

Fukushima and the NRC's Response

July 13, 2011



NUPIC

**20th Annual
Vendor Meeting**

Oak Brook, IL

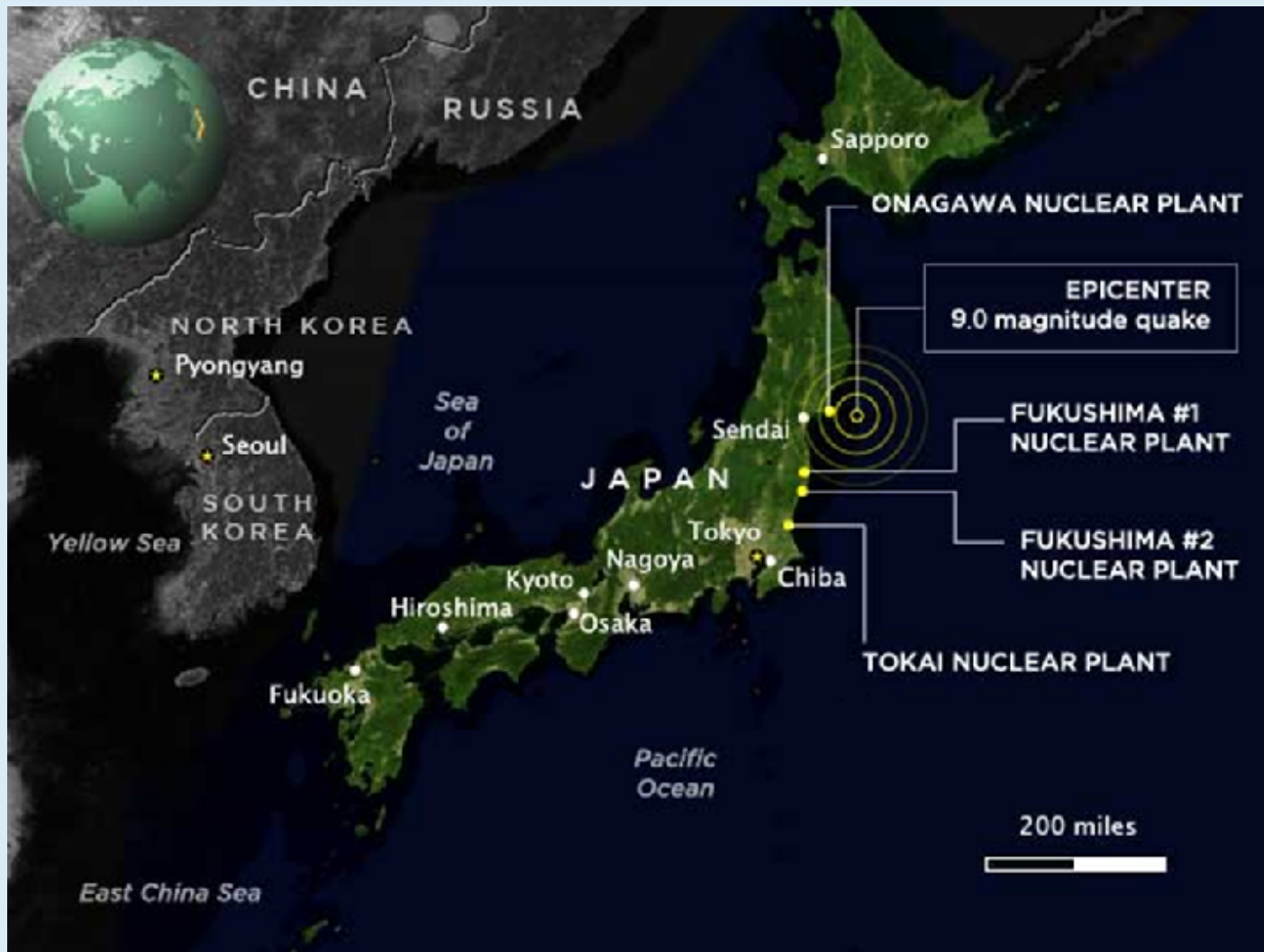
June 15 - 16, 2011

Fukushima and the NRC's Response

Greg Galletti
Office of New Reactors



Fukushima Event



Fukushima-Daiichi NPP

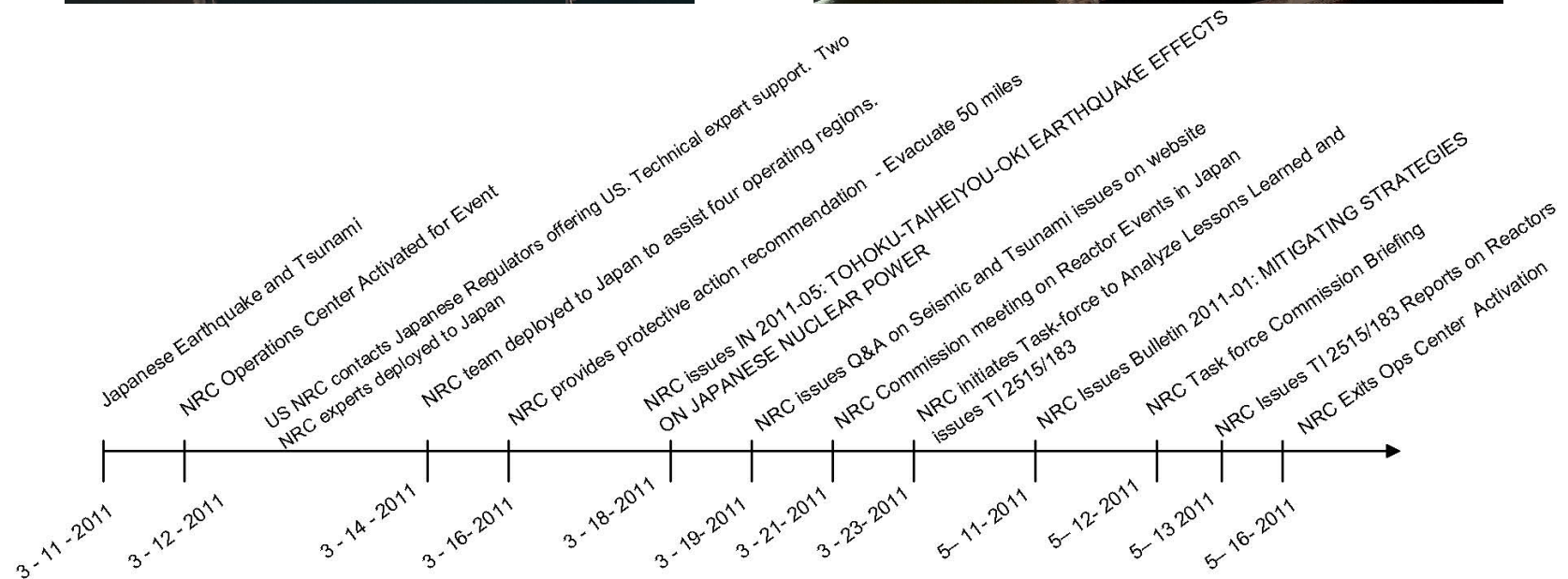


Fukushima-Daiichi NPP



March 24, 2011 aerial photo taken by a small unmanned drone. Damaged Unit 3, left, and Unit 4 of the crippled Fukushima Daiichi nuclear power plant. (Air Photo Service Co. Ltd., Japan)

NRC Action Timeline – Fukushima Event



NRC Actions – Operations Center



- NRC Operations Center Activated
 - Monitor for U.S. Plant Impact
 - Coordinate Actions with other US Government Agencies
 - Monitor and Analyze Event (e.g., Rad. Release and Pathway)

