

EDO Principal Correspondence Control

FROM: DUE: 09/19/11

EDO CONTROL: G20110646  
DOC DT: 08/26/11  
FINAL REPLY:

Senator Barbara Boxer

TO:

Chairman Jaczko

FOR SIGNATURE OF :

\*\* PRI \*\*

CRC NO: 11-0510

Chairman Jaczko

DESC:

ROUTING:

Safety from Threats Posed by Nuclear Facilities  
Following a Natural Disaster  
(EDATS: SECY-2011-0510)

Borchardt  
Weber  
Virgilio  
Ash  
Mamish  
OGC/GC  
Leeds, NRR  
Wiggins, NSIR  
McCree, RII  
Collins, RIV  
Burns, OGC  
Schmidt, OCA

DATE: 08/31/11

ASSIGNED TO:

CONTACT:

EDO

Rihm

SPECIAL INSTRUCTIONS OR REMARKS:

Please prepare response in accordance with OEDO  
Notice 2009-0441-02 (ML093290179). NRR, NSIR,  
Region II and Region IV to provide input to Roger  
Rihm, OEDO, if required. Roger Rihm to coordinate  
with OGC and OCA.

Template: SECY-017

E-RIDS: SECY-01

# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0492

**Source:** SECY

## General Information

**Assigned To:** OEDO

**OEDO Due Date:** 9/19/2011 11:00 PM

**Other Assignees:**

**SECY Due Date:** 9/21/2011 11:00 PM

**Subject:** Safety from Threats Posed by Nuclear Facilities Following a Natural Disaster

**Description:**

**CC Routing:** NRR; NSIR; RegionII; RegionIV; OGC; OCA

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110646, LTR-11-0510

**Staff Initiated:** NO

**Related Task:**

**Recurring Item:** NO

**File Routing:** EDATS

**Agency Lesson Learned:** NO

**OEDO Monthly Report Item:** NO

## Process Information

**Action Type:** Letter

**Priority:** Medium

**Sensitivity:** None

**Signature Level:** Chairman Jaczko

**Urgency:** NO

**Approval Level:** No Approval Required

**OEDO Concurrence:** YES

**OCM Concurrence:** NO

**OCA Concurrence:** NO

**Special Instructions:** Please prepare response in accordance with OEDO Notice 2009-0441-02 (ML093290179). NRR, NSIR, Region II and Region IV to provide input to Roger Rihm, OEDO, if required. Roger Rihm will coordinate response with OGC and OCA.

## Document Information

**Originator Name:** Senator Barbara Boxer

**Date of Incoming:** 8/26/2011

**Originating Organization:** Congress

**Document Received by SECY Date:** 8/31/2011

**Addressee:** Chairman Jaczko

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Letter

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Aug 31, 2011 10:00

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**PAPER NUMBER:** LTR-11-0510 **LOGGING DATE:** 08/30/2011  
**ACTION OFFICE:** EDO

**AUTHOR:** SEN Barbara Boxer  
**AFFILIATION:** CONG  
**ADDRESSEE:** Gregory Jaczko  
**SUBJECT:** Request that the NRC immediately undertake actions needed to ensure the safety of all Americans from threats posed by nuclear facilities following a natural disaster.

**ACTION:** Signature of Chairman  
**DISTRIBUTION:** RF, OCA to Ack

**LETTER DATE:** 08/26/2011

**ACKNOWLEDGED** No  
**SPECIAL HANDLING:** Commission Correspondence

**NOTES:** Response requested by Sept 6th and request that the staff brief Senator's office on the status of discussion to adopt and implement the Task Force's recommendations

**FILE LOCATION:** ADAMS

**DATE DUE:** 09/21/2011 **DATE SIGNED:**

EDO --G20110646

BARBARA BOXER, CALIFORNIA, CHAIRMAN

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# United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

BETTINA FOURER, MAJORITY STAFF DIRECTOR  
RUTH VAN MARK, MINORITY STAFF DIRECTOR

August 26, 2011

The Honorable Gregory Jaczko  
Chairman  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Chairman Jaczko:

In light of the 5.8 magnitude earthquake on August 23 in Mineral, Virginia, I write to request that the Nuclear Regulatory Commission (NRC) immediately undertake actions needed to ensure the safety of all Americans from threats posed by nuclear facilities following a natural disaster, such as an earthquake or hurricane. Prompt action is needed given the severity of the threats posed by natural disasters and long delays in safety improvements must be avoided.

The earthquake near the Lake Anna nuclear power plant in Louisa, Virginia was the worst to hit the state in more than a century and could be felt at 13 nuclear power plants across the eastern United States. The earthquake triggered a shutdown at the Lake Anna plant, and it has been reported that an emergency diesel generator failed to operate following the shutdown. I am also concerned about news reports that the North Anna plant was designed to withstand shaking caused by a magnitude 5.9 – 6.1 earthquake, which is right at the edge of the 5.8 magnitude quake that occurred.

The recent Virginia earthquake reminds us of the tragic earthquake and tsunami that occurred in Japan and the subsequent failure of diesel generators and safety systems at the Fukushima Daiichi plant. It is time to respond to these repeated wake-up calls by taking action to ensure our nuclear plants are safe and can withstand natural disasters.

