(6)
(b)(6)

(b)(6)

Subject: Re: 8 NRC people to Japan ASAP

Also Bill Cook from RI

Sent from my nrc blackberry. Charlotte Abrams (b)(6)

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

From: Ramsey, Jack

To: Zerr, Thomas J. <(b)(6)> Zenner, Todd LCDR JCS

(b)(6)

Sent: Mon Mar 14 15:48:03 2011

Subject: RE: 8 NRC people to Japan ASAP

All,

To summarize, the Nuclear Regulatory Commission has been requested by the Japanese government to supplement our staffing at the US Embassy in Tokyo (we currently have two staff there). In response, we have identified 8 NRC staff for this. We have 6 staff from WashDC (John Monninger, Tony Nakanishi, Tim Kolb, Jack Foster, Brooke Smith and Kirk Foggie), 1 from Atlanta (Chuck Casto) and 1 from Chattanooga (Richard Devercelly). The earliest commercial flights that are available are around 13:00 EDT tomorrow (Tuesday). Obviously, we'd like to get them there earlier if at all possible. This is what prompted the question on whether DOD and/or other appropriate assets might be available.

For coordination purposes, the International Liaison Team at NRC's Emergency Operations Center will be lead for this. E-mail addresses there are lia02.hoc@nrc.gov and lia03.hoc@nrc.gov, with direct phone line of (301) 816-5192 (this is a recorded line). In the event of any communication issues, please call the main number for NRC's Emergency Operation Center on (301) 816-5100 and ask for International Liaison.

Please also note that the NRC team has been cc'ed on this message.

Thanks to everyone for looking at this.

Jack Ramsey

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

From: (b)(6)

Sent: Monday, March 14, 2011 3:25 PM

To: Zenner, Todd LCDR JCS J5 DDASIA NEAD NE ASIA BR; Hulley, Paul, SES, OSD-POLICY; Clark, Ngoc CIV OSD POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3; Engle, Thomas E Lt Col JCS J3/NMCC; Severs, Paul J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5 POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J3

Cc: Ramsey, Jack; Wormuth, Christine; TaskForce1Mailbox@state.gov; Russel, Daniel R.; Duncan, Shawn H.; Gallagher, Shawn P.; Bentz, Julie A.

Subject: RE: 8 NRC people to Japan ASAP

+TF-1 mailbox for appropriate State loop in.

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

From: Zerr, Thomas J. (b)(6)

Sent: Monday, March 14, 2011 2:58 PM

To: Hulley, Paul, SES, OSD-POLICY; Zenner, Todd LCDR JCS J5 DDASIA NEAD NE ASIA BR; Clark, Ngoc CIV OSD POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3

Cc: 'Ramsey, Jack'

Subject: FW: 8 NRC people to Japan ASAP

All-

I have discussed this on the phone with Paul and Todd. Needless to say the request is hot and getting big brains on the reactor issues out there soonest is critical given the situation at the plants.

Please inform if this request should go via a different path you can identify for me; or if this group can facilitate getting a DOD response to this request.

Jack-Please confirm the status of passports on these folks. Also I would continue to pursue any other transportation options outside of DOD so we don't lose any time.

TJ

From: Gallagher, Shawn P.

Sent: Monday, March 14, 2011 2:46 PM

To: 'Ramsey, Jack'; Zerr, Thomas J.; Bentz, Julie A.

Subject: 8 NRC people to Japan ASAP

Jack, per our conversation TJ is calling over to DOD. Wanted to connect everyone via email so we can report status.

Julie, to bring you up to speed, the Japanese requested more NRC support and NRC identified 8 people to go on an immediate basis. Earliest commercial flight isn't until 1:00 tomorrow. TJ is finding out if there a mil air option.

Locations of individuals are 6 in DC, 1 in Atlanta, 1 in Chattanooga. All are currently packing and awaiting orders

From: Leeds, Eric
To: Rick Plotkin
Subject: RE: Unbelievable: Excellent NYT graphic
Date: Monday, March 14, 2011 5:37:00 PM

I'm into it up to my eye-brows. Was on the phone all weekend and we're completely flooded here. We've sent several experts over and we're sending seven more tonight. It's not good.

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

From: Rick Plotkin [mailto:rick.plotkin@insidehighered.com]
Sent: Monday, March 14, 2011 2:05 PM
To: Leeds, Eric
Subject: Re: Unbelievable: Excellent NYT graphic

Wow. Are you being consulted on the nuclear situation in Japan?
Absolutely horrible!

On Mon, Mar 14, 2011 at 1:21 PM, Leeds, Eric <Eric.Leeds@nrc.gov> wrote:
Check out this link..... Horrible, just unbelievable....

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

<http://www.nytimes.com/interactive/2011/03/13/world/asia/satellite-photos-japan-before-and-after-tsunami.html?hp>

Give it a few seconds, but a vertical line will appear in each photo. You can "grab" the line and move it to see Before and after.

--
Rick Plotkin, Senior Account Manager
Inside Higher Ed
1320 18th Street, NW, Suite 500
Washington, DC 20036
202-659-9208 X112, work phone
202-659-9381 fax
(b)(6) cell phone

Join the new conversation in higher education.
Sign up for your free daily e-mail news alert at
http://insidehighered.com/sign_up

mmmm/49

P.S. If you'd prefer not to receive future updates from Inside Higher Ed,
just let me know by return e-mail.

From: Doane, Margaret
To: Leeds, Eric; Mamish, Nader
Cc: Nguyen, Quynh; Carter, Mary
Subject: RE: 8 NRC people to Japan ASAP
Date: Monday, March 14, 2011 5:15:59 PM

Yes.

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

From: Leeds, Eric
Sent: Monday, March 14, 2011 5:12 PM
To: Mamish, Nader; Doane, Margaret
Cc: Nguyen, Quynh; Carter, Mary
Subject: FW: 8 NRC people to Japan ASAP

Are you receiving these communications?

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

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

From: Tidd, Kurt W RADM JCS VDJ-3 (b)(6)
Sent: Monday, March 14, 2011 4:51 PM
To: Zerr, Thomas J.; Gallagher, Shawn P.; (b)(6) Ramsey, Jack; Abrams, Charlotte; Zenner, Todd LCDR JCS J5 DDASIA NEAD NE (b)(6)
**Enle, Thomas E Lt Col JCS J3/NMCC; Severs, Paul J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5 POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J3; NJOIC JLOC OFFICER JCS J3; Kremer, Kyle Col JCS J4 DISTRIBUTION; NMCC DDO; CMT Team Chief JCS; Trussler, Jeffrey E CAPT JCS J3; Carey, Michael Brig Gen JCS J3/NMCC; Basham, Steven L Col JCS J3/NMCC; (b)(6)
Joseph.Krol@nnsa.doe.gov; Faulkner, William BGen JCS J4 J-4 FRONT OFFICE
CC: Wormuth, Christine; TaskForce1Mailbox@state.gov; Russel, Daniel R.; Duncan, Shawn H.; Bentz, Julie A.; Doane, Margaret; Mamish, Nader; Foggie, Kirk; Smith, Brooke; LIA02 Hoc; LIA03 Hoc; Marshall, Jane; Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster, Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce; Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Cook, William; Baden, Tim; Dolan, Edward M.; Donnell, Charles D.; Gelman, Jeffrey D.; Swift, Scott H RADM PACOM, J3
Subject: RE: 8 NRC people to Japan ASAP**

TJ -- ensure ALCON know/understand that this TRANSCOM planning remains TENTATIVE until positively confirmed. A lot of moving pieces here, so we MOST STRONGLY recommend NRC retain their commercial air plans. It will be a challenge for NRC folks to get to Vegas, then over to Nellis, and we do not intend to hold up the flight for them. For the moment, here is what the DOE lift looks like:

Mission Number: PJM112471073-
C-17 alert NLT 14/1800Z
Dep Travis AFB CA (KSUU) 14/2100Z
Arr/Dep Nellis AFB NV (KLSV) - 14/2200Z - 15/0045Z
Arr/Dep Elmendorf AFB for gas (PAED) - 15/0545Z - 15/0730Z
Arr Yokota AFB Japan (RJTY) - 15/1545Z

Please stress again -- this flight sked remains TENTATIVE!! We've got a bunch of folks scrambling hard to make it happen, but please remain

mmmm/50

flexible.

RADM Kurt W. Tidd, USN
Vice Director for Operations, J3
3000 Joint Staff Pentagon
Rm 2D882
Washington DC 20318-3000
Tel: (703) 695-0987
DSN: 225-0987
Fax: (703) 614-1755
Red Switch: (b)(6)
Blackberry: (b)(6)
Email: (b)(6)
SIPR: (b)(6)

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

From: Zerr, Thomas J. (b)(6)
Sent: Monday, March 14, 2011 4:42 PM
To: Tidd, Kurt W RADM JCS VDJ-3; Gallagher, Shawn P.;
(b)(6) 'Jack.Ramsey@nrc.gov'; 'Charlotte.Abrams@nrc.gov';
Zenner, Todd LCDR JCS J5 DDASIA NEAD NE ASIA BR; (b)(6)
(b)(6) Engle, Thomas E Lt Col JCS J3/NMCC; Severs,
Paul J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID
W COL JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5
POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J3; NJOIC JLOC OFFICER JCS J3;
Kremer, Kyle Col JCS J4 DISTRIBUTION; NMCC DDO; CMT Team Chief JCS;
Trussler, Jeffrey E CAPT JCS J3; Carey, Michael Brig Gen JCS J3/NMCC;
Basham, Steven L Col JCS J3/NMCC; (b)(6)
'Joseph.Krol@nnsa.doe.gov'; Faulkner, William BGen JCS J4 J-4 FRONT
OFFICE
Cc: Wormuth, Christine; 'TaskForce1Mailbox@state.gov'; Russel, Daniel
R.; Duncan, Shawn H.; Bentz, Julie A.; 'Margaret.Doane@nrc.gov';
'Nader.Mamish@nrc.gov'; 'Kirk.Foggie@nrc.gov'; 'Brooke.Smith@nrc.gov';
'LIA02.Hoc@nrc.gov'; 'LIA03.Hoc@nrc.gov'; 'Jane.Marshall@nrc.gov';
'Chuck.Casto@nrc.gov'; 'John.Monninger@nrc.gov';
'Tony.Nakanishi@nrc.gov'; 'Timothy.Kolb@nrc.gov'; 'Jack.Foster@nrc.gov';
'Richard.Devercelly@nrc.gov'; 'Glenn.Tracy@nrc.gov';
'Eric.Leeds@nrc.gov'; 'Bruce.Boger@nrc.gov'; 'James.Trapp@nrc.gov';
'Anthony.Ulises@nrc.gov'; 'Mary.Carter@nrc.gov';
'Danielle.Emche@nrc.gov'; 'Andrea.Jones2@nrc.gov';
'Jennifer.Schwartzman@nrc.gov'; 'William.Cook@nrc.gov'; Baden, Tim;
Dolan, Edward M.; Donnell, Charles D.; Gelman, Jeffrey D.
Subject: Re: 8 NRC people to Japan ASAP

Thanks Admiral.

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if we can get your nine to the launch point in time.

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TJ

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

From: Tidd, Kurt W RADM JCS VDJ-3 (b)(6)

To: Gallagher, Shawn P. (b)(6)

(b)(6)

(b)(6)

(b)(6)

Sent: Mon Mar 14 16:32:13 2011
Subject: RE: 8 NRC people to Japan ASAP

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unless
otherwise directed, recommend we not hold up the DOE flights, but if we
can
kill two birds, let's do it.

RADM Kurt W. Tidd, USN
Vice Director for Operations, J3
3000 Joint Staff Pentagon
Rm 2D882
Washington DC 20318-3000
Tel: (703) 695-0987
DSN: 225-0987
Fax: (703) 614-1755
Red Switch: (b)(6)
Blackberry: (b)(6)
Email: (b)(6)
SIPR: (b)(6)

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

From: Gallagher, Shawn P. [mailto:(b)(6)]
Sent: Monday, March 14, 2011 4:05 PM
To: 'Clark, Ngoc CIV OSD POLICY'; 'Ramsey, Jack'; Abrams, Charlotte;
Zerr, Thomas J.; Zenner, Todd LCDR JCS J5 DDASIA NEAD NE ASIA BR;
Hulley, Paul, SES, OSD-POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd,
Kurt W RADM JCS VDJ-3; Engle, Thomas E Lt Col JCS J3/NMCC; Severs, Paul
J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL
JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5
POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J3; NJOIC JLOC OFFICER JCS J3;
Kremer, Kyle Col JCS J4 DISTRIBUTION
Cc: Wormuth, Christine; 'TaskForce1Mailbox@state.gov'; Russel, Daniel
R.; Duncan, Shawn H.; Bentz, Julie A.; Doane, Margaret; Mamish, Nader;
Foggie, Kirk; Smith, Brooke; LIA02 Hoc; LIA03 Hoc; Marshall, Jane;
Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster,
Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce;
Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones,
Andrea; Schwartzman, Jennifer; Cook, William; Baden, Tim; Dolan, Edward
M.; Donnell, Charles D.; Gelman, Jeffrey D.; Hepburn, Matthew; Kamoie,
Brian E.; Kern, Dab; Kim, Paul; Landau, Zachary L.; Marcozzi, David E.;
Mecher, Carter E.; Panketh, Eric J. (NSC); Reed, Richard A.; Tribble,
Ahsha; Zelvin, Lawrence K.; Holgate, Laura
Subject: RE: 8 NRC people to Japan ASAP

Again looping in resilience here at NSC. Thanks all!

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

From: Clark, Ngoc CIV OSD POLICY (b)(6)
Sent: Monday, March 14, 2011 3:58 PM
To: 'Ramsey, Jack'; Abrams, Charlotte; Zerr, Thomas J.; Zenner, Todd
LCDR JCS J5 DDASIA NEAD NE ASIA BR; Hulley, Paul, SES, OSD-POLICY;
Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3; Engle,
Thomas E Lt Col JCS J3/NMCC; Severs, Paul J CAPT JCS J5 AP; NEWELL, JOHN
Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL JCS J5 ASIA NEA; BROWN,
ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5 POLICY JCS J-3; NJOIC BATTLE
CAPTAIN JCS J3; NJOIC JLOC OFFICER JCS J3; Kremer, Kyle Col JCS J4
DISTRIBUTION
Cc: Wormuth, Christine; 'TaskForce1Mailbox@state.gov'; Russel, Daniel

R.; Duncan, Shawn H.; Gallagher, Shawn P.; Bentz, Julie A.; Doane, Margaret; Mamish, Nader; Foggie, Kirk; Smith, Brooke; LIA02 Hoc; LIA03 Hoc; Marshall, Jane; Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster, Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce; Trapp, James; Ulises, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Cook, William
Subject: RE: 8 NRC people to Japan ASAP

Looping in J-4 colleagues with the details of the request.

Ms. Ngoc Clark
Foreign Affairs Specialist

Humanitarian Assistance, Disaster Relief, and Global Health Directorate
Office of Partnership Strategy & Stability Operations (PSO)
OUSD(Policy) - SO/LIC & IC
5C653
703-692-0122

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

From: Ramsey, Jack [mailto:Jack.Ramsey@nrc.gov]
Sent: Monday, March 14, 2011 3:54 PM
To: Abrams, Charlotte; (b)(6) Zenner, Todd LCDR
JCS J5 DDASIA NEAD NE ASIA BR; Hulley, Paul, SES, OSD-POLICY; Clark, Ngoc CIV OSD POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3; Engle, Thomas E Lt Col JCS J3/NMCC; Severs, Paul J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5 POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J-3
Cc: (b)(6) 'TaskForce1Mailbox@state.gov'; (b)(6) Doane, Margaret; Mamish, Nader; Foggie, Kirk; Smith, Brooke; LIA02 Hoc; LIA03 Hoc; Marshall, Jane; Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster, Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce; Trapp, James; Ulises, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer; Cook, William
Subject: RE: 8 NRC people to Japan ASAP

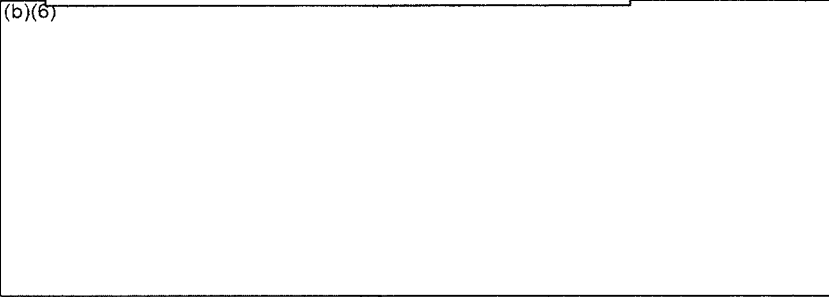
All,

As the message below indicates, we now have an additional person (for a total of 9) from our regional office outside Philadelphia.

Jack Ramsey

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

From: Abrams, Charlotte
Sent: Monday, March 14, 2011 3:52 PM
To: (b)(6)
(b)(6)



Hoc; Marshall, Jane; Casto, Chuck; Monninger, John; Nakanishi, Tony; Kolb, Timothy; Foster, Jack; Devercelly, Richard; Tracy, Glenn; Leeds, Eric; Boger, Bruce; Trapp, James; Ulses, Anthony; Carter, Mary; Emche, Danielle; Jones, Andrea; Schwartzman, Jennifer
Subject: Re: 8 NRC people to Japan ASAP

Also Bill Cook from RI

Sent from my nrc blackberry. Charlotte Abrams (b)(6)

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

From: Ramsey, Jack (b)(6)
To: Zerr, Thomas J. (b)(6) Zenner, Todd LCDR JCS
(b)(6)
(b)(6)

Subject: RE: 8 NRC people to Japan ASAP

All,

To summarize, the Nuclear Regulatory Commission has been requested by the Japanese government to supplement our staffing at the US Embassy in Tokyo (we currently have two staff there). In response, we have identified 8 NRC staff for this. We have 6 staff from WashDC (John Monninger, Tony Nakanishi, Tim Kolb, Jack Foster, Brooke Smith and Kirk Foggie), 1 from Atlanta (Chuck Casto) and 1 from Chattanooga (Richard Devercelly). The earliest commercial flights that are available are around 13:00 EDT tomorrow (Tuesday). Obviously, we'd like to get them there earlier if at all possible. This is what prompted the question on whether DOD and/or other appropriate assets might be available.

For coordination purposes, the International Liaison Team at NRC's Emergency Operations Center will be lead for this. E-mail addresses there are lia02.hoc@nrc.gov and lia03.hoc@nrc.gov, with direct phone line of (301) 816-5192 (this is a recorded line). In the event of any communication issues, please call the main number for NRC's Emergency Operation Center on (301) 816-5100 and ask for International Liaison.

Please also note that the NRC team has been cc'ed on this message.

Thanks to everyone for looking at this.

Jack Ramsey

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

From: Zerr, Thomas J. (b)(6)

Sent: Monday, March 14, 2011 3:25 PM

To: Zenner, Todd LCDR JCS J5 DDASIA NEAD NE ASIA BR; Hulley, Paul, SES, OSD-POLICY; Clark, Ngoc CIV OSD POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3; Engle, Thomas E Lt Col JCS J3/NMCC; Severs, Paul J CAPT JCS J5 AP; NEWELL, JOHN Brig Gen JCS J5 ASIADD; SHIN, DAVID W COL JCS J5 ASIA NEA; BROWN, ANGELIQUE P Maj JCS J5 ASIA NEA; NJOIC J-5 POLICY JCS J-3; NJOIC BATTLE CAPTAIN JCS J3

Cc: Ramsey, Jack; Wormuth, Christine; TaskForce1Mailbox@state.gov;

Russel, Daniel R.; Duncan, Shawn H.; Gallagher, Shawn P.; Bentz, Julie

A.

Subject: RE: 8 NRC people to Japan ASAP

+TF-1 mailbox for appropriate State loop in.

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

From: Zerr, Thomas J. (b)(6)

Sent: Monday, March 14, 2011 2:58 PM

To: Hulley, Paul, SES, OSD-POLICY; Zenner, Todd LCDR JCS J5 DDASIA NEAD NE ASIA BR; Clark, Ngoc CIV OSD POLICY; Trigilio, John, CIV, OSD-POLICY; Tidd, Kurt W RADM JCS VDJ-3

Cc: 'Ramsey, Jack'

Subject: FW: 8 NRC people to Japan ASAP

All-

I have discussed this on the phone with Paul and Todd. Needless to say the request is hot and getting big brains on the reactor issues out there soonest is critical given the situation at the plants.

Please inform if this request should go via a different path you can identify for me; or if this group can facilitate getting a DOD response to this request.

Jack-Please confirm the status of passports on these folks. Also I would continue to pursue any other transportation options outside of DOD so we don't lose any time.

TJ

From: Gallagher, Shawn P.

Sent: Monday, March 14, 2011 2:46 PM

To: 'Ramsey, Jack'; Zerr, Thomas J.; Bentz, Julie A.

Subject: 8 NRC people to Japan ASAP

Jack, per our conversation TJ is calling over to DOD. Wanted to connect everyone via email so we can report status.

Julie, to bring you up to speed, the Japanese requested more NRC support and NRC identified 8 people to go on an immediate basis. Earliest commercial flight isn't until 1:00 tomorrow. TJ is finding out if there a mil air option.

Locations of individuals are 6 in DC, 1 in Atlanta, 1 in Chattanooga. All are currently packing and awaiting orders

FYI...

Adding NSS colleagues Drew Quinn and Dab Kern plus OSTP Dr. Steve Fetter.

1

mmmmmm / 51

James McKenna; James White; James Zumwalt; Jay Tilden; Bader, Jeffrey A.; Jeffrey Miller; Jeremy Mears; John Peters; Joseph Donovan; Joseph Young; Julie Spencer; Justin Cooper; Kenneth R. Spurlock; Kenneth Worthy; Lee Gard; LIA08 Hoc; Marc M Wall; McDermott, Brian; McGinty, Tim; Michael Schiffer; Miller, Chris; Monninger, John; Morris, Scott; NRC Liaison at USAID; OST02 HOC; PACOM Watch Officer; Pentagon Japan Crisis Team J-4 Desk; Peter Lyons; Hoc, PMT12; Raymond Greene; Richard Webb; Rick Nielsen; Robert Gambone; Robert Luke; Robert Mercer; Ron Cherry; Ross-Lee, MaryJane; RST01 Hoc; RST01B Hoc; Russell Morales; Rust Deming; Sal Golub; Sal Golub; Samuel Young; Simon Schuchat; Stahl, Eric; Stephen Town; Steve Aoki; Suzanne Basalla; Tim Cipullo; Tom Vavoso; Trevor Conger; US Forces Japan J4; Virgilio, Martin; Weber, Michael; Wiggins, Jim; William Berger; William Webster; Wittick, Brian; Zimmerman, Roy

Cc: RST01 Hoc; RST12 Hoc; Zimmerman, Roy

Subject: FW: TEPCO "Roadmap towards Restoration"

Good Morning,

Please find attached TEPCO's "Roadmap Toward Restoration" documents. The Executive Team director has asked that you review these documents because we'll be discussing them at our 11:00 am. We would like your views on this document within a reasonable timeframe.

Thank you,

Liaison Team Coordinator
US Nuclear Regulatory Commission
email: lia08.hoc@nrc.gov
Desk Ph: 301-816-5185

From: Reyes, Debra
Sent: Monday, April 18, 2011 5:14 PM
To: ET02 Hoc
Subject: Re: BB Telephone #

(b)(6)

From: ET02 Hoc
To: Reyes, Debra
Sent: Mon Apr 18 16:28:55 2011
Subject: BB Telephone #

Can you give me the BB number for Sean Meighan? I thought I had everyone who's in Japan's BB number but I can't find his. Thanks very much....karen

mmmm/ 52

Heida, Bruce

Heida, Bruce

From: (b)(6)
Sent: Monday, March 14, 2011 7:47 AM
To: Cathy Lemp; Pohida, Marie; Zoulis, Antonios; Circle, Jeff; Ferrante, Fernando; Kip Mitman; Leslie Mitman; Mark Mitman; Vail, James
Subject: Fwd: Talking Points on Implications of Fukushima Accident to U.S. Nuclear Plants
Attachments: ANS Talking Points - 2011-03-13 R1_2.pdf; ATT00002..htm
Follow Up Flag: Follow up
Flag Status: Flagged

A useful perspective when thinking and talking about Fukushima.

Jeff

Begin forwarded message:

From: "Joe Colvin" <president@ans.org>
Date: March 14, 2011 1:31:45 AM EDT
To: "Mr. Jeffrey T. Mitman" (b)(6)
Subject: Talking Points on Implications of Fukushima Accident to U.S. Nuclear Plants

Dear ANS Members:

Over the last two days, the ANS Crisis Communications team has been very proactive and has handled a multitude of media and press calls. ANS spokespersons have participated in national television, radio and press interviews providing the views of the nuclear science and technology experts within the Society. We are particularly grateful to Dr. Dale Klein who has given tremendous support to the Society and the public in response to the events at Fukushima.

We have begun fielding media inquiries about the implications of the problems at Fukushima on the US program. We have prepared the attached talking points to assist responders to this line of questions. The talking points are consistent with the talking points prepared by the Nuclear Energy Institute (NEI) on the same subject.

Thank you all for your strong support!

Joe

Heida, Bruce

mmmm/53

The predominance of ANS members reside in the U.S. As we interact with our family, neighbors and citizens in our communities many questions will come based on news coverage of the nuclear power plant situation in Japan. These talking points key on the theme 'could it happen in the U.S.?' *

ANS Member Talking Points

Implications to U.S. nuclear energy program from the Japanese earthquake

It is premature for the technical community to draw conclusions from the earthquake and tsunami tragedy in Japan with regard to the U.S. nuclear energy program. Many opposed to nuclear power will try to use this event to call for changes in the U.S. Japan is facing beyond a "worst case" disaster since we, the technical community, did not hypothesize an event of this magnitude. Thus far, even the most seriously damaged of Japan's 54 reactors have not released radiation at levels that would harm the public. That is testament to the way professionals in our profession operate: our philosophy of defense in-depth, excellent designs, high standards of construction, conduct of operations, and most important the effectiveness of employees in following emergency preparedness planning.

The Nuclear Science and Technology (NS&T) community takes very seriously our commitment to safe operation of any nuclear facility and will incorporate lessons learned based on this experience into our safety and operating procedures. The ANS will facilitate the sharing of technical information so that these lessons receive wide distribution and be archived for future stewards of this technology. Some points to remember from this week:

- Nuclear power plants have proven their value to society in Japan, the United States and elsewhere. They provide large amounts of base load electricity on an around-the-clock basis, and they do so cost-effectively with the lowest electricity production costs of any large energy source. Both Japan and the United States have benefited greatly from nuclear energy; it has been instrumental in the nations' economic success over the past half century and their high standard of living.
- Our hallmark as a NS&T organization is to incorporate operating experience and lessons learned. When we fully understand the facts surrounding the event in Japan, we will share, document and use those insights to make NS&T even safer.
- Nuclear energy has been and will continue to be a key element in meeting America's energy needs. The nuclear industry sets the highest standards for safety and, through our focus on continuous learning; we will incorporate lessons learned from the events in Japan. The dominant factors determining technology used for new generation will be demand for new generation, the competitiveness of nuclear energy in comparison with other sources of electricity generation, and the continued safe operation of U.S. nuclear power plants.

- There has not been a rush to judgment on the part of U.S. policymakers during the first few days of this situation. We believe that is due in part to the recognition on their part that nuclear energy must continue to play a key role in a diversified energy portfolio that strengthens U.S. energy security and fuels economic growth.

* The genesis of this document is the NEI "Talking Points - Implications to U.S. nuclear energy program of the Japanese earthquake" dated March 13, 2011

Weaver, Tonna

From: Ulises, Anthony
Sent: Monday, March 14, 2011 9:05 PM
To: LIA03 Hoc
Subject: Please confirm

Did the PMT get that Yokuska contact information that I passed to the HOO?

Thanks,

Tony

Sent from NRC BlackBerry
Anthony Ulises

(b)(6)

mmmm/524

Cartwright, William

From: Diane.JACKSON@oecd.org
Sent: Monday, March 14, 2011 5:23 AM
To: Thomas, Eric
Subject: FW: NEA Secretariat - [Fukushima] - TEPCO website with Press releases in English

Eric -

Here is another website from TEPCO that is updated often.

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

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

From: GAUVAIN Jean, NEA/SURN
Sent: Saturday, March 12, 2011 14:36
To: GAUVAIN Jean, NEA/SURN

Subject: NEA Secretariat - [Fukushima] - TEPCO website with Press releases in English

Dear colleagues,

In addition to my previous e-mail regarding the Fukushima NPPs, please find below the address of the TEPCO utility where Press release in English are posted:

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

TEPCO Press release are posted about every 2 hours

Best Regards

Jean Gauvain

Secretariat of the CNRA/Working Group of Public Information of Nuclear Regulatory Organisations OECD/NEA
Nuclear Safety Division

Mobile (b)(6)

=====

Previous message:

Dear colleagues,

Following the dramatic event in Japan and receiving many questions from member countries, please find below the address of the Japanese Nuclear Regulatory Body where Press release in English are posted:

<http://www.nisa.meti.go.jp/english/>

Attached is the latest press release posted today at 11:00 UTC

mmmm/65

Cheok, Michael

From: Dozier, Jerry
Sent: Monday, March 14, 2011 8:13 AM
To: Lee, Samson; Hasselberg, Rick; Burnell, Scott
Cc: Cheok, Michael; Harrison, Donnie
Subject: FYI: Public Affairs information provided to Nuclear Engineering Students at MIT

My daughter is a graduate student at MIT...below is some of the information that is being disseminated regarding the Japanese event...some very impressive.

From: Frances Dozier (b)(6)
Sent: Sunday, March 13, 2011 10:46 PM
To: Dozier, Jerry; Tami Dozier
Subject: Fwd: [ans-grads] Fwd: [ANS Board] Fukushima Update-7pm EDT, March 13, 2011

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

From: Jacob DeWitte <jdewitte@mit.edu>
Date: Sun, Mar 13, 2011 at 10:15 PM
Subject: [ans-grads] Fwd: [ANS Board] Fukushima Update-7pm EDT, March 13, 2011
To: ANS Graduate Students <ans-grads@mit.edu>, ans-undergrads <ans-undergrads@mit.edu>

All,

You may have received an email from ANS President Joe Colvin regarding the events in Japan, here is some more information:

- This cite is doing a good job of aggregating news stories about the situation so you can track it as it evolves: <http://ansnuclearcafe.org/>

- Here is a pretty entry-level overview of what is happening: <http://www.nytimes.com/interactive/2011/03/12/world/asia/the-explosion-at-the-japanese-reactor.html?nl=todaysheadlines&emc=tha2>

- Here is a more detailed and technical-jargon oriented summary: http://www.world-nuclear-news.org/RS_Venting_at_Fukushima_Daiichi_3_1303111.html

The faculty have been addressing various media outlets nonstop over the weekend, and plan on addressing the Institute on Tuesday. ANS has also been contacted with the opportunity to post updates on a widely read blog to make sure correct and accurate information is being distributed. We need students to help post information, filter posts, and respond to posts on this site (which will soon be under NSE ownership) to make sure we get the right information out. If you are interested in participating, please let me know. We need to be transparent and honest with the community, and a lot of trust can be earned in the next few weeks if we handle this correctly.

Thanks,
Jake

mmmm/56

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

From: COLVIN, Joe <jfc@nei.org>

Date: Sun, Mar 13, 2011 at 7:49 PM

Subject: [ANS Board] Fukushima Update-7pm EDT, March 13, 2011

To: Board of Directors <board@list.ans.org>

ANS Board Members

This is the 7pm EDT update on the situation at Fukushima.

Joe Colvin

March 13, 2011, 7 p.m. EDT Update

Fukushima Daiichi

The hydrogen explosion on March 11 between the primary containment vessel and secondary containment building of the reactor did not damage the primary containment vessel or the reactor core. To control the pressure of the reactor core, TEPCO began to inject seawater and boric acid into the primary containment vessels of Unit 1 on March 12 and Unit 3 on March 13. There is likely some damage to the fuel rods contained in reactors 1 and 3.

At both reactors 1 and 3, seawater and boric acid is being injected into the reactor using fire pumps. On reactor 3, a pressure relief valve in the containment structure failed to open, but was restored by connecting an air pressure to the line driving valve operation.

The water level in the reactor vessel of reactor 2 reactor is steady.

Personnel from TEPCO are closely monitoring the status of all three reactors.

The highest recorded radiation level at the Fukushima Daiichi site was 155.7 millirem at 1:52 p.m. on March 13. Radiation levels were reduced to 4.4 millirem by the evening of March 13. The NRC's radiation dose limit for the public is 100 millirem per year.

Japanese government officials acknowledged the potential for partial fuel meltdowns at Fukushima Daiichi Unit 1 and 3 reactors, but there is no danger for core explosion, as occurred at the nuclear power station at Chernobyl in 1986. Control rods have been successfully inserted at all of the reactors, thereby ending the chain reaction. The reactor cores at Fukushima Daiichi and Daini power stations are surrounded by steel and concrete containment vessels of 40 to 80 inches thick that are designed to contain radioactive materials.

Fukushima Daini

The Fukushima Daini plants remains in a state of emergency. There is electricity available at all four of the reactors at Fukushima Daini, although there is limited availability of the cooling water pumps at reactors 1, 2 and 4.

TEPCO is working to maintain constant cooling in the primary containment vessels of those reactors. No radioactivity has been recorded outside of the secondary containment buildings at Fukushima Daiichi, according to TEPCO.

Two other nuclear power plants in the Tohoku region, Onagawa Nuclear Power Station and Tokai Nuclear Power Station, were automatically shut down in response to the earthquake. The four reactors at these plants have functioning cooling systems and are being monitored by plant operators.

The Rokkasho Reprocessing Plant and accompanying facilities, located far north of the tsunami zone in Rokkasho Town, is operating safely on backup power generation systems.

Japanese nuclear facilities are designed to withstand powerful seismic events, such as earthquakes. In this earthquake—the strongest recorded over the past 100 years in Japan—the containment structures of Fukushima Daiichi maintained their structural integrity. These facilities were designed to withstand tsunamis within a range of assumed strength, however the force of the tsunami on March 10 exceeded the assumed range and flooded diesel generators at Fukushima Daiichi power station. This precipitating the loss of power for the reactor cooling systems.


The automatic shutdown of the 11 operating reactors at the Onagawa Nuclear Power Station, Tokai Nuclear Power Station, Fukushima Daiichi and Daini, represents a loss of 3.5% of electric generation capacity for Japan.

nuclear

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Sent through mail.messaging.microsoft.com

Board mailing list
Board@list.ans.org

Ans-grads mailing list
Ans-grads@mit.edu
<http://mailman.mit.edu/mailman/listinfo/ans-grads>

Cartwright, William

From: Thomas, Eric
Sent: Monday, March 14, 2011 6:42 AM
To: Diane.JACKSON@oecd.org
Subject: RE: NEA Secretariat - [Fukushima] - TEPCO website with Press releases in English

Thanks Diane.

Eric Thomas
U.S. Nuclear Regulatory Commission
NRR/DIRS/IOEB
OWFN-7E24
eric.thomas@nrc.gov
301-415-6772 (office)
(b)(6)

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

From: Diane.JACKSON@oecd.org [mailto:Diane.JACKSON@oecd.org]
Sent: Monday, March 14, 2011 5:23 AM
To: Thomas, Eric
Subject: FW: NEA Secretariat - [Fukushima] - TEPCO website with Press releases in English

Eric -

Here is another website from TEPCO that is updated often.

