

(Physical Page Count = 728 )

# Group FX

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Package Total Pages:

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**Group** FX 1 of 728

(The page(s) mentioned above represents 162 pages that have been withheld in their entirety)

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**APPENDIX  
RECORDS BEING WITHHELD IN THEIR ENTIRETY**

<b><u>NO.</u></b>	<b><u>DATE</u></b>	<b><u>DESCRIPTION/ (PAGE COUNT)/EXEMPTIONS</u></b>
1.	Undated	29 Drafts of the Near-Term Report and Recommendations for Agency Actions Following the Events in Japan (162 pages) <b>EX. 5</b> – <b>Predecisional/Deliberative Process</b>

August 11, 2011

The Honorable Edward J. Markey  
United States House of Representatives  
Washington, D.C. 20515

Dear Congressman Markey:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of April 15, 2011, regarding NRC actions being taken in response to the recent events in Japan. Answers to your specific questions are included as an enclosure to this letter. Please note that documents in this submittal have not been released to the public and have been marked "Not For Public Disclosure." I respectfully ask that you honor these markings.

If you have any additional questions, please contact me or Ms. Rebecca Schmidt, Director of the Office of Congressional Affairs, at (301) 415-1776.

Sincerely,

*/RA/*

Gregory B. Jaczko

Enclosures:  
As stated



**Responses to Questions from Congressman Edward J. Markey  
Letter of April 15, 2011**

**1. Who at the Commission made the decisions to a) initially direct its inspectors to limit the scope of the inspections to Design Basis Events and b) subsequently direct its inspectors not to record findings or observations of any beyond Design Basis Events in a manner that would result in the public disclosure of any identified vulnerabilities? Please provide me with a copy of all documents (including reports, emails, correspondence, memos, phone or meeting minutes or other materials) related to both the decisions regarding the scope of the inspections as well as the manner in which inspection findings and observations would be recorded and reported.**

On March 23, 2011, the NRC issued inspection requirements and guidance to its inspectors in NRC Inspection Manual Temporary Instruction (TI) 2515/183, "Follow up to the Fukushima Daiichi Nuclear Station Fuel Damage Event" (Enclosure 2). The intent of the TI was to provide the NRC with a high-level look at the industry's preparedness in the following areas including beyond design basis events. The scope of the inspection included, but was not limited to four primary areas of investigation for NRC inspectors at NRC-licensed operating nuclear power plants:

- 1) Assessing a licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b and severe accident management guidelines;
- 2) Assessing a licensee's capability to mitigate station blackout conditions;
- 3) Assessing a licensee's capability to mitigate internal and external flooding events required by station design; and
- 4) Assessing the thoroughness of a licensee's walk downs and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site.

In addition to the TI, Manual Chapter 0612, "Power Reactor Inspection Reports" provides the NRC's guidance to inspectors for documenting this inspection, as well as all routine inspections. The Manual Chapter is also used by the NRC staff to determine if issues warrant documentation in inspection reports and to ensure inspection reports clearly communicate significant inspection results in a consistent manner to licensees, NRC staff, and the public. To ensure consistency in the reports, we issued a draft template (Enclosure 3) to document all of the results of the inspections. These inspections have now been completed and the inspection reports were made publicly available on May 13, 2011. The Temporary Instruction, the Manual Chapter and the template comprise the documents regarding the scope of the inspections as well as the manner in which inspection findings and observations would be recorded and reported. Additionally, copies of emails relating to the Temporary Instruction are enclosed (Enclosure 4) and are marked "Not For Public Disclosure."

The inspections performed as a result of this TI represent only a first step in our follow-up to events in Japan, and are intended to provide only a high-level "check" of licensee preparedness. As noted in the TI, if necessary, a more specific follow-up inspection will be performed at a later date. Beyond these initial inspections, the NRC task force established following events in Japan

Enclosure 1

will be examining the results of the TI inspections and other information in the near term to develop recommendations, as appropriate, for potential changes to NRC's regulatory requirements, programs, processes, and other actions as needed. The task force also will recommend a framework for a longer-term review.

On April 29, 2001, the NRC issued TI 2515/184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)" (Enclosure 5). The TI assesses whether licensees have the SAMGs maintained and available for use, and plant staff are trained on their use. The TI was completed on May 27, 2011.

On May 11, 2011, the NRC issued Bulletin 2011-01, "Mitigating Strategies" (Enclosure 6). The Bulletin requires licensees to confirm, by June 10, 2011, that mitigating strategy equipment is in place and available, as well as that the strategies can be carried out with current plant staffing. The bulletin also requires licensees to provide by July 11, 2011, additional information regarding licensee compliance with requirements for mitigating strategies programs. The NRC will use this information 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.

Please be assured that, should information at any time indicate that there is a basis to question the continued safe operation of NRC-licensed facilities, the NRC will take appropriate action as part of our ongoing safety oversight.

**2. Will you immediately reverse the current direction to NRC inspectors to keep all findings and observations of vulnerabilities of U.S. reactors to beyond Design Basis events secret and excluded from all public reports on the Commission's Fukushima review? If not, why not?**

All findings of the TI inspections have been documented in inspection reports following the template provided. Those inspection reports are publicly available on the NRC's web site.

**3. The NRC review is supposed to evaluate the currently available information from the events that occurred in Japan to identify changes that might be needed at U.S. nuclear power plants of all designs. For each of the following events that are known to have occurred in Japan, please indicate a) whether the event in question is considered to be a "design basis event" by the NRC, b) whether NRC inspectors will be required to evaluate whether the U.S. nuclear power plants they are inspecting are capable of preventing or mitigating such an event, c) if not, why not, since the Commission clearly stated that all such events were supposed to be analyzed, d) if not, how regulatory or other recommendations will be developed that ensure that U.S. nuclear power plants are capable of preventing or mitigating such an event, e) whether the findings and observations associated with the inspections designed to evaluate U.S. ability to prevent or mitigate such an event will be made public as part of the NRC's 30, 60 and 90 day reports (and if not, why not), and f) whether the NRC intends to address U.S. vulnerability to the event at all through regulatory or other requirements.**

- i) **An earthquake that is more severe than the one the nuclear power plant was designed to withstand.**
- ii) **For coastally-located nuclear power plants, a tsunami that is more severe than the one the nuclear power plant was designed to withstand.**

- iii) A loss of operating power that is longer than current regulations are required to address.
- iv) A total station blackout (i.e., loss of operating power and failure of emergency diesel generators) that is longer than current regulations are required to address.
- v) A hydrogen explosion that occurs due to the buildup of hydrogen in the core or other areas of a nuclear reactor due to the failure of mitigation technologies such as hardened vents or hydrogen recombiners, and the causes of such failures.
- vi) A hydrogen explosion that occurs due to the buildup of hydrogen in the spent fuel storage area of a nuclear reactor due to the absence of mitigation technologies such as hardened vents or hydrogen re-combiners.
- vii) A breach in the containment vessel of a nuclear reactor core caused by a hydrogen explosion.
- viii) A breach in the structure of a spent nuclear fuel storage area due to an earthquake or hydrogen explosion.
- ix) The failure of the recirculation pump seals within the reactor pressure vessel which may prevent cooling water from fully filling the pressure vessel and thus covering and cooling the nuclear fuel rods contained therein.
- x) The failure of one or more safety relief valves within the primary containment area that could enable the transfer of radioactive core material between the drywell and the torus.
- xi) The potential melting of core material through the pressure vessel and into the drywell or torus of the nuclear reactor.
- xii) The failure of the isolation condenser and/or reactor core isolation cooling systems and subsequent inability to provide cooling function to the nuclear reactor cores.
- xiii) The failure of the primary containment vessel spray cooling and core spray systems.
- xiv) The failure of systems used to cool spent nuclear fuel storage areas, including areas that contain varying amounts of spent nuclear fuel of varying ages.
- xv) The failure of diagnostic equipment to accurately monitor temperature, water levels, hydrogen/oxygen concentrations, pressures and radiation onsite, both during a total station blackout and after basic electricity function is restored (such as if the devices have been damaged by water, radiation or other events).
- xvi) The absence of a source of fresh cooling water with which to cool the reactor core and spent nuclear fuel storage areas.
- xvii) The absence of a means by which to store large quantities of highly radioactive water that has leaked or spilled after being used to cool the core and spent nuclear fuel storage areas.
- xviii) Repeated earthquake aftershocks that further threaten the integrity of the already-compromised reactor core, spent nuclear fuel storage areas, and emergency operations.
- xix) The ability to manually repair or restore function associated with any of the above failures or events when faced with extremely high levels of radiation that may threaten the health and safety of those both on and offsite.

a) The answer to items (ix), (x), and (xviii) is "yes." The answer to all others is "no," except for the following clarifications:

- iii) On-site power systems are required to have supplies of consumable material that support a period of operation typically four to seven days, allowing resupply following extreme natural phenomena.

- xii) Failure of the isolation condenser and/or reactor core isolation cooling systems is analyzed. Subsequent failure of a single train of backup systems also is analyzed. However, subsequent inability to provide cooling to the core (failure of multiple backup systems) is not a design basis accident.
- xiii) Failure of a single train of these systems is analyzed. However, subsequent failure of backup trains is not a design basis accident.
- xiv) Failure of a single pump in these systems is evaluated. Subsequent failure of the remaining pump is considered in establishing the necessary rate of make-up water supply.

b) The TI inspections were intended to provide a high-level look at industry preparedness. They are a first step in a multi-step assessment the agency is pursuing as a result of events in Japan. Aspects of some of the events listed in Question Three were addressed during the TI inspections, but the entire list of events was not addressed during those inspections in a comprehensive way. The NRC task force analyzed what we knew about events in Japan and making appropriate recommendations. Our longer-term review will analyze more complete technical information from the events in Japan, including specific information on the sequence of events and the status of equipment during the duration of the event. During that review, the agency will evaluate all relevant technical and policy issues related to the event and identify specific actions and further analysis, as appropriate, to ensure the U.S. reactor fleet continues to operate safely.

c) See response to (b) above.

d) See response to (b) above.

e) The results of the TI inspections have been made publicly available and, if relevant to the agenda, will be discussed at the scheduled meetings during which the staff will report to the Commission on its activities.

(f) The NRC's response to the events in Japan will consist of several components – initial inspections to assess licensee preparedness, a near-term look at what we now know about events in Japan, and a longer-term look once we have more complete technical information about those events. Decisions about regulatory changes or other actions will be made as each phase of this process is completed.

**4. The Commission directed its staff to obtain external stakeholder input as part of both its near-term and longer-term work. Please fully describe all plans to solicit such input. Specifically, will any licensee or other nuclear industry personnel be accompanying inspectors during these inspections at nuclear power plants? If so, will NRC also ensure that appropriate non-industry individuals that possess the appropriate expertise and security clearances are also provided such an opportunity?**

The near-term review had limited stakeholder involvement because of the accelerated nature of what the NRC was trying to accomplish. During that time, however, when information was needed to support the near-term review, the task force obtained that input from various sources. Specific agency actions that may result from the efforts of the task force will follow our normal processes for stakeholder involvement (e.g., public comment periods on rulemakings).

Regarding the conduct of the recent TI inspections, the NRC performs independent inspections. In some cases, we have ongoing arrangements for state representatives to participate in NRC

inspections. Licensees occasionally are requested to accompany the NRC on an inspection, but only if we believe we may need them to answer questions, not to participate in the inspection itself.

**5. Why have inspectors only been provided with 40 hours (or 50-60, in the case of a multi-unit nuclear power plant) with which to complete their work? Why does the Commission have confidence that the necessary knowledge with which to inform our own safety efforts can be obtained in such a short period of time?**

The TI indicates that the estimated average time to complete the TI inspection requirements is 40 hours per site. This estimate was based on how much time likely would be necessary to accomplish the required activities and recognition that these inspections needed to be conducted and results documented in a fairly short timeframe, approximately five weeks. There was no official direction that actual inspection hours could not be lower or higher than this estimate. The actual inspection effort to complete TI-183 accounted for over 2600 inspection hours, or about 40 hours per site. The actual inspection effort to complete TI-184 accounted for approximately 900 inspection hours, or about 14 per site. TI-184 focused on the availability and readiness of a plant's severe accident management guidelines as requested by the Task Force, as compared to the broader high-level look at the industry's preparedness per TI-183.

# NRC INSPECTION MANUAL

IRIB

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## TEMPORARY INSTRUCTION 2515/183

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### FOLLOWUP TO THE FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

#### CORNERSTONE: INITIATING EVENTS AND MITIGATING SYSTEMS

**APPLICABILITY:** This Temporary Instruction (TI) applies to all holders of operating licenses for nuclear power reactors, except plants which have permanently ceased operations.

#### 2515/183-01 OBJECTIVES

The objective of this TI is to independently assess the adequacy of actions taken by licensees in response to the Fukushima Daiichi nuclear station fuel damage event. The inspection results from this TI will be used to evaluate the industry's readiness for a similar event and to aid in determining whether additional regulatory actions by the U.S. Nuclear Regulatory Commission are warranted. Therefore, the intent of this TI is to be a high-level look at the industry's preparedness for events that may exceed the design basis for a plant. If necessary, a more specific followup inspection will be performed at a later date.

#### 2515/183-02 BACKGROUND

On March 11, 2011, the Tohoku-Taiheiyou-Oki Earthquake occurred near the east coast of Honshu, Japan. This magnitude 9.0 earthquake and the subsequent tsunami caused significant damage to at least four of the six units of the Fukushima Daiichi nuclear power station as the result of a sustained loss of both the offsite and on-site power systems. Efforts to restore power to emergency equipment have been hampered or impeded by damage to the surrounding areas due to the tsunami and earthquake. The following background information is current as of March 18, 2011.

Units 1 through 3, which had been operating at the time of the earthquake, scrambled automatically, inserting their neutron absorbing control rods to ensure immediate shutdown of the fission process. Following the loss of electric power to normal and emergency core cooling systems and the subsequent failure of back-up decay heat removal systems, water injection into the cores of all three reactors was compromised, and reactor water levels could not be maintained. Tokyo Electric Power Company (TEPCO), the operator of the plant, resorted to injecting sea water and boric acid into the reactor vessels of these three units, in an effort to cool the fuel and ensure the reactors remained shutdown. However, the fuel in the reactor cores became partially uncovered. Hydrogen gas built up in Units 1 and 3 as a result of exposed, overheated fuel reacting with water. Following gas venting from the primary containment to relieve

pressure, hydrogen explosions occurred in both units and damaged the secondary containments. It appears that primary containments for Units 1 and 3 remained functional, but the primary containment for Unit 2 may have been damaged. TEPCO cut a hole in the side of the Unit 2 secondary containment to prevent hydrogen buildup following a sustained period when there was no water injection into the core.

In addition, problems were encountered with monitoring and maintaining Units 3 and 4 spent fuel pool (SFP) water levels. Efforts continue to supply seawater to the SFPs for Units 1 through 4 using various methods. At this time, the integrity of the SFPs for Units 3 and 4 is unknown.

Fukushima Daiichi Units 4 through 6 were shutdown for refueling outages at the time of the earthquake. The fuel assemblies for Unit 4 had been offloaded from the reactor core to the SFP. The SFPs for Units 5 and 6 appear to be intact.

The damage to Fukushima Daiichi nuclear power station appears to have been caused by initiating events that may have exceeded the design basis for the facilities.

#### 2515/183-03 INSPECTION REQUIREMENTS AND GUIDANCE

NRC inspection staff should assess the licensee's activities and actions to assess its readiness to respond to an event similar to the Fukushima Daiichi nuclear plant fuel damage event. These inspections should occur at the operating power reactor facilities. Licensee emergency preparedness will not be assessed by this TI.

This TI may be completed all at once or in phases as the licensee verifies its capability to respond to such an event. The inspector(s) should coordinate the inspection effort with the licensee in accordance with the licensee's verification schedule.

The events at the Fukushima Daiichi plant appear to be caused by factors directly impacting nuclear safety that may have exceeded the design basis for the facility. While details on the full extent of damage to these units remain unknown, the damage poses a significant challenge to the nuclear safety of these units. Immediate actions by the U.S. industry are appropriate to assess and take corrective actions to address potential vulnerabilities that would challenge response to events that are beyond site design bases.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:

- a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested.
- b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification.
- c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).
- d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.
- e. Review any open corrective action documents to identify vulnerabilities that may not have yet been addressed.

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to TI 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22" as a guideline. It is not intended that TI 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:

- a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.
- b. Demonstrate through walkdowns that procedures for response to an SBO are executable.

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding" as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate



actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use IP 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections.

2515/183-04      REPORTING REQUIREMENTS

The inspection results, including both observations and findings, of this TI should be in a stand-alone report. NOTE: This TI will be updated with a template which will provide specific guidance on reporting and documenting observations and findings.