NRC Actions – Operations Center



Data Evaluation and Assessment

Executive Team

Reactor Safety Team

Protective Measures Team

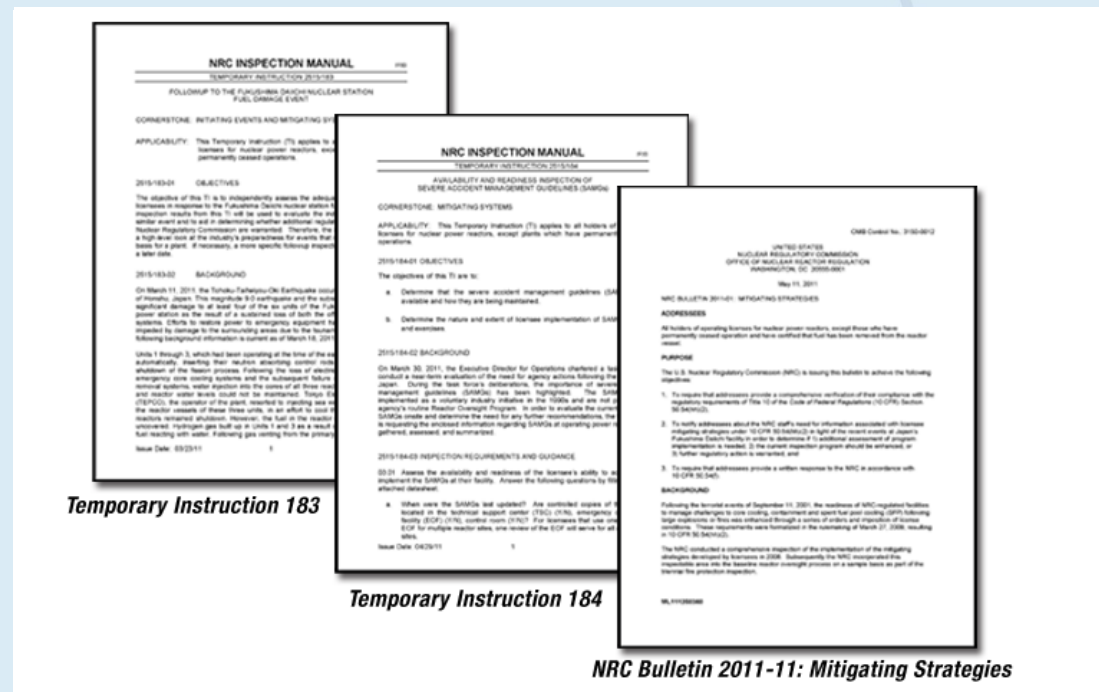
Liaison Team

- Intra/Inter Agency Coordination
 - DOD, DOE, EPA, State Department, USAID, MITI, NISA



NRC Actions – Generic Communications

- Information Notice 2011-05 TOHOKU-TAIHEIYOU-OKI EARTHQUAKE EFFECTS ON JAPANESE NUCLEAR POWER PLANTS (ML110760432)
- NRC Bulletin 2011-01: Mitigating Strategies (ML111250360)
- NRC TI 2515/183: Follow up to the Fukushima Daiichi Nuclear station Fuel Damage Event (ML11077A077)



NRC Actions – Generic Communications

- **Information Notice 2011-05 “TOHOKU-TAIHEIYOU-OKI EARTHQUAKE EFFECTS ON JAPANESE NUCLEAR POWER PLANTS” (ML110760432)**
- **Provided history of regulatory actions**
 - General Design Criteria (10 CFR Part 50 Appendix A)
 - EA-02-026, “Order for Interim Safeguards and Security Compensatory Measures” (the ICM Order) dated February 25, 2002. Section B.5.b – restore core, spent fuel pool and containment cooling
 - 10 CFR 50.63, “Loss of All Alternating Current Power,”
- **Provide update of future potential actions**
 - Developing a TI for performance of independent assessments of nuclear power plant readiness to address beyond design-basis natural phenomena under the Reactor Oversight Process.
 - Considering action requesting operating plants to provide specific information relating to their facilities to enable the NRC staff to complete a regulatory assessment of beyond design basis phenomena.
- **Provided update of industry actions**
 - Verification of the capability to mitigate conditions that result from severe adverse events, including the loss of significant operational and safety systems due to natural events, fires, aircraft impact and explosions
 - Verification of the capability to mitigate a total loss of electric power to a nuclear power plant
 - Verification of the capability to mitigate flooding and the impact of floods on systems inside and outside the plant
 - Identification of the potential for loss of equipment functions during seismic events appropriate for the site and the development of mitigating strategies to address potential vulnerabilities

NRC Actions - Inspections

NRC TI 2515/183: Follow up to the Fukushima Daiichi Nuclear station Fuel Damage Event (ML11077A077)