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

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

From: GAUVAIN Jean, NEA/SURN
Sent: Saturday, March 12, 2011 14:36
To: GAUVAIN Jean, NEA/SURN

Subject: NEA Secretariat - [Fukushima] - TEPCO website with Press releases in English

Dear colleagues,

In addition to my previous e-mail regarding the Fukushima NPPs, please find below the address of the TEPCO utility where Press release in English are posted:

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

TEPCO Press release are posted about every 2 hours

Best Regards
Jean Gauvain
Secretariat of the CNRA/Working Group of Public Information of Nuclear Regulatory Organisations OECD/NEA
Nuclear Safety Division

mmmm/57

Weaver, Tonna

From: Ulises, Anthony
Sent: Monday, March 14, 2011 12:55 AM
To: PMT03 Hoc
Subject: Re: PMT question - Volume/duration of venting operations

Heading to a meeting at MOFA. Will get it as best I can when I return.

Understand this is a high priority. We have been following the traffic.

Tony

Sent from NRC BlackBerry

Anthony Ulises

(b)(6)

From: PMT03 Hoc
To: Ulises, Anthony
Sent: Mon Mar 14 00:37:40 2011
Subject: PMT question - Volume/duration of venting operations

Tony,

Hope your flight was memorable, as I'm sure the travel in Japan has been. If you can get the following information for us, we'd appreciate:

Background: We are trying to equate the releases from the controlled venting activities with rad information received from Navy ships offshore. To do comparisons, we need to have some estimate of the volume and duration of the controlled venting.

- 1) What is the pressure threshold in containment where venting is determined to need to be initiated.
- 2) What is the pressure where venting is terminated.
- 3) What is the time that venting is typically performed. ie, is venting done in timed duration puffs (to minimize dose) or more continuous until the lower pressure level is reached.

Any information that you can give us related to source term, measured downwind dose measurements reasonably close to the site (we only get reports of dose rates outside the plume direction, and we are not sure if this is plume shine or deposition dose or from some other source.) For us to do projections that have some confidence, we need some actual source term release values from venting, or downwind field team dose so we can extrapolate.

Thanks, and return email to this address. Tx greg

mmmm/58

From: Sangimino, Donna-Marie
To: Scott, Michael
Cc: Case, Michael; Rini, Brett; Dehn, Jeff; Uhle, Jennifer; Sheron, Brian; Gibson, Kathy; Sheron, Brian
Subject: FW: NEA Secretariat - [Fukushima] - TEPCO website with Press releases in English
Date: Monday, March 14, 2011 9:53:44 AM

Mike,

The Japanese are putting out timely press releases (in English) which are very helpful to stay abreast of the tragic situation unfolding in Japan.

Donna-Marie

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

From: Jean.GAUVAIN@oecd.org [mailto:Jean.GAUVAIN@oecd.org]
Sent: Saturday, March 12, 2011 8:36 AM
Subject: NEA Secretariat - [Fukushima] - TEPCO website with Press releases in English

Dear colleagues,

In addition to my previous e-mail regarding the Fukushima NPPs, please find below the address of the TEPCO utility where Press release in English are posted:

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

TEPCO Press release are posted about every 2 hours

Best Regards

Jean Gauvain

Secretariat of the CNRA/Working Group of Public Information of Nuclear Regulatory Organisations
OECD/NEA Nuclear Safety Division

Mobile (b)(6)

=====
Previous message:

Dear colleagues,

Following the dramatic event in Japan and receiving many questions from member countries, please find below the address of the Japanese Nuclear Regulatory Body where Press release in English are posted:

<http://www.nisa.meti.go.jp/english/>

Attached is the latest press release posted today at 11:00 UTC

mmmm/59

From: HOO Hoc
Sent: Monday, March 14, 2011 11:59 PM
To: Ulises, Anthony (b)(6); daniel.poneman@hq.doe.gov
Cc: PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: Fukushima Unit 2 Dose Information
Attachments: Fukushima Unit 2 Doses.pdf; image001.jpg

Important information

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov



mmmm/60

Summary Report

Case description: Fukushima Unit 2 ex-vessel met 14MAR 1600
Run date/time: 2011/03/14 23:49

Maximum Dose Values (rem) - Close-In

Dist from release miles (kilometers)	0.5 (0.8)	1. (1.61)	1.5 (2.41)	2. (3.22)	3. (4.83)	5. (8.05)	7. (11.27)	10. (16.09)
Total EDE	<u>1.9E+03</u>	<u>7.6E+02</u>	<u>4.5E+02</u>	<u>3.2E+02</u>	<u>1.9E+02</u>	<u>8.9E+01</u>	<u>5.3E+01</u>	<u>3.0E+01</u>
Thyroid CDE	<u>1.2E+04</u>	<u>4.5E+03</u>	<u>2.6E+03</u>	<u>1.8E+03</u>	<u>1.0E+03</u>	<u>5.2E+02</u>	<u>3.3E+02</u>	<u>2.0E+02</u>
Inhalation CEDE	<u>1.2E+03</u>	<u>4.5E+02</u>	<u>2.6E+02</u>	<u>1.8E+02</u>	<u>1.1E+02</u>	<u>5.2E+01</u>	<u>3.4E+01</u>	<u>2.1E+01</u>
Cloudshine	<u>8.4E+00</u>	<u>4.1E+00</u>	<u>2.5E+00</u>	<u>1.7E+00</u>	<u>1.0E+00</u>	<u>5.5E-01</u>	<u>3.7E-01</u>	<u>2.3E-01</u>
4-day Groundshine	<u>9.0E+02</u>	<u>4.1E+02</u>	<u>2.5E+02</u>	<u>1.8E+02</u>	<u>1.1E+02</u>	<u>5.6E+01</u>	<u>3.5E+01</u>	<u>1.8E+01</u>
Inter Phase 1st Yr	<u>1.5E+04</u>	<u>7.0E+03</u>	<u>4.3E+03</u>	<u>3.1E+03</u>	<u>1.9E+03</u>	<u>9.6E+02</u>	<u>5.9E+02</u>	<u>3.0E+02</u>
Inter Phase 2nd Yr	<u>7.7E+03</u>	<u>3.5E+03</u>	<u>2.2E+03</u>	<u>1.6E+03</u>	<u>9.6E+02</u>	<u>4.8E+02</u>	<u>2.9E+02</u>	<u>1.5E+02</u>

Notes:

- Doses exceeding PAGs are underlined.
- Early-Phase PAGs: TEDE - 1 rem, Thyroid (iodine) CDE - 5 rem
- Intermediate-Phase EPA PAGs: 1st year - 2 rem, 2nd year - 0.5 rem
- *** indicates values less than 1 mrem
- To view all values - use Detailed Results | Numeric Table
- Total EDE = Inhalation CEDE + Cloudshine + 4-Day Groundshine

Maximum Dose Values (rem) - To 50 mi

Dist from release miles (kilometers)	15 (24.1)	20 (32.2)	30 (48.3)	40 (64.4)	50 (80.5)
Total EDE	<u>2.0E+01</u>	<u>1.4E+01</u>	<u>7.4E+00</u>	<u>3.5E+00</u>	<u>1.8E+00</u>
Thyroid CDE	<u>9.7E+01</u>	<u>8.0E+01</u>	<u>3.6E+01</u>	<u>1.7E+01</u>	<u>6.4E+00</u>
Inhalation CEDE	<u>8.7E+00</u>	<u>6.7E+00</u>	<u>2.6E+00</u>	<u>9.4E-01</u>	<u>3.1E-01</u>
Cloudshine	<u>1.3E-01</u>	<u>1.1E-01</u>	<u>4.6E-02</u>	<u>2.0E-02</u>	<u>8.1E-03</u>
4-day Groundshine	<u>1.1E+01</u>	<u>7.1E+00</u>	<u>4.7E+00</u>	<u>2.5E+00</u>	<u>1.5E+00</u>
Inter Phase 1st Yr	<u>1.8E+02</u>	<u>1.2E+02</u>	<u>8.6E+01</u>	<u>5.0E+01</u>	<u>3.4E+01</u>
Inter Phase 2nd Yr	<u>9.3E+01</u>	<u>6.1E+01</u>	<u>4.5E+01</u>	<u>2.7E+01</u>	<u>1.9E+01</u>

Notes:

- Doses exceeding PAGs are underlined.
- Early-Phase PAGs: TEDE - 1 rem, Thyroid (iodine) CDE - 5 rem
- Intermediate-Phase PAGs: 1st year - 2 rem, 2nd year - 0.5 rem
- *** indicates values less than 1 mrem
- To view all values - use Detailed Results | Numeric Table
- Total EDE = CEDE Inhalation + Cloudshine + 4-Day Groundshine
- Total Acute Bone = Bone Inhalation + Cloudshine + Period Groundshine

Case Summary

Event Type Nuclear Power Plant

Location
Name: Fukushima Unit 2
City, county, state: <undefined>, <undefined>, <undefined>
Lat / Long / Elev: 37.4214° N, 141.0325° E, 0 m
UTC Offset: 9 hours
Population: not available

Reactor Parameters

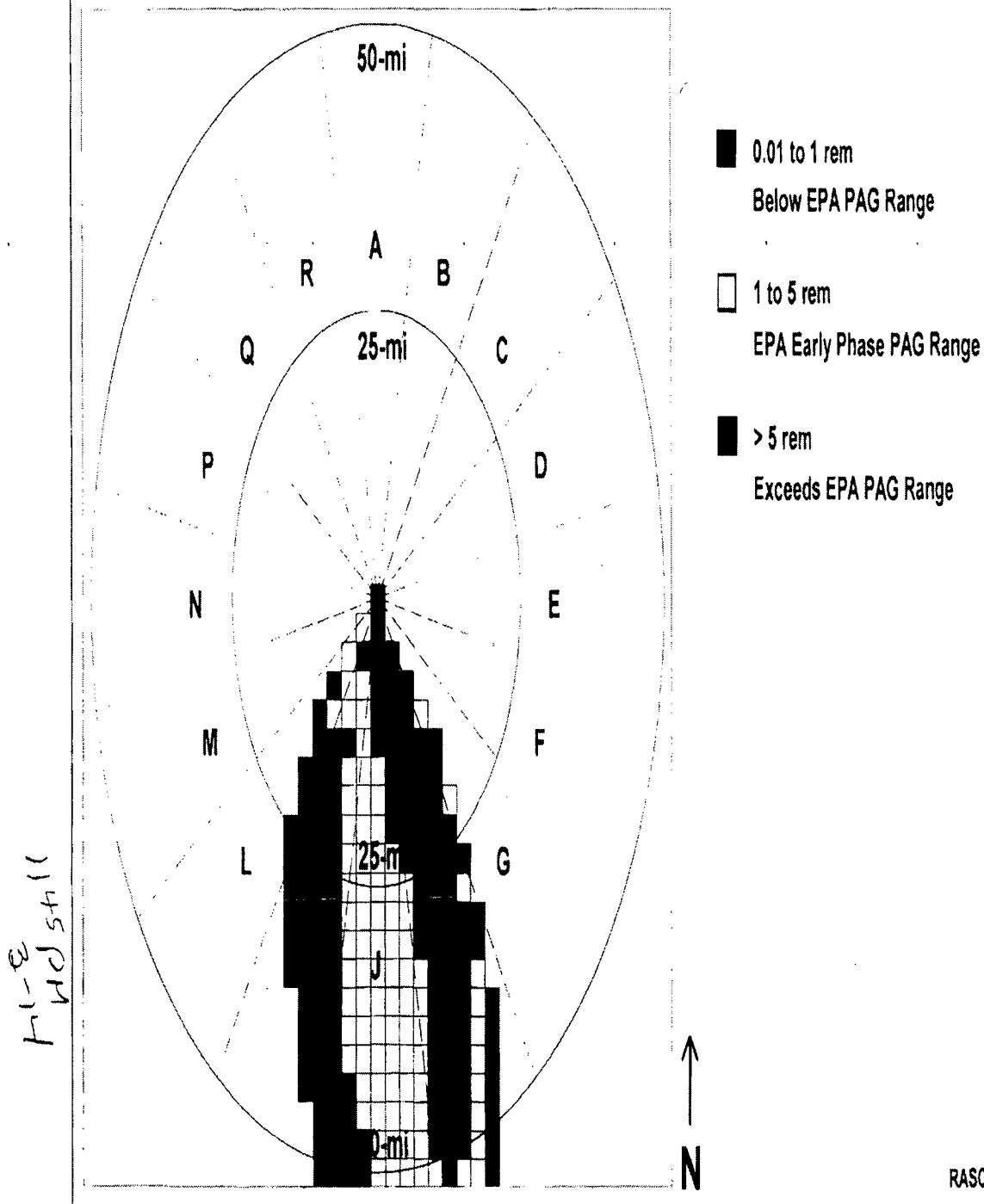
1145 PM
3-14

Total Effective Dose Equivalent

Accumulated between 2011/03/15 00:00 and 2011/03/15 10:00

Fukushima Unit 2 ex-vessel met 14MAR 1600

Fukushima Unit 2



From: Carpenter, Gene
To: Burnell, Scott; Brenner, Elliot; Hayden, Elizabeth
Cc: Case, Michael; Gavrilas, Mirela
Subject: FW: Invitation to speak at CSPO - Monday, March 21, 6PM
Date: Monday, March 14, 2011 3:33:51 PM

FYI

I'm on AL (London) and also have class on Monday night. Would the NRC like to Support Mahmud?

Gene

From: Mahmud Farooque [Mahmud.Farooque@asu.edu]
Sent: Monday, March 14, 2011 12:10 PM
To: Carpenter, Gene
Subject: Invitation to speak at CSPO - Monday, March 21, 6PM

Hello Gene,

Hope you are doing well. This request comes with an apology for the extremely short notice. I had a last minute cancellation and I am scrambling to find a speaker for our seminar series scheduled for Monday, March 21st at 6PM. Treating the setback as an opportunity to change the topic, I am writing to explore if you or anyone from NRC would be interested in talking about nuclear safety, regulation, proliferation or S&T policy issues in the U.S. in light of the unfolding crisis in Japan.

These seminars are designed to offer CSPO's students, postdocs and faculty located in Arizona an opportunity to learn about a contemporary policy issue directly from an expert in the nation's capitol. We use our video conferencing facility in our Washington DC office to bring the seminar to CSPO's Tempe community. The talk is about 45 minutes with 15 minutes of discussion and Q&A. In addition to Tempe, we expect a small audience in our DC office as well.

Kindly let me know so we can proceed with our planning and publicity with the little time we have in hand. Thanks for your time and consideration.

I do apologize for the short lead time.

Best Wishes,
Mahmud

Mahmud Farooque, Ph.D.
Associate Director, DC Office
Consortium for Science, Policy, & Outcomes (CSPO)
Arizona State University, DC Center
1834 Connecticut Ave, NW
Washington, DC 20009
off-campus: (b)(6)
on-campus: x 20397
mahmud.farooque@asu.edu

mmm/b1

From: Duong, Tamanh Q LCDR USN USFJ J4 on behalf of USFJ-CAT-J4
To: Trapp, James
Subject: Log Status
Date: Monday, March 14, 2011 5:37:14 PM
Attachments: ole0.bmp
ole1.bmp
ole2.bmp

Jim,

For your information on the date/time status:

Title GOJ Reactor Coolant Equipment Request

Priority CRITICAL

Status Open

% Complete 25%

CAT Suspense 3/15/2011 12:00 AM

OPR RECM

Description NRC advised that to help Japan provide coolant to the reactor, they need more than diesel-driven pumps. The VTC participants agreed that the U.S. military forces should immediately look for ways to provide the following to the Fukushima site:

-- diesel-driven pump

-- AC power

-- DC power

-- nitrogen/air

Response *****

Note: 0426 HRS

Sent a note to Mr. Yahagi - the TEPCO engineer at yahagi.kimitoshi@tepcoco.jp and his POC: 03-6373-6945

Good morning. Thank you for talking with me and Mr. Chang. We are from the U.S. Forces Japan BJOCC.

As discussed, we would like to know a list of equipment and or material you would need to cool the reactors at Fukushima, such as pump, electrical generator, batteries and nitrogen gas. Please call us at (b)(6)

Thanks!

V/R

Tamanh

Tamanh Q. Duong, P.E., MBA

mmmm/62

LCDR, U.S. Navy Civil Engineer Corps
USFJ Joint Engineer Staff Officer
DSN: (315) 225-4712, FAX: x6743
Commercial (CONUS) 011-81-3117-55-4712
Commercial (JAPAN) 03117-55-4712

NIPR: (b)(6)

SIPR: (b)(6)

Note: at 0355 HRS

Got the phone/POC of TEPCO engineer from J5. Mr. Chang called the TEPCO engineer to discuss their needs, requirements. The TEPCO engineer mentioned that they already had five fire trucks on site. TEPCO also mentioned that they would touch base with Fukushima plant technicians to compile a list of equipment and/or materials to send to us.

Note: 0209 HRS

ALCON,

We just spoke with NCR - Peter Alter on the Pump, Generator / Charger, Nitrogen Requirement.

1. We need the contact information for the TEPCO Engineer or preferably the PLANT ENGINEER in order to ask him directly for the specifications of the PUMP, GENERATOR/CHARGER and QUANTITY OF NITROGEN GAS. And, as important we need to know if there are technicians and plant mechanics on hand to do the work.

2. NCR recommends we contact with the Plant Operator to determine additional information rather than send something up that is not usable.

- DIESEL PUMP SPECIFICATION: 250 GPM @ 75-100 PSI... PUMP CURVE, suction, lift head, impeller size.

- GENERATOR SPECIFICATION: 480V, 50HZ or 60HZ? MINIMUM CAPACITY?

- BATTERY CHARGER SPECIFICATION: 125V or 250V? MINIMUM AMPS?

- BATTERY SPECIFICATIONS: 125V - type and number

- NITROGEN GAS QUANTITY: Lbs or Kgs (Cylinder, Tanker?)

- ANY ADDITIONAL PIPING, FITTING, WIRING, TOOLS...

3. The requirement provided by NCR is basically the requirement to provide COOLANT into the reactor vessel and to RESTORE CONTROL:

COOLING: 250 GPM @ 75-100 PSI This is the estimated cooling stream and pressure required to remove the latent heat and overcome the 50 PSI or so gas venting from the containment vessel to reach the bottom. The fitting for the discharge is assumed to be a standard fire hose outlet. The issue is that to properly size the pump we need to know the pump lift, suction head and distance to pump -friction loss. Water source - ocean, cistern or hydrant?

CONTROLLER: ELECTRICAL GENERATORS - 480V 50HZ or 60HZ dependant on what the Plant is operating. The KW capacity is whatever we can provide - more the better. The generator will be plugged into the "electrical panel" or used to supplement whatever available power is existing at the site. ELECTRICAL CHARGER - for 125V (250V) BATTERIES, it is also possible to hook up ELECTRICAL GENERATOR to existing CHARGER. Assumption: batteries still working?

CONTROL: Pneumatic Control System - Nitrogen gas is used as the pneumatic control medium within the reactor vessel. Need to ask the operator how much #lbs, cylinders or tanker truck worth is needed?

V/R Donald Chang P.E.
Chief, Installation Division
DSN 312-225-4712

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

From: McDaniel, Everett K COL USA USFJ J4
Sent: Tuesday, March 15, 2011 12:58 AM
To: USFJ-CAT-J4
Subject: GOJ urgent request for water pumping capacity - follow up 2 (U)

Classification: Unclassified

See below and initiate contacts to develop situation.

From: Basalla, Suzanne I [<mailto:BasallaSI@state.gov>]
Sent: Tuesday, March 15, 2011 12:23 AM
To: LIA02 Hoc <LIA02.Hoc@nrc.gov>; Mitchell, Derek J SES OSD POLICY
(b)(6); chiffer, Michael DASD OSD; (b)(6)
(b)(6) McDaniel, Everett K COL USA USFJ J4; USFJ-CAT-CHIEF; Wiltse, Jeffrey S COL USA USFJ J5; Crowe, Blake BGen USMC USFJ J01; Field, Burton M Lt Gen USAF USFJ/J00-5 AF/CC; Duncan, Aleshia D <DuncanAD@state.gov>; Cherry, Ronald C <CherryRC@state.gov>; JapanEmbassy, TaskForce <JapanEmbassyTaskForce@state.gov>; Beed, John A <beedja@state.gov>; Berger, William (RDMA/OFDA) <wberger@usaid.gov>; Jaczko, Gregory <Gregory.Jaczko@nrc.gov>; HOO Hoc <HOO.Hoc@nrc.gov>; LIA06 Hoc <LIA06.Hoc@nrc.gov>
Cc: Roos, John AMB AMEMB JAPAN; Zumwalt, James P <ZumwaltJP@state.gov>; Fuller, Matthew G <FullerMG@state.gov>
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Thank you. We look forward to the list of equipment and additional advice.

SBU

This email is UNCLASSIFIED.

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]

Sent: Tuesday, March 15, 2011 12:16 AM

To: Basalla, Suzanne I; Mitchell, Derek J SES OSD POLICY; Schiffer, Michael SES OSD POLICY; (b)(6)

(b)(6) Cröwe, William B BGen USMC USFJ J01; (b)(6)

Duncan, Aleshia D; Cherry, Ronald C; JapanEmbassy, TaskForce; Beed, John A; Berger, William (RDMA/OFDA); Jaczko, Gregory; HOO Hoc; LIA06 Hoc

Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G

Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Hi Suzanne,

I just spoke with the Director of the Reactor Safety Team here at the NRC Incident Response Center. She is aware of the request for equipment and has generated a list of equipment that, as I understand it, will be requested of U.S. military forces for use in Japan. She also notes that the equipment may need to be accompanied by instructions in Japanese and/or personnel knowledgeable of how to operate it. This list has been generated based on our understanding of the status of systems and the core at Units 1, 2 and 3. We believe that TEPCO personnel, who will have the most current knowledge of the condition of the core and emergency systems, will be in the best position to determine where and how the equipment can be used once it arrives. We are looking for technical staff to be available to advise, if needed, on countermeasures that can be considered using this equipment.

Hope this helps,

Rani Franovich

Liaison Team Coordinator

U.S. Nuclear Regulatory Commission

JLOC Suspense

Task Opened 3/15/2011 3:00 AM

Returned to CAT

Accepted by OPR

OCR Director

Assigned To

Attachments

Created at 3/15/2011 2:29 AM by Duong, Tamanh Q (LCDR USN USFJ J4

Last modified at 3/15/2011 4:43 AM by Duong, Tamanh Q (LCDR USN USFJ J4

V/R

Tamanh

Tamanh Q. Duong, P.E., MBA

LCDR, U.S. Navy Civil Engineer Corps

USFJ Joint Engineer Staff Officer

DSN: (315) 225-4712, FAX: x6743

Commercial (CONUS) 011-81-3117-55-4712

Commercial (JAPAN) 03117-55-4712

NIPR: (b)(6)

SIPR: (b)(6)

From: Trapp, James
To: USFJ-CAT-J4
Subject: RE: GOJ urgent request for water pumping capacity - NEED TEPCO ENGINEER COORD.
Date: Monday, March 14, 2011 6:02:01 PM

Got it - really appreciate the support provided in this important matter. Thank you!

From: Duong, Tamanh Q LCDR USN USFJ J4 (b)(6) On Behalf Of USFJ-CAT-J4
(b)(6)
Sent: Monday, March 14, 2011 5:34 PM
To: Trapp, James
Subject: FW: GOJ urgent request for water pumping capacity - NEED TEPCO ENGINEER COORD.

Jim,

Nice talking to you on the phone. Here are the information you are looking for.

Let us know if you need anything else.

Thanks!

V/R

Tamanh

Tamanh Q. Duong, P.E., MBA
LCDR, U.S. Navy Civil Engineer Corps
USFJ Joint Engineer Staff Officer
DSN: (315) 225-4712, FAX: x6743
Commercial (CONUS) 011-81-3117-55-4712
Commercial (JAPAN) 03117-55-4712
NIPR (b)(6)
SIPR (b)(6)

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

From: Duong, Tamanh Q LCDR USN USFJ J4 On Behalf Of USFJ-CAT-J4
Sent: Tuesday, March 15, 2011 5:45 AM
To: USFJ-CAT-MARITIME; USFJ-CAT-GROUND; USFJ-CAT-AIR; CNFJ SDO; USFJ-RCEM-J42; USFJ-JLOC-J43
Cc: 'Napier, Bradford'; USFJ-CAT-J4; McDaniel, Everett K COL USA USFJ J4; 'Tokyo PolMil Unit'; USFJ-CAT-J5
Subject: RE: GOJ urgent request for water pumping capacity - NEED TEPCO ENGINEER COORD.

ALCON,

Spoke with TEPCO Engineer this morning - Mr. Yahagi - and asked if he would compile a list of equipment and or materials (ump, electrical, generator, batteries, nitrogen gas, etc...) they would need to expedite the reactor cooling process at Fukushima.

*** While we are waiting for a response from Mr. Yahagi, can you ask your respective components to see if they have the following: diesel pump, portable generators, batteries, and battery chargers, nitrogen tanks, and other piping, fitting, and hoses, as requested. See below for more details.

Thanks!

mmmm/b3

V/R

Tamanh

Tamanh Q. Duong, P.E., MBA
LCDR, U.S. Navy Civil Engineer Corps
USFJ Joint Engineer Staff Officer
DSN: (315) 225-4712, FAX: x6743
Commercial (CONUS) 011-81-3117-55-4712
Commercial (JAPAN) 03117-55-4712
NIPR: (b)(6)
SIPR: (b)(6)

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

From: Tran, John D Maj USAF USFJ J5 On Behalf Of USFJ-CAT-J5
Sent: Tuesday, March 15, 2011 2:34 AM
To: Tokyo PolMil Unit
Cc: Napier, Bradford; USFJ-CAT-J4
Subject: FW: GOJ urgent request for water pumping capacity - NEED TEPCO ENGINEER COORD.

Brad,

As discussed, below is the technical dialogue our J4 would like to have with an engineer at TEPCO--if we need to have a translator, we'll get one. Can you see if someone from MEXT/TEPCO will either a) answer the questions ASAP or b) allow us to have a direct dialogue with TEPCO engineers? Thanks.

v/r
jt

John D. Tran, Major, USAF
J54 International Relations Officer, Government Relations Branch
United States Forces Japan
DSN: 315-225-4428
Comm: 011-81-311-755-4428
Jpn Comm: 042-552-2511 Ext: 5-4428
Cell: (b)(6)

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

From: Duong, Tamanh Q LCDR USN USFJ J4 On Behalf Of USFJ-CAT-J4
Sent: Tuesday, March 15, 2011 2:09 AM
To: USFJ-CAT-J5; 'lia02.hoc@nrc.gov'; USFJ-RCEM-J42; USFJ-CAT-CHIEF; USFJ-CAT-GROUND; USFJ-CAT-AIR; USFJ-CAT-MARITIME; CNFJ SDO; Basalla, Suzanne SAA AMEMB JP; McDaniel, Everett K COL USA USFJ J4; Chang, Donald GS-14 DNC USFJ J4; Wiltse, Jeffrey S COL USA USFJ J5; Young, Joseph ChiefPolMil AMEMB JP
Subject: FW: GOJ urgent request for water pumping capacity - NEED TEPCO ENGINEER COORD.

ALCON,

We just spoke with NCR - Peter Alter on the Pump, Generator / Charger, Nitrogen Requirement.

1. We need the contact information for the TEPCO Engineer or preferably the PLANT ENGINEER in order to ask him directly for the specifications of the PUMP, GENERATOR/CHARGER and QUANTITY OF NITROGEN GAS. And, as important we need to know if there are technicians and plant mechanics on hand to do the work.

2. NCR recommends we contact with the Plant Operator to determine additional information rather than send something up that is not usable.

- DIESEL PUMP SPECIFICATION: 250 GPM @ 75-100 PSI... PUMP CURVE, suction, lift head, impellor size.

- GENERATOR SPECIFICATION: 480V, 50HZ or 60HZ? MINIMUM CAPACITY?

- BATTERY CHARGER SPECIFICATION: 125V or 250V? MINIMUM AMPS?

- BATTERY SPECIFICATIONS: 125V - type and number

- NITROGEN GAS QUANTITY: Lbs or Kgs (Cylinder, Tanker?)

- ANY ADDITIONAL PIPING, FITTING, WIRING, TOOLS...

3. The requirement provided by NCR is basically the requirement to provide COOLANT into the reactor vessel and to RESTORE CONTROL:

COOLING: 250 GPM @ 75-100 PSI This is the estimated cooling stream and pressure required to remove the latent heat and overcome the 50 PSI or so gas venting from the containment vessel to reach the bottom. The fitting for the discharge is assumed to be a standard fire hose outlet. The issue is that to properly size the pump we need to know the pump lift, suction head and distance to pump - friction loss. Water source - ocean, cistern or hydrant?

CONTROLLER: ELECTRICAL GENERATORS - 480V 50HZ or 60HZ dependant on what the Plant is operating. The KW capacity is whatever we can provide - more the better. The generator will be plugged into the "electrical panel" or used to supplement whatever available power is existing at the site. ELECTRICAL CHARGER - for 125V (250V) BATTERIES, it is also possible to hook up ELECTRICAL GENERATOR to existing CHARGER. Assumption: batteries still working?

CONTROL: Pneumatic Control System - Nitrogen gas is used as the pneumatic control medium within the reactor vessel. Need to ask the operator how much #lbs, cylinders or tanker truck worth is needed?

V/R Donald Chang P.E.
Chief, Installation Division
DSN 312-225-4712

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

From: McDaniel, Everett K COL USA USFJ J4

Sent: Tuesday, March 15, 2011 12:58 AM

To: USFJ-CAT-J4

Subject: GOJ urgent request for water pumping capacity - follow up 2 (U)

Classification: Unclassified

See below and initiate contacts to develop situation.

From: Basalla, Suzanne I [mailto:BasallaSI@state.gov]

Sent: Tuesday, March 15, 2011 12:23 AM

To: LIA02 Hoc <LIA02.Hoc@nrc.gov>; Mitchell, Derek J SES OSD POLICY (b)(6)

Schiffer, Michael DASD OSD; (b)(6); McDaniel, Everett K COL USA USFJ J4; USFJ-CAT-CHIEF; Wiltse, Jeffrey S COL USA USFJ J5; Crowe, Blake BGen USMC USFJ J01; Field, Burton M Lt Gen USAF USFJ/J00-5 AF/CC; Duncan, Aleshia D <DuncanAD@state.gov>; Cherry, Ronald C <CherryRC@state.gov>; JapanEmbassy, TaskForce <JapanEmbassyTaskForce@state.gov>; Beed, John A <beedja@state.gov>; Berger, William (RDMA/OFDA) <wberger@usaid.gov>; Jaczko, Gregory <Gregory.Jaczko@nrc.gov>; HOO Hoc <HOO.Hoc@nrc.gov>; LIA06 Hoc <LIA06.Hoc@nrc.gov>

Cc: Roos, John AMB AMEMB JAPAN; Zumwalt, James P <ZumwaltJP@state.gov>; Fuller, Matthew G <FullerMG@state.gov>

Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Thank you. We look forward to the list of equipment and additional advice.

SBU

This email is UNCLASSIFIED.

From: (b)(6)
Sent: Tuesday, March 15, 2011 12:16 AM
To: (b)(6)
(b)(6)

Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Hi Suzanne,

I just spoke with the Director of the Reactor Safety Team here at the NRC Incident Response Center. She is aware of the request for equipment and has generated a list of equipment that, as I understand it, will be requested of U.S. military forces for use in Japan. She also notes that the equipment may need to be accompanied by instructions in Japanese and/or personnel knowledgeable of how to operate it. This list has been generated based on our understanding of the status of systems and the core at Units 1, 2 and 3. We believe that TEPCO personnel, who will have the most current knowledge of the condition of the core and emergency systems, will be in the best position to determine where and how the equipment can be used once it arrives. We are looking for technical staff to be available to advise, if needed, on countermeasures that can be considered using this equipment.

Hope this helps,

Rani Franovich

Liaison Team Coordinator

U.S. Nuclear Regulatory Commission

From: (b)(6)
Sent: Monday, March 14, 2011 10:39 AM
To: (b)(6)
(b)(6)

Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G
Subject: GOJ urgent request for water pumping capacity - follow up 1

All,

(Ron/Aleshia, please pass to Jim Trapp. USFJ - please pass to appropriate person at PACOM.)

As an update based on tonight's White House led interagency VTC and other discussions:

-- The WH stated that the President considers it the highest priority to respond quickly and comprehensively to any request from Japan. The Prime Minister's request for truck/s with capacity to pump water at high pressure was specifically discussed.

-- OSD also stated that USFJ has appropriate authority to transfer diesel-driven pumps (in this case, a fire truck) to Japan for use in this nuclear emergency.

-- USFJ/J4 has notified us that they have a fire truck available and they are starting to move it to the affected area. MOFA has not yet responded to their request for a police escort to expedite the transit, but the "pumper" is en route and USFJ will continue to coordinate for a lash up with an escort.

-- In post-VTC discussions, Jim Trapp (NRC liaison on the DART) advised that three diesel-driven pumps should be the target number in responding to this request. USFJ should look for at least two additional diesel-driven pumps to provide to Fukushima site ASAP.

-- NRC also advised that to help Japan provide coolant to the reactor, they need more than diesel-driven pumps. The VTC participants agreed that the U.S. military forces should immediately look for ways to provide the following to the Fukushima site:

- diesel-driven pump
- AC power
- DC power
- nitrogen/air

--For further coordination on what kinds of solutions the U.S. military can offer to the Japanese to address this urgent issue, it will be useful for USFJ/J4 (who is in touch with the TEPCO personnel) to coordinate with the U.S. Army Corps of Engineers and NRC experts.

We appreciate OSD's outreach to find an Army Corps of Engineers POC to share with the group.

The NRC Chairman, Greg Jaczko, can also offer advice. I've copied his team and him on this email. Their watch can be reached via (301) 816-5100.

The USFJ POC is the J4, Colonel Everett McDaniel. Everett can be reached at DSN 315-225-4712/4705/4713. His commercial number is: 011-81-3-1175-54712/54705/54713. His cell number is: (b)(6) If you can't reach him, the USFJ watch is: DSN: 225-4223 and they can track him down.

The Mission Japan Emergency Command Center is copied above and can be reached at 03-3224-5530, commercial 81-3-3224-5530 if any additional coordination is necessary.

Thank you all for your assistance. It's great to hear one pumper is on the way – appreciate everyone's help in trying to find additional support during this urgent window.

Suzanne

Suzanne I. Basalla

Senior Advisor to Ambassador John V. Roos

American Embassy – Tokyo

cid:image001.png@01CB6AB3.DDE8C1A0 <<http://twitter.com/AmbassadorRoos>> Please follow Ambassador Roos on Twitter.com/AmbassadorRoos

Tel: 081-3-3224-5023

Fax: 081-3-3224-5312

BasallaSI@state.gov

SBU

This email is UNCLASSIFIED.

From: [Trapp, James](#)
To: [Robinson, Alexis M. CONTRACTOR CMAT](#)
Subject: RE: Neutron Absorbers - Millenitek
Date: Tuesday, March 15, 2011 7:10:42 AM

Pretty significant core damage in Units 1-3. They have a jury rigged cooling set up at each, putting seawater into the vessel for cooling.

They are having some spent fuel pool cooling issues at U4. They need to add water to the pool.

Thanks - take care.

From: Robinson, Alexis M. CONTRACTOR CMAT (b)(6)
Sent: Tuesday, March 15, 2011 12:17 AM
To: Trapp, James
Subject: RE: Neutron Absorbers - Millenitek

Sir,

Thanks for the mail!! I am running back and forth from the HQ to the DTRA bldg where the email is located. I will be up on USFJ email in a bit. Is there any additional information with respect to the reactor situation?? looking for some ground truth.. thanks again.

alex

From: Trapp, James [<mailto:James.Trapp@nrc.gov>]
Sent: Mon 3/14/2011 4:20 PM
To: Robinson, Alexis M. CONTRACTOR CMAT
Subject: FW: Neutron Absorbers - Millenitek

This might be the list we are working from. Thanks

From: LIA08 Hoc
Sent: Monday, March 14, 2011 6:17 PM
To: Trapp, James
Cc: McGinty, Tim
Subject: FW: Neutron Absorbers - Millenitek

Attached is the equipment list created by the RST per your request.