As you know, I have conducted vigorous oversight on the safety of our nuclear facilities in light of the Fukushima disaster, and I will continue to do so to ensure that all of America's nuclear facilities are as safe as possible. Immediately after the Virginia quake, my staff contacted the NRC to inquire about the safe operation of nuclear facilities. I already planned to hold a hearing in the next 90 days on immediate steps to improve safety in response to the Fukushima disaster. I will also ensure that this hearing addresses any safety issues raised by the recent earthquake, including actions that should be taken to better prepare all of our nuclear facilities.

Taking action quickly is critical. The NRC ordered U.S. nuclear power plants to take a series of improved security measures after the 9/11 attack to improve security. However, it took nearly a decade before the NRC required compliance with regulations. We cannot afford this kind of delay again.

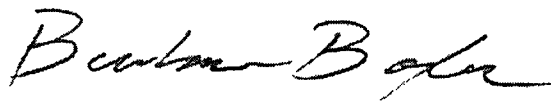
I have concerns that nuclear plants in my state and across the country may not be designed to withstand the true range of natural disasters, including strong earthquakes, based on what we know is possible. California's facilities, San Onofre Nuclear Generating Station and the Diablo Canyon Nuclear Power Plant, are located near fault lines, and although many safety measures have been taken to address potential hazards associated with these facilities, the NRC must ensure that all risks are fully evaluated and addressed, particularly prior to any relicensing activities.

The NRC has taken steps in response to Japan's disaster, including inspecting nuclear power facilities and convening a special Task Force that recently issued its recommendations. Those recommendations should be adopted now.

I have attached questions related to understanding and addressing safety issues in light of the devastating threats that earthquakes pose that I would like the NRC to answer by September 6, 2011. I also request that the NRC brief my staff the week of September 5, 2011 on the status of discussions to adopt and implement the Task Force's recommendations.

The NRC is charged with the responsibility to protect public health and safety from threats posed by nuclear facilities and materials. This week's earthquake is another stark warning that we must act quickly to make our nuclear facilities as safe as possible, and I look forward to working with the NRC to implement the Task Force's recent recommendations to ensure that every appropriate precaution is taken. Thank you for your prompt attention to my request.

Sincerely,

A handwritten signature in black ink, appearing to read "Barbara Boxer". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Barbara Boxer  
Chairman

## ATTACHMENT

Provide the following information by September 6, 2011:

### North Anna Nuclear Plant

1. Describe what occurred at the North Anna nuclear power plant as a result of the earthquake, including the sequence of events that led to the shutdown of the two reactors, the failure of any safety equipment to operate following the earthquake, and any problems that may have occurred when the plant restarted.
2. Describe whether the North Anna plant fully addressed all past safety problems found at the facility, including the problems that the NRC detailed in the May 13, 2011 report and structural integrity issues or other problems that may have occurred as a result of the August 23, 2011 earthquake. If the plant has not fully addressed all of these safety issues, provide a timeline by which the plant will have addressed all such problems.
3. Describe the seismic hazards that the plant is designed to withstand, the date that those hazards were estimated, the basis for estimated seismic hazards, and any more recent data on seismic hazards that may differ from the information used to originally estimate the seismic hazards for the North Anna plant.
4. There have been reports that the plant was designed to withstand a 5.9 – 6.1 magnitude earthquake and the earthquake experienced was a 5.8 magnitude earthquake. Given the current understanding of the seismic risks, describe the difference in the margin of safety assumed at the time the plant was built versus when the earthquake occurred.

### NRC's Review of Seismic Hazards

5. Following up on the NRC's September 2010 report titled "Implications of Outdated Probabilistic Seismic Hazard Estimates in the Eastern and Central United States on Existing Plants", describe:
  - a. Whether there are any new seismic-hazard estimates that the report anticipated would be finished in late 2010 or early 2011. If so, please provide those estimates;
  - b. The status of implementation of the report's recommendations, including a description of the plants that have and have not recalculated their seismic core-damage frequency;
  - c. The timeline for completing individual safety reviews at all of the nation's nuclear power plants; and
  - d. Steps that the NRC could take to expedite the implementation of safety reviews and the completion of any work needed to address safety issues found during such a review.

### California Nuclear Power Plants

6. Describe the status of the San Onofre and Diablo Canyon Nuclear Power Plant reassessments of seismic risks. Please include the following information:

- a. Will the NRC consider and utilize all of the new information on seismic risks generated by these plants in the licensing proceedings for these facilities? How will the NRC do so, and will it protect the ability of communities to challenge the NRC's relicensing decision?
- b. The Diablo Canyon Power Plant has recently asked to change the type of earthquake that the plant could safely withstand to focus on the Hosgri Fault. Describe whether the plant has proposed to use a method of seismic review that is consistent with NRC regulations, including 10 C.F.R. 50.59 (concerning the completeness and accuracy of information presented to the NRC) and whether the plant has conducted any new studies to support this modification.

### **Preparedness and Evacuation Plans**

7. The Fukushima disaster proves that in a major event, the evacuation zone must be greatly expanded. What is the NRC doing now to ensure that nuclear power plants update their preparedness and evacuation plans to include protections for the millions of people living within 50 miles of these facilities?