The inspection report containing the results should be forwarded to NRR/DIRS/IRIB, Attention: Tim Kobetz via e-mail at [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov). Mr. Kobetz can also be reached at (301) 415-1932. The inspection results from this TI will be used to evaluate industry's readiness for a similar event and to aid in determining whether additional NRC regulatory actions are warranted.

2515/183-05      COMPLETION SCHEDULE

This TI is to be initiated upon issuance. Inspection activities are to be completed by April 29, 2011 and the inspection report issued by May 13, 2011.

2515/183-06      EXPIRATION

The TI will expire on June 30, 2012.

2515/183-07      CONTACT

Any technical questions regarding this TI should be addressed to Tim Kobetz at 301-415-1932 or [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov).

2515/183-08      STATISTICAL DATA REPORTING

All direct inspection effort expended on this TI is to be charged to 2515/183 with an IPE code of TI. All indirect inspection effort expended on this TI for preparation and documentation should be attributed to activity codes TIP and TID respectively.

2515/183-9      RESOURCE ESTIMATE

The estimated average time to complete the TI inspection requirements is 40 hours per site. Where applicable, inspectors should credit the baseline inspection program for samples reviewed during this TI assessment.

2515/183-10      TRAINING

Issue Date: 03/23/11

No additional training is required.

END

ATTACHMENT 1

Revision History for TI 2515/183  
 FOLLOWUP TO FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	ML11077A007 03/23/11	Researched commitments for 4 years and found none.  This is a new document issued for inspections related to the industry response to the Fukushima Daiichi Nuclear Station Fuel Damage Event.	No	N/A	N/A

Issue Date: 03/23/11

Att1-1

2515/183

## Summary of Observations

### Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Fuel Damage Event"

#### Summary of Observations:

The following are some general observations made during the performance of TI 2515/183. While individually, none of these observations posed a significant safety issue, they indicate a potential industry trend of failure to maintain equipment and strategies required to mitigate some design and beyond design basis events.

Nuclear plants have multiple, redundant, strategies for which the overall function is to mitigate damage to the facility's fuel elements and containment. The failure of a strategy due to equipment failure, procedure inadequacy, inadequate training, etc., does not mean that the other redundant strategies would not have successfully performed their function. During this inspection, while some deficiencies were identified that would have caused a single strategy to be compromised or fail, no functions were compromised that would have resulted in damage to the fuel elements or containment.

The results of the inspections are being assessed in greater detail through the NRC's Reactor Oversight Process and will also be examined by the NRC's Task Force's examining the agency's regulatory requirements, programs, processes, and implementation in light of information from the Fukushima Daiichi event.

#### Licensee Capability to Mitigate Fires in Large Areas of the Plant in accordance with 10 CFR 50.54(hh)(2)

- Some equipment (mainly pumps) would not operate when tested or lacked test acceptance criteria
- Some equipment was missing or dedicated to other plant operations
- In some cases plant modifications had rendered strategies unworkable
- Fuel for pumps was not always readily available

#### Licensee Capability to Mitigate Station Blackout (SBO) Conditions

- In a few cases procedural or training deficiencies existed.

#### Licensee Capability to Mitigate Design Basis Internal and External Events

- Some equipment (mainly pumps) would not operate when tested or lacked test acceptance criteria
- Some discrepancies were identified with barrier and penetration seals

Licensee Capability to Respond to Beyond Basis Events Involving Fires, Floods, and Seismic Events

- Some equipment to mitigate fires and SBO was stored in areas that were not seismically qualified or could be flooded

Matrix of Observations by Facility:

The attached matrix is a per-site summary of observations associated with TI 2515/183. The matrix was developed to provide NRC and external stakeholders with a quick method to review the observations, however, the matrix is not an in-depth assessment of the findings. As noted above, NRC is currently performing a thorough assessment of the identified issues to provide to the Task Force with insights on the U.S. nuclear industry's readiness to cope with beyond design basis events.

Using the Matrix:

While the TI was not designed to ask "yes/no" questions, the matrix provides basic answers in this way to help guide the user to information regarding a facility that they may be interested in. The inspection reports should be reviewed for additional information on the observation.

Plant / Site	Region	Section 03.01: E.5 b)50 54(h)(12)	Section 03.02: Station B Backup (SBC)	Section 03.03: Flooding	Section 03.04: Seismic activity concurrent with large fires or flooding
		Were the licensee's mitigation capabilities <sup>1</sup> satisfactory at the time of the initial review?	Were the licensee's mitigation capabilities <sup>1</sup> satisfactory at the time of the initial review?	Were the licensee's mitigation capabilities <sup>1</sup> satisfactory at the time of the initial review?	Was the licensee's review and assessment satisfactory?
Beaver Valley	I	YES	YES	YES	YES
Calvert Cliffs	I	YES	YES	YES	YES
Fitzpatrick	I	YES	YES	YES	YES
Ginna	I	YES	YES	YES	YES
Hope Creek	I	YES	YES	YES	YES
Indian Point 2	I	YES	YES	YES	YES
Indian Point 3	I	YES	YES	YES	YES
Limerick	I	YES	YES	YES	YES
Millstone	I	YES	YES	YES	YES
Nine Mile Point	I	YES	YES	YES	YES
Oyster Creek	I	Function Met, Strategy Not Demonstrated (corrected)	YES <sup>2</sup>	YES	YES
Peach Bottom	I	YES	YES	YES	YES
Pilgrim	I	Function Met, Strategy Not Demonstrated (resolution in progress) <sup>2</sup>	YES	YES	YES
Salem	I	YES	YES	YES	YES
Seabrook	I	YES	YES	YES	YES
Susquehanna	I	YES	YES	YES	YES
Three Mile Island	I	YES	YES	YES	YES
Vermont Yankee	I	YES	YES	YES	YES
Browns Ferry	II	YES	YES <sup>2</sup>	YES	YES
Brunswick	II	YES	YES	YES	YES
Catawba	II	YES	YES	YES	YES
Crystal River	II	YES	YES	YES	YES
Fairley	II	YES	YES	YES	YES
Harris	II	YES	YES	YES	YES
Hazen	II	Function Met, Strategy Not Demonstrated (resolution in progress) <sup>2</sup>	YES	YES	YES
McGuire	II	YES	YES	YES	YES
North Anna	II	YES	YES	YES <sup>2</sup>	YES
Oconee	II	Function Met, Strategy Not Demonstrated (resolution in progress) <sup>2</sup>	YES	YES <sup>2</sup>	YES
Robinson	II	YES	YES	YES	YES
Sequoyan	II	YES <sup>2</sup>	YES	YES	YES
St. Lucie	II	YES	YES	YES	YES
Summer	II	YES	YES	YES	YES
Sunny	II	YES <sup>2</sup>	YES	YES	YES
Turkey Point	II	YES	YES	YES	YES
Vogtle	II	YES	YES	YES	YES
Watts Bar	II	YES <sup>2</sup>	YES	YES	YES
Braidwood	III	Function Met, Strategy Not Demonstrated (resolution in progress) <sup>2</sup>	YES	YES	YES
Byron	III	YES	YES	YES <sup>2</sup>	YES
Clinton	III	Function Met, Strategy Not Demonstrated (resolution in progress)	YES	YES	YES
D.C. Cook	III	YES	YES	YES	YES
Davis-Besse	III	YES	YES	YES	YES
Dresden	III	YES	YES	YES	YES
Diane Arnold Fermi	III	YES	YES	YES	YES
Fermi	III	YES	YES	YES	YES
Kewaunee	III	Function Met, Strategy Not Demonstrated (resolution in progress)	YES	YES	YES
LaSalle	III	YES	YES <sup>2</sup>	Function Met, Strategy Not Demonstrated (resolution in progress)	YES
Monterey	III	YES	YES	YES	YES
Palisades	III	YES	YES	YES	YES
Perry	III	YES	YES	YES	YES
Point Beach	III	YES	YES <sup>2</sup>	Function Met, Strategy Not Demonstrated (resolution in progress) <sup>2</sup>	YES
Prairie Island	III	YES	YES	YES	YES
Quad Cities	III	YES	YES	YES	YES
Arkansas Nuclear	IV	YES	YES	YES	YES
Calaway	IV	YES	YES	YES	YES
Columbia	IV	YES	YES	YES	YES
Comanche Peak	IV	YES	YES <sup>2</sup>	YES <sup>2</sup>	YES
Cooper	IV	YES	YES	YES	YES
Diablo Canyon	IV	YES <sup>2</sup>	YES <sup>2</sup>	YES	YES
Fort Calhoun	IV	YES	YES	YES <sup>2</sup>	YES
Grand Gulf	IV	YES <sup>2</sup>	YES <sup>2</sup>	YES	YES
Palo Verde	IV	YES	YES	YES	YES
River Bend	IV	Function Met, Strategy Not Demonstrated (corrected) <sup>2</sup>	Function Met, Strategy Not Demonstrated (corrected)	YES	YES
San Onofre	IV	YES	YES	YES	YES
South Texas	IV	YES <sup>2</sup>	YES	YES	YES
Waterford	IV	YES <sup>2</sup>	Function Met, Strategy Not Demonstrated (corrected) <sup>2</sup>	YES	YES
Wolf Creek	IV	Function Met, Strategy Not Demonstrated (resolution in progress)	Function Met, Strategy Not Demonstrated (resolution in progress)	YES	YES

1. There are multiple and redundant mitigation strategies. A "Function Met, Strategy Not Demonstrated" response in this column means that a mitigation strategy was not demonstrated, however, the overall mitigation function would still have worked and protected against fuel and containment damage.

2. The response for this item was determined through both a review of the inspection report and ongoing evaluations.

May 13, 2011

Mr. A. Lincoln, President  
Great Lakes Electric Company, LLC  
4300 Lostfield Road  
Anywhere, IL 60555

SUBJECT: (Plant) – NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT  
(Report number)

Dear Mr. Lincoln:

On April 29, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your (name of facility), using Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event.". The enclosed inspection report documents the inspection results which were discussed on April xx, 2011, with Mr. xxxxx and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of (plant name) to respond to extraordinary consequences similar to those that have recently occurred at the Japanese Fukushima Daiichi Nuclear Station. The results from this inspection, along with the results from this inspection performed at other operating commercial nuclear plants in the United States will be used to evaluate the U.S. nuclear industry's readiness to safely respond to similar events. These results will also help the NRC to determine if additional regulatory actions are warranted.

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report (or you can state "the next quarterly report"). You are not required to respond to this letter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

Branch Chief  
Division of Reactor Projects

Docket Nos.  
License Nos.

Enclosure: Inspection Report xxxxxxx

cc w/encl:

Enclosure

FX 17 of 728

U. S. NUCLEAR REGULATORY COMMISSION

REGION X

Docket(s): 05000XXX

License: NPF-XX

Report: 05000XXX/2011XXX

Licensee:

Facility:

Location:

Dates: March 23, 2011 through April 29, 2011

Inspectors: , Senior Resident Inspector  
, Resident Inspector

Approved By: , Chief, Project Branch  
Division of Reactor Projects



## **SUMMARY OF FINDINGS**

IR 05000xxx/20110xx, 03/23/2011 – 04/29/2011; xxxxxx{plant name} Temporary Instruction 2515/183 - Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event

This report covers an announced Temporary Instruction inspection. The inspection was conducted by Resident and Region xx inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006."

## **INSPECTION SCOPE**

The intent of the TI is to provide a broad overview of the industry's preparedness for events that may exceed the current design basis for a plant. The focus of the TI was on (1) assessing the licensee's capability to mitigate consequences from large fires or explosions on site, (2) assessing the licensee's capability to mitigate station blackout (SBO) conditions, (3) assessing the licensee's capability to mitigate internal and external flooding events accounted for by the station's design, and (4) assessing the thoroughness of the licensee's walk downs and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. If necessary, a more specific follow-up inspection will be performed at a later date.

## **INSPECTION RESULTS**

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report (..or you can state the next quarterly report).

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:

Licensee Action	Describe what the licensee did to test or inspect equipment.
<p>a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	
	Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).
	Discuss general results including corrective actions by licensee.

Licensee Action	Describe the licensee's actions to verify that procedures are in place and can be executed (e.g. walkdowns, demonstrations, tests, etc.)
-----------------	------------------------------------------------------------------------------------------------------------------------------------------

<p>b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	
	Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.
	Discuss general results including corrective actions by licensee.

Licensee Action	Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff.
<p>c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).</p>	Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff

	Discuss general results including corrective actions by licensee.

Licensee Action	Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.
<p>d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>For a sample of mitigating strategies involving contracts or agreements with offsite entities, describe inspector actions to confirm agreements and contracts are in place and current (e.g., confirm that offsite fire assistance agreement is in place and current).</p>
	Discuss general results including corrective actions by licensee.

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Licensee Action	Document the corrective action report number and briefly summarize problems noted by the licensee that have significant potential to prevent the success of any existing mitigating strategy.
e. Review any open corrective action documents to assess problems with mitigating strategy implementation identified by the licensee. Assess the impact of the problem on the mitigating capability and the remaining capability that is not impacted.	

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to TI 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22" as a guideline. It is not intended that TI 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:

Licensee Action	Describe the licensee's actions to verify the adequacy of equipment needed to mitigate an SBO event.
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	
	Describe inspector actions to verify equipment is available and useable.
	Discuss general results including corrective actions by licensee.

Licensee Action	Describe the licensee's actions to verify the capability to mitigate an SBO event.
b. Demonstrate through walkdowns that procedures for response to an SBO are executable.	
	Describe inspector actions to assess whether procedures were in place and could be used as intended.

	Discuss general results including corrective actions by licensee.

<p>03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding" as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.</p>	
<b>Licensee Action</b>	Describe the licensee's actions to verify the capability to mitigate existing design basis flooding events.
<p>a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.</p>	
	Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.
	Discuss general results including corrective actions by

	licensee.

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use IP 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections.

Licensee Action	Describe the licensee's actions to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies.
<p>a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.</p>	
	<p>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</p>
	<p>Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.</p>



## Meetings

1. Exit Meeting (IMC 0612, Section 14.07: Do not include characterization of licensee response. For contested violations, refer to the Enforcement Manual for proper handling.)

The inspectors presented the inspection results to Mr. J. DuPage and other members of licensee management at the conclusion of the inspection on January 4, 2009. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee (should include those individuals who provided information with respect to findings. Discretion is advised as this list should not be pages long. Order can vary. This Branch Chief prefers SVP, PM then alphabetical.)

Nuclear Regulatory Commission

**LIST OF DOCUMENTS REVIEWED**

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>

## LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AF	Auxiliary Feedwater
ARM	Area Radiation Monitors
CAM	Continuous Air Monitors
CC	Component Cooling Water
CFR	Code of Federal Regulations
NRC	United States Nuclear Regulatory Commission



***ENCLOSURE 4***



**Kobetz, Timothy**

---

**From:** Powell, Raymond  
**Sent:** Friday, March 18, 2011 6:02 PM  
**To:** Kobetz, Timothy  
**Subject:** RE: Region I comments on TI

understood, tried to ensure the comments weren't of a tone to be aggressive/offensive.

don't know that anyone would have done any better given 24 hours to write it.

---

**From:** Kobetz, Timothy  
**Sent:** Friday, March 18, 2011 5:56 PM  
**To:** Powell, Raymond  
**Subject:** RE: Region I comments on TI

Thanks Ray. I will be updating it over the weekend. Like your review, I only had one night to draft it. I expected that there would be comments on things that I did not have time to adequately think through (e.g., reporting). I'll let you know if I have any questions.

Tim

---

**From:** Powell, Raymond  
**Sent:** Friday, March 18, 2011 5:19 PM  
**To:** Kobetz, Timothy  
**Cc:** Roberts, Darrell; Clifford, James; Weerakkody, Sunil; Wilson, Peter  
**Subject:** Region I comments on TI

Tim:

Please see attached. I tried to limit redundant comments and apply some QA to it, but a one day turnaround kind of limits that.

(b)(5)

I'll check email periodically over weekend if you have any questions.

Take care.