Milt Murray

US NRC Operations Center

mmm/64

From: LIA06 Hoc
Sent: Monday, March 14, 2011 6:11 PM
To: LIA08 Hoc
Cc: (b)(6)
Subject: FW: Neutron Absorbers - Millenitek

Milt, please respond to Jim. Thanks, Tim

From: james.trapp (b)(6)
Sent: Monday, March 14, 2011 6:10 PM
To: LIA06 Hoc
Subject: Re: Neutron Absorbers - Millenitek

Can you email me the list of potential assets needed at Fukushima put together by the NRC to my nrc email account. Thanks

Sent from my Verizon Wireless BlackBerry

From: LIA06 Hoc <LIA06.Hoc@nrc.gov>
Date: Mon, 14 Mar 2011 17:59:18 -0400
To: james.trapp (b)(6)
Subject: RE: Neutron Absorbers - Millenitek

We do have the same info. This was briefed by the RST to the ET and the Chairman recently. I do not know the "source" (of the information) yet, but I will try to find out. Tim

From: james.trapp (b)(6)
Sent: Monday, March 14, 2011 4:41 PM
To: LIA06 Hoc
Subject: Re: Neutron Absorbers - Millenitek

Need your help - there is an email in RI the says cooling restored to all 3 reactors. Could you confirm the source and do you have the same info - I am having trouble contacting Japanese counterparts. Thanks much!

Sent from my Verizon Wireless BlackBerry

From: LIA06 Hoc <LIA06.Hoc@nrc.gov>
Date: Mon, 14 Mar 2011 16:37:01 -0400

To: james.trapp@ (b)(6)

Cc: LIA02 Hoc<LIA02.Hoc@nrc.gov>; RST01 Hoc<RST01.Hoc@nrc.gov>

Subject: RE: Neutron Absorbers - Millenitek

Jim - Hi, Tim McGinty. LT Director for the next 8 hours.

Regarding your Mark I Containment question, the RST is working it and I checked 10 minutes ago, ... I think we are getting close to a response.

Regarding the Millenitek request, the RST has higher priority action items that they are pursuing. Without a specific request for assistance from Japan in this regard, the RST is hesitant to divert the resources needed to fully evaluate the material and its suitability. I will brief the Executive Team about this request shortly, and let you know if there is anything different. Similarly, please let us know if the Embassy wants us to prioritize this activity. Tim McGinty

From: LIA02 Hoc
Sent: Monday, March 14, 2011 4:08 PM
To: LIA06 Hoc
Subject: FW: Neutron Absorbers - Millenitek
Importance: High

From: james.trapp@ (b)(6)
Sent: Monday, March 14, 2011 3:55 PM
To: LIA02 Hoc
Cc: Ronald C Cherry
Subject: Fw: Neutron Absorbers - Millenitek
Importance: High

Please evaluate and determine if this material may be of assistance. Thank you!

Sent from my Verizon Wireless BlackBerry

From: "Cherry, Ronald C" <CherryRC@state.gov>

Date: Tue, 15 Mar 2011 04:42:43 +0900

To: (b)(6) Duncan, Aleshia<Aleshia.Duncan@nuclear.energy.gov>;
Duncan, Aleshia D<DuncanAD@state.gov>

Subject: FW: Neutron Absorbers - Millenitek

Jim, would something like this help?

This email is UNCLASSIFIED.

From: Hammitt, Brad [mailto:Brad.Hammitt@nnsa.doe.gov]
Sent: Tuesday, March 15, 2011 4:41 AM
To: NITOPS
Cc: Cherry, Ronald C; Daschbach, Michael A; 'Robert.Leach@trade.gov'; 'John.Peters@trade.gov'; 'Greg.Loose@trade.gov'; 'steve.getley@millennitek.com'; 'eric.youngquist@millennitek.com'; 'shart@knoxvillechamber.com'; 'Alain.DeSarran@trade.gov'; Kilmartin, William
Subject: FW: Neutron Absorbers - Millenitek
Importance: High

Below is an offer to donate 20,000 boron carbide neutron absorbers from a company called, "Millennitek." This is being made through the Knoxville U.S. Export Assistance Center.

-Brad

Country Manager

Office of Second Line of Defense
National Nuclear Security Administration
Tel: (202) 586-8396

From: Robert Leach [mailto:Robert.Leach@trade.gov]
Sent: Monday, March 14, 2011 3:24 PM
To: John Peters; Greg Loose; Hammitt, Brad; Cherry, Ron; steve.getley@millennitek.com; eric.youngquist@millennitek.com
Cc: Sam Hart; Alain DeSarran
Subject: Neutron Absorbers - Millenitek
Importance: High

John and Greg, Ron and Brad,

Millennitek, a manufacturer of advanced ceramic materials, initiated contact with me and has asked for

our help to facilitate a donation of 15 barrels of approximately 20,000 Boron Carbide Neutron Absorbers. These absorbers can be dropped into the damaged reactor and will slow down the nuclear reaction to buy time for the Japan government.

Would you help us with this donation? We want to help the Japanese people to be safe from harm.

I've copied the President of Millennitek on this e-mail, Mr. Steve Getley, his co-worker Eric Youngquist and a co-worker of mine Sam Hart of the Knoxville Chamber of Commerce. I've also taken the liberty to address the two gentlemen from DOE whom Greg recently introduced and Alain DeSarran who would be aware of how the crisis has effected your staff in Japan.

Best regards, Rob Leach

Robert Leach, Director

Knoxville U.S. Export Assistance Center

U.S. Commercial Service

U.S. Department of Commerce

17 Market Square, #201

Knoxville, TN 37902-1405

Tel: (865) 545-4637

Fax: (865) 545-4435

www.export.gov

www.buyusa.gov/tennessee

My e-mail address has changed to robert.leach@trade.gov.

From: Nguyen, Quynh
To: Thomas, Eric; Simon, Rebecca; Powell, Amy; Riley, (OGL); Timothy; Browder, Rachel; Erickson, Randy; Tift, Doug; McManis, Nancy; Treloar, Robert; Woodruff, Gail; Butler, Alan; Leonard, David; Maier, Bill
Cc: Stone, Rebecca; Wasef, Barry; Seales, Kerby; Lewis, Eric; Piner, Bruce; Grobe, Jack; Diet, David; Oregan, George; Williams, Donna; Red, Brett; Wittick, Brian; Anderson, James; Rimmer, Eliot; Cowart, Lynette; Burnett, Scott; Hainstock, Holly; Azem, Alous; Gertwold, William; Cusumano, Victor; Hoda, Bader; Mahoney, Michael; Meighan, Sean; Nguyen, Quynh; Boudreau, Jada; Swego, Jeremy; Tins, Brett; Kuhlman, Nicholas; York, Tim; Bahadur, Shari; Black, John; Brown, Frederick; Clark, Michael; Evans, Michael; Galloway, Michael; Geller, Joseph; Grayson, Mary; Hland, Patrick; Indian, Brian; Koss, Allen; Lee, Samuel; Lubinski, John; Lund, James; McSister, Tim; Nelson, Robert; Quay, Theodore; Suland, William; Steen, David
Subject: Launch of FAQ Related to Events Occuring in Japan
Date: Tuesday, March 15, 2011 1:16:02 PM
Importance: High

All,

Per Eric Leeds' request and working closely with NSIR and OPA...

The below SharePoint link is the location of our INTERNAL USE ONLY activities regarding the Japan Events and the effects on their nuclear operations. Again, NO PUBLIC RELEASE of any documents.

Given lessons learned from 9-11, we want to **ensure clear, concise messages in alignment with the Chairman and focus of our safety mission in the United States**. To this end, we established this SharePoint as a centralized location to collect our questions from stakeholders and our draft responses. These draft responses will be vetted by OPA and once approved by OPA – it is OK for use by the staff to answer questions from stakeholders.

As such, please understand that, while we are doing our best to be timely with the most up-to-date information, it is more to important to ensure accurate information is being posted.
<http://portal.nrc.gov/edocinn/NSIR%20IA/FAQ%20Related%20to%20Events%20Occuring%20in%20Japan/Forms/AllItems.aspx>

Note: "Chairman JaczkoQA7_031511" contains parts that are PUBLIC and additional information for NRC staff.

All correspondence to the public should be directed to our Office of Public Affairs (OPA)!

Additionally, if questions arise out of the Region, please let us know. We'll do our best to coordinate the answer and ensure that we get OPA's blessing.

Thank you for all your support during this time and understanding!

POC:
Quynh Nguyen (301) 415-5844; BlackBerry (b)(6)
Sean Meighan (301) 415-1020

mmmm/65

From: LIA04 Hoc
Sent: Tuesday, March 15, 2011 2:27 PM
To: PMTERDS Hoc
Subject: FW: Question from NY Re: Call received from CDC

Prasanta – Please see below – Do you know how best to respond?

From: McNamara, Nancy
Sent: Tuesday, March 15, 2011 2:17 PM
To: LIA04 Hoc; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena
Subject: RE: Question from NY Re: Call received from CDC

That is not the question. They have another agency asking them about their KI supply. A supply that was issued to the States by the NRC (aka Trish Milligan). I think they want to know should the CDC be coming directly to the State? Should the CDC be coordinating this question through the NRC in helping them get the information?

From: LIA04 Hoc
Sent: Tuesday, March 15, 2011 2:11 PM
To: Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena
Subject: RE: Question from NY Re: Call received from CDC
Importance: High

There is **no** plan to issue KI

From: McNamara, Nancy
Sent: Tuesday, March 15, 2011 2:08 PM
To: LIA04 Hoc
Cc: Tifft, Doug
Subject: Question from NY Re: Call received from CDC
Importance: High

Nancy: We got a call from CDC looking for KI inventories. Are you aware of this? What is the game plan on this? Is there one?

They would like a response asap?

From: LIA04 Hoc
Sent: Tuesday, March 15, 2011 1:54 PM
To: lee.cox@ncdenr.gov
Cc: Nguyen, Quynh; Trojanowski, Robert; Piccone, Josephine; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Woodruff, Gena; Flannery, Cindy; Lukes, Kim; Noonan, Amanda; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtill, Richard; Virgilio, Rosetta
Subject: RE: Questions Coming In about the Ongoing Japan Event

Hello, Lee – Our Federal Liaison in the NRC Operations Center provided the following contact info: Department of Homeland Security Transportation Security Administration Senior Watch Officer, National Operations Center -
Telephone 202-282-8100 or email noc.swo@gov.

I hope this helps.

Rosetta Virgilio
State Liaison
NRC Operations Center
301-816-5193
LIA04.HOC@nrc.gov

From: Piccone, Josephine
Sent: Tuesday, March 15, 2011 12:58 PM
To: LIA04 Hoc
Cc: Nguyen, Quynh; Trojanowski, Robert
Subject: FW: Questions Coming In about the Ongoing Japan Event

I fielded a call from NC and he followed up with the e-mail on Qs he is getting from the NC National Guard.

From: Cox, Lee [<mailto:lee.cox@ncdenr.gov>]
Sent: Tuesday, March 15, 2011 12:49 PM
To: Piccone, Josephine; Trojanowski, Robert
Cc: Lewis, Robert; james.pajejr@ic.fbi.gov; Kelly, Mike A.; Pierce, Terry; Kees, Diana; Leonard, Laura; Kritzer, Jamie
Subject: FW: Questions Coming In about the Ongoing Japan Event

Josie and Bob,

As discussed, below are some questions that came from our National Guard, Civil Support Team, Major Cherry. Good questions. Any recommendations or suggestions would be helpful.

Just FYI, we have been paying close attention to our deployed 24/7 rad air monitors around the state. No results yet.

As suggested, it may be a good idea to reach out to all State SLOs and update them with information and any expectations. At this point I will be informing the Governor's staff with updates and ongoing efforts.

I will pass along the NEI.org website as a go to place for information.

Thanks so much.

W. Lee Cox, III, Chief
Radiation Protection Section
DEH/DENR
Office: 919-571-4141 ext. 201
Fax: 919-571-4148
email: lee.cox@ncdenr.gov

Please Note New E-mail Address and New Phone Extension

E-mail correspondence to and from this address may be subject to the North
Carolina Public Records Law and may be disclosed to third parties.

From: Mills, Grant
Sent: Tuesday, March 15, 2011 12:01 PM

To: Cox, Lee
Cc: Albright, James
Subject: Questions Coming In

Lee / James-

I took a call from Maj. Cherry with NGCS (~11:00), he was asking about any state plans being developed or implemented in the following areas

- testing consumer products coming in from Japan (food, -meds, households, ...)
- monitoring travelers & airplanes coming in from Japan (apparently some countries are already monitoring at airports)
- environmental / plume monitoring (base lining)
- website instructions / guidance

I told him I didn't know of anything, but would ask.

Maj. Cherry's contact number (b)(6)

(b)(6)

Thx-

Grant T. Mills, MA, Health Physicist / Security Coordinator
Radioactive Materials Branch / NC Radiation Protection Section
NC Div. of Environ. Health / NC Dept. Environ. and Natural Resources
1645 Mail Service Center
Raleigh, NC 27609-1645
Voice (919) 418-8462
email address - grant.mills@ncdenr.gov
website - www.ncradiation.net

E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Duong, Tamanh O LCDR USN USFJ J4 on behalf of USFJ-CAT-J4
To: USFJ-CAT-J5; USFJ-RCFM-J42; USFJ-JLOC-J43; French, John A LCDR USN; Mario Forte; Trapp, James; CNEJ SDO
Subject: FW: Fire Truck Support
Date: Tuesday, March 15, 2011 9:03:31 AM

FYSA.

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

From: Field, Burton M Lt Gen USAF USFJ/J00-5 AF/CC
Sent: Tuesday, March 15, 2011 9:59 PM
To: McDaniel, Everett K COL USA USFJ J4; Crowe, Blake BGen USMC USFJ J01; Stackpole, Patrick T COL USA USFJ J0; Jerabek, Scott B CAPT USN USFJ J02d; Young, Joseph ChiefPolMil AMEMB JP; Holbrook, Stewart W CAPT USN USFJ J2
Cc: Wiltse, Jeffrey S COL USA USFJ J5; 'j3cat2nd'; USFJ-CAT-J4
Subject: RE: Fire Truck Support

Ev...great work. Really appreciate it
Burt

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

From: McDaniel, Everett K COL USA USFJ J4
Sent: Tuesday, March 15, 2011 10:20 AM
To: Field, Burton M Lt Gen USAF USFJ/J00-5 AF/CC; Crowe, Blake BGen USMC USFJ J01; Stackpole, Patrick T COL USA USFJ J0; Jerabek, Scott B CAPT USN USFJ J02d; Young, Joseph ChiefPolMil AMEMB JP; Holbrook, Stewart W CAPT USN USFJ J2
Cc: Wiltse, Jeffrey S COL USA USFJ J5; 'j3cat2nd'; USFJ-CAT-J4
Subject: Fire Truck Support
Importance: High

Gen'l,

Timeline of Fire Truck movement forward provided below.

We have two fire trucks forward in position.

Fire truck from Yokota arrive 0655 and has transferred to Tokyo Electric Power Company (TEPCO).

Fire truck from Yokosuka arrive 0900 and we are in the process of training and transferring the asset to Tokyo Power.

I have talked directly with Mr. Kido (MOFA), left a voice message with Ms Basalla (USEMB), and Mr. Ugura (TEPCO).

<<...>>

Respectfully,

McDaniel

Everett K. McDaniel

Colonel, US Army

Director, Logistics and Installations

mmmm/67

USFJ

DSN: (325) 225-4713/4705

Commercial from the US: 011-81-31175-54713

DSN Fax: 225-4709

NIPR: (b)(6)

SIPR: (b)(6)

From: LIA03 Hoc
To: Ulises, Anthony; Trapp, James
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1
Date: Tuesday, March 15, 2011 8:31:09 AM

Request from ET – please on your updates put time and date on each update as some are coming in to Ops and questions are being asked regarding time of information. Thanks.
Hope you guys are doing okay.

From: Ulises, Anthony
Sent: Tuesday, March 15, 2011 7:51 AM
To: Basalla, Suzanne I; LIA02 Hoc; Mitchell, Derek J SES OSD POLICY; Schiffer, Michael SES OSD POLICY (b)(6)
(b)(6) Duncan, Aleshia
D; Cherry, Ronald C; JapanEmbassy, TaskForce; Beed, John A; Berger, William (RDMA/OFDA); Jaczko, Gregory; HOO Hoc; LIA06 Hoc
Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G; rmtpactsu_elnrc@ofda.gov; LIA03 Hoc; LIA02 Hoc
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

COL McDaniel/Team USFJ,

Please see the enclosed information. Please advise how best to proceed.

Thank you,

Tony Ulises

Jim and Tony,

Alex Robinson of the DTRA Military Command Center (in Japan) called and said that he has a representative with him from the Japanese military civil defense unit (Ichikawa). They have "4 pumps coming" and want to know if this would "solve the problem." Alex Robinson has a contact with Tepco at the reactor site and could try to make this happen, if you believe it would help.

Please call him—he is having trouble reaching you. Alex's number is dsn 315-225-4223.

Thank you.

From: Basalla, Suzanne I [BasallaSI@state.gov]
Sent: Tuesday, March 15, 2011 6:59 AM
To: Basalla, Suzanne I; LIA02 Hoc; Mitchell, Derek J SES OSD POLICY; Schiffer, Michael SES OSD POLICY (b)(6)
(b)(6) Duncan, Aleshia
D; Cherry, Ronald C; JapanEmbassy, TaskForce; Beed, John A; Berger, William (RDMA/OFDA); Jaczko, Gregory; HOO Hoc; LIA06 Hoc; Ulises, Anthony
Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

COL McDaniel/Team USFJ – Tony Ulises, our NRC Liaison, has a lead on a very promising equipment to help solve this problem. He'll shortly forward you the information. Hope this can be of use.
Thanks for the continued support.

mmmm/68

Suzanne

SBU

This email is UNCLASSIFIED.

From: Basalla, Suzanne I

Sent: Tuesday, March 15, 2011 12:24 AM

To: 'LIA02 Hoc'; Mitchell, Derek J SES OSD POLICY; Schiffer, Michael SES OSD POLICY;

(b)(6)

Crowe, William B BGen USMC USFJ J01; (b)(6) Duncan, Aleshia D; Cherry, Ronald C; JapanEmbassy, TaskForce; Beed, John A; Berger, William (RDMA/OFDA); Jaczko, Gregory; HOO Hoc; LIA06 Hoc

Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G

Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Thank you. We look forward to the list of equipment and additional advice.

SBU

This email is UNCLASSIFIED.

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]

Sent: Tuesday, March 15, 2011 12:16 AM

To: Basalla, Suzanne I; Mitchell, Derek J SES OSD POLICY; Schiffer, Michael SES OSD POLICY;

(b)(6)

Crowe, William B BGen USMC USFJ J01; (b)(6) Duncan, Aleshia D; Cherry, Ronald C; JapanEmbassy, TaskForce; Beed, John A; Berger, William (RDMA/OFDA); Jaczko, Gregory; HOO Hoc; LIA06 Hoc

Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G

Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Hi Suzanne,

I just spoke with the Director of the Reactor Safety Team here at the NRC Incident Response Center. She is aware of the request for equipment and has generated a list of equipment that, as I understand it, will be requested of U.S. military forces for use in Japan. She also notes that the equipment may need to be accompanied by instructions in Japanese and/or personnel knowledgeable of how to operate it. This list has been generated based on our understanding of the status of systems and the core at Units 1, 2 and 3. We believe that TEPCO personnel, who will have the most current knowledge of the condition of the core and emergency systems, will be in the best position to determine where and how the equipment can be used once it arrives. We are looking for technical staff to be available to advise, if needed, on countermeasures that can be considered using this equipment.

Hope this helps,

Rani Franovich

Liaison Team Coordinator

U.S. Nuclear Regulatory Commission

From: Bock, Yoni
To: Streitz, Nicholas A Capt USAF PACAF 5 AF/A2; Sink, Amy (BFS) [USAID]; Myers, David M Capt USAF PACAF 5 AF/A2/A6
Cc: Hughart, Joseph (FOH); Trapp, James; Ulses, Anthony; DARTNRCLiaison1; ofdaPACOM; Brown, Courtney; Brown, Courtney (RDMA/OFDA) [USAID]
Subject: RE: Arrival of DOE - latest info
Date: Tuesday, March 15, 2011 6:53:59 PM

Nick, Dave,

There was no email yesterday regarding whether the DOE person was picked up and made it to the hotel (b)(6). Can you please confirm?

Thanks!
Yoni

~~~~~  
Mr. Yonahon Bock  
Military Liaison Officer / Civ-Mil Coordinator  
Japan Earthquake/Tsunami DART  
Email: ybock@usaid.gov  
Blackberry: (b)(6)

~  
DNS at USFJ: 225-4329, 3137, 2469

From US (or non DSN) (011 81) 425 522-511  
From Japan (non DSN) 0425 522-511  
after dial tone, ext 54329, 52469, 53137

Current Location: Yokota AB, Tokyo, Japan  
~~~~~

From: Streitz, Nicholas A Capt USAF PACAF 5 AF/A2 [mailto:(b)(6)]
Sent: Tue 3/15/2011 8:49 AM
To: Bock, Yoni; Sink, Amy (BFS) [USAID]; Myers, David M Capt USAF PACAF 5 AF/A2/A6
Cc: Hughart, Joseph (FOH); Trapp, James; Ulses, Anthony; DARTNRCLiaison1; ofdaPACOM; Brown, Courtney; Brown, Courtney (RDMA/OFDA) [USAID]
Subject: RE: Arrival of DOE - latest info

Capt Dave Myers is the night rep who will be working the arrival of the DOE team. I have relayed the past 13 hours of data worked to get the DOE team in here and situated, hopefully to their liking/requirements.

I can only hope I helped out this process in some way...

Thanks,
Nick

Nicholas A. Streitz, Capt, USAF
Chief, Bilateral Plans and Operations
Fifth Air Force A2
DSN: (315) 223-6163

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

mmmm/69

From: Bock, Yoni [mailto:ybock@ofda.gov]
Sent: Tuesday, March 15, 2011 6:54 PM
To: Sink, Amy (BFS) [USAID]; Streitz, Nicholas A Capt USAF PACAF 5 AF/A2
Cc: Hughart, Joseph (FOH); Trapp, James; Ulses, Anthony;
DARTNRCLiaison1; ofdaPACOM; Brown, Courtney; Brown, Courtney (RDMA/OFDA)
[USAID]
Subject: Arrival of DOE - latest info

Amy/Nick,

Latest info on the arrival of the DOE team is 0145 (1:45AM).

Amy -> Nick has arranged for the person (name TBD) to be transported
upon arrival to Tokyo and to the Hotel (b)(6)

Nick -> Please have the person covering for you email the individuals
above to report that the person has been picked up and is en route to
Tokyo.

Much thanks!
Yoni

~~~~~  
Mr. Yonahton Bock  
Military Liaison Officer / Civ-Mil Coordinator  
Japan Earthquake/Tsunami DART  
Email: ybock@usaid.gov  
Blackberry: (b)(6)

DNS at USFJ: 225-4329, 311, 2469

Calling Yokota from non DSN: (0) 425 522-511,  
ext 54329, 52469, 53137

Current Location: Yokota AB, Tokyo, Japan  
~~~~~

From: Leeds, Eric
To: Nguyen, Quynh
Cc: Grobe, Jack
Subject: RE: Thanks for going to Japan! We've got your back!
Date: Tuesday, March 15, 2011 12:57:00 PM

OUTstanding Quynh!

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

From: Nguyen, Quynh
Sent: Tuesday, March 15, 2011 9:45 AM
To: Ulses, Anthony; Nakanishi, Tony; Kolb, Timothy
Cc: Leeds, Eric; Boger, Bruce; Grobe, Jack; Givvines, Mary; Meighan, Sean; Dorsey, Cynthia; Ruland, William
Subject: Thanks for going to Japan! We've got your back!
Importance: High

Gentlemen,

Thank you for serving your country by helping our friends in Japan! Hope you all arrived safely!

Please continue to work with your POC; however, I am here to help work things on your behalf so feel free to keep me in the loop if you need further assistance. If your colleagues from other Offices, need help, I will do my best to help them as well.

Just for Ulses:

(b)(6)

Tim and Tony N., if you need similar support, let us know!

Thanks,
Quynh

(b)(6)

(Blackberry)

mmmm/20

Weaver, Tonna

From: Cote, Benjamin F LCDR USN USFJ J52 (b)(6) on behalf of USFJ-CAT-J5
Sent: Tuesday, March 15, 2011 3:28 AM
To: Warren, Benjamin D Capt USAF PACAF 35 CONS/CD; ybock@ofda.gov
Cc: DART_PACTSU@ofda.gov; Tbetz@ofda.gov; USFJ-CAT-J3; USFJ-CAT-J4; USFJ-CAT-J5; Barnhart, Richard D Maj USAF PACAF 35 CONS/CC; Geller, Christina L Capt USAF PACAF 35 CPTS/FMA; Francis, Austin W 2dLt USAF PACAF 35 CONS/LGCB; USFJ-CAT-J5
Subject: RE: Validation of emergency procurement (4-ton fork-lift)

Sir,

Received following from USAID Rep, Mr. Yoni Bock about validation of the request:

Please consider this validated. Will MITAM today.