- Implemented by NRC Resident (Regional) Inspection Staff at each of the 104 U.S. Reactors
- To assess adequacy of licensee actions in response to Fukushima event, evaluate industry readiness for similar events, and determine if additional regulatory actions warranted
- Review/Assess B.5.b capabilities, Station Blackout, Mitigation of Internal/External Flooding Events
- Assess thoroughness of licensee's walk downs of SSCs needed to mitigate fire/flood events
- Results are posted on NRC website - <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/follow-up-rpts.html>



NRC Actions – Generic Communications

NRC Bulletin 2011-01: Mitigating Strategies (ML111250360)

- To require that addressees provide a comprehensive verification of their compliance with the regulatory requirements of Title 10 of the *Code of Federal Regulations (10 CFR) Section 50.54(hh)(2)*,
- To notify addressees about the NRC staff's need for information associated with licensee mitigating strategies under 10 CFR 50.54(hh)(2) in light of the recent events at Japan's Fukushima Daiichi facility in order to determine if 1) additional assessment of program implementation is needed, 2) the current inspection program should be enhanced, or 3) further regulatory action is warranted, and
- To require that addressees provide a written response to the NRC in accordance with 10 CFR 50.54(f).

NRC Actions – Task Force

- Commission establishes Task force
 - Senior-level members of NRC (6 members NRR, NMSS, NRO)
 - Charter (ML11089A045)
 - Conduct comprehensive review of NRC processes and regulations
 - Determine if additional improvements needed
 - Provide policy recommendation to Commission
 - Short term actions
 - Identify preliminary or near-term operational or regulatory issues
 - Long term actions
 - Identify additional potential research, generic issues, changes to ROP, rulemakings, and adjustments to regulatory framework
 - Public Outreach
 - Public meetings held 30, 60, 90 days
 - First meeting May 12
 - Additional meetings yesterday June 15th and July 19



NRC Actions – Humanitarian Aid

- Staff initiated several activities to help the Japanese Citizens affected by the Tsunami

NRC's
HOPE
For
Japan

6 MILES FOR JAPAN

Date:
Wednesday, May 25
Start Time: 4:45pm

Start/End Location: Elm Street Park (the park behind the PDC)

Full Course: Capital Crescent Trail @ Elm Street Park to Kansas Ave and Back to Elm Street Park

Half Course: Capital Crescent Trail @ Elm Street Park to 1.5 Mile Marker and Back to Elm Street Park

Registration/Fee: Register by May 16, 2011 & pay \$25 to enter the event. Register day of event & pay \$40

Payment & Register w/ April BeBault:
alb7@nrc.gov, OWFN-7D5, 301-415-3760

Provide your name and if you're doing the full or half course

All proceeds from the event will be donated to Habitat for Humanity Japan.



In response to the tragic events in Japan, the Division of License Renewal, Office of Nuclear Reactor Regulation, has decided to take steps toward providing further assistance to the relief efforts. There will be several fundraising events, the first of which is the selling of "Hope for Japan" bracelets. All proceeds from the sales will be donated to Habitat for Humanity Japan. This organization is a branch of Habitat for Humanity, and all funding from the agency will be used in order to purchase supplies to assist with the rebuilding of what has been lost. Please provide your information and how many you would be interested in purchasing to [Stanley Freeman](#).



The goal is to receive \$2.00 for EACH bracelet or 3 bracelets for \$5.00

\$2.00 PER BRACELET IS A LITTLE THAT COULD AMOUNT TO A LOT.



BAKE FOR JAPAN

COME ONE, COME ALL! BAKE AND/OR BUY DELICIOUS HOMEMADE GOODIES FOR THE JAPAN RELIEF EFFORTS!!

DATE: MAY 9, 2011

LOCATION: TWFN EXHIBIT AREA

TIME: 11:00AM – 2:00PM
(SELLERS: BRING GOODS @ 10:30AM)

WHAT: COOKIES, CAKES, AND PIES...OH MY!

CONTACTS: APRIL BEBAULT, 415-3760
ARTHUR DUNAHAN, 415-3897
STANLEY FREEMAN II, 415-3169

SEE YOU THERE NRC!

NRC Actions – Fukushima Event

Questions

Comments

Discussion