Ray

Region I TI 2515/183 Consolidated Comments

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# NRC INSPECTION MANUAL

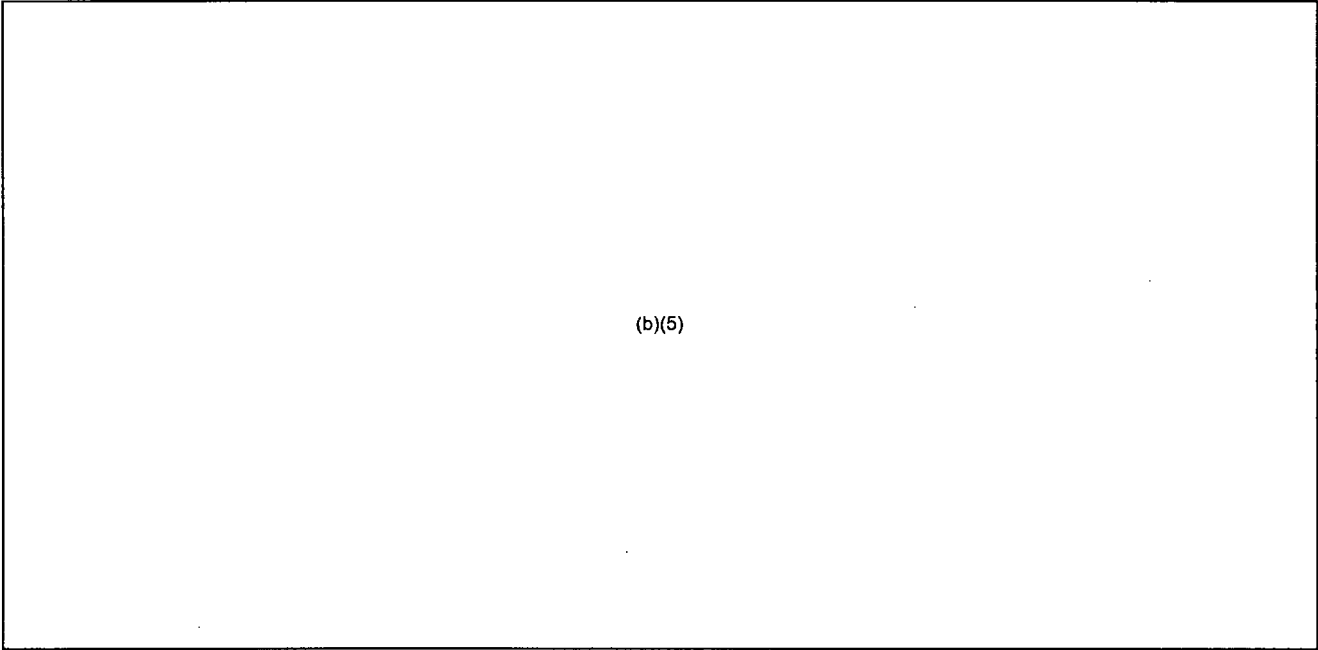
TEMPORARY INSTRUCTION 2515/183

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(b)(5)

(b)(5)

(b)(5)



(b)(5)

**NOT FOR PUBLIC**

**Kobetz, Timothy**

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**From:** Lara, Julio  
**Sent:** Saturday, March 19, 2011 1:28 PM  
**To:** Kobetz, Timothy  
**Subject:** RE: Action: Consider potential on-site activities in near-term

not a problem.

(b)(5)

---

**From:** Kobetz, Timothy  
**Sent:** Friday, March 18, 2011 5:56 PM  
**To:** Lara, Julio  
**Subject:** RE: Action: Consider potential on-site activities in near-term

Thanks Julio.

---

**From:** Lara, Julio  
**Sent:** Friday, March 18, 2011 5:11 PM  
**To:** Kobetz, Timothy; Hopper, George; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; West, Steven; Vogel, Anton; Wilson, Peter; Weerakkody, Sunil; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Cutler, Iris  
**Subject:** RE: Action: Consider potential on-site activities in near-term

Below are RIII Comments on Draft TL-183.

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General Comments

(b)(5)

(b)(5)

Comments on TI

(b)(5)



(b)(5)

Julio

[<https://webmail.nrc.gov/owa/UrlBlockedError.aspx>] Julio Lara, P.E.  
TSS Team Leader, DRP, RIII  
630.829.9731

From: Kobetz, Timothy  
Sent: Thursday, March 17, 2011 9:54 AM  
To: Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
Cc: Roberts, Darrell; Clifford, James; Croteau, Rich; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
Subject: Action: Consider potential on-site activities in near-term  
Importance: High

Dear George, Julio, Ray, and Mike,

As I discussed by phone with each of you today, due to the events in Japan, DIRS intends to issue a TI for follow-up on domestic plants. It is based (heavily based) on the INPO Event Report – Level 1 that was issued on Tuesday. Here are the highlights:

- It reviews licensee verification of INPO recommendations
- The main focus of the inspection is to assess the licensee's verification, not perform an independent inspection.
- It references applicable NRC inspection guidance when possible (please add on as necessary).
- We have forwarded a copy to INPO to see if they have any objections with us following up on their recommendations.
- It recommends 40 hours per site and allows the regions to take credit for the baseline inspections if possible (I do expect a lot of feedback on the level of effort).

- The information gathered from this TI will be used to evaluate industry's readiness for a similar event and to aid in evaluating whether additional NRC regulatory actions are warranted.

Please coordinate the regional review and comment on it by COB Friday (March 18) and I will update the TI accordingly over the weekend. However, I fully understand the significance of this review so if you need extra time (say until COB on Monday or later) just let me know. Please send your comments to me (timothy.kobetz@nrc.gov<mailto:timothy.kobetz@nrc.gov>) and to Iris Cutler (iris.cutler@nrc.gov<mailto:iris.cutler@nrc.gov>).

I will be out of the office this afternoon but can be reached via e-mail or my cell phone (b)(6) when possible.

I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand why.

Also attached is the INPO document for reference.

Thanks for your efforts on this,

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event DIRS Technical Lead: Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, timothy.kobetz@nrc.gov<mailto:timothy.kobetz@nrc.gov>

The is a new document so it represents a significant change.

From: Brown, Frederick  
Sent: Wednesday, March 16, 2011 3:15 PM  
To: Kobetz, Timothy  
Subject: FW: Action: Consider potential on-site activities in near-term  
Importance: High

Tim,

Your action. How quickly can we do a TI out for review?

From: Brown, Frederick  
Sent: Wednesday, March 16, 2011 11:17 AM  
To: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven  
Cc: Vegal, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry  
Subject: Action: Consider potential on-site activities in near-term  
Importance: High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:

- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

~~NOT FOR PUBLIC DISCLOSURE~~

**Kobetz, Timothy**

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**From:** Kobetz, Timothy  
**Sent:** Saturday, March 19, 2011 2:55 PM  
**To:** Lara, Julio  
**Subject:** RE: Action: Consider potential on-site activities in near-term

Julio,

Thanks for understanding about the time crunch.

(b)(5)

I'll be sending out the

revision first thing Monday.

Tim

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

**From:** Lara, Julio  
**Sent:** Saturday, March 19, 2011 1:28 PM  
**To:** Kobetz, Timothy  
**Subject:** RE: Action: Consider potential on-site activities in near-term

not a problem.

(b)(5)

---

**From:** Kobetz, Timothy  
**Sent:** Friday, March 18, 2011 5:58 PM  
**To:** Lara, Julio  
**Subject:** RE: Action: Consider potential on-site activities in near-term

Thanks Julio.

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**From:** Lara, Julio  
**Sent:** Friday, March 18, 2011 5:11 PM  
**To:** Kobetz, Timothy; Hopper, George; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruet, Troy; West, Steven; Vegal, Anton; Wilson, Peter; Weerakkody, Sunil; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Cutler, Iris  
**Subject:** RE: Action: Consider potential on-site activities in near-term

Below are RIII Comments on Draft TI-183.

---

General Comments

(b)(5)

(b)(5)

Julio

[<https://webmail.nrc.gov/owa/UsBlockedError.aspx>] Julio Lara, P.E.  
TSS Team Leader, DRP, III  
630.829.9731

From: Kobetz, Timothy  
Sent: Thursday, March 17, 2011 9:54 AM  
To: Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
Cc: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
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- It recommends 40 hours per site and allows the regions to take credit for the baseline inspections if possible (I do expect a lot of feedback on the level of effort).
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Please coordinate the regional review and comment on it by COB Friday (March 18) and I will update the TI accordingly over the weekend. However, I fully understand the significance of this review so if you need extra time (say until COB on Monday or later) just let me know. Please send your comments to me (timothy.kobetz@nrc.gov<mailto:timothy.kobetz@nrc.gov>) and to Iris Cutler (iris.cutler@nrc.gov<mailto:iris.cutler@nrc.gov>).

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I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand why.

Also attached is the INPO document for reference.

Thanks for your efforts on this.

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

TI 2515/163 "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event DIRS Technical Lead: Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, timothy.kobetz@nrc.gov<mailto:timothy.kobetz@nrc.gov>

This is a new document so it represents a significant change

From: Brown, Frederick  
Sent: Wednesday, March 16, 2011 3:15 PM  
To: Kobetz, Timothy  
Subject: FW: Action: Consider potential on-site activities in near-term  
Importance: High

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Your action. How quickly can we do a TI out for review?

From: Brown, Frederick

Sent: Wednesday, March 16, 2011 11:17 AM

To: Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

Cc: Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

Subject: Action: Consider potential on-site activities in near-term

Importance: High

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- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

NOT FOR PUBLIC DISCLOSURE



**Kobetz, Timothy**

---

**From:** Kobetz, Timothy  
**Sent:** Monday, March 21, 2011 10:25 AM  
**To:** Westreich, Barry  
**Cc:** Brown, Frederick  
**Subject:** RE: TI 2515/183 final draft

(b)(5)

Tim

---

**From:** Westreich, Barry  
**Sent:** Monday, March 21, 2011 10:14 AM  
**To:** Kobetz, Timothy  
**Cc:** Brown, Frederick  
**Subject:** Re: TI 2515/183 final draft

CLOSURE

(b)(5)

Sent from NRC blackberry  
Barry Westreich  
Deputy Director for Security Oversight  
Office of Nuclear Security and Incident Response  
USNRC  
(b)(6) (cell)  
301-415-6828 (office)

NOT FOR PUBLIC

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**From:** Kobetz, Timothy  
**To:** Brown, Frederick; Westreich, Barry  
**Sent:** Mon Mar 21 10:07:18 2011  
**Subject:** FW: TI 2515/183 final draft

Just an FYI see Region I feedback. I'm currently incorporating feedback I got from Region II this morning.

Tim

---

**From:** Powell, Raymond  
**Sent:** Monday, March 21, 2011 9:37 AM  
**To:** Kobetz, Timothy  
**Cc:** Hay, Michael; Lara, Julio; Hopper, George  
**Subject:** RE: TI 2515/183 final draft

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(b)(5)

(b)(5)

Thoughts from anybody else?

Ray

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**From:** Kobetz, Timothy

**Sent:** Monday, March 21, 2011 7:29 AM

**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael

**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vegel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris

**Subject:** TI 2515/183 final draft

Dear George, Julio, Ray, and Mike,

Thanks to all of the regions for the quick review and comment on the TI. I tried to address the comments in the attached revision. I have not finished the comment resolution form yet, however, the following were some of the main concerns raised and how they are being addressed:

1. The NRC is not performing a truly independent inspection. Response: The TI is an independent assessment and verification of the licensee's response to the event. Information gathered during this TI will be used to determine what, if any, additional inspections need to be performed and to develop specific technical guidance to perform the inspections.
2. The technical guidance in the TI lacks specificity. Response: To support the urgency of getting this TI issued, past inspection guidance was referenced as guidelines. Inspectors should feel free to contact the program office (DIRS/IRIB) with any questions regarding the implementation of the TI. More specific inspection guidance may come later as discussed in #1 above.

This morning I will once again be sending the TI to INPO for review to ensure there are no copyright infringements, etc. I sent them a copy last Friday and spoke with them. Overall INPO is supportive of our initiative.

I am working at home today and can be reached on my cell phone at: (b)(6). Please don't hesitate to call with any questions. Also let me know if you would like to have a conference call today to discuss the TI as a group.

If regional senior management still has concerns you may want to contact Fred or Barry this morning (however I'm not sure what their duty schedules at the IRC are).

Thanks again for support and quick responsiveness to this effort.

Tim

---

**From:** Kobetz, Timothy

**Sent:** Thursday, March 17, 2011 10:54 AM

**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael

**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vegel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger,

Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

Dear George, Julio, Ray, and Mike,

As I discussed by phone with each of you today, due to the events in Japan, DIRS intends to issue a TI for follow-up on domestic plants. It is based (heavily based) on the INPO Event Report – Level 1 that was issued on Tuesday. Here are the highlights:

- It reviews licensee verification of INPO recommendations
- The main focus of the inspection is to assess the licensee's verification, not perform an independent inspection.
- It references applicable NRC inspection guidance when possible (please add on as necessary).
- We have forwarded a copy to INPO to see if they have any objections with us following up on their recommendations.
- It recommends 40 hours per site and allows the regions to take credit for the baseline inspections if possible (I do expect a lot of feedback on the level of effort).
- The information gathered from this TI will be used to evaluate industry's readiness for a similar event and to aid in evaluating whether additional NRC regulatory actions are warranted.

Please coordinate the regional review and comment on it by COB Friday (March 18) and I will update the TI accordingly over the weekend. However, I fully understand the significance of this review so if you need extra time (say until COB on Monday or later) just let me know. Please send your comments to me (timothy.kobetz@nrc.gov) and to Iris Cutler (iris.cutler@nrc.gov).

I will be out of the office this afternoon but can be reached via e-mail or my cell phone (b)(6) when possible.

I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand why.

Also attached is the INPO document for reference.

Thanks for your efforts on this.

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

TI 2515/183, Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event  
DIRS Technical Lead:  
Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

**The is a new document so it represents a significant change.**

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 3:15 PM  
**To:** Kobetz, Timothy  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

Tim,

Your action. How quickly can we do a TI out for review?

---

**From:** Brown, Frederick

**Sent:** Wednesday, March 16, 2011 11:17 AM

**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

**Cc:** Vegel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

**Subject:** Action: Consider potential on-site activities in near-term

**Importance:** High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:

- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

NOT FOR PUBLIC DISCLOSURE

**Kobetz, Timothy**

---

**From:** Kobetz, Timothy  
**Sent:** Monday, March 21, 2011 3:57 PM  
**To:** Brown, Frederick; Westreich, Barry  
**Subject:** FYI Only: TI 2515/183 Status

Fred and Barry,

I received some additional comments from Region II this afternoon. We are getting closer. I have a conference call scheduled with my regional counterparts at 9:00am tomorrow. Hopefully, we can come to agreement.

Tim

**NOT FOR PUBLIC DISCLOSURE**

**Kobetz, Timothy**

---

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 24, 2011 2:01 PM  
**To:** Rich, Daniel; Stewart, Scott; Bowman, Eric  
**Cc:** Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim  
**Subject:** RE: Testing of B5b pumps (TI-183)

I agree with Dan.

---

**From:** Rich, Daniel  
**Sent:** Thursday, March 24, 2011 2:00 PM  
**To:** Stewart, Scott; Bowman, Eric; Kobetz, Timothy  
**Cc:** Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim  
**Subject:** RE: Testing of B5b pumps (TI-183)

Scott:

(b)(5)

Dan

---

**From:** Stewart, Scott  
**Sent:** Thursday, March 24, 2011 1:33 PM  
**To:** Bowman, Eric; Kobetz, Timothy  
**Cc:** Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim  
**Subject:** RE: Testing of B5b pumps (TI-183)

(b)(5)

---

**From:** Bowman, Eric  
**Sent:** Thursday, March 24, 2011 1:01 PM  
**To:** Kobetz, Timothy; Stewart, Scott  
**Cc:** Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim  
**Subject:** RE: Testing of B5b pumps (TI-183)

Tim,

(b)(5)

Thanks!

Eric

---

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 24, 2011 12:45 PM  
**To:** Stewart, Scott  
**Cc:** Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim; Bowman, Eric  
**Subject:** RE: Testing of B5b pumps (T-183)

Scott,

[Redacted]

(b)(5)

Feel free to give me if you want to talk this through a little more. Eric Bowman may be able to shed some light on this also.

Thanks, Tim

*Tim Kobetz*  
Chief, Reactor Inspection Branch  
Office of Nuclear Reactor Regulation  
301-415-1932 (work)  
[Redacted] (work cell)

FOR PUBLIC DISCLOSURE

---

**From:** Stewart, Scott  
**Sent:** Thursday, March 24, 2011 12:00 PM  
**To:** Kobetz, Timothy  
**Cc:** Rich, Daniel; Barillas, Martha; Schroer, Suzanne; Ninh, Son; Hoeg, Tim  
**Subject:** Testing of B5b pumps (T-183)

Tim;

[Redacted]

(b)(5)

Scott Stewart  
SRI-Turkey Point

Rihm, Roger

---

**From:** Powell, Raymond  
**Sent:** Wednesday, March 23, 2011 1:46 PM  
**To:** Doerlein, Lawrence  
**Subject:** FW: Plan for Issuing the TI Today  
**Attachments:** TI 2515-183 Rev 5.docx; TI Inspection Report Template.docx

---

**From:** Kobetz, Timothy  
**Sent:** Wednesday, March 23, 2011 1:40 PM  
**To:** Powell, Raymond  
**Subject:** RE: Plan for Issuing the TI Today

Attached is the draft TI and a very preliminary template to report the observations.