Vr
Yoni

~~~~~  
Mr. Yonahton Bock  
Military Liaison Officer/ Civ-Mil Coordinator Japan Earthquake/Tsunami DART  
Email: ybock@usaid.gov  
Blackberry: (b)(6)

Current Location: Yokota AB, Tokyo, Japan

-----  
V/r,

Benjamin Cote, LCDR, USN  
Bilateral Plans Officer (J-52)  
United States Forces Japan  
DSN: 225-6914  
[Benjamin.Cote@usfj.mil](mailto:Benjamin.Cote@usfj.mil)

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

**From:** Warren, Benjamin D Capt USAF PACAF 35 CONS/CD  
**mailto:** (b)(6)  
**Sent:** Tuesday, March 15, 2011 4:06 PM  
**To:** ybock@ofda.gov  
**Cc:** DART\_PACTSU@ofda.gov; Tbetz@ofda.gov; USFJ-CAT-J3; USFJ-CAT-J4; USFJ-CAT-J5; Barnhart, Richard D Maj USAF PACAF 35 CONS/CC; Geller, Christina L Capt USAF PACAF 35 CPTS/FMA; Francis, Austin W 2dLt USAF PACAF 35 CONS/LGCB  
**Subject:** Validation of emergency procurement (4-ton fork-lift)  
**Importance:** High

35 contracting squadron received an additional USAID requirement as follows:  
4-ton (diesel) folk-lift to be delivered at USAID/DART Base of Operation.

Request validation from USAID/DART representative.

Capt Geller,

Please work coordination w/ 35 FW/CC and EOC Director.

Thanks,

Capt Warren

**From:** Burnell, Scott  
**To:** Ruland, William  
**Cc:** Brenner, Eliot  
**Subject:** FW: Checking in  
**Date:** Tuesday, March 15, 2011 2:16:36 PM

---

Bill;

Where are you and when are you available? Thanks.

Scott

---

**From:** Brenner, Eliot  
**Sent:** Tuesday, March 15, 2011 2:16 PM  
**To:** McIntyre, David; Burnell, Scott  
**Subject:** Fw: Checking in

Bill ruland said he could talk briefly.  
Eliot Brenner  
Director, Office of Public Affairs  
US Nuclear Regulatory Commission  
Protecting People and the Environment  
301 415 8200  
(b)(6)  
Sent from my Blackberry

---

**From:** Xie, Yanmei <yanmei\_xie@platts.com>  
**To:** Brenner, Eliot; Burnell, Scott  
**Sent:** Tue Mar 15 14:06:23 2011  
**Subject:** Checking in

Hey, Eliot and Scott,

I understand that you guys are super swamped, and I do feel bad for bugging you.

Steve Dolley here said he has contacted you about us talking with a BWR expert at NRC. I'm assigned to write the story, so want to check with you about the status of that inquiry. My deadline is 5pm, but as you can imagine, I do need time to digest and write this very technical story, so if you could respond as soon as possible, I'll appreciate it greatly!

I have very specific technical questions. I was told: The Nuclear Regulatory Commission has analyzed the Mark I containment design in great detail. The NRC analysis found that the BWR Mark I risk was dominated by two scenarios: station blackout and anticipated transient without scram. The NRC subsequently promulgated regulations for both of these sequences as well as other actions to reduce the probability.

So I want to know exactly what the NRC analysis found and what regulations NRC installed to mitigate the risk as a result of the analysis. I will be in a meeting in the

mmmm/72



next half an hour or so, so could you call me at my cell phone (b)(6) during that period?

Thank you so much!

**Yanmei Xie**  
Associate Editor  
Platts Nuclear Publications  
Office: (202) 383-2161  
Mobile: (b)(6)  
[www.platts.com](http://www.platts.com)

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**From:** Burnell, Scott  
**To:** Ruland, William  
**Cc:** Brenner, Eliot; McIntyre, David  
**Subject:** FW: Checking in  
**Date:** Tuesday, March 15, 2011 3:02:11 PM

---

Bill;

Your number's busy, are you in your office? Thanks.

Scott

**From:** Brenner, Eliot  
**Sent:** Tuesday, March 15, 2011 2:16 PM  
**To:** McIntyre, David; Burnell, Scott  
**Subject:** Fw: Checking in

Bill ruland said he could talk briefly.  
Eliot Brenner  
Director, Office of Public Affairs  
US Nuclear Regulatory Commission  
Protecting People and the Environment  
301 415 8200  
C(b)(6)  
Sent from my Blackberry

**From:** Xie, Yanmei <yanmei\_xie@platts.com>  
**To:** Brenner, Eliot; Burnell, Scott  
**Sent:** Tue Mar 15 14:06:23 2011  
**Subject:** Checking in

Hey, Eliot and Scott,

I understand that you guys are super swamped, and I do feel bad for bugging you.

Steve Dolley here said he has contacted you about us talking with a BWR expert at NRC. I'm assigned to write the story, so want to check with you about the status of that inquiry. My deadline is 5pm, but as you can imagine, I do need time to digest and write this very technical story, so if you could respond as soon as possible, I'll appreciate it greatly!

I have very specific technical questions. I was told: The Nuclear Regulatory Commission has analyzed the Mark I containment design in great detail. The NRC analysis found that the BWR Mark I risk was dominated by two scenarios: station blackout and anticipated transient without scram. The NRC subsequently promulgated regulations for both of these sequences as well as other actions to reduce the probability.

So I want to know exactly what the NRC analysis found and what regulations NRC installed to mitigate the risk as a result of the analysis. I will be in a meeting in the

mmmm/13

next half an hour or so, so could you call me at my cell phone (b)(6) during that period?

Thank you so much!

**Yanmei Xie**  
Associate Editor  
Platts Nuclear Publications  
Office: (202) 383-2161  
Mobile: (b)(6)  
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**From:** Kammerer, Annie  
**To:** Case, Michael  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link  
**Date:** Tuesday, March 15, 2011 11:06:22 AM

---

Mike,

Also, don't be shy about calling if you need anything...others are calling well into the night, so it's not a big deal. (b)(6)

Annie

**From:** Karas, Rebecca  
**Sent:** Tuesday, March 15, 2011 10:37 AM  
**To:** Case, Michael  
**Cc:** Devlin, Stephanie; Munson, Clifford; Chokshi, Nilesh; Kammerer, Annie  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

If needed, we could actually give you one. In general, so you know, the GIS people we have supporting (Yong Li, Stephanie Devlin, and Dogan Seber) are also seismologists, although they haven't been working with the Q&A document. They are on the PMT. Stephanie is on backshift, so she could help with any questions, or Cliff, Annie or Nilesh could be called through the operator, depending on the complexity of the question and whether there is already an established Q&A that Stephanie could refer to. Cliff/Annie, suggest you include Stephanie on emails of the file in case Mike needs her to help with anything on backshift.

Rebecca Karas, Chief  
Geosciences and Geotechnical Engineering Branch 1  
Division of Site and Environmental Reviews  
Office of New Reactors  
U.S. Nuclear Regulatory Commission  
Phone: 301-415-7533  
Fax: 301-415-5397

**From:** Case, Michael  
**Sent:** Tuesday, March 15, 2011 10:31 AM  
**To:** Karas, Rebecca  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

Thanks. Nobody helps me on the back shift (but then again, there aren't many folks around asking questions)

**From:** Karas, Rebecca  
**Sent:** Tuesday, March 15, 2011 10:29 AM  
**To:** Case, Michael  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

We actually have people embedded with the RST now on day and afternoons working on the Q&As and providing more direct access for OPA and the ET. Cliff is covering days,

mmmm/74

and Annie afternoons (except that Nilesch will cover Thursday days). This has all been coordinated through the ops center scheduler now.

Rebecca Karas, Chief  
Geosciences and Geotechnical Engineering Branch 1  
Division of Site and Environmental Reviews  
Office of New Reactors  
U.S. Nuclear Regulatory Commission  
Phone: 301-415-7533  
Fax: 301-415-5397

**From:** Case, Michael  
**Sent:** Tuesday, March 15, 2011 10:28 AM  
**To:** Karas, Rebecca  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

Thanks Becky. I don't know of any more short term requests from the Ops Center, but we'll keep those folks in mind.

**From:** Karas, Rebecca  
**Sent:** Monday, March 14, 2011 11:23 PM  
**To:** Ross-Lee, MaryJane; Kammerer, Annie; Brown, Frederick; Glitter, Joseph; Howe, Allen; Hiland, Patrick; Skeen, David; Case, Michael; Ruland, William; Dudes, Laura  
**Cc:** McDermott, Brian; Hasselberg, Rick; Chokshi, Nilesch; Munson, Clifford; Seber, Dogan; Li, Yong; Cook, Christopher  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

Our people are plugged into Annie, so we are communicating, but we have many more resources. Nilesch Chokshi and Cliff Munson are here on day shift, and can provide tsunami and seismic expertise, and access to all of our staff. Our GIS people we are currently staffing the ops center with (Dogan Seber and Yong Li) also have seismology expertise. We have a geologist coming for GIS operation on afternoon shift. Someone also asked today about volcanologists. We have people with some of that experience as well who are normally on day shift. Suggest coordinating directly with Nilesch and Cliff on day shift, and me on evenings for any call-outs or emergent support.

We have tsunami material from previous briefings. Cliff emailed them to a large cast earlier today, and we can put together something specific for what is needed. From the earlier email below that says:

I take it we would define & describe the tsunami phenomena, then address which nuclear stations in the U.S. are located in areas subject to tsunami waves, and describe what we can regarding the design of plants to withstand tsunami impacts?

Is this what is needed?

**From:** Ross-Lee, MaryJane  
**Sent:** Monday, March 14, 2011 7:45 PM  
**To:** Kammerer, Annie; Brown, Frederick; Glitter, Joseph; Howe, Allen; Hiland, Patrick; Skeen, David; Case, Michael; Ruland, William; Dudes, Laura; Karas, Rebecca

**Cc:** McDermott, Brian; Hasselberg, Rick  
**Subject:** Re: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

There are a number of resources in NRO that could help. Becky Karas is poc.

Sent from my blackberry

MJ (b)(6)

---

**From:** Kammerer, Annie  
**To:** Brown, Frederick; Glitter, Joseph; Howe, Allen; Hiland, Patrick; Skeen, David; Case, Michael; Ruland, William; Dudes, Laura  
**Cc:** McDermott, Brian; Ross-Lee, MaryJane; Hasselberg, Rick  
**Sent:** Mon Mar 14 12:45:21 2011  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

I have a fair amount of info on tsunami. I don't recall ever seeing a tsunami fact sheet, but could be wrong.

My suggestion, if we don't have one, is to get Henry Jones and Goutam Bagchi working on one. I lead the RES work, but can't really dig into this until tomorrow. Goutam and Henry are the two people in NRO who I work most closely with on this topic. They could give us an excellent start. Should I ask them?

BTW, there is a good (and only slightly out of date) summarization of our regulatory approach and regulatory research in an appendix on US practice that I wrote for an IAEA guide on flooding (DS417). Also, Goutam, Henry and I wrote a paper for an IAEA workshop last year.

Annie

**From:** Brown, Frederick  
**Sent:** Monday, March 14, 2011 7:13 AM  
**To:** Glitter, Joseph; Howe, Allen; Hiland, Patrick; Skeen, David; Case, Michael; Ruland, William; Dudes, Laura  
**Cc:** McDermott, Brian; Ross-Lee, MaryJane; Kammerer, Annie; Hasselberg, Rick  
**Subject:** FW: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

FYI

**From:** King, Mark  
**Sent:** Monday, March 14, 2011 7:08 AM  
**To:** Thorp, John; Boger, Bruce  
**Cc:** Brown, Frederick; Thomas, Eric  
**Subject:** RE: (Action) Tsunami Fact Sheet - NUREG issued in March 2009 Link

We had a NUREG issued on this subject back in March 2009.

**TSUNAMI HAZARD ASSESSMENT AT NUCLEAR POWER PLANT SITES IN THE UNITED STATES OF AMERICA**

Click link to view: [\[NUREG/CR-6966\]](#)

<http://pbadupws.nrc.gov/docs/ML0915/ML091590193.pdf>

**From:** Thorp, John  
**Sent:** Monday, March 14, 2011 6:57 AM  
**To:** Boger, Bruce  
**Cc:** Brown, Frederick; King, Mark; Thomas, Eric  
**Subject:** RE: (Action) Tsunami Fact Sheet

We'll look for it; If we don't find it quickly, we'll start producing one. (Mark King, please start looking)

I take it we would define & describe the tsunami phenomena, then address which nuclear stations in the U.S. are located in areas subject to tsunami waves, and describe what we can regarding the design of plants to withstand tsunami impacts?

Thanks,

John

**From:** Boger, Bruce  
**Sent:** Monday, March 14, 2011 6:48 AM  
**To:** Thorp, John  
**Cc:** Brown, Frederick  
**Subject:** Tsunami Fact Sheet

I seem to recall that OpE developed a tsunami fact sheet? Should we dust it off?

## Imboden, Andy

---

**From:** Imboden, Andy  
**Sent:** Tuesday, March 15, 2011 7:33 PM  
**To:** 'George.C.Bacuta@usace.army.mil'; Rosenberg, Stacey  
**Subject:** Re: Japan Request from USACE (via USAID)

Hi George-

NRC is directing all questions like yours to the Operations Center, to avoid confusion/inconsistency. I don't know who exactly from NRC have gone over to Japan, but its more than 10 people.

Sorry I can't help more than that,

Andy

Sent from NRC Blackberry

Andy Imboden

(b)(6)

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

**From:** Bacuta, George C Jr MVN (b)(6)  
**To:** Rosenberg, Stacey; Imboden, Andy  
**Sent:** Tue Mar 15 11:22:12 2011  
**Subject:** Japan Request from USACE (via USAID)

Hi Stacey / Andy: USACE might want to deploy me to Japan on account of my being a geologist (earthquake, faulting, subduction zone tectonics, tsunami and volcanic), NRC-power plants/site (Bellefonte, Diablo Canyon and Hanford) and USACE-Katrina/Rita/Hugo experiences. Is it safe over there (re-LOCA), heard a possibility of rupture in the reactor vessel of one unit due to the recent (3rd) explosion. I still have to confer with my wife. Who in NRC went (Tony Nakamichi?)?

George

mmmm/15



## Valentine, Nicholee

---

**From:** McGinty, Tim  
**Sent:** Tuesday, March 15, 2011 8:36 PM  
**To:** OST02 HOC; Thaggard, Mark; Blount, Tom; Tschiltz, Michael  
**Cc:** Evans, Michele; Jones, Cynthia; Giitter, Joseph; Lombard, Mark; Temple, Jeffrey  
**Subject:** Re: Staffing Ops Center 24/7

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

As we continue to ponder: Joe Giitter and Cyndi Jones both expressed a willingness to help. Jeff - can we "deputize" them, perhaps after a brief shadowing assignment and discussion with you?

Also, if we can add more folks it will make 8 hour shifts possible. If Jeff thinks this is possible, let's work together and recruit a couple more folks. Tim

Sent from my NRC blackberry  
Tim McGinty

(b)(6)

---

**From:** OST02 HOC  
**To:** Thaggard, Mark; Blount, Tom; McGinty, Tim; Tschiltz, Michael  
**Cc:** Evans, Michele  
**Sent:** Tue Mar 15 18:28:09 2011  
**Subject:** Staffing Ops Center 24/7

### Liaison Team Directors:

Per EDO direction we plan to staff the Ops Center 24/7 while we have staff dispatched in Japan. And we are currently planning to identify a second team to send to Japan in about 2 weeks, with the idea that they may stay there for an additional two weeks. That would take us out to April 10 or so.

Staffing in the IRC will remain at the current levels for potentially another week. Possibly we will be able to scale back somewhat at that point. The intent is to develop a schedule through April 10 at this point. The immediate focus is to staff for the first week, starting Saturday March 19.

We'd like to have a little more consistency in the staffing of most positions. So we'd like to staff the Liaison Team Director in 4 day blocks, three shifts each day, starting March 19.

Tim McGinty has offered to take the lead to coordinate among the potential Liaison Team Directors to fill the schedule. Please work with him and provide at least the schedule for the first four day block by COB Wednesday March 16.

Michele

mmm/76

## **Murphy, Andrew**

---

**From:** Case, Michael  
**Sent:** Tuesday, March 15, 2011 10:24 AM  
**To:** Murphy, Andrew  
**Subject:** FW: latest version of Q&As  
**Attachments:** Seismic Questions for incident response center 3-15-11 3am.pdf

Dr. A, can you do some comments for me? Tks.

---

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

All,

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

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

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

Annie

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

(b)(6) mobile  
(b)(6) BB

## Murphy, Andrew

---

**From:** Skeen, David  
**Sent:** Tuesday, March 15, 2011 6:18 AM  
**To:** Kammerer, Annie  
**Cc:** Howe, Allen; Nelson, Robert; Hiland, Patrick; Stutzke, Martin; Gitter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Chokshi, Niles; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Gitter, Joseph; Howe, Allen; Case, Michael; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Munson, Clifford; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Murphy, Andrew; Pires, Jose; Hogan, Rosemary; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael  
**Subject:** RE: latest version of Q&As

Annie,

Thank you for this comprehensive report. It is clear that you, Jon Ake, and Cliff Munson, have made substantial effort to create a document that will be the basis for much of the NRC's communications on seismic and tsunami risk over the coming days. What's more, you pulled this together in a very short time, since you only began working on it on Saturday, when I asked you to come to the Incident Response Center to assist the Reactor Safety Team shortly after the tragic events in Japan occurred. It is folks like you, Jon, and Cliff that make the NRC the outstanding organization that it is.

I would ask that if anyone has comments, to please route them through you, so that you maintain control of the document for the time being. Please let us know when you make revisions to the document.

---

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

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

mmmm/78

Washington DC 20555

|        |        |
|--------|--------|
| (b)(6) | mobile |
| (b)(6) | BB     |

**From:** Monninger, John  
**To:** Ruland, William; RST01 Hoc  
**Subject:** Fw: Reconfirmation on Pumping Matter  
**Date:** Wednesday, March 16, 2011 6:48:59 PM

---

See below. We need to work on coordinating all the equipment.

John Monninger

(b)(6)

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

From: Trapp, James  
To: Monninger, John; Casto, Chuck  
Sent: Wed Mar 16 18:43:31 2011  
Subject: Fw: Reconfirmation on Pumping Matter

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

From: Duong, Tamanh Q LCDR USN USFJ J4 (b)(6)  
To: j3cat2nd <j3cat2nd@jso.mod.go.jp>; Trapp, James  
Sent: Wed Mar 16 11:02:38 2011  
Subject: FW: Reconfirmation on Pumping Matter

fysa

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

From: Duong, Tamanh Q LCDR USN USFJ J4 On Behalf Of USFJ-CAT-J4  
Sent: Wednesday, March 16, 2011 11:54 PM  
To: 'NAGANO YUTO'; USFJ-CAT-J5; USFJ-CAT-CHIEF; USFJ-CAT-J4; USFJ-CAT-AIR; Status of U.S. Forces Agreement Division; WADA ATSURO; OYAGI SAYO; IYOTA MITSUHIKO; TAKAHASHI JUN; NAGANO MASAMITSU; TAKAZAWA YOSHINORI; McDaniel, Everett K COL USA USFJ J4  
Cc: Corbett, Eric M Capt USMC USFJ J01A; Tribble, Rod W CDR USN USFJ J4; USFJ-RCEM-J42; USFJ-JLOC-J43; USFJ-CAT-J5; USFJ-CAT-CHIEF  
Subject: RE: Reconfirmation on Pumping Matter

Nagano-San:

Yokosuka pumps: The two pumps received from Yokosuka this morning has been returned to Yokosuka because TEPCO engineer did not want it after inspecting the pumps. They are no longer at Yokota AB.

CFA Sasebo pumps: A total of five pumps delivered to Yokota AB from CFA Sasebo around 2250 hrs. Offloading as we speak. Also coordinating for pick up from JGSDF and training of TEPCO engineers around 0200 hrs on 17 Mar.

Thanks!

V/R

Tamanh

Tamanh Q. Duong, P.E., MBA  
USFJ-CAT-J4 Watch Officer (0700-1900)  
Operation Tomadachi  
DSN: (315) 225-4110, FAX: x6743  
Commercial (CONUS) 011-81-3117-55-4110  
Commercial (JAPAN) 03117-55-4110  
NIPR: (b)(6)  
SIPR: (b)(6)

*mmmm/79*

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

From: NAGANO YUTO [mailto:yuto.nagano@mofa.go.jp]

Sent: Wednesday, March 16, 2011 11:42 PM

To: USFJ-CAT-J5; USFJ-CAT-CHIEF; USFJ-CAT-J4; USFJ-CAT-AIR; Status of U.S. Forces Agreement Division; WADA ATSURO; OYAGI SAYO; IYOTA MITSUHIKO; TAKAHASHI JUN; NAGANO MASAMITSU; TAKAZAWA YOSHINORI

Subject: Reconfirmation on Pumping Matter

For the clarification on the pumping matter;

1. 2 Pumps in Yokota

- (1) These pumps come from Yokosuka, and right now in the Yokota.
- (2) And, these pumps have been already checked by TEPCO.

2. 4 Pumps from Kyushu

- (1) These pumps has just been arrived in YAB at 2250hours.
- (2) Specification of these pumps has been given by J5.

3. 1 Pump located in Yokota

- (1) This pump can produce bigger power than above 2.
- (2) though do not know anything about this, we heard so.

Is this all clear?

Yuto@MOFA

#####  
野 人:Yuto NAGANO (Mr.)

外務省北米局日米 位 定室

Status of U.S. Forces Agreement Division,  
North American Affairs Bureau,  
Ministry of Foreign Affairs.

Tel: (+81)-(0)3-5501-8000 (Ex: 5364)

Fax: (+81)-(0)3-5501-8281

Email: yuto.nagano@mofa.go.jp

#####

**From:** Ruland, William  
**To:** "lia1hoc@nrc.gov"  
**Subject:** Fw: Notification of pumps at Yokota  
**Date:** Wednesday, March 16, 2011 11:40:10 PM

---

Bill Ruland, from  
USNRC Blackberry

---

**From:** Monninger, John  
**To:** Ruland, William; Bloom, Steven; RST01 Hoc; Kolb, Timothy  
**Sent:** Wed Mar 16 22:09:25 2011  
**Subject:** Fw: Notification of pumps at Yokota

See below on equipment at US AFB in Japan.

John Monninger  
(b)(6)

---

**From:** Duncan, Aleshia D <DuncanAD@state.gov>  
**To:** Monninger, John  
**Sent:** Wed Mar 16 21:18:20 2011  
**Subject:** FW: Notification of pumps at Yokota

John,

My apologies. I sent this and didn't spell your email address correctly.

Aleshia

This email is UNCLASSIFIED.

**From:** Duncan, Aleshia D  
**Sent:** Thursday, March 17, 2011 10:14 AM  
**To:** JapanEmbassy, TaskForce  
**Cc:** Cherry, Ronald C; Tong, Kurt W; Duncan, Aleshia; 'John.Monninger@nrc.gov'; Basalla, Suzanne I; Fuller, Matthew G; Zumwalt, James P; 'jmt1@nrc.gov'; 'anthony.uls@nrc.gov'  
**Subject:** Notification of pumps at Yokota

This email requires no action. It provides a communal record of the existence of a set of assets below which are at Yokota Air Force Base available for delivery to support Japanese nuclear relief efforts.

This list was provided by John Monninger, NRC.

4 submersible pumps (1800gpm, 6")  
1 500qpm diesel driven pump@150psi  
Contact: Commander L. Glosby [leslie.glosby@navy.mil](mailto:leslie.glosby@navy.mil)

*mmmm/80*

**From:** Monninger, John  
**To:** Ruland, William; BST01 Hoc  
**Subject:** Fw: New question  
**Date:** Wednesday, March 16, 2011 6:54:45 PM

---

See below on equipment. They also mentioned needing installers and operators.

John Monninger

(b)(6)

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

From: Doane, Margaret  
To: Casto, Chuck; Monninger, John  
Cc: Foggie, Kirk; Mamish, Nader  
Sent: Wed Mar 16 13:45:17 2011  
Subject: Re: New question

FYI-NRC went ahead and passed on to US industry a request for installers and operators, assuming that they can't use equip. without this additional assistance. Not sure if there will be any help.  
Mergie

Sent from an NRC Blackberry  
Margaret Doane

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

From: Doane, Margaret  
To: Casto, Chuck; Monninger, John  
Cc: Foggie, Kirk  
Sent: Wed Mar 16 12:07:47 2011  
Subject: New question

Can you help us understand another request. We've been asked for installers and operators from the US in addition to the equipment. If we do not agree to give the installers and operators for obvious health concerns, is the equipment of any use to them? Maybe looking at it another way, is this equip. installation and operation universal, or so different from Jap. equip, that they can't know what to do with it.  
Mergie

Sent from an NRC Blackberry  
Margaret Doane

mmmm/81



**From:** Monninger, John  
**To:** Ruland, William; RST01 Hoc  
**Subject:** Fw: Additional Equipment Needs for Fukushima  
**Date:** Wednesday, March 16, 2011 6:35:56 PM

---

Bill

See below on the equipment.

John Monninger  
(b)(6)

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

**From:** Duong, Tamanh Q LCDR USN USFJ J4 (b)(6)  
**To:** Williams, Joseph  
**Cc:** RST01 Hoc; Casto, Chuck; Monninger, John; Corbett, Eric M Capt USMC USFJ J01A

(b)(6)

Sent: Wed Mar 16 12:29:46 2011  
Subject: RE: Additional Equipment Needs for Fukushima

Mr. Williams

Copied. Any other technical details you can provide to the list below would be greatly appreciative. It would help to prime the TEPCO engineers and MOFA, in case they ask.

Thanks!

V/R

Tamanh

---

Tamanh Q. Duong, P.E., MBA  
USFJ-CAT-J4 Watch Officer (0700-1900)  
Operation Tomadachi  
DSN: (315) 225-4110/4105, FAX: x6743  
Commercial (CONUS) 011-81-3117-55-4110/4105  
Commercial (JAPAN) 03117-55-4110/4105  
NIPR: (b)(6)  
SIPR: (b)(6)

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

**From:** Williams, Joseph [<mailto:Joseph.Williams@nrc.gov>]  
**Sent:** Thursday, March 17, 2011 1:15 AM  
**To:** Duong, Tamanh Q LCDR USN USFJ J4  
**Cc:** RST01 Hoc; Casto, Chuck; Monninger, John  
**Subject:** Additional Equipment Needs for Fukushima  
**Importance:** High

Attached is the sketch of the pump and piping configuration discussed with you in our conference call a short time ago.

mmmm/82

The equipment needed is summarized as follows:

Requested 4 trains of mobile pumps including the following

- 4 each Diesel Sea Water Suction pump with Strainer.
- 4 each Diesel Booster Pumps.
- 4 each Diesel Spray Pumps. 100m Length 50m High Provide approximately 500 gpm water flow to Fukushima Daiichi Spent Fuel Pools.
- Diesel Fuel tanks and Fuel to support pump trains.
- 500 meters of Piping for 2 trains.
- 700 meters of Piping for 2 trains.
- People to assist in assembly of trains
- 20,000 # or more Boron
- Back-up Systems including
- 4 Pumper Trucks
- Robots for High Rad work with camera capability.

Please contact the Reactor Safety Team by phone or at [rst01.hoc@nrc.gov](mailto:rst01.hoc@nrc.gov) if you have questions.

Joe Williams

Reactor Safety Team Communicator

**From:** Williams, Joseph  
**To:** Casto, Chuck; Monninger, John; Ulises, Anthony; Trapp, James  
**Cc:** RST01 Hoc  
**Subject:** RE: Military Resources  
**Date:** Wednesday, March 16, 2011 10:35:34 AM

---

I will pass the word.

Joe

---

**From:** Casto, Chuck  
**Sent:** Wednesday, March 16, 2011 10:33 AM  
**To:** Williams, Joseph; Monninger, John; Ulises, Anthony; Trapp, James  
**Cc:** RST01 Hoc  
**Subject:** Re: Military Resources

John and tim should call you soonest after the TEPCO meeting they are in.

If they don't call in the new few hours call me (b)(6)

---

**From:** Williams, Joseph  
**To:** Casto, Chuck; Monninger, John; Ulises, Anthony; Trapp, James  
**Cc:** RST01 Hoc  
**Sent:** Wed Mar 16 10:27:37 2011  
**Subject:** Military Resources

This message relays information received by the Reactor Safety Team from Major Cook, Yokota Air Base, USFJ, (DSN # 315-225-5333) regarding pump resources being made available.

2 S18000 diesel-driven fire pumps: 2200 gpm, 6 inch discharge. No head specified.

2 S18900 diesel-driven fire pumps: 1800 gpm, 6 inch discharge. Boost via jet pumps (S18500, rated 500 gpm @ 150 psi)

1 diesel-driven fire pump. Unknown specification.

We were told that the Japanese Self Defense Forces will transport the pumps to the site (~150 km, ~100 miles)

In a call from INPO, the RST was told that a request had been received for additional boron for Fukushima. The source of this request was unknown. INPO stated that Diablo Canyon has 20,000 pounds available. Major Cook indicated that military assets can possibly move boron from Travis AFB after delivery from Diablo Canyon (licensee believed able to deliver to Travis).

**Please let us know if you are aware of the request for boron. We believe that there should be material available in Japan at the 20 PWR plants.**

We also informed INPO and Major Cook of other assets which we were told you requested.

- Fire "rockets" (500 gpm capability)
- 800 meters of rigid pipe for suction from ocean
- Strainers for raw seawater
- Bulldozers for clearing debris
- Ladder pumper trucks with monitor nozzles

**Please advise if there is a need for other materials, such as lead blankets for shielding, sand, dolomite, etc.**

mmmm/83

---

**From:** HOO Hoc  
**Sent:** Wednesday, March 16, 2011 9:50 AM  
**To:** RST01 Hoc; PMT01 Hoc; ET07 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John  
**Subject:** FW: NRC Contacts

FYI

**From:** RMTPACTSU\_ELNRC [mailto:RMTPACTSU\_ELNRC@ofda.gov]  
**Sent:** Wednesday, March 16, 2011 9:49 AM  
**To:** LIA11 Hoc; LIA01 Hoc; LIA07 Hoc; LIA02 Hoc  
**Cc:** Marshall, Jane; Gott, William; Grant, Jeffery; Harrington, Holly; Burnell, Scott; McIntyre, David; HOO Hoc; McDermott, Brian; Mamish, Nader  
**Subject:** FW: NRC Contacts

All,

Please find below the contact information for the NRC team members in Japan. Let me know if there are any problems.

Jason Kozal

(b)(6)

**From:** RMTPACTSU\_AC  
**Sent:** Wednesday, March 16, 2011 9:36 AM  
**To:** RMTPACTSU\_ELNRC; RMTPACTSU\_RM  
**Cc:** RMTPACTSU\_CRC; RMTPACTSU\_DMO  
**Subject:** FW: NRC Contacts

Good morning:

Below please see the list of NRC team in Japan and their contact numbers. I will have a separate contact list for NRC, HHS and DOE teams, so that they can be shared back with their headquarters.

Regards,  
~Natalya

*Admin Coordinator  
Pacific Tsunami and Japan Earthquake Response Management Team  
USAID/DHCA/OFDA  
RMtpactsu\_ac@ofda.gov  
202-712-0039*

**From:** Rivera, Marco  
**Sent:** Wednesday, March 16, 2011 8:11 AM  
**To:** RMTPACTSU\_AC; Sink, Amy (BFS) [USAID]  
**Cc:** DART\_PACTSU  
**Subject:** RE: NRC Contacts

mmmm/SH

All names listed have email accounts in this format--- first name.last name@nrc.gov Example is  
Richard.Devercelly@nrc.gov

[ Richard Devercelly (b)(6)

Timothy Kolb (b)(6)

Chuck Casto (b)(6)

William Cook (b)(6)

Tony Nakanishi (b)(6)

Jack Foster (b)(6)

James Trapp (b)(6)

John Monninger (b)(6)

Brooke Smith (b)(6)

Kirk Foggie (b)(6)

Bruce Howard (b)(6)

NRC EMBASSY LINE (b)(6)

NRC Hq Ops Center- 301-816-5100 }

---

**From:** RMTPACTSU\_AC

**Sent:** Wednesday, March 16, 2011 7:33 AM

**To:** Sink, Amy (BFS) [USAID]; Rivera, Marco

**Subject:** NRC Contacts

**Importance:** High

Greetings, guys:

We need BB numbers/addresses for the NRC team – ASAP.

Thanks much

~natalya

*Admin Coordinator*

*Pacific Tsunami and Japan Earthquake Response Management Team*

*USAID/DHCA/OFDA*

*[RMTPACTSU\\_AC@ofda.gov](mailto:RMTPACTSU_AC@ofda.gov)*

*202-712-0039*

**Bozin, Sunny**

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**From:** Franovich, Mike  
**Sent:** Wednesday, March 16, 2011 6:25 PM  
**To:** Ostendorff, William  
**Cc:** Nieh, Ho; Warnick, Greg; Kock, Andrea; Zorn, Jason  
**Subject:** FW: NRC Press Release #8 (revised) through 10 - Japan Event Earthquake/Tsunami  
**Attachments:** Revised NRC Sends Additional Experts To Assist Japan - Press Release 8.pdf; NRC Analysis Continues To Support Japan's Protective Actions - Press Release 9.pdf; NRC Provides Protective Action Recommendations Based On U.S. Guidelines Press Release 10.pdf

NRC is speaking out of both sides. The PR on Japan's protective actions is not in sync with the 50 mile recommendation for US citizens in the PR earlier today.

**From:** OST03 HOC  
**Sent:** Wednesday, March 16, 2011 6:18 PM  
**To:** DOI; DTRA; chardin; [rfraass@crccd.org](mailto:rfraass@crccd.org); [james.d.lloyd@nasa.gov](mailto:james.d.lloyd@nasa.gov); PN\_Distribution; FDA; State Dept; White House Sit Room; Bernie Beaudin; Canadian Nuclear Safety Commission (CNSC); [eoc2@cnscccsn.gc.ca](mailto:eoc2@cnscccsn.gc.ca); [DOEHQEOC@OEM.DOE.GOV](mailto:DOEHQEOC@OEM.DOE.GOV); (b)(6) [EOC.EPAHQ@EPAMAIL.EPA.GOV](mailto:EOC.EPAHQ@EPAMAIL.EPA.GOV); Lawrence Koleff; SIOC; [FEMA-operations-center@dhs.gov](mailto:FEMA-operations-center@dhs.gov); Health Canada Operations Center; IAEA Emergency Response Unit; USDA; Screnci, Diane; Sheehan, Neil; Dricks, Victor; Clifford, James; Gamberoni, Marsha; Heater, Keith; Holian, Brian; Kay Gallagher; Kinneman, John; Lew, David; Nick, Joseph; ODaniell, Cynthia; Powell, Raymond; R1 IRC; Roberts, Darrell; Thompson, Margaret; Davenport, Patricia; McCallie, Karen; Miles, Patricia; Quinones-Navarro, Joylynn; R2 IRC; Rudisail, Steven; R3 IRC; Smith, Desiree; Alferink, Beth; Andrews, Tom; Howell, Linda; R4 IRC  
**Subject:** NRC Press Release #8 (revised) through 10 - Japan Event Earthquake/Tsunami

\*\*\*\*\*Event Information is Attached\*\*\*\*\*

The NRC is responding to an event.

Please contact the NRC Executive Support Team if necessary at 301-816-5100 or reply to this e-mail.

**Lee, Richard**

---

**From:** Lee, Richard  
**Sent:** Monday, April 18, 2011 4:12 PM  
**To:** 'Powers, Dana A'  
**Subject:** RE: bugs, Fukushima and the like

Thx, Dana:  
Richard

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

From: Powers, Dana A [mailto:[dapower@sandia.gov](mailto:dapower@sandia.gov)]  
Sent: Monday, April 18, 2011 3:49 PM  
To: Lee, Richard  
Subject: FW: bugs, Fukushima and the like

Richard, Shack forwarded my email to Ken Natesan at Argonne. I'll let you know if anything comes of it. Dana

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

From: Bill Shack [mailto:[\(b\)\(6\)](mailto:(b)(6))]  
Sent: Monday, April 18, 2011 1:28 PM  
To: Ken Natesan  
Cc: Powers, Dana A  
Subject: Fwd: bugs, Fukushima and the like

Ken,

You can see Dana's concern below. Microbially-induced corrosion (MIC) is major industry, probably bigger for the oil folks than nukies. Can you suggest an expert with some perspective.

Begin forwarded message:

>  
> From: "Powers, Dana A" <[dapower@sandia.gov](mailto:dapower@sandia.gov)>  
> Date: April 18, 2011 2:19:15 PM CDT  
> To: "Bill Shack" [(b)(6)]  
> Subject: bugs, Fukushima and the like  
>  
> Bill, the boys have been pumping raw seawater into the reactors and pools at Fukushima. Right now, within the vessels conditions probably are not too conducive to biological growth. Eventually things will cool down and one will have to worry about such things. Certainly at TMI, a little hydraulic fluid in the water after head removal was enough to spawn an entire ecosystem. Do you know anyone that knows about such things? The reason I ask is that I remember you mentioning that there was a biologically assisted stress corrosion cracking. Maybe experts in that can point to experts in bugs that will devour Fukushima. Dana  
>

mmmm/86:

**From:** Duncan, Aleshia D  
**To:** JapanEmbassy, TaskForce  
**Cc:** Cherry, Ronald C; Tong, Kurt W; Duncan, Aleshia; John.Monninger@nrc.gov; Basalla, Suzanne I; Fuller, Matthew G; Zumwalt, James P; Trapp, James; Ulises, Anthony  
**Subject:** Notification of pumps at Yokota  
**Date:** Wednesday, March 16, 2011 9:14:17 PM

---

This email requires no action. It provides a communal record of the existence of a set of assets below which are at Yokota Air Force Base available for delivery to support Japanese nuclear relief efforts.

This list was provided by John Monninger , NRC.

4 submersible pumps (1800gpm,6")  
1 500qpm diesel driven pump@150psi  
Contact: Commander L. Glosby (b)(6)

This email is UNCLASSIFIED.

mmmm/87



**From:** Borchardt, Bill  
**To:** Ross-Lee, MaryJane  
**Cc:** Jaczko, Gregory; Balkin, Joshua  
**Subject:** Re: Status for unit 4  
**Date:** Wednesday, March 16, 2011 6:23:35 PM

---

Thanks MJ  
Bill Borchardt  
Via blackberry

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

From chuck and team:

Unit 4 spent fuel pool-  
Likely dry, structural integrity uncertain, uncertain can hold water  
Sent from my blackberry  
MJ (b)(6)

mmmm/48

**Valentine, Nicholee**

---

**From:** Regan, Christopher  
**Sent:** Wednesday, March 16, 2011 1:36 PM  
**To:** Hall, Victor  
**Cc:** Astwood, Heather; Cullingford, Michael  
**Subject:** RE: Support to Japan

Victor,

Ah yes I knew I had your name in my memory banks for a reason! Good to hear from you again. It was good working with your wife through the LPP curriculum even if she has moved on to bigger and better things. :-)

Our inquiry was based on the OIP call for support for desk officer duties and to triage the potentially substantial incoming call load regarding the Japanese crisis.

I'll add your name to the list of potentials that may be able to support OIP but you should probably work with/through NRO management and let them know of your willingness and capability to help out OIP.

It is good to hear from you!

*Regards,*

*Christopher M. Regan, Chief  
Financial Analysis and International Projects Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
ph. 301-415-2768  
fax 301-415-2222  
email: [christopher.regan@nrc.gov](mailto:christopher.regan@nrc.gov)*

---

**From:** Hall, Victor  
**Sent:** Wednesday, March 16, 2011 1:24 PM  
**To:** Regan, Christopher  
**Subject:** RE: Support to Japan

Hi Chris,

It's been a long time since we've swapped One Lap stories! My wife also mentioned that you guys were in the same LPP class. You keep good company ☺

I'm not sure what NRR has in mind to support the Japanese, but I'm happy to help in any way possible. Don't hesitate to e-mail or call at any time. My blackberry number is (b)(6)  
-Vic

Victor Hall, Operations Engineer  
Quality and Vendor Inspection Branch 2  
Office of New Reactors  
U.S. Nuclear Regulatory Commission  
Ph: (301)415-2915 Fax: (301)415-3325

mmmm/89

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**From:** Cullingford, Michael  
**Sent:** Wednesday, March 16, 2011 11:15 AM  
**To:** Regan, Christopher  
**Cc:** Astwood, Heather; Hopkins, Jon; Hall, Victor  
**Subject:**

Chris: Victor Hall is very willing to help OIP as necessary. Victor is now in NRO.....mike

**Cohen, Shari**

---

**From:** Nguyen, Quynh  
**Sent:** Wednesday, March 16, 2011 12:34 PM  
**To:** Riley (OCA), Timothy  
**Cc:** Titus, Brett; Wittick, Brian  
**Subject:** FW: Congressional Query: FW: This was in media last night related to very bad Japan scenario now in play

Tim,

Any idea how fast you need this?

**From:** Titus, Brett  
**Sent:** Wednesday, March 16, 2011 11:59 AM  
**To:** Nguyen, Quynh  
**Subject:** RE: Congressional Query: FW: This was in media last night related to very bad Japan scenario now in play

Is there a "due date/time" we should be working toward?

Brett Titus  
301-415-3075

**From:** Nguyen, Quynh  
**Sent:** Wednesday, March 16, 2011 11:53 AM  
**To:** Ruland, William  
**Cc:** Titus, Brett  
**Subject:** FW: Congressional Query: FW: This was in media last night related to very bad Japan scenario now in play

Brett is working this.

**From:** Wittick, Brian  
**Sent:** Wednesday, March 16, 2011 10:24 AM  
**To:** Meighan, Sean; Nguyen, Quynh  
**Cc:** Decker, David  
**Subject:** HOT: Congressional Query: FW: This was in media last night related to very bad Japan scenario now in play

Request answer to the below question. Please note the assertion by a Nuclear Engineer in the article that spent fuel in a SFP can overheat, melt and form a critical mass such that it may explode. It would be best if we could respond with an answer that characterizes the possible scenario of fuel melt in a SFP and the type of energetic force that could result.

Thanks

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

**From:** Decker, David  
**Sent:** Wednesday, March 16, 2011 9:45 AM  
**To:** Wittick, Brian

mmmm/90

**Cartwright, William**

---

**From:** Karwoski, Kenneth  
**Sent:** Wednesday, March 16, 2011 9:15 PM  
**To:** Thomas, Eric  
**Cc:** Taylor, Robert; Lubinski, John  
**Subject:** FW: FukushimaTechnicalPresentation - Initial Event Summary  
**Attachments:** RowleyC-Fukushima Daiichi Nuclear Plant - Initial Event Summary.pdf

FYI. This information is from an ASME colleague - probably not new information.

Ken

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

**From:** (b)(6)  
**Sent:** Wednesday, March 16, 2011 4:24 PM  
**To:** Karwoski, Kenneth  
**Subject:** FukushimaTechnicalPresentation - Initial Event Summary

Gentlemen,

More technical information (dozen slides) for your information.

Best Regards / Wes

=====  
C. W. Rowley, PE  
Vice President / The Wesley Corporation P. O. Box 747, Green Valley, AZ 85622 Office 520-777-8941 / Fax  
520-777-8942 Cell 918-605-4422 =====

This email was brought to you through the ASME Volunteer Contact Center by C. Wesley Rowley , PE.

Committee Distribution List:  
Board on Nuclear Codes and Standards

Committee cc Distribution List:  
None

Member Distribution List:  
None

Member cc Distribution List:  
None

mmm/91

**Cartwright, William**

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**From:** Thomas, Eric  
**Sent:** Wednesday, March 16, 2011 7:44 AM  
**To:** RST01 Hoc; HOO Hoc  
**Subject:** FW: Fukushima-daiichi NPPs  
**Attachments:** Fukushima-daiichi Fuel Design.pdf; Fukushima-daiichi spent Fuel-2.pdf

HOOs and RST,

Please see attached drawings provided by a visiting Japanese regulator to NRR. If there is a DOS translator available in the Ops Center, he/she may be able to interpret the information for us.

Thanks, Eric

*Eric Thomas*

U.S. Nuclear Regulatory Commission  
NRR/DIRS/IOEB  
OWFN-7E24  
[eric.thomas@nrc.gov](mailto:eric.thomas@nrc.gov)  
301-415-6772 (office)  
(b)(6) (mobile)

---

**From:** Kobetz, Timothy  
**Sent:** Wednesday, March 16, 2011 7:31 AM  
**To:** Brown, Frederick; Westreich, Barry; Thorp, John; Thomas, Eric  
**Subject:** FW: Fukushima-daiichi NPPs

This time the attachments are attached. Sorry, I forgot I need to use Citrix to send attachments.

---

**From:** Nagai, Masao [<mailto:nagai-masao@jnes-usa.org>]  
**Sent:** Tuesday, March 15, 2011 9:24 PM  
**To:** Nakanishi, Tony  
**Cc:** Jacobson, Jeffrey; Rasmussen, Richard; Kobetz, Timothy; Telson, Ross  
**Subject:** FYI: Fukushima-daiichi NPPs

Tony-san,

Thank you very much for providing assistance a lot to Japan.  
I have attached files of Fukushima-daiichi NPPs fuel design and spent fuel info.  
All of them are from TEPCO Web site.  
They are NOT official. Just information for you.  
There are some MOX fuels in the reactor core of unit-3.

I believe Fukushima NPPs are going to cold shutdown safely.  
Thank you again.  
Masao

NRC Office: T7-E27 (415-1296)  
Cell (b)(6)

*mmmm/92*

## **Cartwright, William**

---

**From:** Thomas, Eric  
**Sent:** Wednesday, March 16, 2011 8:53 AM  
**To:** Telson, Ross  
**Cc:** King, Mark  
**Subject:** RE: Fukushima-daiichi NPPs

Already done.

*Eric Thomas*

U.S. Nuclear Regulatory Commission  
NRR/DIRS/IOEB  
OWFN-7E24  
[eric.thomas@nrc.gov](mailto:eric.thomas@nrc.gov)  
301-415-6772 (office)  
(b)(6) (mobile)

---

**From:** Telson, Ross  
**Sent:** Wednesday, March 16, 2011 8:51 AM  
**To:** Thomas, Eric; King, Mark  
**Cc:** Brown, Frederick; Kobetz, Timothy; Nakanishi, Tony; Rasmussen, Richard; Thorp, John; Westreich, Barry; Skeen, David  
**Subject:** RE: Fukushima-daiichi NPPs

Eric/Mark,

Attachments from Masao's Tuesday, March 15, 2011 9:24 PM email. Can you forward them per Fred's request? I don't know the address for the on-shift RST and PMT in the Ops Center.

Ross

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 7:14 AM  
**To:** Kobetz, Timothy; Nakanishi, Tony; Rasmussen, Richard; Telson, Ross  
**Cc:** Thomas, Eric; Thorp, John; Westreich, Barry; Skeen, David  
**Subject:** RE: Fukushima-daiichi NPPs  
**Importance:** High

Attachment not on the copy that I got.

Can someone please send the attachment to the on-shift RST and PMT in the Ops Center. The DOE/DHS dose assessment folks were looking for this last night (NARAC?).

Thanks,  
Fred

---

**From:** Kobetz, Timothy  
**Sent:** Wednesday, March 16, 2011 6:26 AM  
**To:** Brown, Frederick; Thomas, Eric; Thorp, John; Westreich, Barry  
**Subject:** FW: Fukushima-daiichi NPPs

FYI from Masao

mmmm/9B

**Cartwright, William**

---

**From:** Haskell, Russell  
**Sent:** Wednesday, March 16, 2011 10:03 AM  
**To:** Thomas, Eric  
**Subject:** RE: 0630 EDT (March 16, 2011) USNRC Earthquake/Tsunami SitRep

Eric,

Reading down through this report it all seems consistent with everything else I have been hearing.....one thing that RGN III put out this morning, which I did not see reflected in the report, was that 5 Japanese workers at Fukushima had reached a "lethal" dose in response to their duties. Not sure this has been substantiated, just thought I would mention it.....

**Russell S. Haskell II**  
United States Nuclear Regulatory Commission (NRC)  
Reactor Systems Engineer (NRR/DIRS/IOEB)  
[Russell.Haskell@nrc.gov](mailto:Russell.Haskell@nrc.gov) | 301.415.1129 | O-7H23

---

**From:** Thomas, Eric  
**Sent:** Wednesday, March 16, 2011 9:41 AM  
**To:** NRR DIRS IOEB Distribution  
**Subject:** FW: 0630 EDT (March 16, 2011) USNRC Earthquake/Tsunami SitRep

*Eric Thomas*  
U.S. Nuclear Regulatory Commission  
NRR/DIRS/IOEB  
OWFN-7E24  
eric.thomas@nrc.gov  
301-415-6772 (office)  
(b)(6) (mobile)

---

**From:** HOO Hoc  
**Sent:** Wednesday, March 16, 2011 7:28 AM  
**To:** Thomas, Eric  
**Subject:** FW: 0630 EDT (March 16, 2011) USNRC Earthquake/Tsunami SitRep

---

**From:** LIA07 Hoc  
**Sent:** Wednesday, March 16, 2011 6:46 AM  
**To:** Andersen, James; Anderson, Joseph; Ash, Darren; Baggett, Steven; Barker, Allan; Batkin, Joshua; Boger, Bruce; Borchardt, Bill; Bradford, Anna; Brenner, Eliot; Smith, Brooke; Brown, Milton; Bubar, Patrice; Camper, Larry; Carpenter, Cynthia; Castleman, Patrick; Ader, Charles; Casto, Chuck; Coggins, Angela; Collins, Elmo; Correia, Richard; Dapas, Marc; Dean, Bill; Decker, David; Dickman-Disabled-11/14/2010, Paul; Dorman, Dan; Droggitis, Spiros; Dyer, Jim; ET02 Hoc; Evans, Michele; Franovich, Mike; Apostolakis, George; Gibbs, Catina; Glitter, Joseph; Gott, William; Grobe, Jack; Hahn, Matthew; Haney, Catherine; Harrington, Holly; Hipschman, Thomas; Holahan, Gary; Holahan, Patricia; HOO Hoc; Howell, Art; Howell, Linda; Foster, Jack; Jackson, Donald; Jaczko, Gregory; Johnson, Andrea; Johnson, Michael; Kahler, Robert; Foggie, Kirk; Kock, Andrea; Kozal, Jason; Leeds, Eric; LIA01 Hoc; LIA02 Hoc; LIA03 Hoc; LIA06 Hoc; LIA08 Hoc; LIA11 Hoc; Logaras, Harral; Loyd, Susan; Magwood, William; Maier, Bill; Marshall, Jane; Marshall, Michael; McCree, Victor; McDermott, Brian; McNamara, Nancy; Miller, Charles; Miller, Chris; Monninger, John; Morris, Scott; Nieh, Ho; NSIR\_DDSP\_ILTAB\_Distribution; Ordaz, Vonna; Orders, William; Ostendorff, William; Pace, Patti; Pearson, Laura; Pederson, Cynthia; Plisco, Loren; Powell, Amy; R1 IRC; R2 IRC; R3 IRC; R4 IRC; Reddick, Darani; Reyes, Luis; Devercelly,



## Cartwright, William

---

**From:** Thomas, Eric  
**Sent:** Wednesday, March 16, 2011 12:28 PM  
**To:** Nguyen, Quynh; Meighan, Sean  
**Subject:** Answers Regarding Plume, etc.

The Protective Measures Team in the Ops Center had already answered these questions (apparently more than once). I found the answer in a press release from Sunday, which states:

"Given the thousands of miles between the two countries, Hawaii, Alaska, the U.S. Territories and the U.S. West Coast are not expected to experience any harmful levels of radioactivity."

So to me, with regard to the 3 questions, this means:

1. No plume is expected to hit the U.S.
2. No environmental consequences are expected.
3. No increase in dose rates are expected in the U.S. due to the accident in Japan.

There is a Q&A sheet on the LAN over in the Ops Center that also states:

1. The U.S. [EPA, DOE, and NRC] continues to monitor information regarding the radioactive release and wind patterns near the Fukushima plant
2. At this time, the NRC does not believe that protective measures are necessary in the U.S. We do not expect any U.S. states or territories to experience harmful levels of radioactivity.
3. U.S. citizens in Japan are encouraged to follow the protective measures recommended by the Japanese Gov't

*Eric Thomas*

U.S. Nuclear Regulatory Commission

NRR/DIRS/IOEB

OWFN-7E24

eric.thomas@nrc.gov

301-415-6772 (office)

(b)(6) (mobile)

mmmm/95

## **Murphy, Andrew**

---

**From:** Murphy, Andrew  
**Sent:** Wednesday, March 16, 2011 10:54 AM  
**To:** Case, Michael  
**Subject:** RE: IRC Staffing

Mike,

I have expertise in the seismology area – seismicity and tectonics and can provide support in that area for the OpCenter. Do not have systems experience or health physics (radiation).

Home phone (b)(6) and cell phone (b)(6)

Andy

---

**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.

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.

mmmm/97

# TEPCO Press Releases

Press Release (Apr 30, 2011)

Instruction to submit report regarding the implementation of a measure to flood primary containment vessel to the upper range in Unit 1 of Fukushima Daiichi Nuclear Power Station

Today we have received instruction from Nuclear and Industrial Safety Agency (NISA) to submit report based on article 67, clause 1 of Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors (law number 166, 1957).

We will evaluate the effect to stable reactor cooling and safety of a measure to flood primary containment vessel to the upper area of fuel range in Unit 1 of Fukushima Daiichi Nuclear Power Station and report to NISA.

**\*Instruction Notice**

Submission of report regarding the implementation of a measure to flood primary containment vessel to the upper area of fuel range in Unit 1 of Fukushima Daiichi Nuclear Power Station

NISA no.1, 2011.4.30  
April 30, 2011

NISA hereby instructs TEPCO to report the following matters in timely manner based on article 67, clause 1 of Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors in order to evaluate the appropriateness of an emergency measure planned by TEPCO.

In case TEPCO disagrees with this instruction, it is entitled to make a formal objection in writing to the minister of economy, trade, and industry based on Administrative Appeal Act (law number 160, 1962) within 60 days from the next day when it recognizes the instruction. However, it is not entitled to do so after one year from the next day of the instruction even if within 60 days from the next day when it recognizes the instruction.

After the treatment of a formal objection is determined, action for rescission of a disposition can be made against the government (representative: ministry of law) based on Administrative Case Litigation Act (law number 139, 1962) within 6 month from the next day when it recognizes the determination of treatment of a formal objection. However, it is not entitled to do so after one year from the next day of the determination even if within 6 months from the next day when it recognizes the determination.

In case of the followings, TEPCO is entitled to make action for rescission of a disposition without the determination of treatment of a formal objection. 1: treatment is not determined within 3 month from the next day when a formal objection is made. 2. there is urgent need to avoid significant damage caused by disposal, execution of disposal and continuation of execution. 3. there is a justifiable ground for not having determination of treatment.

Submission of report regarding the effect to stable reactor cooling and safety of a measure to flood primary containment vessel to the upper area of fuel range in Unit 1 of Fukushima Daiichi Nuclear Power Station.

1. impact on structural strength and earthquake resistance of reactor building and primary containment vessel from the water level increase in primary containment vessel
  - \* Result of impact analysis on the structural strength of structure and facilities in primary containment vessel including reactor building, dry well, and suppression chamber from the water level increase in primary containment vessel
  - \* Result of evaluation whether reactor building and structure and facilities in primary containment vessel can sustain the designed seismic force.
2. impact from the pressure increase inside primary containment vessel.
  - \* Estimation of the pressure increase inside primary containment vessel from the water level increase
  - \* Result of the analysis on the necessity of countermeasure to reduce the pressure inside primary containment vessel considering the above estimation.
3. impact from the increase of leaking water in turbine building
  - \* Estimation of amount of leaking water at present and in the future and possibility of leakage to outside environment.
4. Other issues relating to safety evaluation regarding the implementation of a measure to flood primary containment vessel to the upper area of fuel range.

[back to page top](#)

**From:** Morris, Scott  
**To:** LIA01 Hoc; Rutland, William  
**Subject:** FW: HOT requirement to move JET STREAM pumps  
**Date:** Wednesday, March 16, 2011 7:35:43 PM

---

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

From: Merchant, Ned [mailto:[cemercha@bechtel.com](mailto:cemercha@bechtel.com)]  
Sent: Wednesday, March 16, 2011 7:35 PM  
To: Morris, Scott; RST01 Hoc  
Cc: Kozal, Jason  
Subject: RE: HOT requirement to move JET STREAM pumps

Scott,

Please advise as to the next steps you would like Bechtel to take to support this effort. I am leaving the office now, but will be monitoring my emails tonight, and I am available by phone. Please do hesitate to contact me.

My contact info is as follows:

713-235-2924 (W)  
(b)(6) (Cell)  
[cemercha@bechtel.com](mailto:cemercha@bechtel.com)

Looking forward to working with you.

Best Regards, Ned Merchant  
VP & General Manager  
Bechtel Supplier Quality & Expediting Inc  
"Quality is not an act, it is a habit"

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

From: Morris, Scott [mailto:[Scott.Morris@nrc.gov](mailto:Scott.Morris@nrc.gov)]  
Sent: Wednesday, March 16, 2011 6:29 PM  
To: RST01 Hoc; Merchant, Ned  
Cc: Kozal, Jason  
Subject: FW: HOT requirement to move JET STREAM pumps

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

From: NACCC.CDBRG.FCT@fe.navy.mil [mailto:[\(b\)\(6\)@fe.navy.mil](mailto:(b)(6)@fe.navy.mil)]  
Sent: Wednesday, March 16, 2011 7:25 PM  
To: Morris, Scott; (b)(6)  
Subject: FW: HOT requirement to move JET STREAM pumps

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

From: Chansipaeng, Sonthaya LCDR USN NAVFACFE  
Sent: Thursday, March 17, 2011 8:24 AM  
To: NACCC.CDBRG.FCT  
Subject: FW: HOT requirement to move JET STREAM pumps

mmmm/98

v/r

Sonny Chansipaeng, P.E.  
LCDR, CEC, USN  
Facilities Management Officer  
Public Works Department Yokosuka  
Comm 046-816-7543  
DSN 315-243-7543  
Cell (b)(6)

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

From: Neu, Charles R LCDR USN FISC  
Sent: Wednesday, March 16, 2011 12:38 PM  
To: 'Piburn, James CAPT (C7F N4)'  
Cc: Sexton, Neil CDR SRF S100; Sweat, Tyheem LTJG USN CSG7; Stancy, Steven L CAPT SRF CO; Manders, Bill CDR SRF YO: M-YO-FISCY-LOC.  
Chansipaeng, Sonthaya LCDR USN NAVFACFE; (b)(6)  
Subject: FW: HOT requirement to move JET STREAM pumps

Captain Piburn,

BLUF - The 5th pump sent from Sasebo will be required for the water to reach the last 50 meters (vertical).

Background -

The pumps will be operated in parallel to pull water from the source, then 500 meters over ground, and then vertically 50 meters. This 5th pump will be required to make the 90psi at discharge after the 50 meter vertical climb. Both NAVSEA and SRF-JRMC engineers concurred that this pump will be needed. This "fifth" pump is attached as file PU0230.pdf.  
There is another of this PU0230 in Sasebo.

Operations -

These are meant to be operated by ship-salvage specialists (US Navy Salvage divers and NAVSEA OOC contractors). These pumps have operating placards attached. Attached to this e-mail are the technical specs and the only "operating manual" for these pumps (less the operating placards attached to the units).

Personnel -

Two (2) Navy CTF-73 divers ("riding" SAFEGUARD)(LCDR Peterson and one Master Diver) are enroute to Yokota from Yokosuka.  
Two (2) MLC Divers from the SRF-JRMC Dive Shop are standing by to move to Yokota to accompany the gear and assist in operations.

Additional information on the pumps is available -

[http://www.supsalv.org/essm/Sal\\_Inv.asp](http://www.supsalv.org/essm/Sal_Inv.asp)

Semper Supply!

Very respectfully,  
LCDR Chuck Neu, SC, USN  
FISCY Logistics Operations Center



For all Operation Tomodachi traffic use:

(b)(6)

(b)(6)

DSN: 315-243-6467/5238

Commercial: 011-81-46-816-6467

email: (b)(6)

SIPR: (b)(6)

cell: (b)(6)

---

**From:** Purvis, James <james.purvis@dhs.gov>  
**Sent:** Thursday, March 17, 2011 4:58 PM  
**To:** LIA05 Hoc  
**Cc:** Andrew Seward; Harry Sherwood; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn  
**Subject:** RE: EPZ Paper - NRC Review Needed!

Excellent. Thanks!

- James

---

**From:** prvs=0505f6d80=LIA05.Hoc@nrc.gov [mailto:prvs=0505f6d80=LIA05.Hoc@nrc.gov] **On Behalf Of** LIA05 Hoc  
**Sent:** Thursday, March 17, 2011 4:57 PM  
**To:** james.purvis@dhs.gov  
**Cc:** Andrew Seward; Harry Sherwood; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn  
**Subject:** FW: EPZ Paper - NRC Review Needed!  
**Importance:** High

Mr. Purvis,

I forwarded this request through the NRC Ops Center Liaison Team Director and once there is approval, I will let everyone know.

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

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**From:** Wierman, Kenneth [mailto:kenneth.wierman@dhs.gov]  
**Sent:** Thursday, March 17, 2011 4:51 PM  
**To:** LIA05 Hoc  
**Subject:** Fw: EPZ Paper - NRC Review Needed!

Kenneth L. Wierman Jr.  
Policy and Regulations Unit  
Radiological Emergency Preparedness  
Federal Emergency Management Agency (FEMA) Headquarters  
Office: (202) 212-3711  
Blackberry: (b)(6)  
[kenneth.wierman@dhs.gov](mailto:kenneth.wierman@dhs.gov)

Sent using BlackBerry

Mmmm/99

**From:** Purvis, James  
**To:** 'Sheffield, Bonnie' <Bonnie.Sheffield@dhs.gov>; Wierman, Kenneth  
**Cc:** Quinn, Vanessa; Greden, Timothy; 'harry.sherwood@dhs.gov' <harry.sherwood@dhs.gov>; Ralston, Michelle; Horwitz, Steve  
**Sent:** Thu Mar 17 16:48:21 2011  
**Subject:** EPZ Paper - NRC Review Needed!

REP Liaison to the NRC OPS Center:

Tim would like to ensure that the NRC finds this paper kosher, prior to piping it up to FEMA OPA & OLA for their consumption. Please coordinate this with the NRC. I don't think any kind of formal review & concurrence process is needed here – especially since the content is basically a summation of what is already delineated in FEMA-REP-1 – it is hoped this can be done expeditiously. Please keep me in the loop as this is being accomplished. The paper has been cleared through THD.

Thanks.

**James H Purvis**  
Emergency Management Specialist  
Radiological Emergency Preparedness Program  
Technological Hazards Division  
DHS/FEMA Protection and National Preparedness Directorate  
1800 South Bell Street, Room 830  
Arlington, VA 20598-3025  
Office: (202) 212-2334  
Mobile: (b)(6)  
Fax: (703) 305-0738  
[james.purvis@dhs.gov](mailto:james.purvis@dhs.gov)

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**Weaver, Tonna**

---

**From:** Bacuta, George C Jr MVN (b)(6)  
**Sent:** Thursday, March 17, 2011 5:32 PM  
**To:** Mendiola, Anthony; Attard, Anthony  
**Subject:** Japan Quake  
**Attachments:** Tripple Threat.docx; Japan.docx; DaBigOne.docx

Hello Buddies (Tony2): Is my favorite buddy Shih-Liang-Wu still with your group? Was Tony Nakimichi deployed with the NRC team sent to Japan? ... I think he specializes also in BWR. Been tracking closely the news on Japan, found these editorial cartoons on Natural Disasters at The Week magazine. I do appreciate you guys for mentoring me at least to understand a bit about the nuclear concern unfolding in Japan's Fukumichi (BWR) plants to add to the earthquake and tsunami impacts (that I am very much aware of). With the disaster estimates unfolding at \$125B-\$200B coming in on the news, Katrina looks puny.

George

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

**From:** Bacuta, George C Jr MVN  
**Sent:** Thursday, March 17, 2011 3:22 PM  
**To:** 'Imboden, Andy'  
**Cc:** 'Rosenberg, Stacey'  
**Subject:** RE: At California Nuclear Plant, Earthquake Response Plan Not Required --- Diablo Canyon SEIS

[http://news.yahoo.com/s/yblog\\_newsroom/20110315/wl\\_yblog\\_newsroom/japan-mounting-humanitarian-nuclear-crisis-after-quake](http://news.yahoo.com/s/yblog_newsroom/20110315/wl_yblog_newsroom/japan-mounting-humanitarian-nuclear-crisis-after-quake)

AP interactive video clip develop by the Associated Press (AP Graphic) for tsunami generated events, a strike-slip fault (such as the new fault discovered 3 miles(?) Offshore of Diablo Canyon)