---

**From:** Powell, Raymond  
**Sent:** Wednesday, March 23, 2011 1:34 PM  
**To:** Kobetz, Timothy  
**Subject:** RE: Plan for Issuing the TI Today

I hate to ask for favors, but as its not security sensitive, could you please send it to

(b)(6)

Thanks

---

**From:** Kobetz, Timothy  
**Sent:** Wednesday, March 23, 2011 11:35 AM  
**To:** Walker, Wayne; OKeefe, Neil; Hay, Michael; Hopper, George; Powell, Raymond; Lara, Julio  
**Subject:** Plan for Issuing the TI Today

Gentlefolk,

The TI is all signed and ready to go. However, I do not want to send it out until after Jack and the Deputy RAs talk at 3:00 today – just in case something changes. At the conclusion of the meeting Iris will send it to ADAMS and I will forward the package to you for early distribution within the regions as you see fit.

Let me know if you have any questions.

Tim

*Tim Kobetz*  
Chief, Reactor Inspection Branch  
Office of Nuclear Reactor Regulation  
301-415-1932 (work)

(b)(6)

(work cell)



# NRC INSPECTION MANUAL

IRIB

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TEMPORARY INSTRUCTION 2515/183

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FOLLOWUP TO THE FUKUSHIMA DAIICHI NUCLEAR STATION  
FUEL DAMAGE EVENT

(b)(5)

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(b)(5)

(b)(5)

END

~~NOT FOR PUBLIC DISCLOSURE~~

ATTACHMENT 1

Revision History for TI 2515/183  
FOLLOW UP TO FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

~~NOT TO BE DISCLOSED~~

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
(b)(5)					

~~NOT TO BE DISCLOSED~~

Issue Date: XX/XX/XX

Att1-1

2515/183

(b)(5)

**CONFIDENTIAL**

(b)(5)

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 01/11/01 BY 60322 UCBAW



(b)(5)

NO DISCLOSURE

(b)(5)

PUBLIC DISCLOSURE

(b)(5)

FOR PUBLIC DISCLOSURE

**Rihm, Roger**

---

**From:** Doerflein, Lawrence  
**Sent:** Wednesday, March 30, 2011 4:39 PM  
**To:** Bellamy, Ronald; Burritt, Arthur; Krohn, Paul; Powell, Raymond; Dentel, Glenn; Jackson, Donald; Gray, Mel; Rosebrook, Andrew; Setzer, Thomas; Bickett, Brice; Barber, Scott; Cline, Leonard; Patel, Amar; Werkheiser, David; Kern, David; Hunegs, Gordon; Kolaczyk, Kenneth; Ziedonis, Adam; Raymond, William; Schneider, Max; Shaffer, Steve; Catts, Michelle; Cataldo, Paul; Perry, Neil; Kulp, Jeffrey; Schroeder, Daniel; Bower, Fred; Finney, Patrick; Hawkins, Justin; DiPaolo, Eugene  
**Cc:** Rogge, John; Richmond, John; Conte, Richard; Hansell, Samuel; Amer, Frank; Mangan, Kevin; Schoppy, Joseph; Pindale, Stephen; Kennedy, Silas; Henderson, Pamela; Roberts, Darrell; Wilson, Peter; Weerakkody, Sunil; Clifford, James  
**Subject:** TI-183 implementation  
**Importance:** High

CONFIDENTIAL

(b)(5)

(b)(5)

Keep asking questions. We'll try to get them answered and shared with others.

Regards,

Larry

NOT FOR PUBLIC DIS

Rihm, Roger

---

From: Doerlein, Lawrence  
Sent: Wednesday, April 06, 2011 12:28 PM  
To: Shaffer, Steve; Kolaczyk, Kenneth  
Subject: TI-183

(b)(5)

NOT FOR PUBLIC DISCLOSURE

Rihm, Roger

---

**From:** Kolaczyk, Kenneth  
**Sent:** Wednesday, April 06, 2011 12:42 PM  
**To:** Doerlein, Lawrence  
**Cc:** Dempsey, Douglas  
**Subject:** RE: TI-183

Larry,

(b)(5)

Ken K.

---

**From:** Doerlein, Lawrence  
**Sent:** Wednesday, April 06, 2011 12:28 PM  
**To:** Shaffer, Steve; Kolaczyk, Kenneth  
**Subject:** TI-183

(b)(5)

~~NOT FOR PUBLIC~~

~~SCLOSURE~~

Rihm, Roger

---

**From:** Shaffer, Steve  
**Sent:** Wednesday, April 06, 2011 12:48 PM  
**To:** Doerlein, Lawrence  
**Cc:** Haagensen, Brian; Krafty, James; Jackson, Donald  
**Subject:** RE: TI-183

Mr. Doerlein:

(b)(5)

I hope this helps.

Shaffer

---

**From:** Doerlein, Lawrence  
**Sent:** Wednesday, April 06, 2011 12:28 PM  
**To:** Shaffer, Steve; Kolaczyk, Kenneth  
**Subject:** TI-183

(b)(5)

NOT FOR



Temporary Instruction 2515/183,  
“Followup to the Fukushima  
Daiichi Nuclear Station Fuel  
Damage Event”

Larry Doerflein

April 5, 2011

(b)(5)

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(b)(5)

(b)(5)

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(b)(5)

Questions?

Rihm, Roger

---

**From:** Doerflein, Lawrence  
**Sent:** Wednesday, April 13, 2011 12:24 PM  
**To:** Kennedy, Silas; Ibarrola, Sherlyn; Hunegs, Gordon; Casey, Lauren; Kolaczyk, Kenneth; Dempsey, Douglas; Knutson, Ed; Rutenkroger, Scott; Catts, Michelle; Cataldo, Paul; Ayegbusi, Odunayo; Halter, Mandy; Smith, Brian; Patel, Amar; Schroeder, Daniel; McKenna, Philip; Raymond, William; Johnson, Jonathan; DiPaolo, Eugene; Sieller, Nicole; Bower, Fred; Finney, Patrick; Greives, Jonathan; Ziedonis, Adam; Rich, Sarah; Schneider, Max; Shaffer, Steve; Krafty, James; Haagensen, Brian; Werkheiser, David; Bonney, Erin; Kulp, Jeffrey; Keighley, Elizabeth; Lafferty, Nathan; Kern, David; Heinly, Justin; Richmond, John; Amer, Frank; Schoppy, Joseph; Pindale, Stephen; Schmidt, Wayne; Cahill, Christopher; Cook, William; Mangan, Kevin  
**Cc:** Burritt, Arthur; Bellamy, Ronald; Krohn, Paul; Powell, Raymond; Gray, Mel; Dentel, Glenn; Jackson, Donald; Hansell, Samuel; Rogge, John; Conte, Richard; Henderson, Pamela; Trapp, James; Wilson, Peter; Weerakkody, Sunil; Miller, Chris; Roberts, Darrell; Clifford, James  
**Subject:** TI-183 implementation  
**Attachments:** Oyster Creek Draft TI Inspection Report Template Rev 4.docx

FYI,

(b)(5)

6) Thanks to all for the quick response on the simulator question.

Regards,

Larry

~~NOT FOR PUBLIC DISCLOSURE~~

(b)(5)



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(b)(5)

(b)(5)



(b)(5)

**Rihm, Roger**

---

**From:** Lewin, Aron  
**Sent:** Wednesday, April 13, 2011 1:19 PM  
**To:** Kobetz, Timothy  
**Cc:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Westreich, Barry  
**Subject:** TI Cover Letter Report Template  
**Attachments:** Inspection Report Template w cover letter.docx

Tim,

~~WIRE~~

(b)(5)

Please let me know if there are any comments or issues.

Thanks,  
Aron

(b)(6)

~~NOT FOR PUBLICATION~~

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(b)(5)



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(b)(5)

(b)(5)



(b)(5)

Rihm, Roger

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**From:** Doerflein, Lawrence  
**Sent:** Monday, April 18, 2011 8:36 AM  
**To:** Kennedy, Silas; Ibarrola, Sherlyn; Hunegs, Gordon; Casey, Lauren; Kolaczyk, Kenneth; Dempsey, Douglas; Knutson, Ed; Rutenkroger, Scott; Catts, Michelle; Cataldo, Paul; Ayegbusi, Odunayo; Halter, Mandy; Smith, Brian; Patel, Amar; Schroeder, Daniel; McKenna, Philip; Raymond, William; Johnson, Jonathan; DiPaolo, Eugene; Sieller, Nicole; Bower, Fred; Finney, Patrick; Greives, Jonathan; Ziedonis, Adam; Rich, Sarah; Schneider, Max; Shaffer, Steve; Krafty, James; Haagensen, Brian; Werkheiser, David; Bonney, Erin; Karp, Jeffrey; Keighley, Elizabeth; Lafferty, Nathan; Kern, David; Heinly, Justin; Richmond, John; Arner, Frank; Schoppy, Joseph; Pindale, Stephen; Schmidt, Wayne; Cahill, Christopher; Cook, William; Mangan, Kevin  
**Cc:** Burritt, Arthur; Bellamy, Ronald; Krohn, Paul; Powell, Raymond; Gray, Mel; Dentel, Glenn; Jackson, Donald; Hansell, Samuel; Rogge, John; Conte, Richard; Henderson, Pamela; Trapp, James; Wilson, Peter; Miller, Chris; Roberts, Darrell; Clifford, James  
**Subject:** TI-183 implementation

CONFIDENTIAL

(b)(5)

Still have not heard of too many issues. How are things going? Any insights you'd like to share?

Regards,

Larry

NOT FOR PUBLIC DISSEMINATION

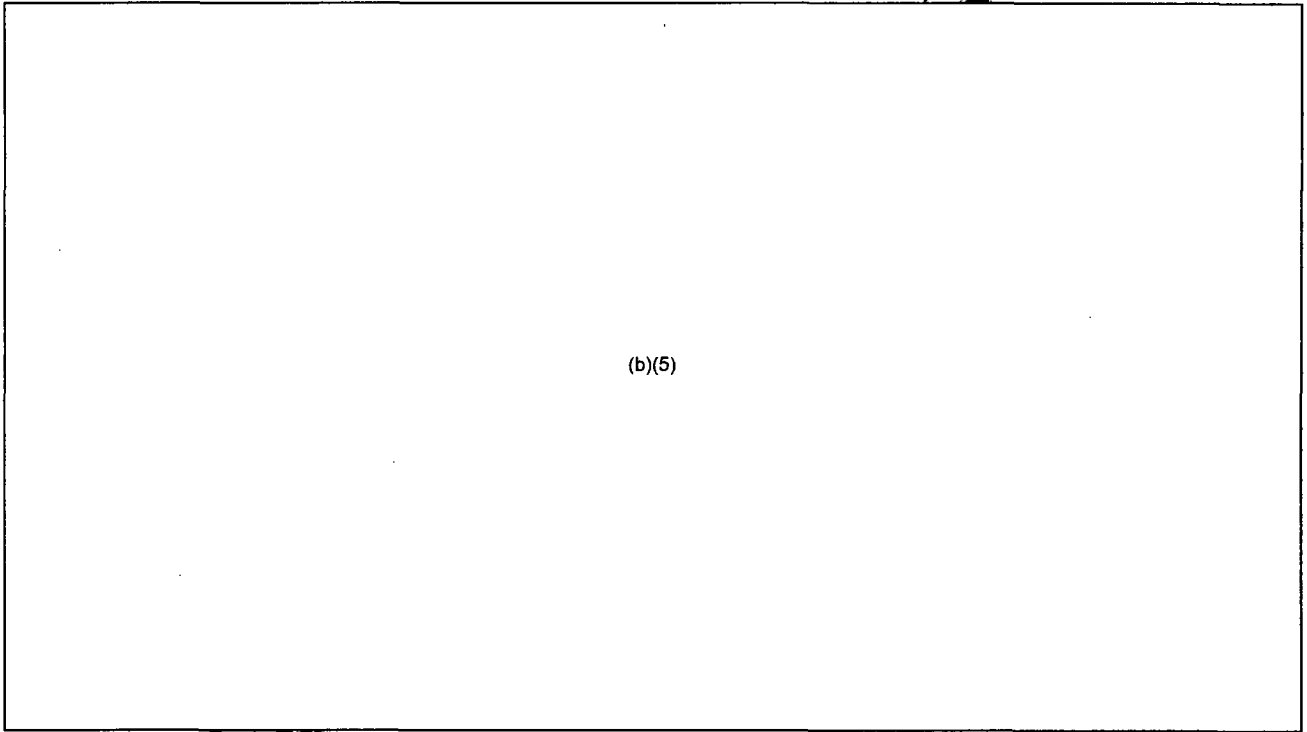
**Rihm, Roger**

---

**From:** Lewin, Aron  
**Sent:** Tuesday, April 19, 2011 3:45 PM  
**To:** Kobetz, Timothy  
**Cc:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Thomas, Eric; Bowman, Eric; Goel, Vijay; Matharu, Gurcharan; Mathew, Roy  
**Subject:** 4/19/11 TI 2515/183 Call Highlights

Tim,

Highlights from today's call.



Julio,

We briefly discussed the Davis-Besse draft report and that the licensee had shared some of the additional INPO guidance results with the inspectors (I think). Had the licensee not shared the information, would this have impacted the inspector's ability to conduct the TI? (i.e. more time to prepare for / conduct inspection or possible inability to conduct inspection, especially the last part of the TI)

Thanks,  
Aron

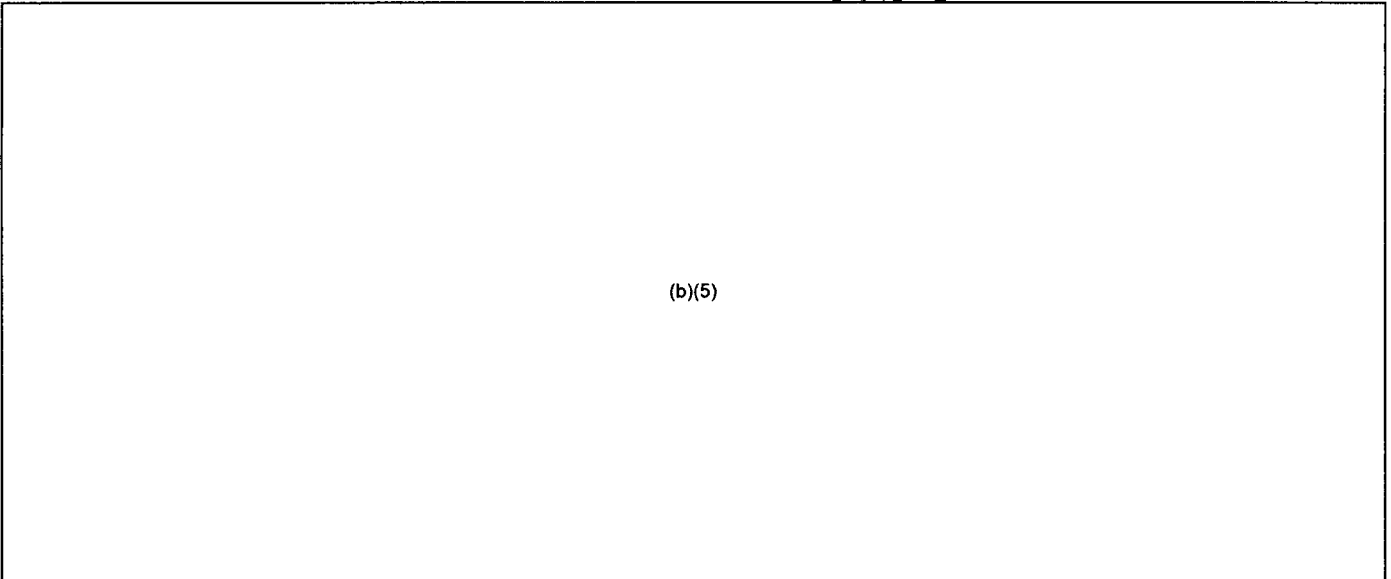
(b)(6)

Rihm, Roger

---

**From:** Doerflein, Lawrence  
**Sent:** Tuesday, April 19, 2011 6:17 PM  
**To:** Kennedy, Silas; Ibarrola, Sherlyn; Hunegs, Gordon; Casey, Lauren; Kolaczyk, Kenneth; Dempsey, Douglas; Knutson, Ed; Rutenkroger, Scott; Catts, Michelle; Cataldo, Paul; Ayegbusi, Odunayo; Halter, Mandy; Smith, Brian; Patel, Amar; Schroeder, Daniel; McKenna, Philip; Raymond, William; Johnson, Jonathan; DiPaolo, Eugene; Sieller, Nicole; Bower, Fred; Finney, Patrick; Greives, Jonathan; Ziedonis, Adam; Rich, Sarah; Schneider, Max; Shaffer, Steve; Krafty, James; Haagensen, Brian; Werkheiser, David; Bonney, Erin; Karp, Jeffrey; Keighley, Elizabeth; Lafferty, Nathan; Kern, David; Heinly, Justin; Richmond, John; Arner, Frank; Schoppy, Joseph; Pindale, Stephen; Schmidt, Wayne; Cahill, Christopher; Cook, William; Mangan, Kevin; Bream, Jeffrey  
**Cc:** Burritt, Arthur; Bellamy, Ronald; Krohn, Paul; Powell, Raymond; Gray, M; Bentel, Glenn; Jackson, Donald; Hansell, Samuel; Rogge, John; Conte, Richard; Henderson, Pamela; Trapp, James; Wilson, Peter; Weerakkody, Sunil; Miller, Chris; Roberts, Daniel; Clifford, James  
**Subject:** TI-183 Implementation  
**Attachments:** DB TI 183 IR Attachment.docx

FYI,



Thanks for the good work!

Larry

Rihm, Roger

---

**From:** Kobetz, Timothy  
**Sent:** Wednesday, April 27, 2011 6:32 AM  
**To:** Doerflein, Lawrence  
**Cc:** Cahill, Christopher; Lara, Julio; Wilson, Peter; Lewin, Aron; Hopper, George; Powers, Dale; OKeefe, Neil  
**Subject:** RE: TI 183 documentation

Larry,

(b)(5)

Thanks, Tim

---

**From:** Doerflein, Lawrence  
**Sent:** Tuesday, April 26, 2011 5:57 PM  
**To:** Kobetz, Timothy  
**Cc:** Cahill, Christopher; Lara, Julio; Wilson, Peter  
**Subject:** TI 183 documentation

Tim,

(b)(5)

(b)(5)

Let me know your thoughts.

Regards,

Larry

NOT FOR PUBLIC DISCLOSURE

Rihm, Roger

---

**From:** Doerflein, Lawrence  
**Sent:** Wednesday, April 27, 2011 12:05 PM  
**To:** Kennedy, Silas; Ibarrola, Sherlyn; Hunegs, Gordon; Casey, Lauren; Kolaczyk, Kenneth; Dempsey, Douglas; Knutson, Ed; Rutenkroger, Scott; Catts, Michelle; Cataldo, Paul; Ayegbusi, Odunayo; Halter, Mandy; Smith, Brian; Patel, Amar; Schroeder, Daniel; McKenna, Philip; Raymond, William; Johnson, Jonathan; DiPaolo, Eugene; Sieller, Nicole; Bower, Fred; Finney, Patrick; Greives, Jonathan; Ziedonis, Adam; Rich, Sarah; Schneider, Max; Shaffer, Steve; Krafty, James; Haagensen, Brian; Werkheiser, David; Bonney, Erin; Krip, Jeffrey; Keighley, Elizabeth; Lafferty, Nathan; Kern, David; Heinly, Justin; Richmond, John; Arner, Frank; Schoppy, Joseph; Pindale, Stephen; Schmidt, Wayne; Cahill, Christopher; Cook, William; Mangan, Kevin; Bream, Jeffrey  
**Cc:** Burritt, Arthur; Bellamy, Ronald; Krohn, Paul; Powell, Raymond; Gray, Mel; Dentel, Glenn; Jackson, Donald; Hansell, Samuel; Rogge, John; Conte, Richard; Henderson, Pamela; Trapp, James; Wilson, Peter; Miller, Chris; Roberts, Darrell; Clifford, James  
**Subject:** TI-183 Inspection Report Template  
**Attachments:** Inspection Report Template w cover letter (4).docx

(b)(5)

Regards,

Larry

(b)(5)



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**Rihm, Roger**

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**From:** Doerflein, Lawrence  
**Sent:** Thursday, April 28, 2011 5:52 PM  
**To:** Kennedy, Silas; Ibarrola, Sherlyn; Hunegs, Gordon; Casey, Lauren; Kolaczyk, Kenneth; Dempsey, Douglas; Knutson, Ed; Rutenkroger, Scott; Catts, Michelle; Cataldo, Paul; Ayegbusi, Odunayo; Halter, Mandy; Smith, Brian; Patel, Amar; Schroeder, Daniel; McKenna, Philip; Raymond, William; Johnson, Jonathan; DiPaolo, Eugene; Sieller, Nicole; Bower, Fred; Finney, Patrick; Greives, Jonathan; Ziedonis, Adam; Rich, Sarah; Schneider, Max; Shaffer, Steve; Krafty, James; Haagensen, Brian; Werkheiser, David; Bonney, Erin; Kulp, Jeffrey; Keighley, Elizabeth; Lafferty, Nathan; Kern, David; Heinly, Justin; Richmond, John; Amer, Frank; Schoppy, Joseph; Pindale, Stephen; Schmidt, Wayne; Cahill, Christopher; Cook, William; Mangan, Kevin; Bream, Jeffrey  
**Cc:** Burritt, Arthur; Bellamy, Ronald; Krohn, Paul; Powell, Raymond; Gray, Men; Dentel, Glenn; Jackson, Donald; Hansell, Samuel; Rogge, John; Conte, Richard; Henderson, Pamela; Trapp, James; Wilson, Peter; Miller, Chris; Roberts, Darrell; Clifford, James  
**Subject:** TI-183 documentation

1) Thanks to all for participating in the teleconference yesterday to discuss the TI. It was helpful to the region and clearly demonstrated all the good work the inspectors are doing implementing the TI.

(b)(5)

(b)(5)

Thanks again for all the support.

Regards,

Larry

~~NOT FOR PUBLIC DISCLOSURE~~



Rihm, Roger

---

**From:** Lewin, Aron  
**Sent:** Tuesday, May 03, 2011 3:22 PM  
**To:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Thomas, Eric; Bowman, Eric; Goel, Vijay; Matharu, Gurcharan; Mathew, Roy; Kobetz, Timothy; Cartwright, William; Ayala; Juan  
**Subject:** 5/3/11 TI Call Highlights

Tim,

The following items were highlights from today's meeting:

183

(b)(5)

184

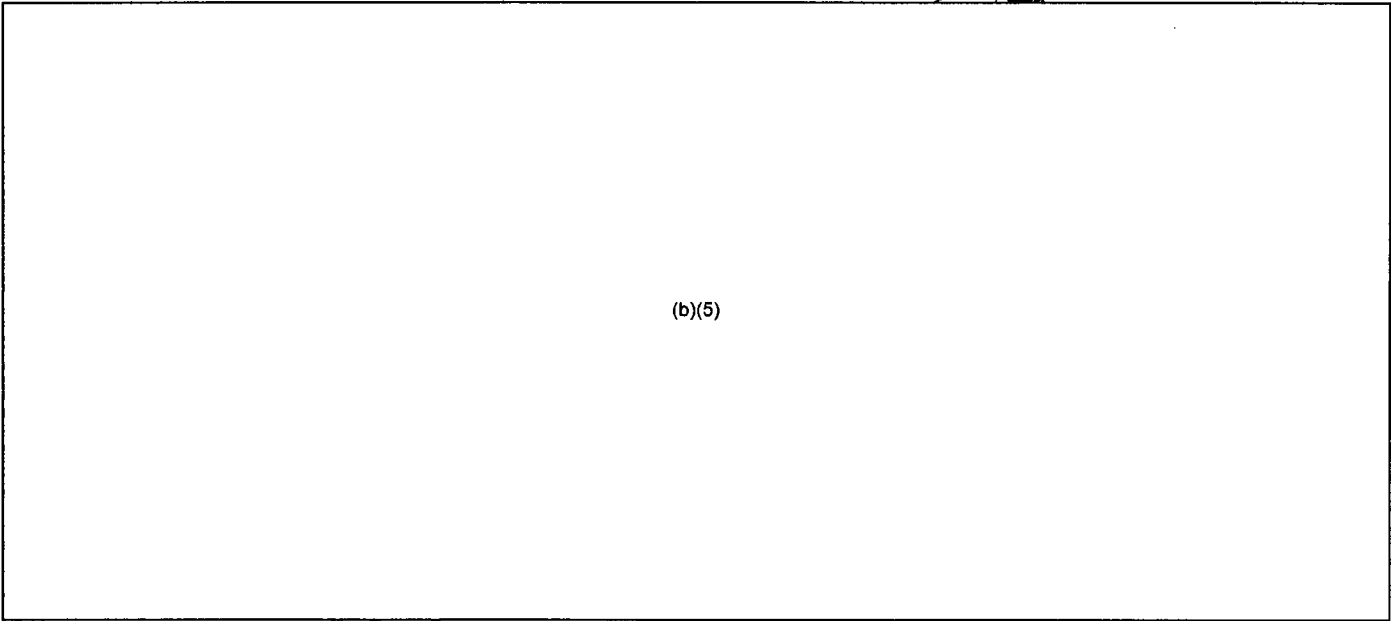
(b)(5)

Thanks,  
Aron  
X2259

**Rihm, Roger**

**From:** Doerlein, Lawrence  
**Sent:** Tuesday, May 03, 2011 5:44 PM  
**To:** Kennedy, Silas; Ibarrola, Sherlyn; Hunege, Gordon; Casey, Lauren; Kolaczyk, Kenneth; Dempsey, Douglas; Knutson, Ed; Rutenkroger, Scott; Catts, Michelle; Cataldo, Paul; Ayegbusi, Odunayo; Halter, Mandy; Smith, Brian; Patel, Amar; Schroeder, Daniel; McKenna, Philip; Raymond, William; Johnson, Jonathan; DiPaolo, Eugene; Sieller, Nicole; Bower, Fred; Finney, Patrick; Greives, Jonathan; Ziedonis, Adam; Rich, Sarah; Schneider, Max; Shaffer, Steve; Krafty, James; Haagensen, Brian; Werkheiser, David; Bonney, Erin; Kulp, Jeffrey; Keighley, Elizabeth; Lafferty, Nathan; Kern, David; Heinly, Justin; Richmond, John; Amer, Frank; Schoppy, Joseph; Pindale, Stephen; Schmidt, Wayne; Cahill, Christopher; Cook, William; Mangan, Kevin; Bream, Jeffrey; Scholl, Larry; Young, Keith  
**Cc:** Wilson, Peter; Miller, Chris  
**Subject:** TI-183 documentation

A couple of things regarding the TI-183 reports:



5) Thanks for the continued support. Only ten more days!

Regards,

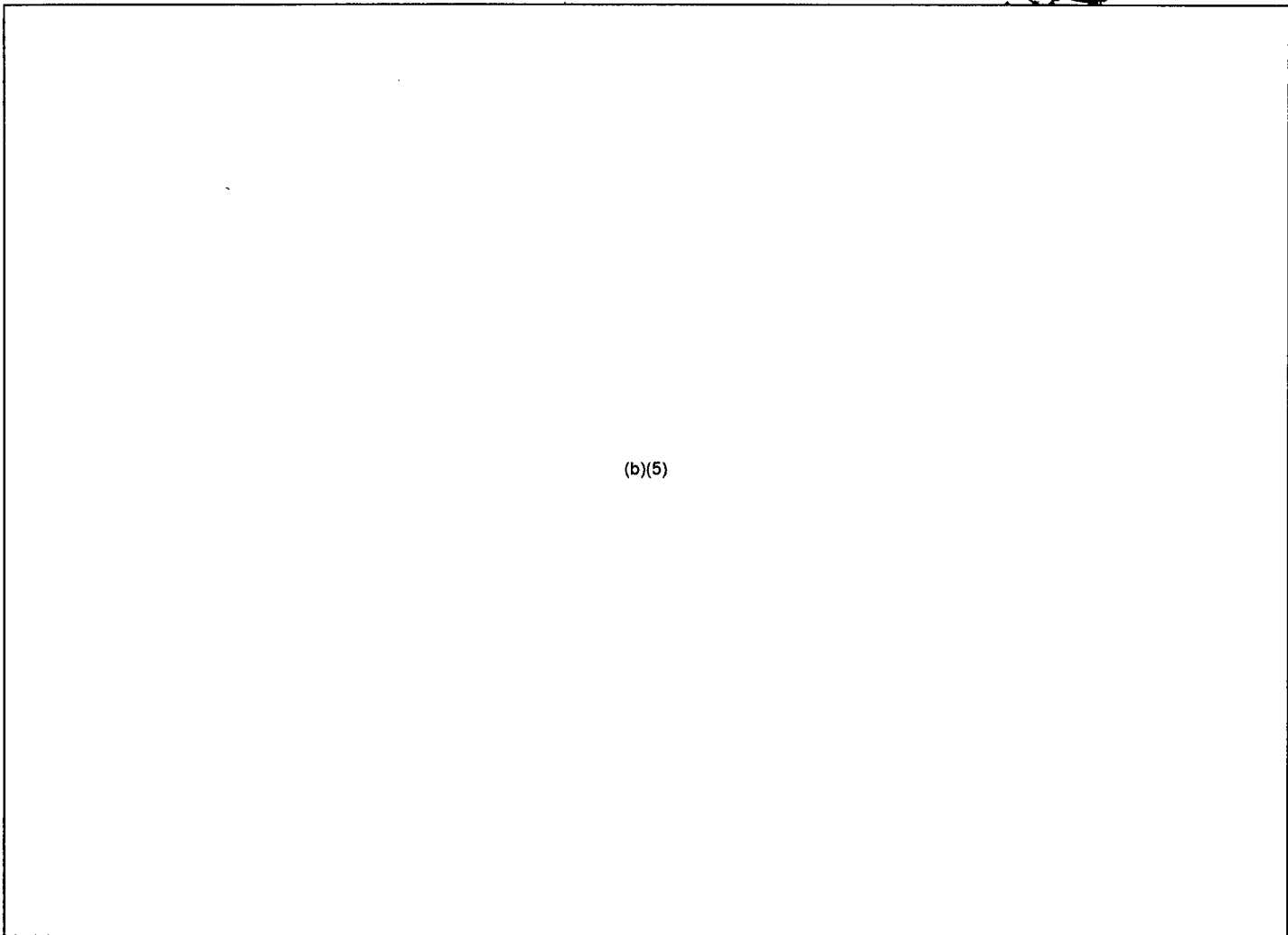
Larry

**Rihm, Roger**

---

**From:** Doerflein, Lawrence  
**Sent:** Wednesday, May 04, 2011 8:58 AM  
**To:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Thomas, Eric; Bowman, Eric; Goel, Vijay; Matharu, Gurcharan; Mathew, Roy; Kobetz, Timothy; Cartwright, William  
**Cc:** Cahill, Christopher; Cook, William; Schmidt, Wayne; Pindale, Stephen; Scholl, Larry; Young, Keith; Wilson, Peter  
**Subject:** TI-183 documentation - generic issues

~~DE~~



(b)(5)

Any thoughts?

Rihm, Roger

---

**From:** Kobetz, Timothy  
**Sent:** Friday, May 06, 2011 1:38 PM  
**To:** Powell, Raymond; Doerflein, Lawrence; Lara, Julio; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Westreich, Barry; Cartwright, William; Lewin, Aron  
**Subject:** One more try with the Template  
**Attachments:** Inspection Report Template w cover letter rev 3.docx

Gentlefolk,

Based on additional feedback this morning I have made a few more modifications to the first 3 pages. This will be the last version I send out. Sorry for any confusion I may have caused.

Tim

*Tim Kobetz*  
Chief, Reactor Inspection Branch  
Office of Nuclear Reactor Regulation  
301-415-1932 (work)

(b)(6) (work cell)

NOT FOR PUBLIC DISCLOSURE

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(b)(5)



(b)(5)

Rihm, Roger

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**From:** Doerflein, Lawrence  
**Sent:** Thursday, April 07, 2011 4:27 PM  
**To:** R1-DL-DRP; R1-DL-DRS  
**Subject:** TI-183

FYI, I have not heard as of yet that the report template has been revised and issued for comment.

However, if you go on the DIRS SharePoint site, there is a draft template. It is rev 4, but looks the same as the rev 3 we previously commented on. At any rate, you'll get some idea what the template is expected to look like.

(b)(5)

Regards,

Larry

**NOT FOR PUBLIC**

Rihm, Roger

**From:** Croteau, Rick  
**Sent:** Thursday, March 17, 2011 1:07 PM  
**To:** Hopper, George  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Attachments:** TI to Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event.docx; INPO Event Report (IER) L1-11-1.pdf

**Importance:** High

(b)(5)

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 17, 2011 10:54 AM  
**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Wedfakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

Dear George, Julio, Ray, and Mike,

As I discussed by phone with each of you today, due to the events in Japan, DIRS intends to issue a TI for follow-up on domestic plants. It is based (heavily based) on the INPO Event Report – Level 1 that was issued on Tuesday. Here are the highlights:

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- It references applicable NRC inspection guidance when possible (please add on as necessary).
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Please coordinate the regional review and comment on it by COB Friday (March 18) and I will update the TI accordingly over the weekend. However, I fully understand the significance of this review so if you need extra time (say until COB on Monday or later) just let me know. Please send your comments to me (timothy.kobetz@nrc.gov) and to Iris Cutler (iris.cutler@nrc.gov).