On the interactive titled "Japan disasters: Nuclear crisis worsen" ---- click on the "Forces of Nature" - "How a tsunami form" menu as well as "type of earthquakes" menu. Since the Japan disaster had generated interest, more scientific peer-reviewed papers by some heavy hitters should be coming out in the near future to document this phenomenon and speculate for sure on the "newly discovered" offshore fault fronting Diablo Canyon and the Cascadia subduction zone fronting the Columbia River (CNGS).

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

**From:** Bacuta, George C Jr MVN  
**Sent:** Thursday, March 17, 2011 1:54 PM  
**To:** 'Imboden, Andy'  
**Cc:** 'Rosenberg, Stacey'  
**Subject:** RE: At California Nuclear Plant, Earthquake Response Plan Not Required --- Diablo Canyon SEIS

Hi Andy I forgot .... They may also scrutinize the Hanford (Columbia) Generating Station. The Cascadia subduction zone is rumored to be similar to the Japan subduction zone and experience the same stress scale (saw USGS's interviews of Lucy Jones {Caltech Geophysicist} and Marcia McNutt {USGS Director, a Plate Tectonic Specialist}). With the unprecedented Japan tsunami impacting inland for several miles, a huge earthquake in Cascadia may/may not push water thru the Columbia River inland to Hanford {depend on the distance = modeling can show this}.

George

mmmm / 100

CARTOON VIEW

EMAIL

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Like Confirm

# Japan's triple threat

MARCH 15, 2011, AT 3:12 PM

5 of 10 ◀ ▶

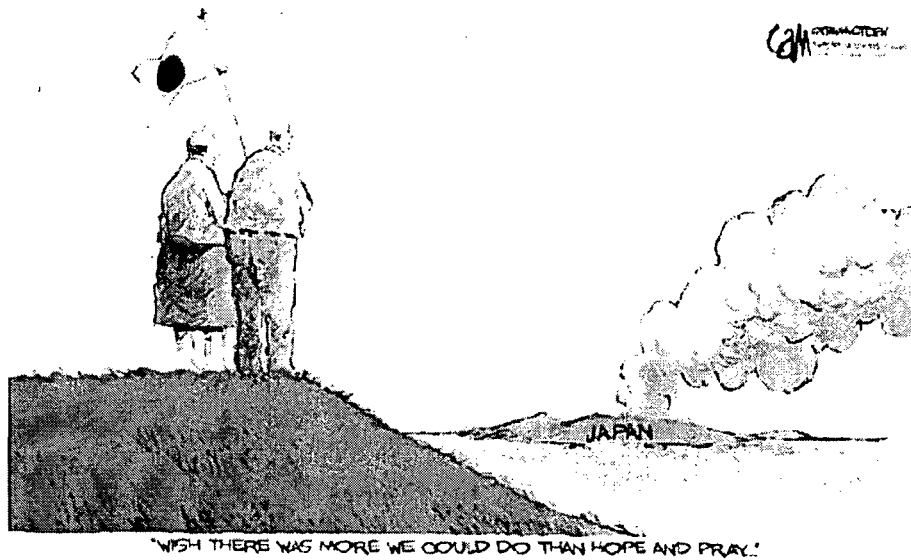


PATRICK CHAPPATTE. COPYRIGHT 2011 CAGLE CARTOONS

# Mourning Japan from afar

MARCH 11, 2011 AT 1:20 PM

8 of 10 ◀ ▶

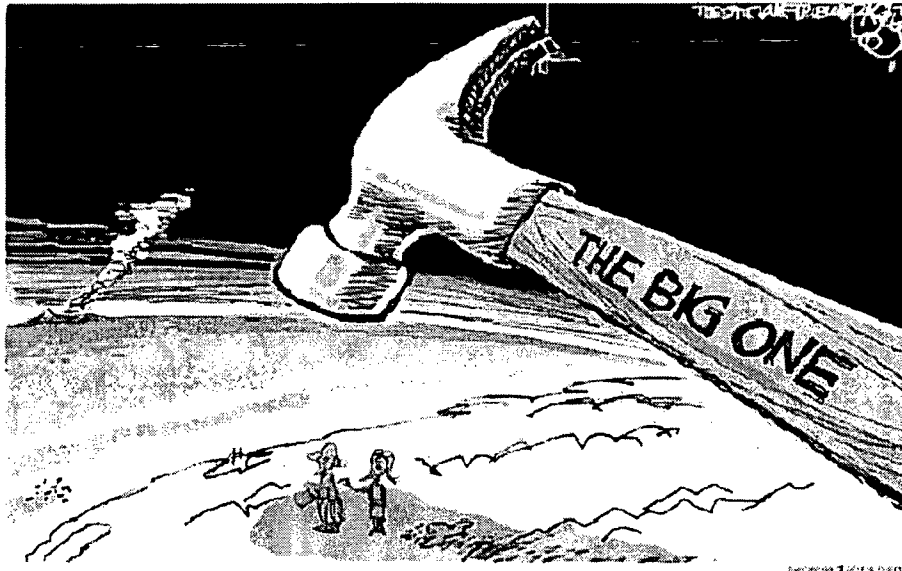


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# Earthquakes: It's not over yet

MARCH 11, 2011 AT 5:00 PM

9 of 10 ◀ ▶



PAT BAGLEY, COPYRIGHT 2011 CAGLE CARTOONS

## **Pulvirenti, April**

---

**From:** Pulvirenti, April  
**Sent:** Thursday, March 17, 2011 4:04 PM  
**To:** Stevens, Gary  
**Subject:** RE: URGENT!!! - Concrete Question

Nope, I have no idea.

BTW, NEI has a small update up. One of the side walls of the suspended spent fuel pool at FK 4 (or was it 3) collapsed, and only the stainless steel liner is holding the pool together. I'm just hoping that if they can restore power, that they bring down the radiation levels long enough to repair the pool, or long enough to move the fuel (how) to another pool, or dry cask it. It definitely can't stay there!

---

**From:** Stevens, Gary  
**Sent:** Thursday, March 17, 2011 4:01 PM  
**To:** Pulvirenti, April  
**Subject:** FW: URGENT!!! - Concrete Question

---

**From:** Csontos, Aladar  
**Sent:** Thursday, March 17, 2011 3:59 PM  
**To:** RES\_DE\_CIB; Nove, Carol  
**Subject:** URGENT!!! - Concrete Question

Anyone work/know of work on concrete/sand contacting spent fuel, i.e. thermal conductivity, reactivity, etc.? If so, please stop by/call ASAP.

---

Aladar A. Csontos, Ph.D  
Chief, Component Integrity Branch  
Division of Engineering  
Office of Nuclear Regulatory Research  
Mailstop C5-A24M  
Washington, DC 20555-0001  
(301) 251-7640 (Office)  
(b)(6) (Blackberry,  
(301) 251-7425 (Fax)  
Email: [aladar.csontos@nrc.gov](mailto:aladar.csontos@nrc.gov)

---

mmm/101



**From:** Csontos, Aladar  
**To:** Graves, Herman; Pires, Jose  
**Cc:** Case, Michael  
**Subject:** Japan Question on Use of Sand vs. Concrete  
**Date:** Thursday, March 17, 2011 5:58:09 PM  
**Attachments:** Japan Question.xlsx

---

Herman,

Here's what I put together. Good luck.

Call me on my cell phone or BB if you need me.

Al

---

Aladar A. Csontos, Ph.D  
Chief, Component Integrity Branch  
Division of Engineering  
Office of Nuclear Regulatory Research  
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(301) 251-7425 (Fax)  
Email: [aladar.csontos@nrc.gov](mailto:aladar.csontos@nrc.gov)

---

mmmm/102

## RES/DE staf

**SAND IS RECOMMENDED** over concrete because sand 1) fills in voids in the than wet concrete which would reduce structural integrity risks with a dam and/or use wet sand in the initial drop.

Concrete is NOT recommended because it 1) may lead to void formations in wet concrete is heavier than sand, thus initially potentially causing additional

|          | Thermal<br>Properties | Specific Heat                                                 | Thermal Conductivity                                                                                                             |
|----------|-----------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
|          |                       | Specific heat of<br>water is about 5<br>times that of<br>sand | Thermal conductivity of dry<br>sand is about half of water<br>and wet/saturated sand is<br>about 4-8 times greater<br>than water |
| Sand     | 1500-1700°C           |                                                               |                                                                                                                                  |
| Concrete | 1300-1400°C           | Not known                                                     | Not known                                                                                                                        |

## f recommends the use of SAND for the initial entombment of the sp

e damaged structure, 2) able to release any remaining or generated hydrogen to the atmosphere inc  
aged building, and 4) sand can be mixed with borax to reduce neutrons. Note: first emplacement o

in the structure where no shielding is provided, 2) local criticality risks and hydrogen generation with  
nal structural integrity concerns until it dries.

| Feasibility of use                                                                                                                                                         | Emplacement         |                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------|
|                                                                                                                                                                            | Method              | Local Availability                                      |
| Yes, dust may result at 1st placing so use wet sand or wet building before emplacement, fills up voids and allows water to circulate with borax later                      | Helicopter or crane | yes, naturally available (beach nearby)                 |
| possible chemical reactions, criticality, cracking issues from differential drying of concrete (shrinkage), leading to potential hydrogen evolution with water in concrete | as above            | not naturally available bring in ingrediants and mix it |

## ent fuel pool.

stead of trapping it, thus reducing further explosion risks, 3) sand is lighter  
if dry sand may cause a radioactive dust cloud to form, so spray water

1 water contacting hot spent fuel could lead to potential explosion risks, 3)

### **Shielding Capability**

? Shield now with mix of borax and  
sand or Shield later with radiation  
shielding aggregate if available

Gamma neutron

### **Structural Capability of Floor Slab**

Floor slab 5-6 ft thick, 30 ft of sand  
= 3300psf, but, structural integrity  
of facility is unknown due to  
explosions, heat, etc.

heavier than sand for structural  
integrity concerns (more loads)

**From:** Graves, Herman  
**To:** Chokshi, Nilesb; Patel, Pravin; Ma, John; Tegeler, Bret  
**Cc:** Shea, James; Hogan, Rosemary; Case, Michael; Richards, Stuart  
**Subject:** JAPAN CONCRETE QUESTION  
**Date:** Thursday, March 17, 2011 6:51:52 PM  
**Attachments:** Japan Question.xlsx

---

To All:

In response to the questions you asked today on concrete and sand properties. I worked with staff here at DE/RES to put together the attached table.

I am not sure if we addressed all the questions asked, but it is a start.

<<Herman>>

<<301.251.7625; Office>>

(b)(6) BlackBerry>>

mail to: [Herman.Graives@nrc.gov](mailto:Herman.Graives@nrc.gov)

mmmm/103

**RES/DE staff recommends the use of SAND for the initial entombment**

**SAND IS RECOMMENDED** over concrete because sand 1) fills in voids in the damaged structure, 2) able to release any remaining or generated hydrogen to the atmosphere, 3) less likely to cause structural integrity risks with a damaged building, and 4) sand can be mixed with borax to reduce neutrons. Note: fill with dry sand and/or use wet sand in the initial drop.

Concrete is NOT recommended because it 1) may lead to void formations in the structure where no shielding is provided, 2) local criticality risks and hydrogen evolution with water in concrete is heavier than sand, thus initially potentially causing additional structural integrity concerns until it dries.

|          | Thermal Properties | Specific Heat                                        | Thermal Conductivity                                                                                                 | Feasibility of use                                                                                                                                                         | Emplacement Method  |
|----------|--------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Sand     | 1500-1700°C        | Specific heat of water is about 5 times that of sand | Thermal conductivity of dry sand is about half of water and wet/saturated sand is about 4-8 times greater than water | Yes, dust may result at 1st placing so use wet sand or wet building before emplacement, fills up voids and allows water to circulate with borax later                      | Helicopter or crane |
| Concrete | 1300-1400°C        | Not known                                            | Not known (depends on aggregate type, 1000° C reported for some)                                                     | possible chemical reactions, criticality, cracking issues from differential drying of concrete (shrinkage), leading to potential hydrogen evolution with water in concrete | as above            |

## ent of the spent fuel pool.

he atmosphere instead of trapping it, thus reducing further explosion risks, 3) sand is lighter  
st emplacement of dry sand may cause a radioactive dust cloud to form, so spray water

en generation with water contacting hot spent fuel could lead to potential explosion risks; 3)

| Local Availability                                               | Shielding Capability                                                                                          | Structural Capability of Floor Slab                                                                                                                                                  |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| yes, naturally<br>available (beach<br>nearby)                    | ? Shield now with mix of borax and<br>sand or Shield later with radiation<br>shielding aggregate if available | Floor slab 5-6 ft thick, 30 ft of sand<br>= 3300psf, but, structural integrity<br>of facility is unknown due to<br>explosions, heat, etc. Results in<br>about 1.5 times design load. |
| not naturally<br>available bring in<br>ingrediants and<br>mix it | provides gamma dose & neutron flux<br>sheilding (member thickness plays a<br>role)                            | heavier than sand for structural<br>integrity concerns (more loads)                                                                                                                  |

## Murphy, Andrew

**From:** Kammerer, Annie  
**Sent:** Thursday, March 17, 2011 2:36 AM  
**To:** Kammerer, Annie; Hiland, Patrick; Skeen, David; Case, Michael; RST01 Hoc  
**Cc:** Howe, Allen; Nelson, Robert; Stutzke, Martin; Giitter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Chokshi, Nilesh; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Giitter, Joseph; Howe, Allen; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Munson, Clifford; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Murphy, Andrew; Pires, Jose; Hogan, Rosemary; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael; Orders, William; Santiago, Patricia; Snodderly, Michael; Baggett, Steven; Sosa, Belkys; Davis, Roger; Franovich, Mike; Castleman, Patrick; Sharkey, Jeffry; Boska, John; Ma, John; Tegeler, Bret; Patel, Pravin; Shams, Mohamed; Morris, Scott; Brenner, Eliot; Harrington, Holly; Seber, Dogan; Ledford, Joey; Johnson, Michael; Virgilio, Martin; Holahan, Vincent; Bergman, Thomas  
**Subject:** Seismic Q&As March 17th 2am update  
**Attachments:** Seismic Questions for Incident Response 3-17-11 2am.pdf

All,

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

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

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

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

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

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

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

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

Cheers,  
Annie

Dr. Annie Kammerer, PE  
Senior Seismologist and Earthquake Engineer

mmmm/104



US Nuclear Regulatory Commission  
Office of Nuclear Regulatory Research  
Washington DC 20555

(b)(6) mobile  
(b)(6) BB

**From:** Kammerer, Annie

**Sent:** Tuesday, March 15, 2011 3:41 AM

**To:** Hiland, Patrick; Skeen, David

**Cc:** Howe, Allen; Nelson, Robert; Stutzke, Martin; Giltter, Joseph; Rihm, Roger; McDermott, Brian; Hasselberg, Rick; Kammerer, Annie; Chokshi, Nilesh; Munson, Clifford; Cook, Christopher; Flanders, Scott; Ross-Lee, MaryJane; Brown, Frederick; Giltter, Joseph; Howe, Allen; Case, Michael; Ruland, William; Dudes, Laura; Karas, Rebecca; Ake, Jon; Munson, Clifford; Hogan, Rosemary; Uhle, Jennifer; Marshall, Michael; Uselding, Lara; Randall, John; Allen, Don; Burnell, Scott; Hayden, Elizabeth; Pires, Jose; Graves, Herman; Candra, Hernando; Murphy, Andrew; Murphy, Andrew; Pires, Jose; Hogan, Rosemary; Sheron, Brian; Dricks, Victor; Warnick, Greg; Reynoso, John; Lantz, Ryan; Markley, Michael

**Subject:** latest version of Q&As

All,

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

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

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

Annie

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

(b)(6) mobile  
(b)(6) BB

**Marksberry, Don**

---

**From:** Coyne, Kevin  
**Sent:** Thursday, March 17, 2011 7:41 PM  
**To:** Marksberry, Don  
**Subject:** Fw: RES\_input\_IRCvolunteers.xlsx  
**Attachments:** RES\_input\_IRCvolunteers.xlsx

Sent from an NRC Blackberry  
Kevin Coyne

(b)(6)

---

**From:** Dion, Jeanne  
**To:** Coyne, Kevin  
**Sent:** Thu Mar 17 17:59:24 2011  
**Subject:** RES\_input\_IRCvolunteers.xlsx

As requested

mmmm/105

| 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) | Area of expertise (BWR, Dose Assessment/HP, Fuels, Nuclear, Severe Accident, Systems Analysis, T/H, EST or RST etc) | Additional Notes                                     |
|-----------------------------------------------------------------------|-------------|-----------------------------------|-------------|-------|--------------------------|------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <b>RES/Division of Systems Analysis - Directors Office</b>            |             |                                   |             |       |                          |                                                      |                      |                                                                                                                     |                                                      |
| Gibson                                                                | Kathy       | Division Director                 | 251-7499    | 3-A02 | Y                        | 1                                                    |                      | Management, PMT                                                                                                     | Already supporting Op Center                         |
| Scott                                                                 | Michael     | Deputy Division Director (acting) | 251-7524    | 3-B01 | Y                        | 1,2                                                  | Y                    | Management, RST                                                                                                     |                                                      |
| Bajorek                                                               | Stephen     | Sr. Lvl. Advisor                  | 251-7561    | 3-D03 | Y                        | 1,2,3                                                | Y                    | System Analysis, T/H                                                                                                | Not available March 24-27                            |
| Boyd                                                                  | Christopher | Sr. Lvl. Advisor                  | 251-7525    | 3-B02 |                          |                                                      |                      |                                                                                                                     |                                                      |
| Tinkler                                                               | Charles     | Sr. Lvl. Advisor                  | 251-7496    | 2-D01 | Y                        | 1                                                    |                      | Severe Accident, Systems Analysis, T/H                                                                              | Already supporting Op Center                         |
| Zigh                                                                  | Abdelghani  | Sr. Lvl. Advisor                  | 251-7505    | 3-B06 |                          |                                                      |                      |                                                                                                                     |                                                      |
| Rubin                                                                 | Stuart      | Sr. Lvl. Advisor                  | 251-7527    | 3-B04 | Y                        | 1,2                                                  | Y                    | BWR, Severe Accident, System Analysis, EST                                                                          |                                                      |
| Voglewede                                                             | John        | Sr. Lvl. Advisor                  | 251-7555    | 3-D01 | Y                        | 1,2,3                                                | Y                    | Fuels                                                                                                               |                                                      |
| Sherbini                                                              | Sami        | Sr. Tech. Advisor                 | 251-7508    | 3-D05 | N                        |                                                      | Y                    | Dose Assessment/HP                                                                                                  |                                                      |
| Armstrong                                                             | Kenneth     | Tech. Assistant                   | 251-7551    | 3-A01 | Y                        | 1,2,3                                                | N                    | Coordination, Systems Analysis, T/H                                                                                 | Will go to Japan if skill set is needed              |
| Bowlin                                                                | Elizabeth   | Mgmt. Analyst                     | 251-7955    | 3-A10 | Y                        | 1,2,3                                                | N                    | Liaison, Coordination                                                                                               |                                                      |
| <b>RES/Division of Systems Analysis - Code Development Branch</b>     |             |                                   |             |       |                          |                                                      |                      |                                                                                                                     |                                                      |
| Hudson                                                                | Nathanael   | Reactor Syst. Eng.                | 254-7534    | 3-C06 | Y                        | 3                                                    | N                    | Systems Analysis, T/H                                                                                               |                                                      |
| Staudenmeier                                                          | Joseph      | Sr. Reactor Syst. Eng.            | 251-7522    | 3-A23 | Y                        | 1                                                    | N                    | Systems Analysis, T/H                                                                                               |                                                      |
| Velazquez                                                             | Alex        | Reactor Syst. Eng.                | 251-7509    | 3-A09 | Y                        | 1,2,3                                                | Y                    | System Analysis, T/H                                                                                                | after March 23, 2011                                 |
| Whitman                                                               | Joshua      | Reactor Syst. Eng.                | 251-7514    | 3-A17 | Y                        | 1,2,3                                                | Y                    | System Analysis                                                                                                     | prior TEPCO experience                               |
| <b>RES/Division of Systems Analysis - Fuel and Source Term Branch</b> |             |                                   |             |       |                          |                                                      |                      |                                                                                                                     |                                                      |
| Lee                                                                   | Richard     | Branch Chief                      | 251-7526    | 3-B03 | N                        |                                                      | Y                    | Severe Accident                                                                                                     |                                                      |
| Aissa                                                                 | Mourad      | Sr. Crit. Saf. & Reac. Phys.      | 251-7511    | 3-A12 | Y                        | 1                                                    | N                    | Severe Accident, T/H                                                                                                | Op Center Mon-Wed                                    |
| Algama                                                                | Don         | Reactor Syst. Eng.                | 251-7940    | 3-C26 | Y                        | 1,2,3                                                | Y                    | Core Design, Nuclear                                                                                                | Japanese language experience and cultural experience |
| Esmaili                                                               | Hossein     | Sr. Reactor Syst. Eng.            | 251-7554    | 3-C34 | Y                        | 1,2                                                  | N                    | Severe Accident, T/H                                                                                                | Already supporting Op Center                         |
| Flanagan                                                              | Michelle    | Reactor Syst. Eng.                | 251-7547    | 3-C27 | Y                        | 1,2                                                  | Y                    | Fuels, Communication                                                                                                |                                                      |

|                                                                            |          |                        |          |       |   |       |   |                                                                  |                                                                             |
|----------------------------------------------------------------------------|----------|------------------------|----------|-------|---|-------|---|------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Raynaud                                                                    | Patrick  | Reactor Syst. Eng.     | 251-7542 | 3-C25 | Y |       |   | Fuel                                                             | traveling from 3/18 to 3/23                                                 |
| Salay                                                                      | Michael  | Reactor Syst. Eng.     | 251-7543 | 3-C20 | Y | 1,2,3 | Y | Severe Accident                                                  | Already supporting Op Center                                                |
| Wagner                                                                     | Katie    | General Eng.           | 251-7552 | 3-C32 | Y | 1,2,3 | N | Communication                                                    |                                                                             |
| <b>RES/Division of Systems Analysis - Health Effects Branch</b>            |          |                        |          |       |   |       |   |                                                                  |                                                                             |
| Anzenberg                                                                  | Vered    | Nuclear Eng.           | 251-7546 | 3-A20 | Y | 1,2,3 | N | Dose Assessment/HP                                               |                                                                             |
| Huffert                                                                    | Tony     | Sr. Health Physicist   | 251-7506 | 3-C01 | Y | 1,2,3 | Y | RASCAL/Dose Assessment/HP                                        | Already supporting Op Center (like 1st shift, will do 2nd or 3rd if needed) |
| Lewis                                                                      | Doris    | Health Physicist       | 251-7559 | 3-C38 | Y | 1     | N | Dose Assessment/HP                                               | Already supporting Op Center                                                |
| Sun                                                                        | Casper   | Health Physicist       | 251-7912 | 3-C21 | Y | 1,2   | Y | RASCAL/Dose Assessment/HP                                        | member of the RST, available after 3/21/11                                  |
| Tomon                                                                      | John     | Health Physicist       | 251-7904 | 3-C23 | Y | 1,2,3 | N | Dose Assessment/HP                                               |                                                                             |
| <b>RES/Division of Systems Analysis - New and Advanced Reactors Branch</b> |          |                        |          |       |   |       |   |                                                                  |                                                                             |
| Zaki                                                                       | Tarek    | Branch Chief (acting)  | 251-7986 | 3-A11 | Y | 2     | N | T/H                                                              |                                                                             |
| Barr                                                                       | Jonathan | Reactor Syst. Eng.     | 251-7538 | 3-C12 | Y | 1,2,3 | N | Coordination, Nuclear                                            |                                                                             |
| Kelly                                                                      | Joseph   | Sr. Reactor Syst. Eng. | 251-7510 | 3-A18 | Y | 1,2,3 |   | Systems Analysis, T/H                                            |                                                                             |
| Nosek                                                                      | Andrew   | Reactor Syst. Eng.     | 251-7476 | 2-C13 | Y | 1,2,3 | N | Offsite Transport and Dose Response, T/H                         |                                                                             |
| Rubin                                                                      | Michael  | Reactor Syst. Eng.     | 251-7549 | 3-C29 | Y | 2     | Y | T/H                                                              |                                                                             |
| Skarda                                                                     | Ray      | Reactor Syst. Eng.     | 251-7969 | 3-C13 | Y | 1,2,3 | Y | Nuclear Threat Assessment, Severe Accident, System Analysis, T/H |                                                                             |
| <b>RES/Division of Systems Analysis - Reactors Systems Analysis Branch</b> |          |                        |          |       |   |       |   |                                                                  |                                                                             |
| Elkins                                                                     | Scott    | Branch Chief           | 251-7544 | 3-D02 | Y | 1,2   | N | System Analysis                                                  | Day Shift on Monday, Wednesday and/or Thursday                              |
| Dorn                                                                       | Jaclyn   | Reactor Systems Eng.   | 251-7565 | 3-C31 | Y | 1,2,3 | Y | System Analysis, T/H                                             |                                                                             |
| Frankl                                                                     | Steve    | Sr. Reactor Syst. Eng. | 251-7901 | 3-C02 | Y | 1,2   | Y | BWR, Fuel, Nuclear, System Analysis, T/H                         |                                                                             |
| Krepel                                                                     | Scott    | Reactor Systems Eng.   | 251-7421 | 3-A21 | Y | 1,2   | Y | BWR, System Analysis                                             |                                                                             |
| Lien                                                                       | Peter    | Sr. Reactor Syst. Eng. | 251-7540 | 3-C14 | Y | 1,2,3 | N | System Analysis, T/H                                             | Shift 1 or 2 preferred                                                      |
| Marshall                                                                   | Shawn    | Reactor Systems Eng.   | 251-7523 | 3-A26 | Y | 2     | N | Coordination, T/H                                                |                                                                             |

|                                                                   |          |                                |          |        |   |       |   |                                                            |                                         |
|-------------------------------------------------------------------|----------|--------------------------------|----------|--------|---|-------|---|------------------------------------------------------------|-----------------------------------------|
| Yarsky                                                            | Peter    | Sr. Reactor Syst. Eng.         | 251-7518 | 3-A19  | Y | 1     | Y | BWR, Containment Systems, System Analysis, T/H             |                                         |
| <b>RES/Division of Systems Analysis - Special Projects Branch</b> |          |                                |          |        |   |       |   |                                                            |                                         |
| Santiago                                                          | Patricia | Branch Chief                   | 251-7982 | 2-D04  | Y | 1,2,3 | N | Dose Assessment/HP                                         | Will go to Japan if skill set is needed |
| Chang                                                             | Richard  | Program Manager                | 251-7980 | 2-A17  | Y | 1,2,3 | N | Coordination                                               |                                         |
| Gonzalez                                                          | Sergio   | STUDENT ENGINEER (CO-OP)       | 251-7453 | 2-C18  | Y | 1     | N | Coordination                                               |                                         |
| Navarro                                                           | Carlos   | Reactor Syst. Eng.             | 251-7485 | 2-C26  | Y | 1,2,3 | N | Dose Assessment (RASCAL)                                   |                                         |
| Schaperow                                                         | Jason    | Sr. Reactor Syst. Eng.         | 251-7452 | 2-A19  | Y | 1     |   | Severe Accident, Systems Analysis, T/H                     | Already supporting Op Center            |
| <b>RES/Division of Risk Analysis</b>                              |          |                                |          |        |   |       |   |                                                            |                                         |
| Chang                                                             | James    | human reliability eng.         | 251-7589 | 4-C03  | Y | 1,2,3 | n | PRA, human reliability                                     |                                         |
| Beasley                                                           | Ben      | branch chief (Op ex.)          | 251-7676 | 2-B1   | Y | 1,2,3 | n | systems analysis, severe accidents                         |                                         |
| Criscone                                                          | Larry    | risk and reliability eng.      | 251-7603 | 2-A14  | Y | 1,2,3 | y | systems analysis, operations                               | not available until 3/22                |
| Ibarra                                                            | Joseph   | Reactor Systems Eng.           | 251-7612 | 2-A10  | Y | 1,2,3 | n |                                                            |                                         |
| Kauffman                                                          | John     | Sr. Reactor Systems Eng.       | 251-7465 | 2-C01  | y | 1,2,3 | y | BWR, Mark 1 containment                                    |                                         |
| Lane                                                              | John     | Sr. Risk and Reliability Eng.  | 251-7446 | 2-A12  | y | 1,2,3 | y | severe accident, containment systems                       |                                         |
| Stroup                                                            | David    | Fire protection eng            | 251-7609 | 4-C32  | y | 1,2,3 | n | fire protection                                            |                                         |
| Hill                                                              | Kendra   | General Eng.                   | 251-3300 | 4-C20  | y | 1,2,3 | n | fire protection, HRA                                       |                                         |
| Taylor                                                            | Gabriel  | Fire protection eng.           | 251-7576 | 4-C07M | y | 1,2,3 | n | fire protection                                            |                                         |
| Melly                                                             | Nicholas | Fire protection en.            | 251-7916 | 4C-07M | y | 1,2,3 | n | fire protection                                            |                                         |
| Gonzalez                                                          | Felix    | risk and reliability eng.      | 251-7596 | 4-C11  | y | 1,2,3 | n | fire protection                                            |                                         |
| Stutzke                                                           | Marty    | Sr. Lvl. Advisor               | 251-7614 | 4-D5   | y | 1,2,3 | n | PRA                                                        |                                         |
| Helton                                                            | Don      | risk and reliability eng.      | 251-7594 | 4-C9   | y | 1,2,3 |   | TH, spent fuel behavior, system modeling, severe accidents | Not available till Mar 18               |
| Marksberry                                                        | Don      | Reactor Systems Eng.           | 251-7593 | 4-C8   | y | 1,2,3 | n | IRC coordinator                                            |                                         |
| Coe                                                               | Doug     | Division Director              | 251-7914 | C-4A2  | y | 1,2,3 | y | PRA, Systems analysis                                      | not available until March 20th          |
| Drouin                                                            | Mary     | Sr. Program manager            | 251-7574 | 4-A15  | y | 1,2,3 |   | Reactor systems, PRA                                       | Not available till Mar 18               |
| Salley                                                            | Mark     | branch chief (Fire protection) | 251-7613 | 4-D02  | n |       | y | fire protection                                            | not available for IRC                   |

[illegible]

---

**From:** OST02 HOC  
**Sent:** Thursday, March 17, 2011 6:31 AM  
**To:** ET07 Hoc  
**Subject:** FW: Sending Commercial Imageries  
**Attachments:** ge1\_110312\_110313.pdf; ge1\_110314\_qb\_110314.pdf; ge1\_110316.pdf; Q82\_110316.pdf

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

From: HOO Hoc  
Sent: Thursday, March 17, 2011 6:27 AM  
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
Subject: FW: Sending Commercial Imageries

Forwarded.

Howie Crouch

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

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

From: Smith, Brooke  
Sent: Thursday, March 17, 2011 6:25 AM  
To: Devercelly, Richard; Cook, William; Kolb, Timothy; Casto, Chuck; Monninger, John; Foggie, Kirk; Trapp, James; Ulses, Anthony  
Cc: Ramsey, Jack; HOO Hoc  
Subject: Fw: Sending Commercial Imageries

More images attached.

Sent from an NRC Blackberry.

Brooke G. Smith

(b)(6)

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

From: tpkako <[tpkako@csice.go.jp](mailto:tpkako@csice.go.jp)>  
To: Nakanishi, Tony; Smith, Brooke  
Cc: 難波 健太 <[conake@csice.go.jp](mailto:conake@csice.go.jp)>  
Sent: Thu Mar 17 05:54:28 2011

1106

Subject: Sending Commercial Imageries

Mr. Nakanishi and Mr. Smith,

Upon instruction from Japanese Cabinet Crisis Response Room, let me send you, as attached, six commercial imageries of Fukushima-daiichi atomic power station taken today. Thank you for your cooperation.

Koshi Kanno, Cabinet Satellite Intelligence Center



---

**From:** LIA07 Hoc  
**Sent:** Thursday, March 17, 2011 8:08 PM  
**To:** OST04 Hoc  
**Subject:** FW: Sending Commercial Imageries  
**Attachments:** ge1\_110312\_110313.pdf; ge1\_110314\_qb\_110314.pdf; ge1\_110316.pdf; QB2\_110316.pdf

Please print for big books (site maps - daiichi) Thanks!

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

From: Cook, William  
Sent: Thursday, March 17, 2011 5:52 PM  
To: HOO Hoc; LIA07 Hoc  
Subject: FW: Sending Commercial Imageries

Resend of images.  
0651 am JST

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

From: Smith, Brooke  
Sent: Thursday, March 17, 2011 6:25 AM  
To: Devercelly, Richard; Cook, William; Kolb, Timothy; Casto, Chuck; Monninger, John; Foggie, Kirk; Trapp, James; Ulses, Anthony  
Cc: Ramsey, Jack; HOO Hoc  
Subject: Fw: Sending Commercial Imageries

More images attached.

Sent from an NRC Blackberry.

Brooke G. Smith  
(b)(6)

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

From: tpkako <tpkako@csice.go.jp>  
To: Nakanishi, Tony; Smith, Brooke  
Cc: 難波 健太 <conake@csice.go.jp>  
Sent: Thu Mar 17 05:54:28 2011  
Subject: Sending Commercial Imageries

Mr. Nakanishi and Mr. Smith,  
Upon instruction from Japanese Cabinet Crisis Response Room, let me send you, as attached, six commercial imageries of Fukushima-daiichi atomic power station taken today. Thank you for your cooperation.  
Koshi Kanno, Cabinet Satellite Intelligence Center

mmmm/107

---

**From:** OST02 HOC  
**Sent:** Thursday, March 17, 2011 8:15 PM  
**To:** RST01 Hoc; PMT02 Hoc; PMT11 Hoc  
**Subject:** FW: Sending Commercial Imageries  
**Attachments:** ge1\_110312\_110313.pdf; ge1\_110314\_qb\_110314.pdf; ge1\_110316.pdf; QB2\_110316.pdf

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

From: HOO Hoc  
Sent: Thursday, March 17, 2011 7:31 PM  
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC  
Subject: FW: Sending Commercial Imageries

Headquarters Operations Officer  
U.S. Nuclear Regulatory Commission  
Phone: 301-816-5100  
Fax: 301-816-5151  
email: [hoo.hoc@nrc.gov](mailto:hoo.hoc@nrc.gov)  
secure e-mail: [hoo1@nrc.gov](mailto:hoo1@nrc.gov)

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

From: Cook, William  
Sent: Thursday, March 17, 2011 5:52 PM  
To: HOO Hoc; LIA07 Hoc  
Subject: FW: Sending Commercial Imageries

Resend of images.  
0651 am JST

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

From: Smith, Brooke  
Sent: Thursday, March 17, 2011 6:25 AM  
To: Devercelly, Richard; Cook, William; Kolb, Timothy; Casto, Chuck; Monninger, John; Foggie, Kirk; Trapp, James; Ulses, Anthony  
Cc: Ramsey, Jack; HOO Hoc  
Subject: Fw: Sending Commercial Imageries

More images attached.

Sent from an NRC Blackberry.  
Brooke G. Smith

mmmm/108

(b)(6)

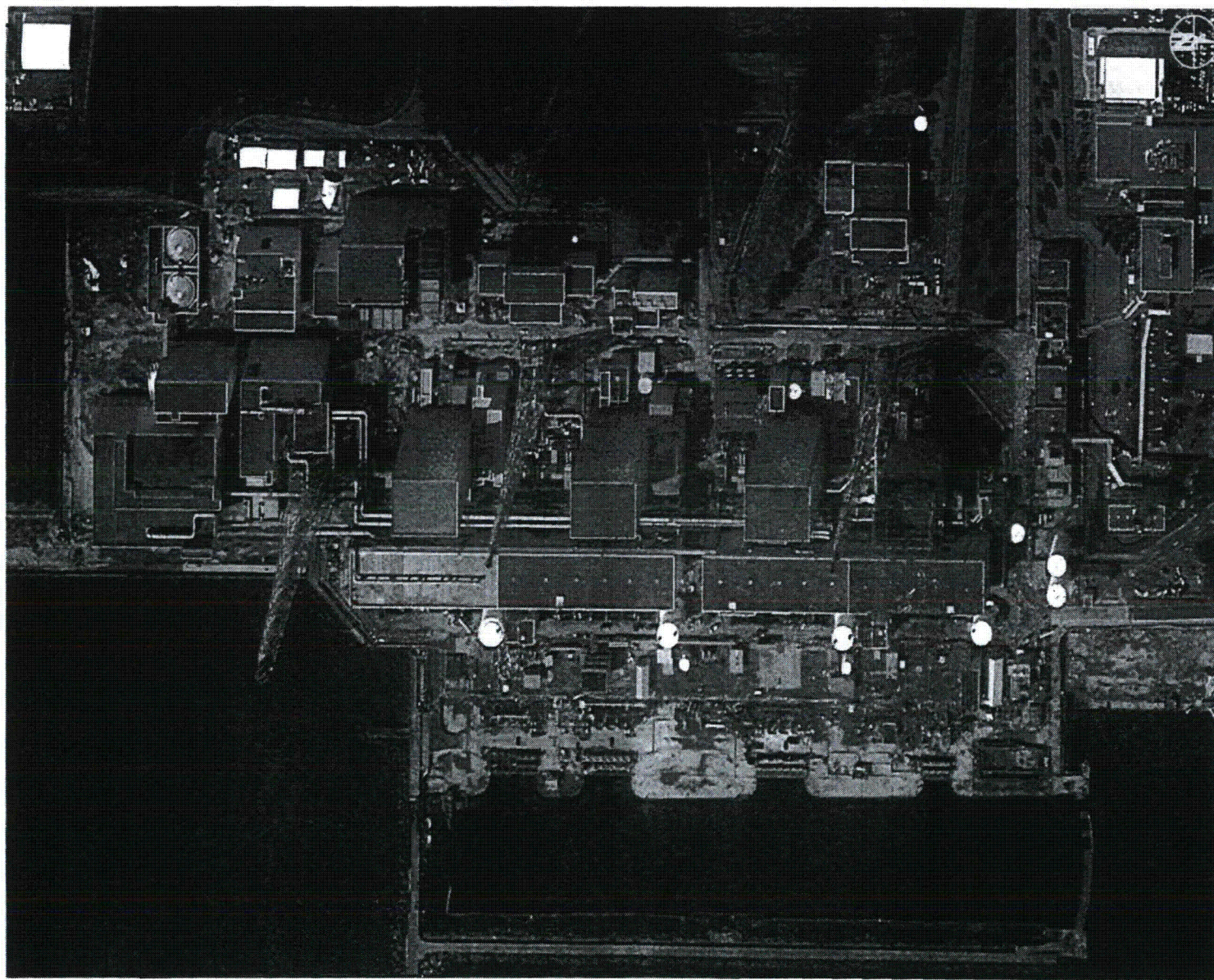
----- Original Message -----

From: tpkako <tpkako@csice.go.jp>  
To: Nakanishi, Tony; Smith, Brooke  
Cc: 難波 健太 <conake@csice.go.jp>  
Sent: Thu Mar 17 05:54:28 2011  
Subject: Sending Commercial Imageries

Mr. Nakanishi and Mr. Smith,

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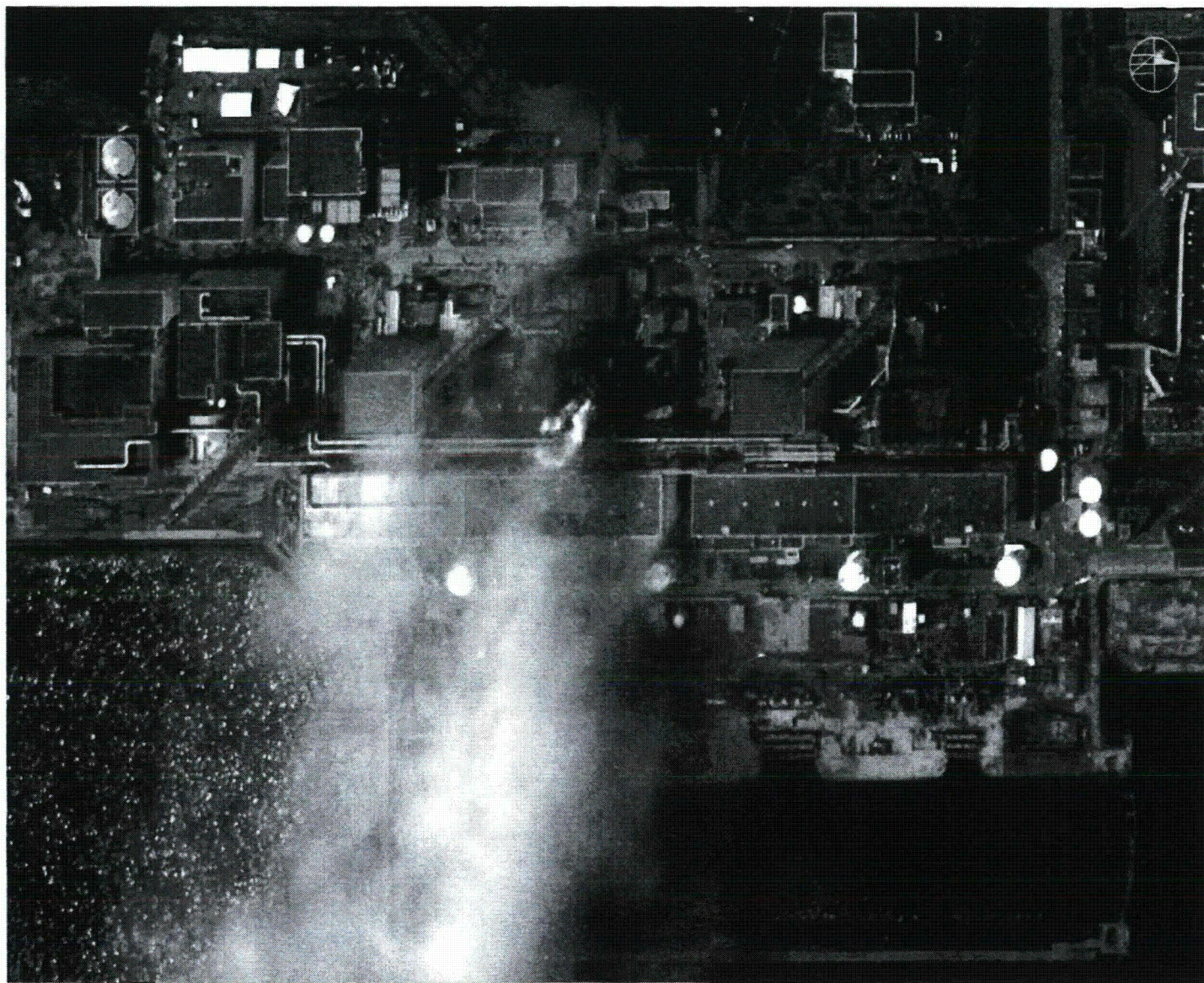
Koshi Kanno, Cabinet Satellite Intelligence Center



100 0 100 Meters

GeoEye-1 PANSHARPEN 2011/03/14





0 100 200 300 400 500 m

QuickBird PANSHARPEN 2011/03/14





© DigitalGlobe

50 0 50 100 Meters

Quick Bird PANSARPEN 2011/03/16



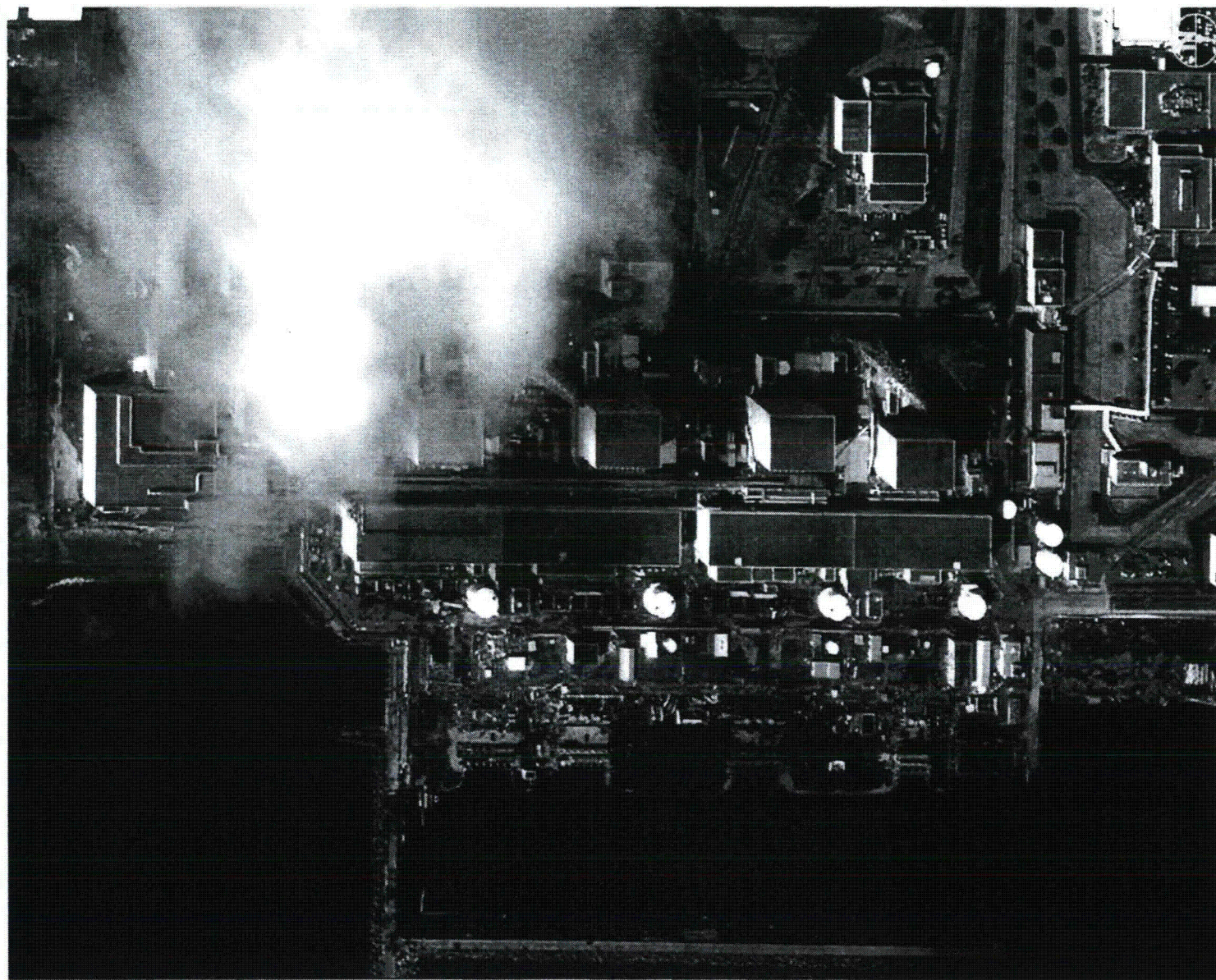


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20 0 20 40 Meters

Quick Bird PANSAHRPEN 2011/03/16

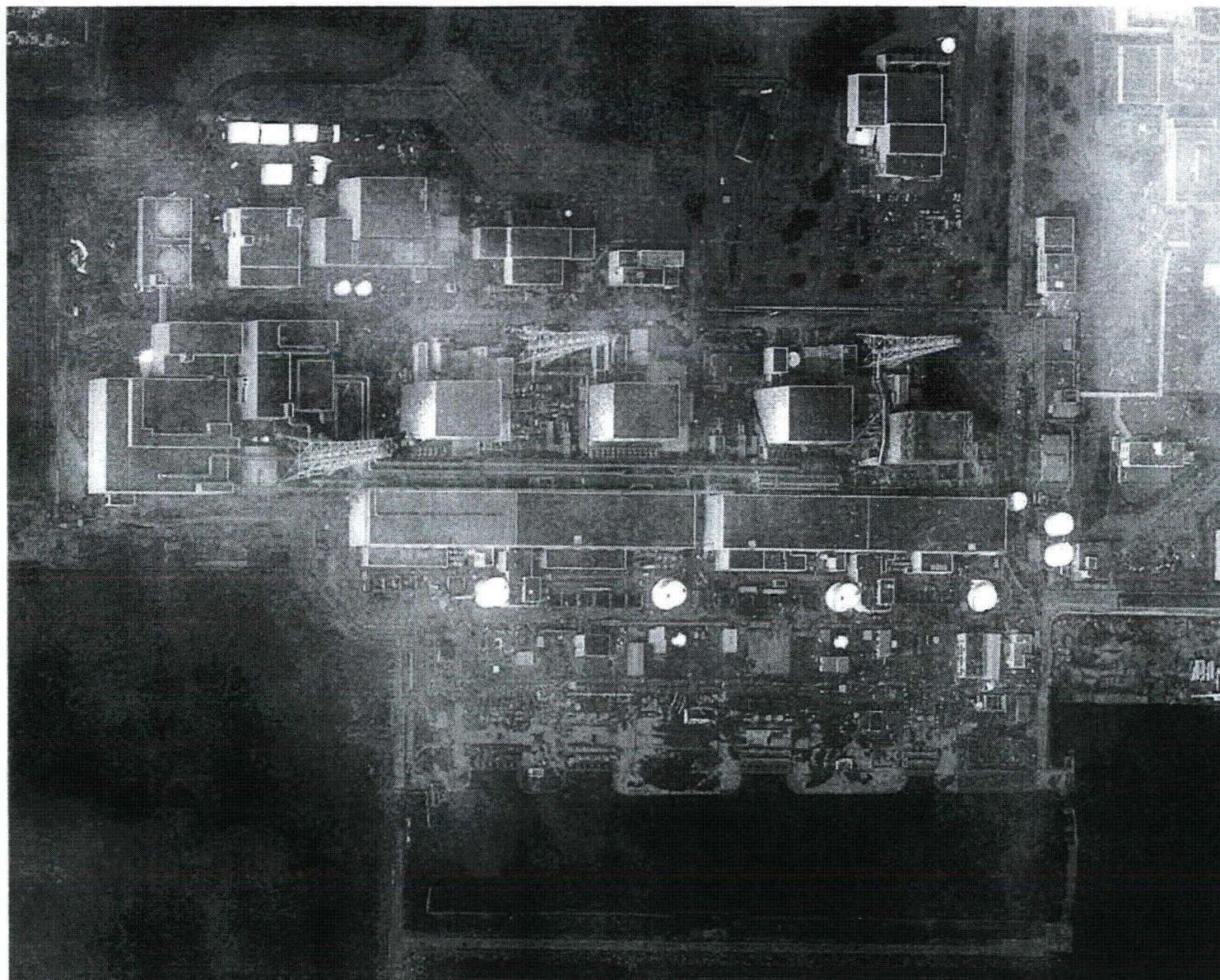




100 0 100 Meters

IKONOS PANSARPEN 2011/03/12

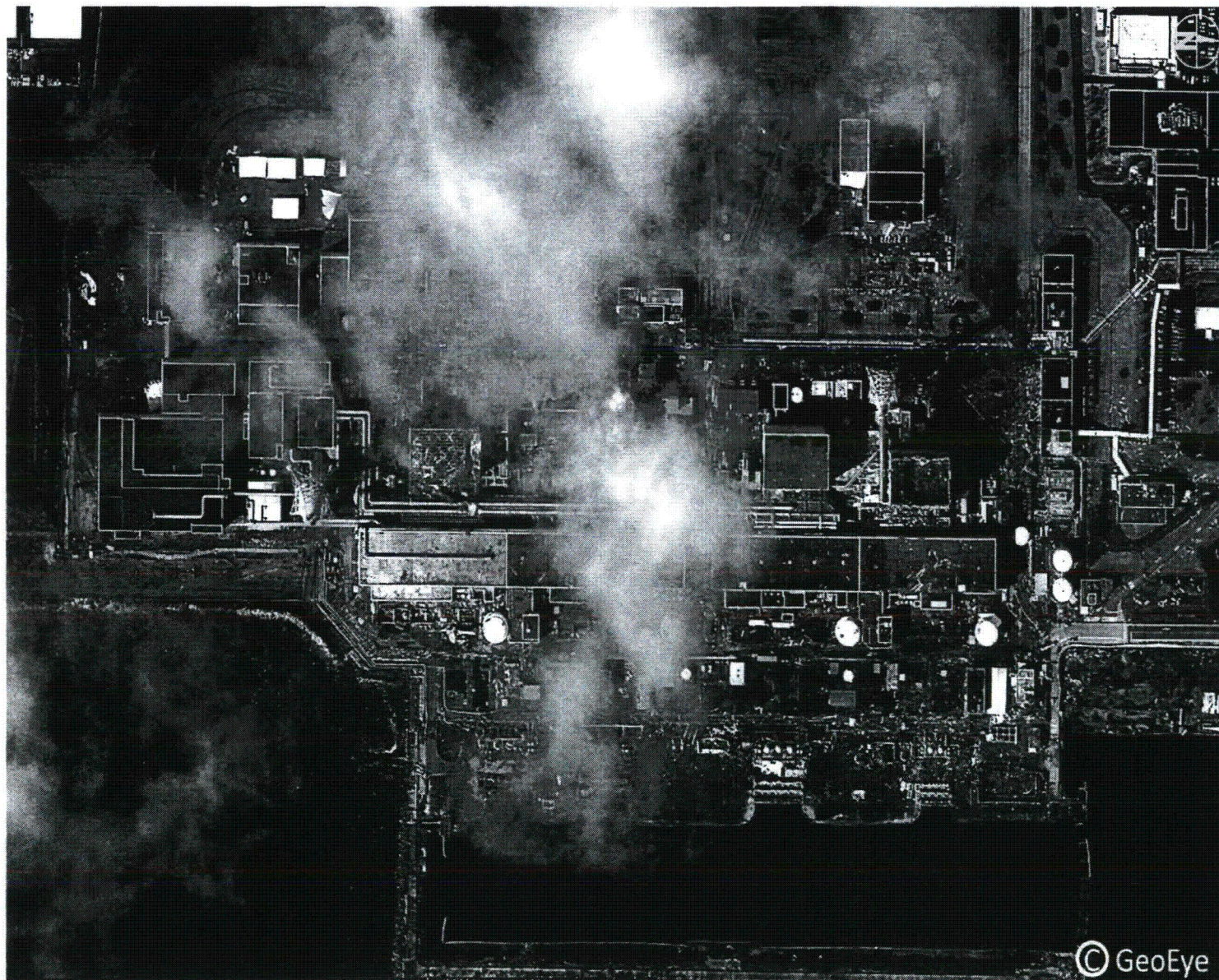




100 0 100 Meters

GeoEye-1 PANSHARPEN 2011/03/13



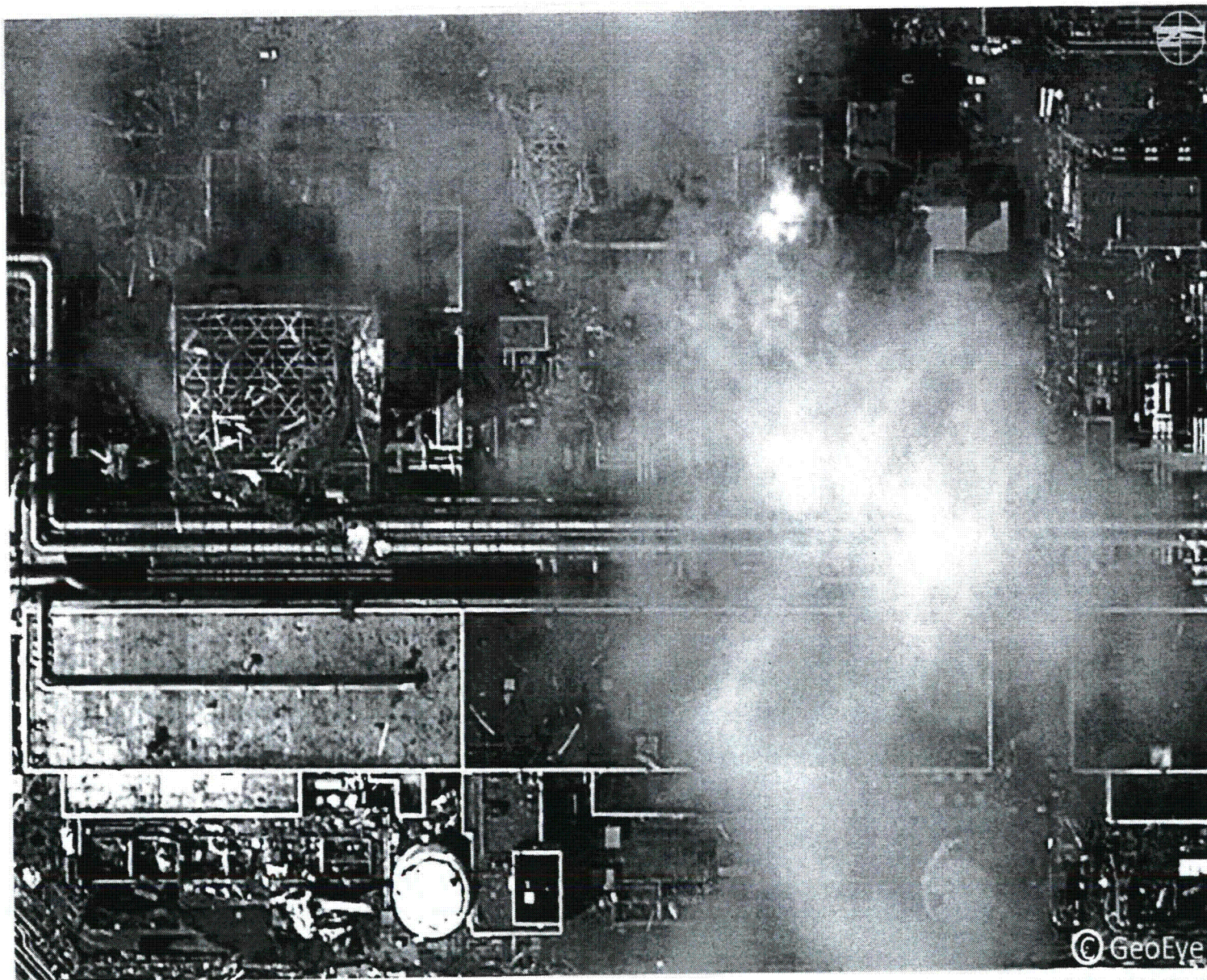


100 0 100 Meters

© GeoEye

GeoEye-1 PANSHARPEN 2011/03/16





20 0 20 40 60 Meters

GeoEye-1 PANSHARPEN 2011/03/16



---

**From:** LIA06 Hoc  
**Sent:** Thursday, March 17, 2011 6:00 PM  
**To:** LIA06 Hoc; cee@nei.org  
**Cc:** Lombard, Mark; Hoc, PMT12; LIA08 Hoc  
**Subject:** RE: Call between NEI and NRC

Chris,

Based on a call that the NRC Chairman had with the head of NEI, earlier today, I have been advised not to have this call. Accordingly, we are cancelling the call. I left you a voicemail message. Please call me, if you get this email tonight.

Thanks

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

---

**From:** LIA06 Hoc  
**Sent:** Thursday, March 17, 2011 5:07 PM  
**To:** 'cee@nei.org'  
**Cc:** LIA06 Hoc; Lombard, Mark; Hoc, PMT12; LIA08 Hoc  
**Subject:** Call between NEI and NRC

Chris,

We are shooting to start our regular calls with NEI tomorrow (3/18) at 10:00 am. We will have someone from our Protective Measures Team on the call. Please call (b)(6) [REDACTED] The person that should be manning the LT at that time, will be Mark Lombard.

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

mmmm/109

**From:**  
**To:**

(b)(6)

(b)(6)

(b)(6)

**Subject:**  
**Date:**

RE: monitoring data (latest version) - Correction  
Thursday, March 17, 2011 11:27:44 PM

#### CORRECTION

The rate should be 100 micro SV/h, not 100 m SV.

I am sorry confused you.

Uchida  
DOE

This email is UNCLASSIFIED

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

From: (b)(6)

Sent: Friday, March 18, 2011 12:25 PM

To: (b)(6)

(b)(6)

Subject: RE: monitoring data (latest version)

Chief Cabinet Secretary Edano mentioned at his press conference at 10:55 that at a location where is about 30 km from the nuclear plant, about 100 m SV/h of dose rates have been kept indicating and the experts are now examining the cause.

Edano didn't specify where it is, but it will be Monitoring Point 32, where is 30 km North West from the plant.  
We can see relatively higher rates around the MP 32.

Uchida  
DOE

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

From: (b)(6)

Sent: Friday, March 18, 2011 9:19 AM

To: (b)(6)

(b)(6)

mmmm/1/10

(b)(6)

Subject: FW: monitoring data (latest version)

FYI.

SBU

This email is UNCLASSIFIED

Jennifer Clever  
Japan Emergency Command Center  
U.S. Embassy, Tokyo

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

From: (b)(6)

Sent: Friday, March 18, 2011 9:01 AM

To: (b)(6)

Cc: (b)(6)

(b)(6)

Subject: monitoring data (latest version)

Huntington-san,

This is the latest monitoring data.

(As for an email that you sent short time ago, I will respond by another email.)

Thank you,  
Kanemitsu

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

From: TANAKA KANEMITSU

Sent: Friday, March 18, 2011 7:00 AM

To: 'Huntington, Miki T LTC USA USFJ J54'

Cc: Tokyo PolMil Unit; Status of U.S. Forces Agreement Division; US Embassy; USFJ-CAT-J5;

cmht@onsa.doe.gov; Haas, Craig T GS-14 USFJ J57; (b)(6)

(b)(6)

Subject: monitoring data (latest version)

Huntington-san,

This is the latest,

Regards,  
Kanemitsu

----- Kanemitsu TANAKA (Mr.) Japan-U.S. Security Treaty  
Division North American Affairs Bureau Ministry of Foreign Affairs TEL +81-3-5501-8000 (ext.2480)  
+81-3-5501-8280 (direct)  
FAX +81-3-5501-8279  
e-mail kanemitsu.tanaka@mofa.go.jp  
-----

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

From: SAKAMOTO KENICHI

Sent: Friday, March 18, 2011 4:48 AM

To: 'Huntington, Miki T LTC USA USFJ J54'

Cc: Tokyo PolMil Unit; Status of U.S. Forces Agreement Division; US Embassy; USFJ-CAT-J5;  
cmht@nnsa.doe.gov; Haas, Craig T GS-14 USFJ J57; (b)(6)

(b)(6) TANAKA KANEMITSU

Subject: monitoring data (latest version)

Huntington-san,

This is the latest monitoring data.

Thank you,

Kenichi SAKAMOTO

-----  
外務省北米局日米 位 定室 課 補佐

Deputy Director, Status of U.S. Forces Agreement Division, North American Affairs Bureau, Ministry of  
Foreign Affairs

坂本 賢一

Kenichi SAKAMOTO

TEL: +81-3-5501-8000 (ex)5362

DIRECT: +81-3-5501-8282

FAX: +81-3-5501-8281

MAIL: kenichi.sakamoto-2@mofa.go.jp  
-----

This email is UNCLASSIFIED

**From:** Cherry, Ronald C  
**To:** Alan Remick; Aleshia Duncan; Cook, William; Smith, Brooke; Casto, Chuck; Damian Peko; Duncan, Aleshia D; Howard, E. Bruce; Foster, Jack; Trapp, James; James Trapp (BB); Joe Hughart; Joe Hughart (DART); Monninger, John; Johnstone, Gregg M; Eggie, Kirk; Mears, Jeremy M; Morales, Russell A; Devercelly, Richard; Kolb, Timothy; Tony Nakanishi; Ulises, Anthony  
**Cc:** Tong, Kurt W; Basalla, Suzanne I; Fuller, Matthew G  
**Subject:** FW: Suggestion for cooling -- ice balloons  
**Date:** Thursday, March 17, 2011 11:08:49 PM

---

What does the NRC team think of this idea?

This email is UNCLASSIFIED

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

From: Basalla, Suzanne I  
Sent: Friday, March 18, 2011 12:07 PM  
To: Tong, Kurt W  
Cc: Cherry, Ronald C; Duncan, Aleshia D; Fuller, Matthew G  
Subject: Suggestion for cooling -- ice balloons

Kurt,

Here's a suggestion in the email chatter world for cooling the reactor.

This is my second one received in two days...what do you think is the best way to get these to experts for their consideration? I think it's good for ideas to at least get to our experts for consideration.

It may sound silly -- but I like the idea of a suggestion box.

Thoughts?

Suzanne

From: Takesuye, Edward L CAPT USN CCG5  
Sent: Friday, March 18, 2011 9:57 AM

Subject: RE: 18 MAR, Morning (Japan time) Update

John - yesterday's video coverage of the helicopter efforts indicated that the wind was dispersing the water and blowing it away from the target. Have you heard any consideration to drop large containers of water ("water balloon" - such as a bladder like a yokohama fender - the idea being the casing would melt and release all of the water) and/or drop ice since it would be less affected by wind?

r/ CAPT Takesuye

SBU

This email is UNCLASSIFIED

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

From: (b)(6)  
Sent: Friday, March 18, 2011 10:56 AM

(b)(6)

mmmm! / / /



(b)(6)

Subject: RE: 18 MAR, Morning (Japan time) Update

John - they may only be thinking water, water, water . . . Have they opened a "suggestion" box for ideas? If not, maybe they should. . . Considering the consequences.

v/r,  
CAPT Takesuye

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

From: (b)(6)

Sent: Friday, March 18, 2011 10:22 AM

To: (b)(6)

(b)(6)

(b)(6)

Subject: RE: 18 MAR, Morning (Japan time) Update

COS,

My impression is that they are making up the tactics as they go along  
---- battle against time --- Your idea might be a welcome/good one ---  
sounds like something we should suggest to GENERAL Oriki and GENERAL  
Hibako and/or ADM Sugimoto, ASAP...

V/R, John N.

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

From: Takesuye, Edward L CAPT USN CCG5  
Sent: Friday, March 18, 2011 9:57 AM

Subject: RE: 18 MAR, Morning (Japan time) Update

John - yesterday's video coverage of the helicopter efforts indicated  
that the wind was dispersing the water and blowing it away from the  
target. Have you heard any consideration to drop large containers of  
water ("water balloon" - such as a bladder like a yokohama fender - the  
idea being the casing would melt and release all of the water) and/or  
drop ice since it would be less affected by wind?

r/ CAPT Takesuye

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

From: Niemeyer, John CIV USN CNFJ  
Sent: Friday, March 18, 2011 9:47 AM

Subject: 18 MAR, Morning (Japan time) Update

-- Resumption of helo & water-cannon truck coolant insertion operations  
has yet to occur.

-- Re-connection of electricity in near future will be intended to  
reactivate ECCS systems, where possible (see attached diagram).

-- Pouring water on the No. 4 unit of Fukushima Daiichi nuclear plant  
may be effective to cool down apparently overheating spent nuclear fuel  
in the facility, as the reactor appears to have only a skeleton of the  
roof frame, a U.S. think tank said Thursday, citing a fresh satellite  
image of the facility.

"With only a skeleton frame on the roof, it may be easier to deliver  
water to the spent fuel pond to unit 4 from above," the Institute for  
Science and International Security said in a statement.

Analyzing the new satellite image, the Washington-based think tank said,  
"While the paneling on the roof of the building appears intact in the  
March 16, 2011 image, it appears that only the skeleton of the roof  
frame is left in the March 17, 2011 image."

While it is possible that the varying angles of the images are affecting the appearance, the difference appears significant enough to indicate a structural change, it added.

Japan is struggling to prevent high levels of radiations from emitting from the damaged reactors at Tokyo Electric Power Co.'s Fukushima Daiichi nuclear plant in Japan's northeastern prefecture of Fukushima.

The No. 4 reactor was under maintenance when a powerful earthquake hit Japan last week.

**From:** OST01 HOC  
**Sent:** Friday, April 29, 2011 1:28 PM  
**To:** FOIA Response.hoc Resource  
**Subject:** FW: USNRC Emergency Operations Center Status Update 04292011 1200 EDT  
**Attachments:** USNRC Earthquake-Tsunami Update 042911 Revision 1200 EDT.docx

**From:** LIA08 Hoc

**Sent:** Friday, April 29, 2011 12:12 PM

To: A Green; A Rock; Al Coons; Aleshia Duncan; alexancg; Anthony Herbold; Appleman Binkert; B Green; B Russo; Bill King; Bill King2; Bruce Howard; C Lay; C Noser; C Ops; Charles Burrows; Charles Donnell; Christopher Meadow; Conrad Burnside; D Drakeley; D May; D Murakami; D Webb; Damian Peko; Dan Feighert; Darrell Hammons; Devin Bush G LTJG RIA-Midwest MPLS.N47922; DHS Ops; DOE NIT; DOT; DTRA; DTRA; Dudek; E Wright; Elmer Naples; EOP; EPA; EPA2; Eric Sinibaldi; F Lewis; G Szeto; G Whitmire; George Higdon; gregopk; Gregory Simonson; Gretchen McCoy; H; Harry Sherwood; HHS; I Clark; Intel DIA; J Barnes; J Bartlett; J Moeller; J Noonkester; J Szymanski; J Tippets; James Purvis; Japan Embassy Task Force; Jason CIA; Jason Pepin; Jeremy Demott; Jeremy Morrow; Jeremyft1; Jim Kish; Johanna Berkey; John Holdren; Joyce Connery; K Donald; K Gonzalez; K Ousley; Karyn Keller; Kyle Viayra; L Mayer; Lee Nickel; Lisa; Lisa Hammond; Lukas McMichael; M Huchla; M Kerber; M Lansley; M Thon; M Thon2; maceck; MARFORPAC CAT All Hazards Div; MARFORPAC CAT G2; Mark Shaffer; markwb2; Marshall Shull; Michelle Ralston; Nan Calhoun; Navy; NICC; NMIC; NOC; NOC Duty Director; Nulcear SSA; P Gardner; pentagon; Peter Lyons; Phillip Barks; R Roesler; R Schueneman; Rebecca Thomson; roberhh; Ron Cherry; Ron McCabe; S Basile; S Buntman; S Levy; scotc1; Seamus O'Boyle; seiden; state; Stephen Trautman; Steve Colman; Steve Horwitz; T Roberts; Thomas Conran; Thomas Zerr; Tim Greten; Timothy Hitzelberger; Trent Hughes; Troy Heytens; USDA, John; USMC; Vanessa Quinn; Victoria Kinsey; W Cluff; W Young; Will Friese; William Webb; A Aviles; A Brown; A Estes; A Hough; A Tribbie; B goldberg; B Moffat; B Perry; B Woo; Beavers, Shane; Brinser, Andrew; Brooks, Andrae; Brown, Michael; C Fiore; C Good; C Kim; Carlos Islas; CPF CATN5; Craig Gaddis; D Fletcher; D Putthoff; D Scully; D Smith; D Souza; D Wade; D Williams; David Graves; DOE DART; E Fiser; E kaye; E Price; E Shelland; E Train; Elder, Troy M SGT MIL USA USARPAC; Eric Wright; F Bantell; Floyd Lewis; Fossum, Sgt Zachary; Guathier, Ronald; H Zito; Hickam; Hickam; J Blankenburg; J Kreykes; J McCallister; J Rhodes; J Rivera; J Scarbrough; J Soderbeck; J Stewart; J Trussler; James Williams; JR Haley; JTF505-MAIN-JOC-J2; JTF505-MAIN-JOC-J2-INTEL-ANAY; K Bollow; K Bollow; K Tomlinson; Koluch, SSgt Eric; L Bolling; L Elkins; L Heinrich; L Walter; Laurel Steinhurst; Lay, Christopher; M Howsare; M Kabbur; M Nguyen; M Opfer; M Taafe; M Thon; Marina Llewellyn; Mark Russo; Michael Anderson; Micheael Eberlein; Monaghan, Dylan; N Albritton; N Albritton; NCMI Ops; Office of Secretary of Defense Watch Officer; Olson, Niels; OST01 HOC; P Almquist; P Higginbotham; P Higgins; P Lyons; P Smalley; P Somboonpakron; PACOM; PACOM; Pasit Sombookpakron; Powers, Jeffrey; R Backley; R Fisher; R Garrett; R Neff; R Stephenson; R Tashma; Reid Tanaka; Richard, Sgt William; Robert Duke; Robert P; RST01 Hoc; RST01B Hoc; RST03 Hoc; S Aoki; S Jerabek; Sean Basile; Shirey, Sgt Eric; Simmers, Keith; Spencer Nordgran; Spurlock, Kenneth; Stephen Greco; T Lowman; T Miller; T True; Thomas Vavoso; Tovar, SSgt Eric; (b)(6) USFJ; USFJ Intel; V Raphael; Valerie Makino; Vaughn, Sgt Jerrod; Walter Hokett; Wanda Ayuso; William Brysacz; Andersen, James; Anderson, Joseph; Ash, Darren; Baggett, Steven; Barker, Allan; Batkin, Joshua; Boger, Bruce; Borchardt, Bill; Bradford, Anna; Brenner, Eliot; Breskovic, Clarence; Smith, Brooke; Brown, Frederick; Brown, Milton; Bubar, Patrice; Burns, Stephen; Camper, Larry; Carpenter, Cynthia; Castleman, Patrick; Ader, Charles; Murray, Charles; Casto, Chuck; Coggins, Angela; Collins, Elmo; ConE\_Resource; Copeland, Douglas; Correia, Richard; Craffey, Ryan; Dapas, Marc; Dean, Bill; Decker, David; Diaz-Sanabria, Yoira; Dickman-Disabled-11/14/2010, Paul; Dorman, Dan; Droggitis, Spiros; Dyer, Jim; English, Lance; ET02 Hoc; Evans, Michele; Franovich, Mike; Frye, Timothy; Garmon, David; Apostolakis, George; Gibbs, Catina; Glitter, Joseph; Gott, William; Grobe, Jack; Hahn, Matthew; Haney, Catherine; Harrington, Holly; Hipschman, Thomas; Hoc, PMT12; Holahan, Gary; Holahan, Patricia; Holahan, Vincent; HOO Hoc; Howe, Allen; Howell, Art; Howell, Linda; Issa, Alfred; Itzkowitz, Marvin; Foster, Jack; Jackson, Donald; Jaczko, Gregory; Johnson, Andrea; Johnson, Michael; Jones, Cynthia; Kahler, Robert; King, Mark; Foggie, Kirk; Kock, Andrea; Kozal, Jason; Leeds, Eric; LIA08 Hoc; Logaras, Haral; Loyd, Susan; Magwood, William; Maier, Bill; Marshall, Jane; Marshall, Michael; McCree, Victor; McDermott, Brian; McIntosh, Angela; McNamara, Nancy; Michalak, Paul; Miller, Charles; Miller, Chris; Monninger, John; Morris, Scott; Nease, Rebecca; Nieh, Ho; NRCHQ; NSIR\_DDSP\_ILTAB\_Distribution; Ordaz, Vonna; Orders, William; OST05 Hoc; Ostendorff

William; Pace, Patti; Patel, Jay; Pearson, Laura; Pederson, Cynthia; Plisco, Loren; Powell, Amy; Quichocho, Jessie; R1 IRC; R2 IRC; R3 IRC; R4 IRC; Reddick, Darani; Reyes, Luis; Devercelly, Richard; Riley (OCA), Timothy; Nelson, Robert; ROO hoc; Rothschild, Trip; RST01 Hoc; Satorius, Mark; Schmidt, Rebecca; Sharkey, Jeffry; Sheron, Brian; Sigmon, Rebecca; Snodderly, Michael; Sosa, Belkys; Speiser, Herald; Svinicki, Kristine; Tabatabai, Omid; Thoma, John; Thomas, Eric; Tift, Doug; Kolb, Timothy; Ulses, Anthony; Nakanishi, Tony; Tracy, Glenn; Trapp; Trapp, James; Trojanowski, Robert; Turtill, Richard; Uhle, Jennifer; Virgilio, Martin; Warnick, Greg; Warren, Roberta; Weber, Michael; Westreich, Barry; Wiggins, Jim; Cook, William; Williams, Kevin; Wittick, Brian; Woodruff, Gena; Zimmerman, Roy; Zorn, Jason; Batkin, Joshua; Borchardt, Bill; Bradford, Anna; Coggins, Angela; Cohen, Shari; Collins, Elmo; Cooper, LaToya; Dyer, Jim; ET07 Hoc; Flory, Shirley; Gibbs, Catina; Haney, Catherine; Hudson, Sharon; Jaczko, Gregory; Johnson, Michael; Leeds, Eric; Loyd, Susan; Monninger, John; Pace, Patti; Schwarz, Sherry; Sheron, Brian; Speiser, Herald; Sprogeris, Patricia; Taylor, Renee; Virgilio, Martin; Walker, Dwight; Walls, Lorena; Weber, Michael

**Cc:** LIA08 Hoc

**Subject:** USNRC Emergency Operations Center Status Update 04292011 1200 EDT

**\*\*\*\*\*NOTE: THE ATTACHED IS FOR OFFICIAL USE ONLY\*\*\*\*\***

Good Afternoon,

Attached is the Status Update for Friday, April 29, 2011. **The next USNRC Status Update will be distributed at 1200 EDT on Monday, May 2, 2011.**

Thank You

**\*\*\*\*\*NOTE: THE ATTACHED IS FOR OFFICIAL USE ONLY\*\*\*\*\***

Liaison Team Coordinator  
US Nuclear Regulatory Commission  
email: lia08.hoc@nrc.gov  
Desk Ph: 301-816-5185

**From:** Smith, Brooke  
**To:** Foster, Jack; Casto, Chuck; Kolb, Timothy; Monninger, John; Cook, William; Ulses, Anthony; Trapp, James  
**Subject:** Fw: Commercial Imageries  
**Date:** Thursday, March 17, 2011 4:26:49 AM  
**Attachments:** ik1\_110317.pdf

---

Today's satellite images.

Sent from an NRC Blackberry.  
Brooke G. Smith

(b)(6)

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

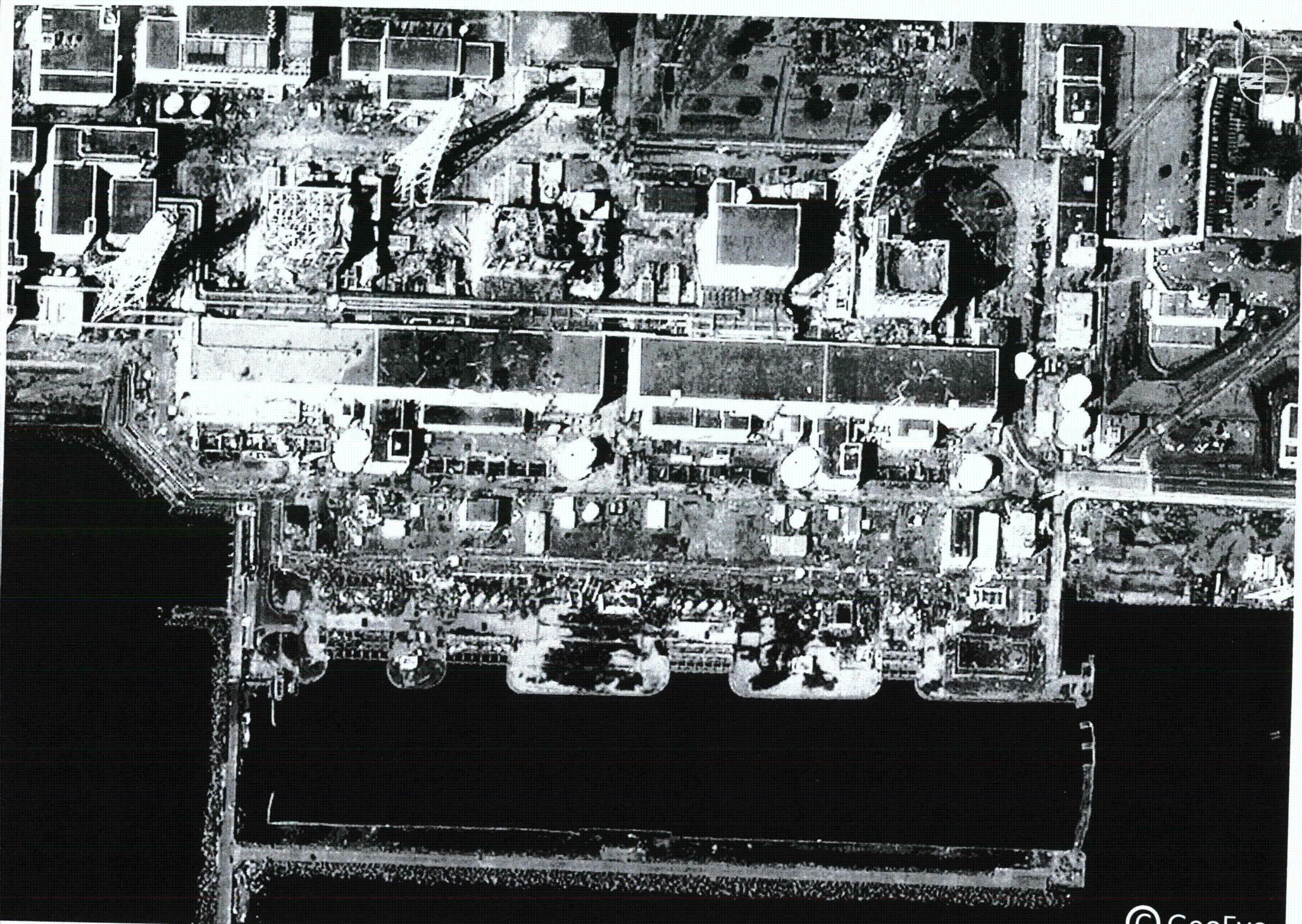
From: conake <conake@csice.go.jp>  
To: Nakanishi, Tony; Smith, Brooke  
Sent: Thu Mar 17 04:09:47 2011  
Subject: Commercial Imageries

Mr. Nakanishi and Mr. Smith,  
Upon instruction from Japanese Cabinet Crisis Response Room, let me send you, as attached, two commercial imageries of Fukushima-daiichi atomic power station taken today. Thank you for your cooperation.

Kenta Namba, Cabinet Satellite Intelligence Center

mmmm/1/3



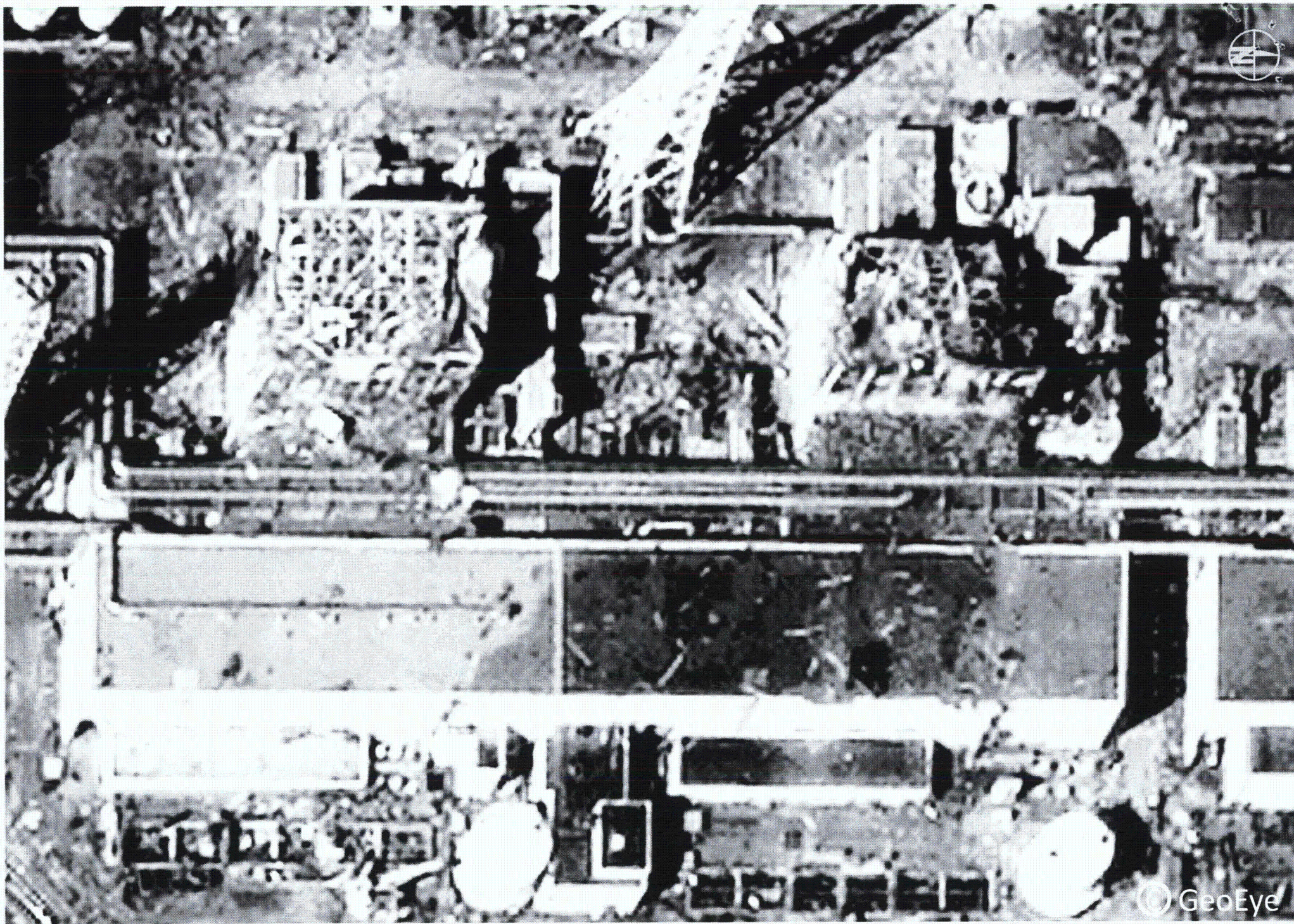


00 0 100 Meters

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IKONOS PANSARPEN 2011/03/17