I will be out of the office this afternoon but can be reached via e-mail or my cell phone (b)(6) when possible.

I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand why.

Also attached is the INPO document for reference.

Thanks for your efforts on this,

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event

DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

The is a new document so it represents a significant change.

---

**From:** Brown, Frederick

**Sent:** Wednesday, March 16, 2011 3:15 PM

**To:** Kobetz, Timothy

**Subject:** FW: Action: Consider potential on-site activities in near-term

**Importance:** High

Tim,

Your action. How quickly can we do a TI out for review?

---

**From:** Brown, Frederick

**Sent:** Wednesday, March 16, 2011 11:17 AM

**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

**Cc:** Vegal, Anton; Wilson, Peter; Miller, Chris; Weckkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

**Subject:** Action: Consider potential on-site activities in near-term

**Importance:** High

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- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

# NRC INSPECTION MANUAL

IRIB

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TEMPORARY INSTRUCTION 2515/183

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END



ATTACHMENT 1

Revision History for TI 2515/???

REVIEW OF THE IMPLEMENTATION OF THE INDUSTRY INITIATIVE ON UNDERGROUND PIPING AND TANKS

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
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(b)(5)

[Type text]

Rihm, Roger

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**From:** King, Michael  
**Sent:** Thursday, March 17, 2011 1:51 PM  
**To:** Hopper, George  
**Subject:** RE: Action: Consider potential on-site activities in near-term

George,

(b)(5)

Thanks!

*Mike King*

Senior Project Engineer

U.S. Nuclear Regulatory Commission  
Region II - Division of Reactor Projects  
245 Peachtree Center Avenue NE - Suite 1427  
Atlanta, Georgia 30303  
Office: 404-997-4511  
Mobile: (b)(6)  
Fax: 404-997-4905

---

**From:** Hopper, George  
**Sent:** Thursday, March 17, 2011 1:16 PM  
**To:** R2DRP\_BRANCHCHIEF; Croteau, Rick; Jones, William  
**Cc:** King, Michael; Taylor, Ryan; Quinones-Navarro, Joylynn  
**Subject:** FW: Action: Consider potential on-site activities in near-term

(b)(5)

George

---

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 17, 2011 10:54 AM  
**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger,

Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

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I appreciate your efforts on this and apologize for being "out of process" for this review but I think you understand why.

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Thanks for your efforts on this.

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event  
DIRS Technical Lead:  
Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

**The is a new document so it represents a significant change.**

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 3:15 PM  
**To:** Kobetz, Timothy  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

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Your action. How quickly can we do a TI out for review?

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**From:** Brown, Frederick

**Sent:** Wednesday, March 16, 2011 11:17 AM

**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

**Cc:** Vegel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

**Subject:** Action: Consider potential on-site activities in near-term

**Importance:** High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI. I look at the following areas:

- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

NOT FOR PUBLIC DISCLOSURE

**Rihm, Roger**

---

**From:** Guthrie, Eugene  
**Sent:** Thursday, March 17, 2011 2:12 PM  
**To:** Hopper, George; R2DRP\_BRANCHCHIEF  
**Cc:** King, Michael; Taylor, Ryan; Quinones-Navarro, Joylynn; Croteau, Rick; Jones, William  
**Subject:** RE: Action: Consider potential on-site activities in near-term

All

(b)(5)

What are your thoughts?

---

**From:** Hopper, George  
**Sent:** Thursday, March 17, 2011 1:16 PM  
**To:** R2DRP\_BRANCHCHIEF; Croteau, Rick; Jones, William  
**Cc:** King, Michael; Taylor, Ryan; Quinones-Navarro, Joylynn  
**Subject:** FW: Action: Consider potential on-site activities in near-term

**DISCLOSE**

(b)(5)

George

---

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 17, 2011 10:54 AM  
**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vegal, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

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Thanks for your efforts on this,

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

**TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event**

DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

**The is a new document so it represents a significant change.**

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 3:15 PM  
**To:** Kobetz, Timothy  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

Tim,

Your action. How quickly can we do a TI out for review?

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 11:17 AM  
**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

**Cc:** Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

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If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

**NOT FOR PUBLIC DISCLOSURE**

**Rihm, Roger**

---

**From:** Croteau, Rick  
**Sent:** Thursday, March 17, 2011 2:44 PM  
**To:** Hopper, George  
**Subject:** FW: Action: Consider potential on-site activities in near-term

(b)(5)

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**Sent:** Thursday, March 17, 2011 2:12 PM  
**To:** Hopper, George; R2DRP\_BRANCHCHIEF  
**Cc:** King, Michael; Taylor, Ryan; Quinones-Navarro, Joylynn; Croteau, Rick; Jones, William  
**Subject:** RE: Action: Consider potential on-site activities in near-term

All

(b)(5)

What are your thoughts?

**From:** Hopper, George  
**Sent:** Thursday, March 17, 2011 1:16 PM  
**To:** R2DRP\_BRANCHCHIEF; Croteau, Rick; Jones, William  
**Cc:** King, Michael; Taylor, Ryan; Quinones-Navarro, Joylynn  
**Subject:** FW: Action: Consider potential on-site activities in near-term

Please take a moment to review this immediate TI (183). It is short and will more than likely be implemented next week (March 23<sup>rd</sup>) with completion due by June 30<sup>th</sup>. Read the IER first to understand the short interval of time the licensees have to complete the action items. I suspect the resident staff will be performing the bulk of the TI due to the short fuse on this. Send your comments to Joylynn and co. re.

An INPO Event Report Importance Level 1 (IER Level 1) document has been issued on the "Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami." (Reminder: INPO documents are considered proprietary information, not for public distribution)

George

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 17, 2011 10:54 AM  
**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vegal, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris



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Also attached is the INPO document for reference.

Thanks for your efforts on this,

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

**TI 2515/100 – Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event**  
DIRS Technical Lead:  
Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

**The is a new document so it represents a significant change.**

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 3:15 PM  
**To:** Kobetz, Timothy  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

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Your action. How quickly can we do a TI out for review?

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**From:** Brown, Frederick

**Sent:** Wednesday, March 16, 2011 11:17 AM

**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

**Cc:** Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

**Subject:** Action: Consider potential on-site activities in near-term

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If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

NOT FOR PUBLIC DISCLOSURE

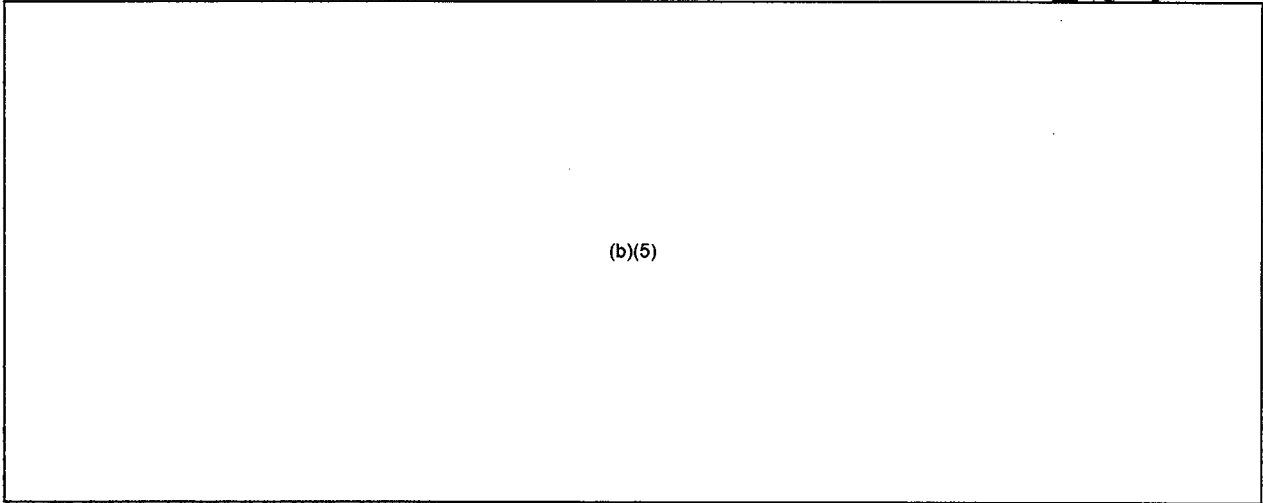
Rihm, Roger

---

From: Desai, Binoy  
Sent: Thursday, March 17, 2011 4:33 PM  
To: Hopper, George  
Cc: Munday, Joel  
Subject: Draft TI-183 Comments

Binoy Desai comments

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- 10.



(b)(5)

**NOT FOR PUBLIC**

Rihm, Roger

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**From:** Alen, Alejandro  
**Sent:** Thursday, March 17, 2011 5:57 PM  
**To:** Hopper, George  
**Cc:** Desai, Binoy; Munday, Joel  
**Subject:** RE: Action: Consider potential on-site activities in near-term  
**Attachments:** TI 2515-183 - Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event\_COMMENTS.docx

These are my comments for the TI.

---

**From:** Desai, Binoy  
**Sent:** Thursday, March 17, 2011 12:58 PM  
**To:** R2DRS\_EB1; Su, Teh-Chiun; Walker, Shakur; Sandal, Shane  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

Please provide comments on the TI by this evening. Binoy Thanks

---

**From:** Munday, Joel  
**Sent:** Thursday, March 17, 2011 12:25 PM  
**To:** Desai, Binoy; Nease, Rebecca  
**Cc:** Hopper, George  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

Please have a couple of folks look at this. You may want to weigh in also. It is not very long. Please send your comments to me and George Hopper. I think they may be consolidating a response.

The question was raised on whether the INPO document could be sent to staff reviewing the TI. The answer is yes with the following understanding:

**An INPO Event Report Importance Level 1 (IER Level 1) document has been issued on the "Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami."** (Reminder: INPO documents are considered proprietary information, not for public distribution)

Sorry, I should have made that clear in the first e-mail.

Tim

---

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**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
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**TI 2515/183, "Follow up to Fukushima Daiichi Nuclear Station Fuel Damage Event**

DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

**The is a new document so it represents a significant change.**

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**Sent:** Wednesday, March 16, 2011 3:15 PM

**To:** Kobetz, Timothy

**Subject:** FW: Action: Consider potential on-site activities in near-term

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**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven

**Cc:** Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

**Subject:** Action: Consider potential on-site activities in near-term

**Importance:** High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:

- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

**NOT FOR PUBLIC DISCLOSURE**

**NRC INSPECTION MANUAL**

IRIB

TEMPORARY INSTRUCTION 2515/183

**COPY**

(b)(5)

Issue Date:

1

2515/183

~~SECRET~~

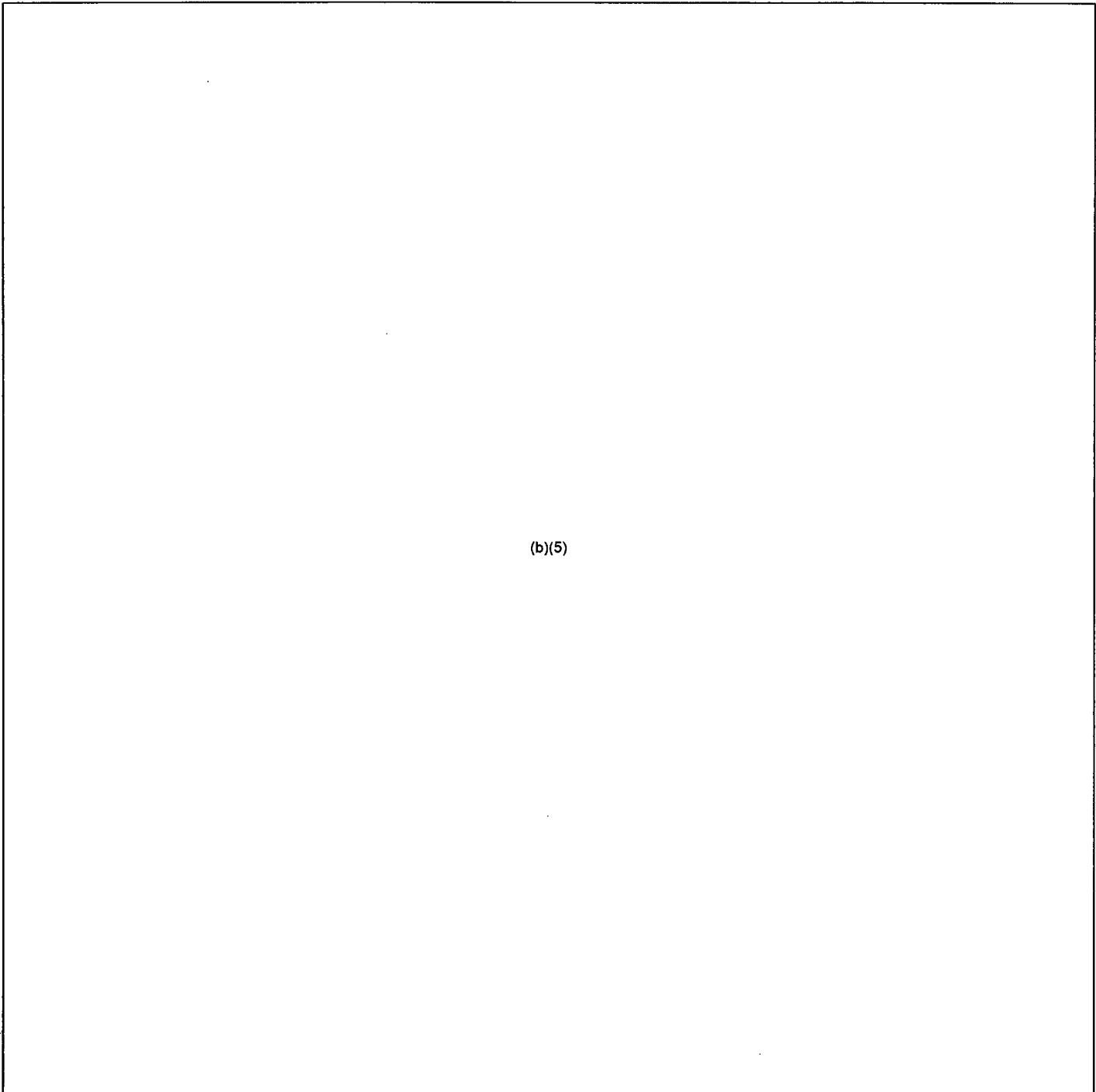
(b)(5)

Issue Date:

2

2515/183





(b)(5)

Issue Date:

3

2515/183

1

(b)(5)

END

Issue Date:

4

2515/183

**NO FORN DISCLOSURE**

ATTACHMENT 1

Revision History for TI 2515/???

REVIEW OF THE IMPLEMENTATION OF THE INDUSTRY INITIATIVE ON UNDERGROUND PIPING AND TANKS

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
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(b)(5)

**NO FORN DISCLOSURE**

[Type text]

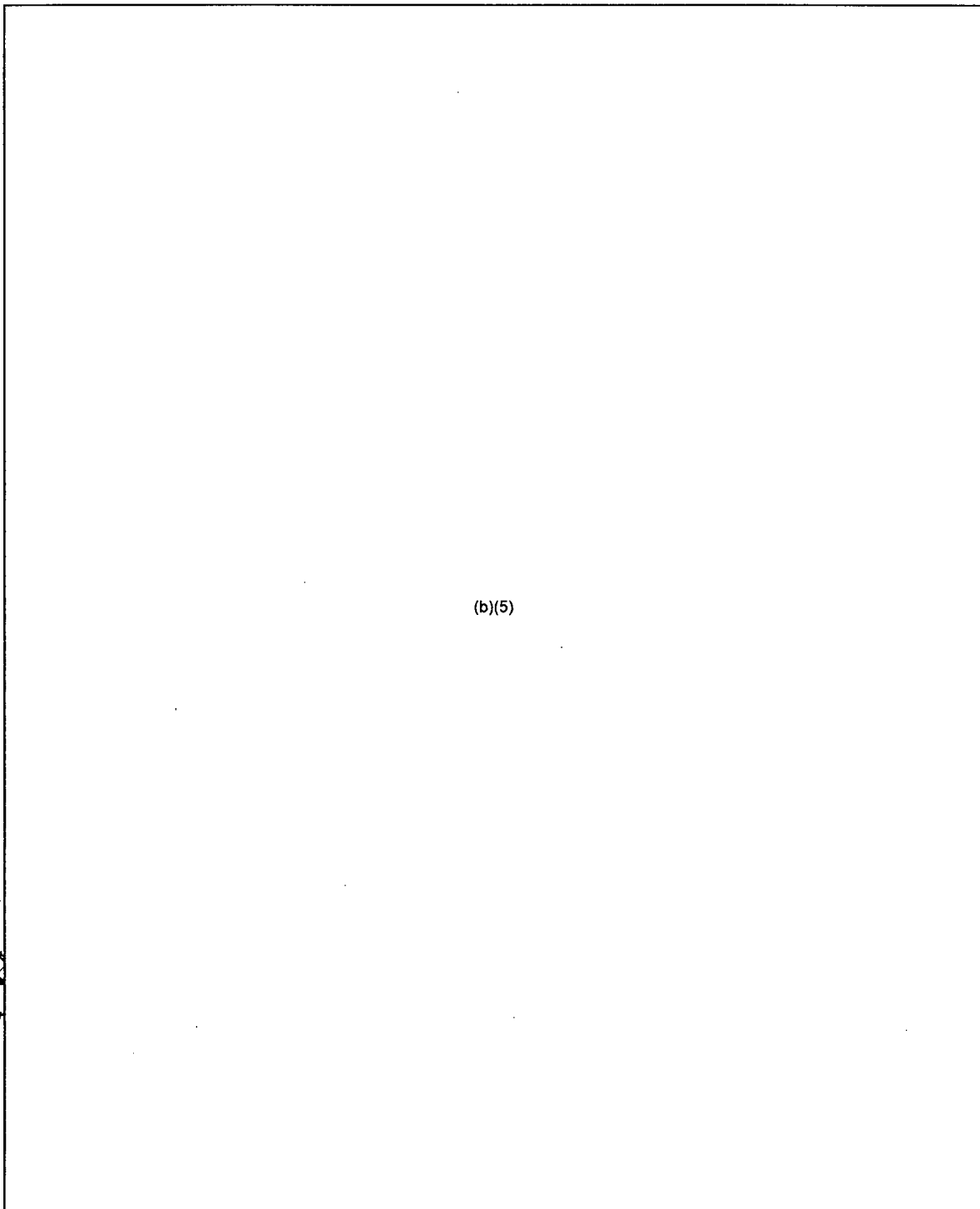
Rihm, Roger

---

**From:** Eargle, Jason  
**Sent:** Thursday, March 17, 2011 6:07 PM  
**To:** Hopper, George  
**Cc:** Jones, David; Desai, Binoy  
**Subject:** TI-183 Comments  
**Attachments:** Jason and David TI-183 Comments.docx

~~NOT FOR PUBLIC DISCLOSURE~~

David Jones & Jason Eargle  
TI-183 Comments



(b)(5)

A

(b)(5)

~~NOT FOR PUBLIC DISCLOSURE~~

**Rihm, Roger**

---

**From:** McCoy, Gerald  
**Sent:** Friday, March 18, 2011 8:40 AM  
**To:** Hopper, George; Quinones-Navarro, Joylynn  
**Subject:** RE: Action: Consider potential on-site activities in near-term

(b)(5)

**Gerald J. McCoy**

Chief, Reactor Projects Branch 5  
Division of Reactor Projects, Region 2  
United States Nuclear Regulatory Commission  
Office: 404-997-4551  
Cell:

**From:** Hopper, George  
**Sent:** Thursday, March 17, 2011 1:16 PM  
**To:** R2DRP\_BRANCHCHIEF; Croteau, Rick; Jones, William  
**Cc:** King, Michael; Taylor, Ryan; Quinones-Navarro, Joylynn  
**Subject:** FW: Action: Consider potential on-site activities in near-term

(b)(5)

An INPO Event Report Importance Level 1 (IER Level 1) document has been issued on the "Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami." (Reminder: INPO documents are considered proprietary information, not for public distribution)

George

---

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 17, 2011 10:54 AM  
**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vegel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Mooman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Franger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

Dear George, Julio, Ray, and Mike,

As I discussed by phone with each of you today, due to the events in Japan, NRC intends to issue a TI for follow-up on domestic plants. It is based (heavily based) on the INPO Event Report – Level 1 that was issued on Tuesday. Here are the highlights:

- It reviews licensee verification of INPO recommendations
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- It references applicable NRC inspection guidance when possible (please add on as necessary).
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Please coordinate the regional review and comment on it by COB Friday (March 18) and I will update the TI accordingly over the weekend. However, I fully understand the significance of this review so if you need extra time (say until COB on Monday or later) just let me know. Please send your comments to me (timothy.kobetz@nrc.gov) and to Iris Cutler (iris.cutler@nrc.gov).

I will be out of the office this afternoon but can be reached via e-mail or my cell phone (b)(6) when possible.

I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand.

Also attached is the INPO document for reference.

Thanks for your efforts on this,

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)



**TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event**

DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

**The is a new document so it represents a significant change.**

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 3:15 PM  
**To:** Kobetz, Timothy  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

Tim,

Your action. How quickly can we do a TI out for review?

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 11:17 AM  
**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven  
**Cc:** Vegel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

On the DRA call today, I'm going to float the potential for either a smart sample or a TI to look at the following areas:

- Licensee verification of 50.54(hh)(2) current status and readiness;
- Licensee verification of SBO current status and readiness consistent with their coping strategy;
- Licensee verification of Internal and External Flooding design features consistency with their licensing basis; and
- Licensee verification that their 50.54(hh)(2) equipment would survive a seismic event undamaged.

If you have thoughts, I'd like to hear them, and you may want to prep your DRAs.

Thanks,  
Fred

**NOT FOR PUBLIC DISCLOSURE**

**Rihm, Roger**

---

**From:** Taylor, Ryan  
**Sent:** Friday, March 18, 2011 11:57 AM  
**To:** McCoy, Gerald  
**Cc:** Hopper, George; Quinones-Navarro, Joylynn; King, Michael  
**Subject:** Region II TI-183 Comments  
**Attachments:** TI-183\_Comments.docx; Nease\_TI\_183\_Comments.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Attached are the TI-183 comments that Branch 7 has received as of this morning.

**Ryan C. Taylor | Senior Project Inspector - RII/DRP/RPB7**  
**US Nuclear Regulatory Commission**

245 Peachtree Center Ave. NE, Suite 1200 | Atlanta, GA 30303

D: 404.997.4630 | F: 404.997.4515

[Ryan.Taylor@nrc.gov](mailto:Ryan.Taylor@nrc.gov) | [www.nrc.gov](http://www.nrc.gov)

**NOT FOR PUBLIC DISCLOSURE**

TI-183 Comments  
Region II

(b)(5)

(b)(5)

(b)(5)

(b)(5)

NOT FOR PUBLICATION

**NRC INSPECTION MANUAL**

IRIS

TEMPORARY INSTRUCTION 2515/183

**COPY**

(b)(5)

Issue Date:

1

2515/183

(b)(5)

Issue Date:

2

2515/183

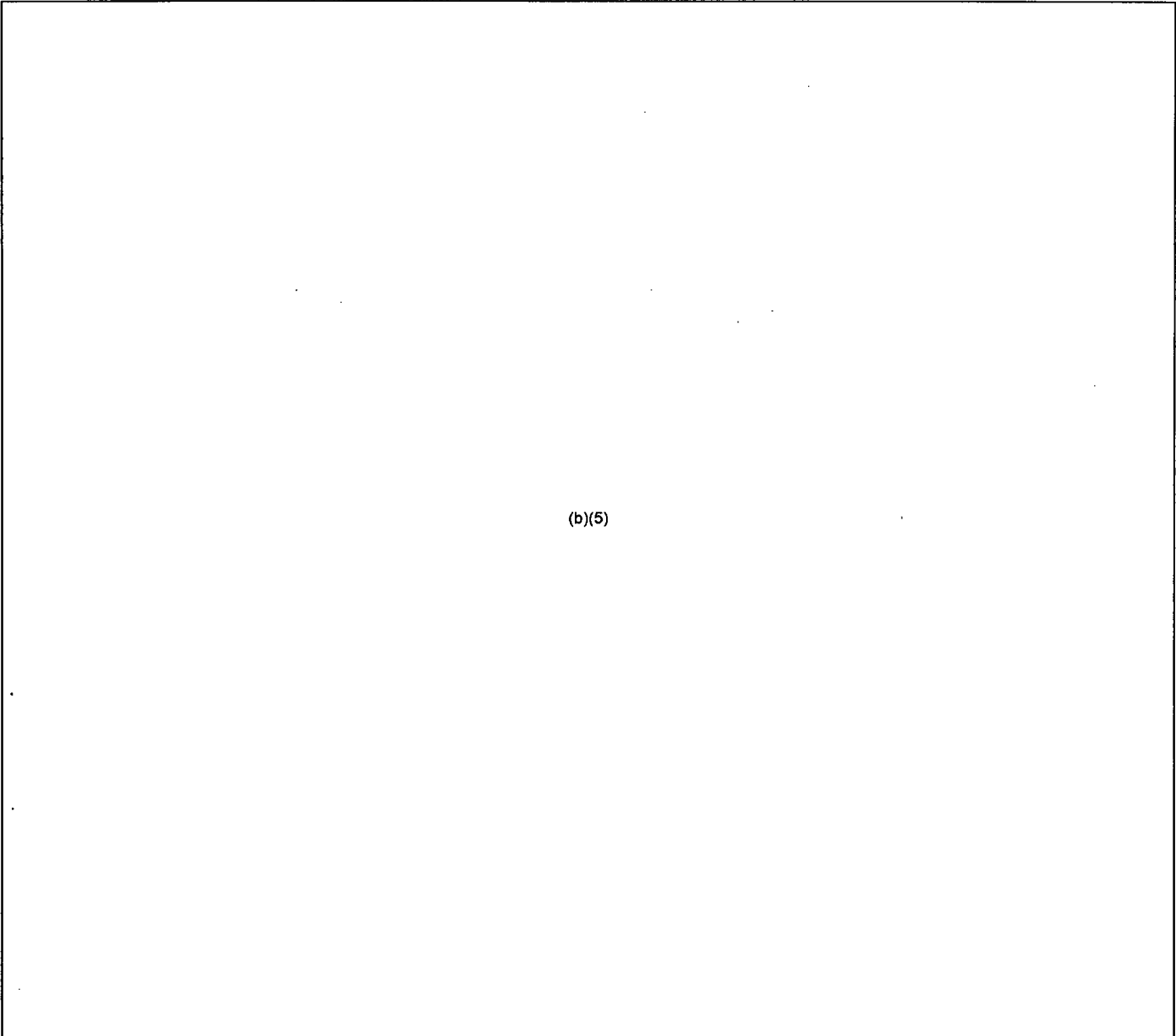


(b)(5)

Issue Date:

3

2515/183



(b)(5)

END

Issue Date:

4

2515/183

NO INFORMATION

ATTACHMENT 1

Revision History for TI 2515/???

REVIEW OF THE IMPLEMENTATION OF THE INDUSTRY INITIATIVE ON UNDERGROUND PIPING AND TANKS

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
(b)(5)					

NO DISCLOSURE

[Type text]

Rihm, Roger

---

**From:** Croteau, Rick  
**Sent:** Monday, March 21, 2011 8:15 AM  
**To:** McCree, Victor; Wert, Leonard; Hopper, George; Jones, William  
**Cc:** Kennedy, Kriss; West, Steven; Roberts, Darrell  
**Subject:** FW: TI 2515/183 final draft  
**Attachments:** TI 2515-183 Rev 1.docx

My comments are attached.

(b)(5)

---

**From:** Kobetz, Timothy  
**Sent:** Monday, March 21, 2011 7:29 AM  
**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick, Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
**Subject:** TI 2515/183 final draft

Dear George, Julio, Ray, and Mike,

Thanks to all of the regions for the quick review and comment on the TI. I tried to address the comments in the attached revision. I have not finished the comment resolution form yet, however, the following were some of the main concerns raised and how they are being addressed:

1. The NRC is not performing a truly independent inspection. Response: The TI is an independent assessment and verification of the licensee's response to the event. Information gathered during this TI will be used to determine what, if any, additional inspections need to be performed and to develop specific technical guidance to perform the inspections.
2. The technical guidance in the TI lacks specificity. Response: To support the urgency of getting this TI issued, past inspection guidance was referenced as guidelines. Inspectors should feel free to contact the program office (DIRS/IRIS) with any questions regarding the implementation of the TI. More specific inspection guidance may come later as discussed in #1 above.

This morning I will once again be sending the TI to INPO for review to ensure there are no copyright infringements, etc. I sent them a copy last Friday and spoke with them. Overall INPO is supportive of our initiative.

I am working at home today and can be reached on my cell phone at (b)(6). Please don't hesitate to call with any questions. Also let me know if you would like to have a conference call today to discuss the TI as a group.

If regional senior management still has concerns you may want to contact Fred or Barry this morning (however, I'm not sure what their duty schedules at the IRC are).

Thanks again for support and quick responsiveness to this effort.

Tim

---

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 17, 2011 10:54 AM

**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; OBrien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vegel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
**Subject:** Action: Consider potential on-site activities in near-term  
**Importance:** High

Dear George, Julio, Ray, and Mike,

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I will be out of the office this afternoon but can be reached via e-mail or my cell phone (b)(6) when possible.

I appreciate your efforts on this and apologize for going "out of process" for this review but I think you understand why.

Also attached is the INPO document for reference.

Thanks for your efforts on this.

Tim

Attached for review

Inspection Manual Document for Comment (DC 11-10)

**TI 2515/183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event**

DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

The is a new document so it represents a significant change.

EX.5

**NRC INSPECTION MANUAL**

IRIS

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TEMPORARY INSTRUCTION 2515/183

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FOLLOWUP TO THE FUKUSHIMA DAIICHI NUCLEAR STATION  
FUEL DAMAGE EVENT

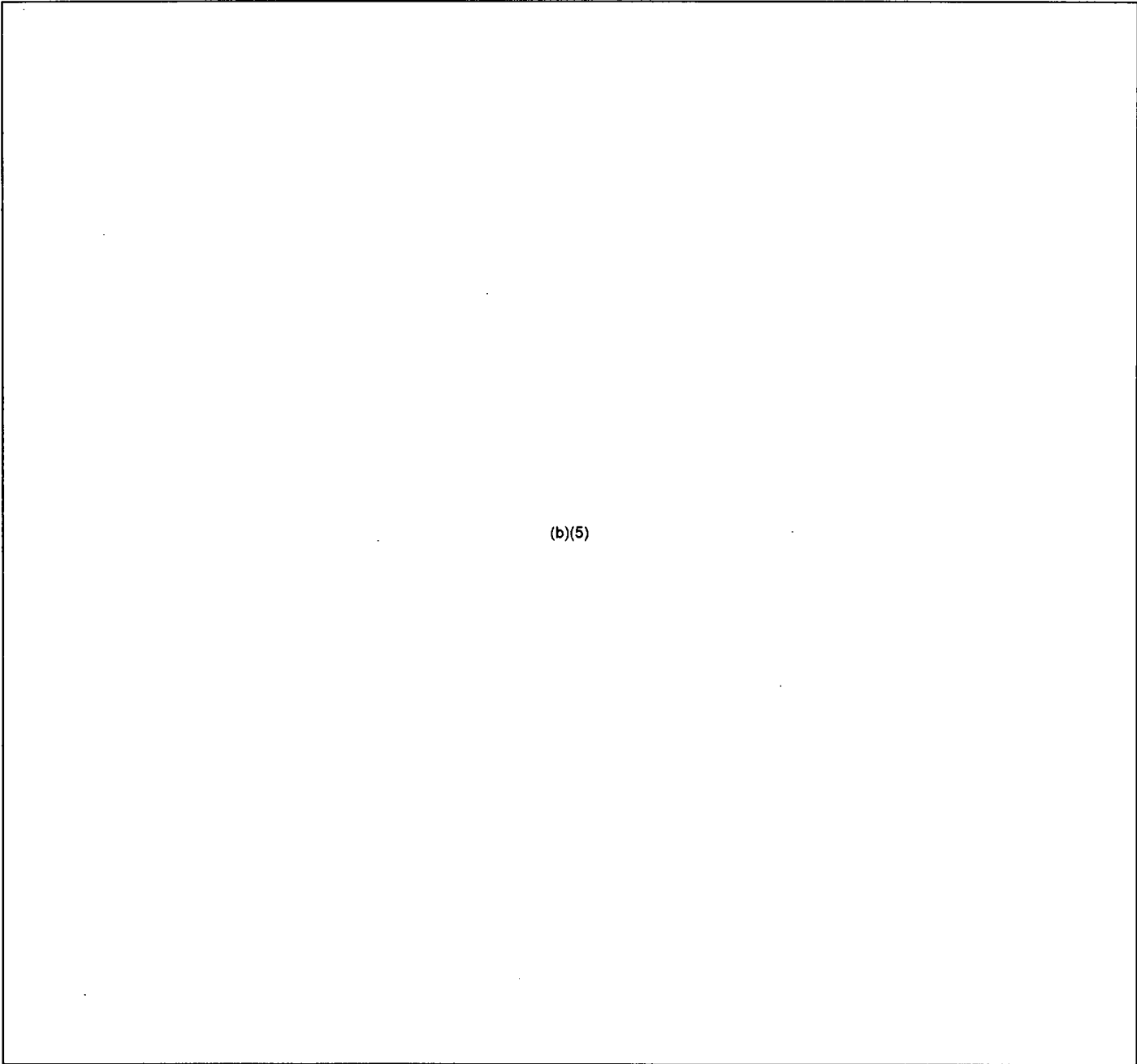
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(b)(5)