20 0 20 40 60 Meters

© GeoEye

IKONOS PANSARPEN 2011/03/17



**From:**

(b)(6)

**To:**

(b)(6)

(b)(6)

**Subject:**

RE: monitoring data (latest version)

**Date:**

Thursday, March 17, 2011 11:25:27 PM

**Attachments:**

20110317\_21.pdf

20110317\_22.pdf

Chief Cabinet Secretary Edano mentioned at his press conference at 10:55 that at a location where is about 30 km from the nuclear plant, about 100 m SV/h of dose rates have been kept indicating and the experts are now examining the cause.

Edano didn't specify where it is, but it will be Monitoring Point 32, where is 30 km North West from the plant.

We can see relatively higher rates around the MP 32.

Uchida

DOE

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

**From:** (b)(6)

**Sent:** Friday, March 18, 2011 9:19 AM

**To:** (b)(6)

(b)(6)

**Subject:** FW: monitoring data (latest version)

FYI.

SBU

This email is UNCLASSIFIED

Jennifer Clever

Japan Emergency Command Center

U.S. Embassy, Tokyo

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

**From:** TANAKA KANEMITSU [mailto:kanemitsu.tanaka@mofa.go.jp]

**Sent:** Friday, March 18, 2011 9:01 AM

**To:** 'Huntington, Miki T LTC USA USFJ J54'

**Cc:** Tokyo PolMil Unit; Status of U.S. Forces Agreement Division: JapanEmbassy, TaskForce; USFJ-CAT-15; cmht@nnsa.doe.gov; Haas, Craig T GS-14 USEJ J57; (b)(6)

(b)(6)

**Subject:** monitoring data (latest version)

mmmm/114

Huntington-san,

This is the latest monitoring data.

(As for an email that you sent short time ago, I will respond by another email.)

Thank you,  
Kanemitsu

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

From: TANAKA KANEMITSU

Sent: Friday, March 18, 2011 7:00 AM

To: 'Huntington, Miki T LTC USA USFJ J54'

Cc: Tokyo PolMil Unit; Status of U.S. Forces Agreement Division; US Embassey; USFJ-CAT-J5;  
cmht@nnsa.doe.gov; Haas, Craig T GS-14 USFJ J57; (b)(6)

(b)(6)

Subject: monitoring data (latest version)

Huntington-san,

This is the latest,

Regards,  
Kanemitsu

----- Kanemitsu TANAKA (Mr.) Japan-U.S. Security Treaty  
Division North American Affairs Bureau Ministry of Foreign Affairs TEL +81-3-5501-8000 (ext.2480)  
+81-3-5501-8280 (direct)  
FAX +81-3-5501-8279  
e-mail kanemitsu.tanaka@mofa.go.jp  
-----

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

From: SAKAMOTO KENICHI

Sent: Friday, March 18, 2011 4:48 AM

To: 'Huntington, Miki T LTC USA USFJ J54'

Cc: Tokyo PolMil Unit; Status of U.S. Forces Agreement Division; US Embassey; USFJ-CAT-J5;  
cmht@nnsa.doe.gov; Haas, Craig T GS-14 USFJ J57; (b)(6)

(b)(6)

TANAKA KANEMITSU  
Subject: monitoring data (latest version)

Huntington-san,

This is the latest monitoring data.

Thank you,

Kenichi SAKAMOTO

-----  
外務省北米局日米 位 定室 課 補佐

Deputy Director, Status of U.S. Forces Agreement Division, North American Affairs Bureau, Ministry of  
Foreign Affairs

坂本 賢一

Kenichi SAKAMOTO

TEL: +81-3-5501-8000 (ex)5362

DIRECT: +81-3-5501-8282

FAX: +81-3-5501-8281

MAIL: kenichi.sakamoto-2@mofa.go.jp  
-----

This email is UNCLASSIFIED

# 福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月18日10時00分現在  
文 部 科 学 省

## 1. 文部科学省が実施した結果 注) 太下線データが今回追加分

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

| 場所(福島第1発電所からの距離)  | 測定日時        | 数値(マイクロシーベルト/時)<br>(記載のない限り屋外) | 天候   | 実施者         |
|-------------------|-------------|--------------------------------|------|-------------|
| 測定箇所【1】(約60Km北西)  | 3月17日17時43分 | 8.0 <sup>*2</sup>              | 降雨無し | 文部科学省       |
| 測定箇所【46】(約20Km北西) | 3月17日17時00分 | <u>38.0</u> <sup>*2</sup>      | 降雨無し | 東京電力        |
| 測定箇所【41】(約20Km西)  | 3月17日16時25分 | <u>3.5</u> <sup>*2</sup>       | 降雨無し | 東京電力        |
| 測定箇所【45】(約20Km南)  | 3月17日16時20分 | <u>4.7</u> <sup>*2</sup>       | 降雨無し | 東京電力        |
| 測定箇所【42】(約30Km西)  | 3月17日16時15分 | <u>3.2</u> <sup>*2</sup>       | 降雨無し | 東京電力        |
| 測定箇所【63】(約45Km北西) | 3月17日16時10分 | 8.0 <sup>*3</sup>              | 降雨無し | 福島県         |
| 測定箇所【4】(約50Km北西)  | 3月17日16時10分 | 5.0 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【10】(約40Km北西) | 3月17日15時58分 | 3.8 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【62】(約40Km北西) | 3月17日15時38分 | 20.0 <sup>*3</sup>             | 降雨無し | 福島県         |
| 測定箇所【11】(約40Km北西) | 3月17日15時35分 | 4.9 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【61】(約40Km北西) | 3月17日15時30分 | 15.0 <sup>*3</sup>             | 降雨無し | 福島県         |
| 測定箇所【33】(約30Km北西) | 3月17日15時15分 | 78.2 <sup>*2</sup>             | 降雨無し | 文部科学省       |
| 測定箇所【12】(約40Km西)  | 3月17日15時14分 | 1.5 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【43】(約20Km南西) | 3月17日15時00分 | <u>2.0</u> <sup>*2</sup>       | 降雨無し | 東京電力        |
| 測定箇所【44】(約30Km南)  | 3月17日15時00分 | <u>3.3</u> <sup>*2</sup>       | 降雨無し | 東京電力        |

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

| 場所(福島第1発電所からの距離)   | 測定日時        | 数値(マイクロシーベルト/時)<br>(記載のない限り屋外) | 天候   | 実施者         |
|--------------------|-------------|--------------------------------|------|-------------|
| 測定箇所【32】(約30Km北西)  | 3月17日15時00分 | 158.0 <sup>*2</sup>            | 降雨無し | 文部科学省       |
| 測定箇所【20】(約45Km北西)  | 3月17日15時00分 | 0.8 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【23】(約35Km西北西) | 3月17日14時50分 | 1.3 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【2】(約35Km北西)   | 3月17日14時50分 | 18.3 <sup>*2</sup>             | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【31】(約30Km西北西) | 3月17日14時44分 | 61.6 <sup>*2</sup>             | 降雨無し | 文部科学省       |
| 測定箇所【15】(約35Km西)   | 3月17日14時42分 | 3.3 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【22】(約35Km西北西) | 3月17日14時35分 | 0.7 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【14】(約35Km西)   | 3月17日14時29分 | 1.4 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【3】(約45Km北西)   | 3月17日14時25分 | 7.2 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【21】(約30Km西北西) | 3月17日14時20分 | 7.3 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【33】(約30Km北西)  | 3月17日14時17分 | 95.1 <sup>*2</sup>             | 降雨無し | 文部科学省       |
| 測定箇所【13】(約40Km西)   | 3月17日14時17分 | 1.7 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【53】(約45Km南)   | 3月17日14時03分 | 1.5 <sup>*3</sup>              | 降雨無し | 福島県         |
| 測定箇所【32】(約30Km北西)  | 3月17日14時00分 | 170.0 <sup>*2</sup>            | 降雨無し | 文部科学省       |
| 測定箇所【23】(約35Km西北西) | 3月17日13時50分 | 1.4 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【16】(約30Km西)   | 3月17日13時47分 | 5.5 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【31】(約30Km西北西) | 3月17日13時45分 | 59.3 <sup>*2</sup>             | 降雨無し | 文部科学省       |
| 測定箇所【15】(約35Km西)   | 3月17日13時42分 | 3.2 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |

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

| 場所(福島第1発電所からの距離)   | 測定日時        | 数値(マイクロシーベルト/時)<br>(記載のない限り屋外) | 天候   | 実施者         |
|--------------------|-------------|--------------------------------|------|-------------|
| 測定箇所【22】(約35Km西北西) | 3月17日13時35分 | 1.1 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【14】(約35Km西)   | 3月17日13時29分 | 1.7 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【7】(約45Km北)    | 3月17日13時25分 | 2.7 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【33】(約30Km北西)  | 3月17日13時23分 | 91.8 <sup>*2</sup>             | 降雨無し | 文部科学省       |
| 測定箇所【21】(約30Km西北西) | 3月17日13時20分 | 7.3 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【13】(約40Km西)   | 3月17日13時17分 | 1.7 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【6】(約45Km北)    | 3月17日13時10分 | 3.5 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【32】(約30Km北西)  | 3月17日13時10分 | 167.0 <sup>*2</sup>            | 降雨無し | 文部科学省       |
| 測定箇所【31】(約30Km西北西) | 3月17日13時10分 | 58.6 <sup>*2</sup>             | 降雨無し | 文部科学省       |
| 測定箇所【46】(約20Km北西)  | 3月17日13時00分 | 40.0 <sup>*2</sup>             | 降雨無し | 東京電力        |
| 測定箇所【5】(約45Km北)    | 3月17日12時55分 | 3.3 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【23】(約35Km西北西) | 3月17日12時50分 | 1.3 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【15】(約35Km西)   | 3月17日12時42分 | 3.2 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【22】(約35Km西北西) | 3月17日12時35分 | 1.1 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【14】(約35Km西)   | 3月17日12時29分 | 1.7 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【7】(約45Km北)    | 3月17日12時25分 | 4.0 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【21】(約30Km西北西) | 3月17日12時20分 | 6.2 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【13】(約40Km西)   | 3月17日12時17分 | 1.7 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |

\*1 GM(ガイガー-ミューラー計測管)における値

\*2 電離箱における値

\*3 NaI(ヨウ化ナトリウム)シンチレータにおける値

| 場所(福島第1発電所からの距離)  | 測定日時        | 数値(マイクロシーベルト/時)<br>(記載のない限り屋外) | 天候   | 実施者         |
|-------------------|-------------|--------------------------------|------|-------------|
| 測定箇所【45】(約20Km南)  | 3月17日12時12分 | 4.5 <sup>*2</sup>              | 降雨無し | 東京電力        |
| 測定箇所【6】(約45Km北)   | 3月17日12時10分 | 3.2 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【44】(約30Km南)  | 3月17日12時10分 | 3.4 <sup>*2</sup>              | 降雨無し | 東京電力        |
| 測定箇所【12】(約40Km西)  | 3月17日12時05分 | 1.6 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【5】(約45Km北)   | 3月17日11時55分 | 2.6 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【43】(約20Km南西) | 3月17日11時50分 | 2.1 <sup>*2</sup>              | 降雨無し | 東京電力        |
| 測定箇所【20】(約45Km北西) | 3月17日11時46分 | 1.3 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【52】(約40Km西)  | 3月17日11時45分 | 1.7 <sup>*3</sup>              | 降雨無し | 福島県         |
| 測定箇所【51】(約40Km南西) | 3月17日11時45分 | 4.7 <sup>*3</sup>              | 降雨無し | 福島県         |
| 測定箇所【11】(約40Km北西) | 3月17日11時27分 | 5.0 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【7】(約45Km北)   | 3月17日11時25分 | 3.4 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【10】(約40Km北西) | 3月17日11時13分 | 4.5 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【6】(約45Km北)   | 3月17日11時10分 | 2.8 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【42】(約30Km西)  | 3月17日11時00分 | 3.3 <sup>*2</sup>              | 降雨無し | 東京電力        |
| 測定箇所【9】(約45Km北)   | 3月17日10時56分 | 4.7 <sup>*2</sup>              | 降雨無し | 原子力安全技術センター |
| 測定箇所【5】(約45Km北)   | 3月17日10時55分 | 2.5 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【4】(約50Km北西)  | 3月17日10時33分 | 4.5 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【3】(約45Km北西)  | 3月17日10時20分 | 9.5 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |

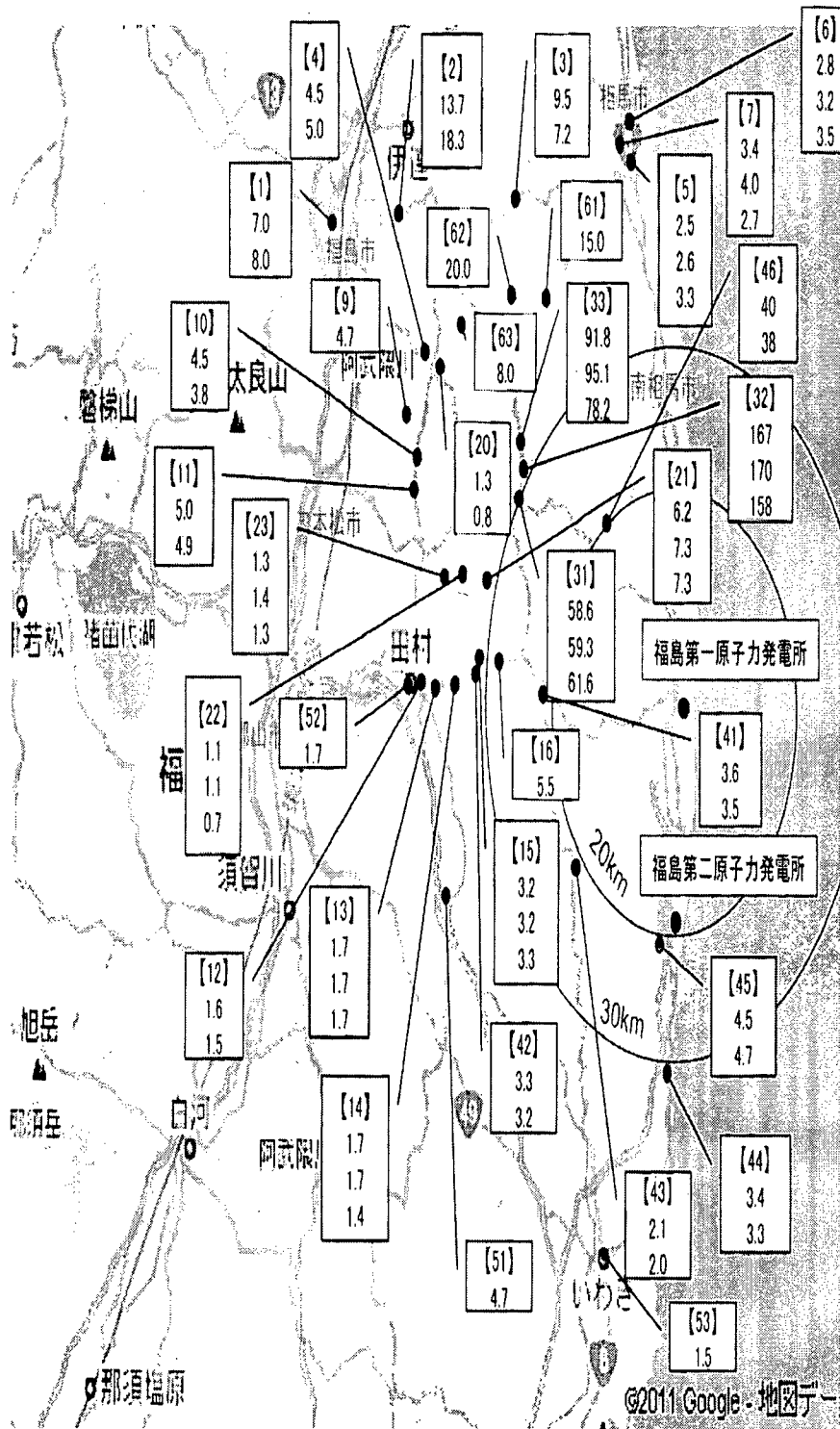
- \*1 GM(ガイガー-ミューラー計測管)における値
- \*2 電離箱における値
- \*3 NaI(ヨウ化ナトリウム)シンチレータにおける値

| 場所(福島第1発電所からの距離) | 測定日時        | 数値(マイクロシーベルト/時)<br>(記載のない限り屋外) | 天候   | 実施者         |
|------------------|-------------|--------------------------------|------|-------------|
| 測定箇所【41】(約20Km西) | 3月17日10時15分 | 3.6 <sup>*2</sup>              | 降雨無し | 東京電力        |
| 測定箇所【2】(約55Km北西) | 3月17日9時50分  | 13.7 <sup>*2</sup>             | 降雨無し | 日本原子力研究開発機構 |
| 測定箇所【1】(約60Km北西) | 3月17日9時20分  | 7.0 <sup>*2</sup>              | 降雨無し | 日本原子力研究開発機構 |

## 2. 東京電力・警察庁の測定については準備中



# 福島第一原子力発電所周辺のモニタリング結果



測定日時  
3月17日  
9時20分~17時43分

●測定箇所

単位:マイクロシーベルト毎時

5

## Wagner, Katie

**From:** Wagner, Katie  
**Sent:** Thursday, March 17, 2011 2:39 PM  
**To:** Gibson, Kathy  
**Subject:** RE: Questions from Operations Center

Kathy,

Quick question – Should the second request also be sent to [RST01.hoc@nrc.gov](mailto:RST01.hoc@nrc.gov) or [HOO.HOC@nrc.gov](mailto:HOO.HOC@nrc.gov) ?  
Thanks, Katie

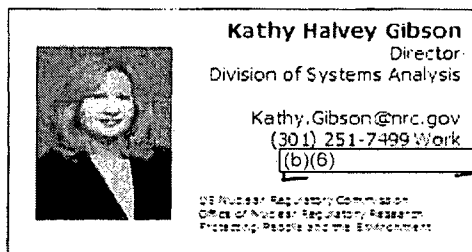
**From:** Gibson, Kathy  
**Sent:** Thursday, March 17, 2011 2:00 PM  
**To:** Wagner, Katie  
**Cc:** Lee, Richard; Scott, Michael; Zigh, Ghani; Schaperow, Jason; Santiago, Patricia  
**Subject:** Questions from Operations Center

Katie,

I receive two questions from the Operations Center reactor safety team.

1. Request for b.5.b air oxidation in BWRs report and slides. Assigned to Jason Schaperow. He will provide the slides and the ML number for the report to either the Ops center directly or to you to forward to the ops center (email [RST01.hoc@nrc.gov](mailto:RST01.hoc@nrc.gov), contact Donna Williams)
2. Request for the name(s) of RES staff who can distinguish between zirconium fire, oil fire, steam explosion, etc from a thermal image of the Japanese reactors and spent fuel pools.
3. Assigned to Ghani Zigh. Ghani will check with Mike Salley and Sandia to see who might have these skills and provide the name(s) to me. I will then either forward them to the Ops Center or ask you to do it.

Thanks!



mmm/1/15

**To:** Greten, Timothy  
**Subject:** RE: Latest Status Updates

These files are adobe

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

\*\*\*\*\*FOR OFFICIAL USE ONLY\*\*\*\*\*  
DO NOT RELEASE OUTSIDE OF THE FEDERAL FAMILY

**From:** Greten, Timothy [mailto:Timothy.Greten@dhs.gov]  
**Sent:** Thursday, March 17, 2011 6:10 PM  
**To:** LIA05 Hoc  
**Subject:** RE: Latest Status Updates

Cannot open these files either, please re-transmit

Timothy A. Greten, PMP  
Technological Hazards Division Deputy Director  
Federal Radiological Preparedness Coordination Committee Executive Secretariat  
FEMA National Preparedness Directorate  
Department of Homeland Security  
1800 South Bell St.  
Arlington, VA, 22202  
[timothy.greten@dhs.gov](mailto:timothy.greten@dhs.gov)  
office: (202) 646-3907  
cell: (b)(6)

**From:** prvs=0505f6d80=LIA05.Hoc@nrc.gov [mailto:prvs=0505f6d80=LIA05.Hoc@nrc.gov] **On Behalf Of** LIA05 Hoc  
**Sent:** Thursday, March 17, 2011 5:39 PM  
**To:** Andrew Seward; Harry Sherwood; Michelle Ralston; Steve Horwitz; Tim Greten; Vanessa E. Quinn  
**Subject:** Latest Status Updates

FYI,

In case you did not get this earlier.

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

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mmmm/116

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**From:** Ralston, Michelle <Michelle.Ralston@dhs.gov>  
**Sent:** Thursday, March 17, 2011 4:34 PM  
**To:** LIA05 Hoc  
**Subject:** Out of Office AutoReply: KI Distribution to Specific States

Greetings,

I will be away from my desk Friday, March 18, 2011. I will be monitoring emails/calls as time permits.

Pls contact Steve Horwitz, John Simpson or Harry Sherwood for Outreach assistance.

If this is an urgent matter, please ring (b)(6)

Thank you,

Michelle Ralston

**From:** Gray, Kathy  
**To:** Thomas, Eric; King, Mark; Thorp, John; Brown, Frederick; Leeds, Eric; Boger, Bruce; Grobe, Jack  
**Cc:** Rihm, Roger; Bowman, Eric; Garmon-Candelaria, David  
**Subject:** RE: INPO Event Report Level 1 on Japanese Earthquake  
**Date:** Thursday, March 17, 2011 12:32:09 PM

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The INPO document has been posted ... IER L1-11-1 - Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami

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**From:** Thomas, Eric  
**Sent:** Wednesday, March 16, 2011 1:43 PM  
**To:** King, Mark; Thorp, John; Brown, Frederick; Leeds, Eric; Boger, Bruce; Grobe, Jack  
**Cc:** Rihm, Roger; Bowman, Eric; Gray, Kathy; Garmon-Candelaria, David  
**Subject:** INPO Event Report Level 1 on Japanese Earthquake

We will post this to the INPO Documents link on the OpE Gateway as soon as possible.

Eric

*Eric Thomas*  
U.S. Nuclear Regulatory Commission  
NRR/DIRS/IOEB  
OWFN-7E24  
eric.thomas@nrc.gov  
301-415-6772 (office)  
(b)(6) (mobile)

mmmm / 118

**From:** Leeds, Eric  
**To:** Nelson, Robert  
**Subject:** RE: Japan event Q&As - additional info  
**Date:** Thursday, March 17, 2011 3:22:00 PM

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Same back at you, Nelson!

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

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**From:** Nelson, Robert  
**Sent:** Thursday, March 17, 2011 2:39 PM  
**To:** Leeds, Eric  
**Subject:** RE: Japan event Q&As - additional info

Many thanks for your support!

NELSON

---

**From:** Leeds, Eric  
**Sent:** Thursday, March 17, 2011 2:38 PM  
**To:** Dean, Bill; McCree, Victor; Satorius, Mark; Collins, Elmo; Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Art; Boger, Bruce; Grobe, Jack; Wiggins, Jim; Evans, Michele; Sheron, Brian; Uhle, Jennifer; Johnson, Michael; Holahan, Gary; Haney, Catherine; Dorman, Dan; Miller, Charles; Moore, Scott; Doane, Margaret; Mamish, Nader; Boyce, Thomas (OIS); Schmidt, Rebecca; Powell, Amy; Brenner, Eliot; Hayden, Elizabeth; McDermott, Brian  
**Cc:** Virgilio, Martin; Weber, Michael; Ash, Darren; Nguyen, Quynh; Meighan, Sean; Kammerer, Annie; Landau, Mindy; Wittick, Brian; Morris, Scott; Bahadur, Sher; Blount, Tom; Brown, Frederick; Cheok, Michael; Galloway, Melanie; Gütter, Joseph; Givvines, Mary; Hiland, Patrick; Holian, Brian; Howe, Allen; Lee, Samson; Lubinski, John; McGinty, Tim; Nelson, Robert; Quay, Theodore; Ruland, William; Skeen, David  
**Subject:** Japan event Q&As - additional info

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 7298 and cell: (b)(6))

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

mmmm / 119

**From:** Peko, Damian  
**To:** Cherry, Ron; Alan Remick; Duncan, Aleshia; Cook, William; Smith, Brooke; Casto, Chuck; Duncan, Aleshia (State Dept); Howard, E. Bruce; Foster, Jack; Trapp, James; James Trapp (BB); Joe Hughart; Joe Hughart (PART); Monninger, John; Johnstone, Gregg M; Foggie, Kirk; Mears, Jeremy M; Morales, Russell A; Devercelly, Richard; Kolb, Timothy; Tony Nakanishi; Ulsen, Anthony  
**Cc:** Tong, Kurt W; Basalla, Suzanne I; Fuller, Matthew G  
**Subject:** RE: Suggestion for cooling -- ice balloons  
**Date:** Thursday, March 17, 2011 11:32:14 PM

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Ron

Discussed with NRC (Costa). Please thank Capt Takesuye for his suggestion. However, his suggested approach, while an improvement, is not sufficient enough an improvement. We need to get large quantities of water onto the spent fuel pools and dropping from the air, even if more goes into the pool, is not sufficient and is resulting in dose to pilots so they can only make a limited number of trips. We need to get large quantities of water on and are pursuing a pumped system.

The NRC is rather busy so it would be best if someone looked at these and filtered before they go to the NRC reps. I spoke to Chick Costa on future such suggestions and, if it is OK by the Embassy, he would like there to be a single POC who can filter these. Since I am the liaison to the NRC team he is OK with that person being me. Please advise if you would like me to be the filter for these suggestions and let me know.

Please advise.

Thanks

Damian

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

**From:** Cherry, Ron  
**Sent:** Thursday, March 17, 2011 11:09 PM  
**To:** Alan Remick; Duncan, Aleshia; Bill Cook; Brooke Smith; Chuck Casto; Peko, Damian; Duncan, Aleshia (State Dept); Howard, E. Bruce; Jack Foster; James Trapp; James Trapp (BB); Joe Hughart; Joe Hughart (DART); John Monninger; Johnstone, Gregg M; Kirk Foggie; Mears, Jeremy M; Morales, Russell A; Rick Devercelly; Tim Kolb; Tony Nakanishi; Tony Ulsen  
**Cc:** Tong, Kurt W; Basalla, Suzanne I; Fuller, Matthew G  
**Subject:** FW: Suggestion for cooling -- ice balloons

What does the NRC team think of this idea?

This email is UNCLASSIFIED

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

**From:** Basalla, Suzanne I  
**Sent:** Friday, March 18, 2011 12:07 PM  
**To:** Tong, Kurt W  
**Cc:** Cherry, Ronald C; Duncan, Aleshia D; Fuller, Matthew G  
**Subject:** Suggestion for cooling -- ice balloons

Kurt,

Here's a suggestion in the email chatter world for cooling the reactor.

This is my second one received in two days...what do you think is the best way to get these to experts for their consideration? I think it's good for ideas to at least get to our experts for consideration.

It may sound silly -- but I like the idea of a suggestion box.

mmmm/120

Thoughts?

Suzanne

From: Takesuye, Edward L CAPT USN CCG5  
Sent: Friday, March 18, 2011 9:57 AM

Subject: RE: 18 MAR, Morning (Japan time) Update

John - yesterday's video coverage of the helicopter efforts indicated that the wind was dispersing the water and blowing it away from the target. Have you heard any consideration to drop large containers of water ("water balloon" - such as a bladder like a yokohama fender - the idea being the casing would melt and release all of the water) and/or drop ice since it would be less affected by wind?

r/ CAPT Takesuye

SBU

This email is UNCLASSIFIED

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

From: (b)(6)

Sent: Friday, March 18, 2011 10:56 AM

To: (b)(6)

(b)(6)

Subject: RE: 18 MAR, Morning (Japan time) Update

John - they may only be thinking water, water, water . . . Have they opened a "suggestion" box for ideas? If not, maybe they should. . .  
Considering the consequences.

v/r,  
CAPT Takesuye

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

From: Niemeyer, John CIV USN CNFJ

Sent: Friday, March 18, 2011 10:22 AM

To: Takesuye, Edward L CAPT USN CCG5; Moyers, Bryan M CIV USN CSG7; O'Malley, Richard P CIV

(b)(6)



(b)(6)

Subject: RE: 18 MAR, Morning (Japan time) Update

COS,

My impression is that they are making up the tactics as they go along  
--- battle against time --- Your idea might be a welcome/good one --- sounds like something we should suggest to GENERAL Oriki and GENERAL Hibako and/or ADM Sugimoto, ASAP...

V/R, John N.

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

From: Takesuye, Edward L CAPT USN CCG5

Sent: Friday, March 18, 2011 9:57 AM

Subject: RE: 18 MAR, Morning (Japan time) Update

John - yesterday's video coverage of the helicopter efforts indicated that the wind was dispersing the water and blowing it away from the target. Have you heard any consideration to drop large containers of water ("water ballon" - such as a bladder like a yokohama fender - the idea being the casing would melt and release all of the water) and/or drop ice since it would be less affected by wind?

r/ CAPT Takesuye

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

From: Niemeyer, John CIV USN CNFJ

Sent: Friday, March 18, 2011 9:47 AM

Subject: 18 MAR, Morning (Japan time) Update

-- Resumption of helo & water-cannon truck coolant insertion operations has yet to occur.

-- Re-connection of electricity in near future will be intended to reactive ECCS systems, where possible (see attached diagram).

-- Pouring water on the No. 4 unit of Fukushima Daiichi nuclear plant may be effective to cool down apparently overheating spent nuclear fuel in the facility, as the reactor appears to have only a skeleton of the roof frame, a U.S. think tank said Thursday, citing a fresh satellite image of the facility.

"With only a skeleton frame on the roof, it may be easier to deliver water to the spent fuel pond to unit 4 from above," the Institute for Science and International Security said in a statement.

Analyzing the new satellite image, the Washington-based think tank said, "While the paneling on the

roof of the building appears intact in the March 16, 2011 image, it appears that only the skeleton of the roof frame is left in the March 17, 2011 image."

While it is possible that the varying angles of the images are affecting the appearance, the difference appears significant enough to indicate a structural change, it added.

Japan is struggling to prevent high levels of radiations from emitting from the damaged reactors at Tokyo Electric Power Co.'s Fukushima Daiichi nuclear plant in Japan's northeastern prefecture of Fukushima.

The No. 4 reactor was under maintenance when a powerful earthquake hit Japan last week.

**From:** Leeds, Eric  
**To:** Collins, Elmo  
**Subject:** FW: Event Response - Communications and Qs&As  
**Date:** Thursday, March 17, 2011 5:30:00 PM  
**Attachments:** image001.png

---

Check out the email below. It looks like my guys are already working with the regions to put together a script for the EOCs. I'll touch base with Nelson in the am.

Thanks for planting the seed!

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

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**From:** Lew, David  
**Sent:** Thursday, March 17, 2011 5:07 PM  
**To:** Leeds, Eric  
**Subject:** FW: Event Response - Communications and Qs&As

---

**From:** Nelson, Robert  
**Sent:** Wednesday, March 16, 2011 3:13 PM  
**To:** Lew, David; Wert, Leonard; Pederson, Cynthia; Howell, Arthur  
**Cc:** Gitter, Joseph; Leeds, Eric; Boger, Bruce; Ruland, William; Meighan, Sean; Nguyen, Quynh; Thomas, Eric; Thorp, John  
**Subject:** Event Response - Communications and Qs&As

I've been assigned as the NRR Communications Coordinator for matters dealing with our response to the events in Japan.

1. I understand that you were recently sent the Chairman's Qs&As. I understand that EOC meetings are beginning next week and the regional staff need to be prepared for stakeholder questions that will arise regarding the events & our plants. Are these Qs&As sufficient? If not, what additional areas do you want addressed?
2. Please identify a POC in your region that my team & I can coordinate with on communications issues.
3. I understand that a concern was raised about the Ops Center contacting a family member and that a protocol is needed for such contact. I'm working on it.
4. We will likely formulate a "tiger team" to prepare responses to written inquiries. I'll keep you advised.
5. Communications with the regions, particularly those requesting information regarding specific plants, should be coordinated thru my team. If you have concerns in this regard, please contact me.

*R. A. Nelson*

Robert A. Nelson

mmmm/12/1

Deputy Director  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation



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

**From:** Leeds, Eric  
**To:** Wiggins, Jim; Sheron, Brian; Johnson, Michael; Collins, Elmo; Satorius, Mark; McCree, Victor; Dean, Bill  
**Cc:** Evans, Michele; Uhle, Jennifer; Holahan, Gary; Howell, Art; Wert, Leonard; Lew, David  
**Subject:** FW: INPO Event Report Level 1 on Japanese Earthquake  
**Date:** Thursday, March 17, 2011 2:06:00 PM

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FYI – makes it easier for staff to access. See below.

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

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**From:** Gray, Kathy  
**Sent:** Thursday, March 17, 2011 12:32 PM  
**To:** Thomas, Eric; King, Mark; Thorp, John; Brown, Frederick; Leeds, Eric; Boger, Bruce; Grobe, Jack  
**Cc:** Rihm, Roger; Bowman, Eric; Garmon-Candelaria, David  
**Subject:** RE: INPO Event Report Level 1 on Japanese Earthquake

The INPO document has been posted ... [IER L1-11-1 - Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami](#)

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**From:** Thomas, Eric  
**Sent:** Wednesday, March 16, 2011 1:43 PM  
**To:** King, Mark; Thorp, John; Brown, Frederick; Leeds, Eric; Boger, Bruce; Grobe, Jack  
**Cc:** Rihm, Roger; Bowman, Eric; Gray, Kathy; Garmon-Candelaria, David  
**Subject:** INPO Event Report Level 1 on Japanese Earthquake

We will post this to the INPO Documents link on the OpE Gateway as soon as possible.

Eric

*Eric Thomas*  
U.S. Nuclear Regulatory Commission  
NRR/DIRS/IOEB  
OWFN-7E24  
eric.thomas@nrc.gov  
301-415-6772 (office)  
(b)(6) (mobile)

mmm / 122.

**Howe, Allen**

**Subject:** FW: Pre-Brief for Commission Meeting  
**Location:** Room O13D20  
**Start:** Thu 3/17/2011 1:30 PM  
**End:** Thu 3/17/2011 2:30 PM  
**Show Time As:** Tentative  
**Recurrence:** (none)  
**Meeting Status:** Not yet responded  
**Organizer:** NRR-OWFN-13D20-15p  
**Importance:** High

The purpose of this meeting is to discuss and finalize the Commission briefing plans for the Japan event. There are 5 bridge lines if you are unable to attend in person: 800-475-8388 Passcode: (b)(6)

Thanks - Allen

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

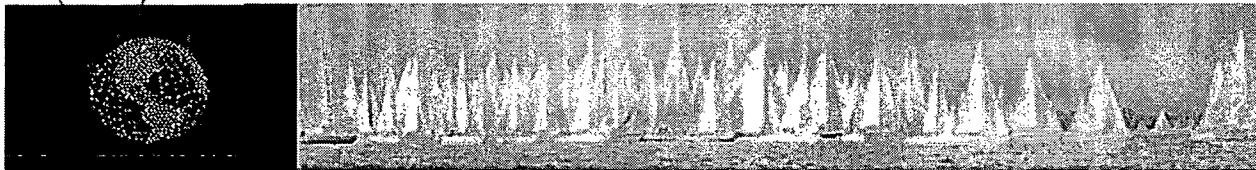
**From:** NRR-OWFN-13D20-15p  
**Sent:** Wednesday, March 16, 2011 5:06 PM  
**To:** NRR-OWFN-13D20-15p; Howe, Allen  
**Subject:** Pre-Brief for Commission Meeting  
**When:** Thursday, March 17, 2011 1:30 PM-2:30 PM (GMT-05:00) Eastern Time (US & Canada).  
**Where:** Room O13D20

**When:** Thursday, March 17, 2011 1:30 PM-2:30 PM (GMT-05:00) Eastern Time (US & Canada).  
**Where:** Telecon: 800-475-8388 Passcode: (b)(6)

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

\*~\*~\*~\*~\*~\*~\*~\*~\*

This meeting was requested by Linda Cox ( x 1453) and scheduled by Shari Cohen on March 16, 2011 at 5:05 p.m. (x1270).



Your conference details are enclosed.

**Meeting Information:**

|               |                |
|---------------|----------------|
| Leader:       | MS SHARI COHEN |
| Phone number: | 1-301-415-1257 |

mmmm/123

|                      |                                            |
|----------------------|--------------------------------------------|
| Contact:             | MOHAMED AIKU                               |
| Phone number:        | 1-301-415-7026                             |
| Call date:           | MAR-17-2011 (Thursday)                     |
| Call time:           | 01:30 PM EASTERN TIME                      |
| Duration:            | 1 hr                                       |
| Service level:       | Unattended                                 |
| Number of lines:     | Total=6 Dialout=0 Meet Me=6 Meet Me Toll=0 |
| Confirmation number: | 6171433                                    |
| Company:             | FTS-NUCLEAR REGULATORY COMMISI             |
| CRC:                 |                                            |

**Passcodes/Pin codes:**

|                       |        |
|-----------------------|--------|
| Participant passcode: | (b)(6) |
|-----------------------|--------|

For security reasons, the passcode will be required to join the call.

**Dial in numbers:**

| Country | Toll Numbers | Freephone/<br>Toll Free Number |
|---------|--------------|--------------------------------|
| USA     |              | (b)(6)                         |

Restrictions may exist when accessing freephone/toll free numbers using a mobile telephone.

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All participants must use a touch-tone phone to participate in an Audio Conference. The following features are available for you to use on your phone during an active conference:

- ◆ Press \*0 operator assistance (small fee may apply)
- ◆ Press \*6 mute/unmute individual line

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|                |
|----------------|
| Audio<br>Tones |
|----------------|

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