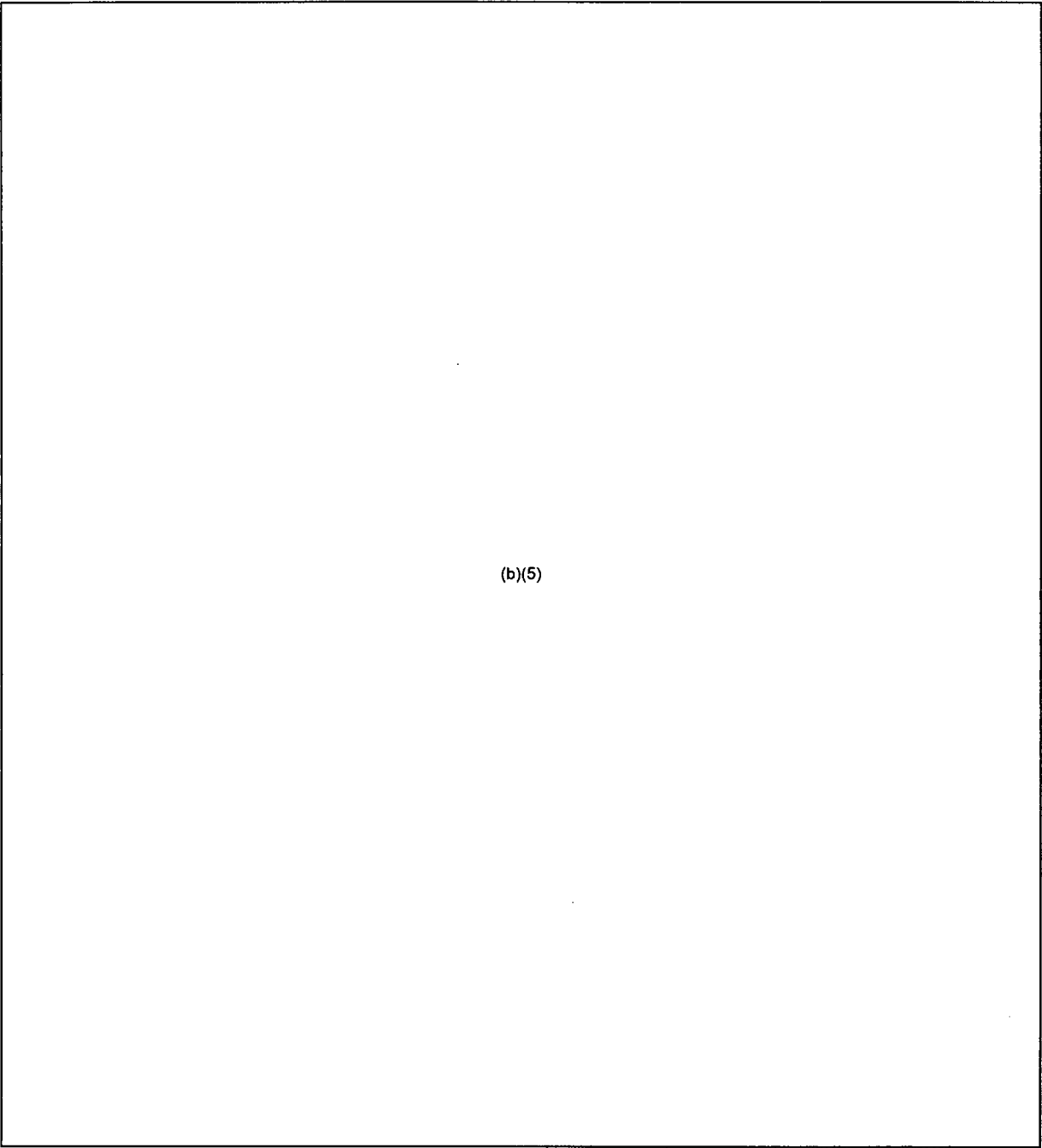
Issue Date: XX/XX/XX

1

2515/183

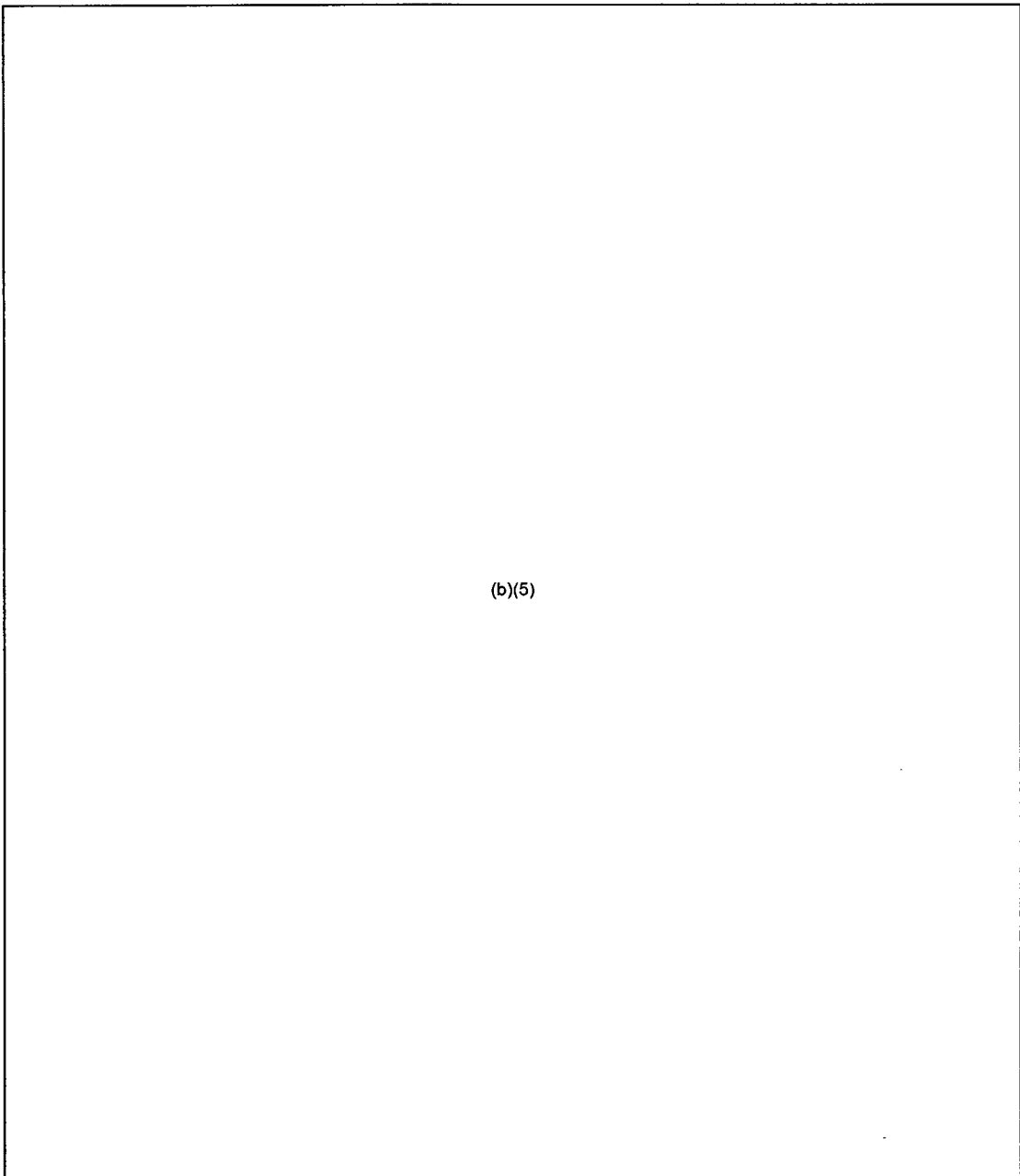


(b)(5)



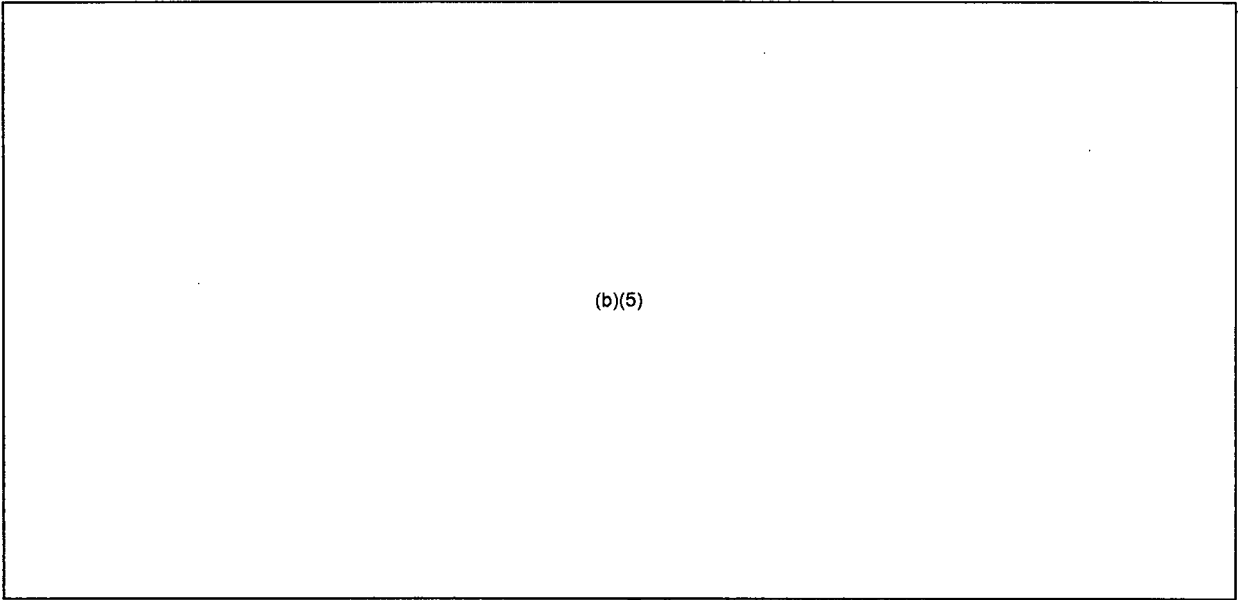
(b)(5)





FILE

(b)(5)



(b)(5)

END

**NOT FOR PUBLIC**

NOT FOR DISCLOSURE

ATTACHMENT 1

Revision History for TI 2515/183  
FOLLOWUP TO FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
(b)(5)					

NOT FOR DISCLOSURE

Issue Date: XX/XX/XX

Att1-1

2515/183

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 3:15 PM  
**To:** Kobetz, Timothy  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Importance:** High

Tim,

Your action. How quickly can we do a TI out for review?

---

**From:** Brown, Frederick  
**Sent:** Wednesday, March 16, 2011 11:17 AM  
**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruett; West, Steven  
**Cc:** Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; OBrien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry  
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NOT FOR PUBLIC DISCLOSURE

Rihm, Roger

**From:** Croteau, Rick  
**Sent:** Thursday, March 17, 2011 1:07 PM  
**To:** Hopper, George  
**Subject:** FW: Action: Consider potential on-site activities in near-term  
**Attachments:** TI to Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event.docx; INPO Event Report (IER) L1-11-1.pdf

**Importance:** High

(b)(5)

**From:** Kobetz, Timothy  
**Sent:** Thursday, March 17, 2011 10:54 AM  
**To:** Hopper, George; Lara, Julio; Powell, Raymond; Hay, Michael  
**Cc:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; O'Brien, Kenneth; Kennedy, Kriss; Shear, Gary; Pruett, Troy; Westreich, Barry; West, Steven; Vogel, Anton; Wilson, Peter; Miller, Chris; Weerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Brown, Frederick; Albert, Ronald; Erlanger, Craig; Thomas, Eric; Thorp, John; Ashley, MaryAnn; Cutler, Iris  
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DIRS Technical Lead:

Timothy Kobetz, NRR/DIRS/IRIB, 301-415-1932, email, [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov)

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**Sent:** Wednesday, March 16, 2011 3:15 PM

**To:** Kobetz, Timothy

**Subject:** FW: Action: Consider potential on-site activities in near-term

**Importance:** High

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**Sent:** Wednesday, March 16, 2011 11:17 AM

**To:** Roberts, Darrell; Clifford, James; Croteau, Rick; Jones, William; Croteau, Rick; Darrell Roberts; James Clifford; Jones, William; Kennedy, Kriss; Shear, Gary; Troy Pruitt; West, Steven

**Cc:** Vogel, Anton; Wilson, Peter; Miller, Chas; Veerakkody, Sunil; O'Brien, Kenneth; Reynolds, Steven; Munday, Joel; Moorman, James; Christensen, Harold; Westreich, Barry

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Thanks,  
Fred

**Rihm, Roger**

---

**From:** Lara, Julio  
**Sent:** Thursday, July 14, 2011 11:06 AM  
**To:** Lara, Julio  
**Subject:** FW: TI 183 documentation

---

**From:** Kobetz, Timothy  
**Sent:** Wednesday, April 27, 2011 5:32 AM  
**To:** Doerflein, Lawrence  
**Cc:** Cahill, Christopher; Lara, Julio; Wilson, Peter; Lewin, Aron; Hopper, George; Powers, Dale; OKeefe, Neil  
**Subject:** RE: TI 183 documentation

Larry,

FOR PUBLIC CLOSURE

(b)(5)

Thanks, Tim

---

**From:** Doerflein, Lawrence  
**Sent:** Tuesday, April 26, 2011 5:57 PM  
**To:** Kobetz, Timothy  
**Cc:** Cahill, Christopher; Lara, Julio; Wilson, Peter  
**Subject:** TI 183 documentation

FOR PUBLIC CLOSURE

Tim,

(b)(5)

(b)(5)

Let me know your thoughts.

Regards,

Larry

**NOT FOR PUBLIC DISCLOSURE**



**Rihm, Roger**

---

**From:** Lara, Julio  
**Sent:** Thursday, July 14, 2011 11:08 AM  
**To:** Lara, Julio  
**Subject:** FW: B5b, TI183 and task force

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

**From:** Kobetz, Timothy  
**Sent:** Thursday, April 28, 2011 8:55 AM  
**To:** Lara, Julio  
**Cc:** Powell, Raymond; Doerflein, Lawrence  
**Subject:** RE: B5b, TI183 and task force

Julio,

(b)(5)

Tim

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

**From:** Lara, Julio  
**Sent:** Thursday, April 28, 2011 9:25 AM  
**To:** Kobetz, Timothy  
**Cc:** Powell, Raymond; Doerflein, Lawrence  
**Subject:** B5b, TI183 and task force

Tim,

(b)(5)

(Sent from BlackBerry device)

Rihm, Roger

---

From: Lara, Julio  
Sent: Thursday, July 14, 2011 11:08 AM  
To: Lara, Julio  
Subject: FW: B5b, TI183 and task force

-----Original Message-----  
From: Kobetz, Timothy  
Sent: Thursday, April 28, 2011 9:09 AM  
To: Lara, Julio  
Subject: RE: B5b, TI183 and task force

(b)(5)

Tim

-----Original Message-----  
From: Lara, Julio  
Sent: Thursday, April 28, 2011 10:04 AM  
To: Kobetz, Timothy  
Subject: Re: B5b, TI183 and task force

(b)(5)

No reply needed  
(Sent from Blackberry device)

----- Original Message -----  
From: Kobetz, Timothy  
To: Lara, Julio  
Cc: Powell, Raymond; Doerflein, Lawrence  
Sent: Thu Apr 28 09:54:56 2011  
Subject: RE: B5b, TI183 and task force

Julio,

(b)(5)

Tim

-----Original Message-----  
From: Lara, Julio  
Sent: Thursday, April 28, 2011 9:25 AM  
To: Kobetz, Timothy

Cc: Powell, Raymond; Doerflein, Lawrence  
Subject: B5b, TI183 and task force

Tim,

(b)(5)

(Sent from Blackberry device)

~~NOT FOR PUBLIC DISCLOSURE~~

Rihm, Roger

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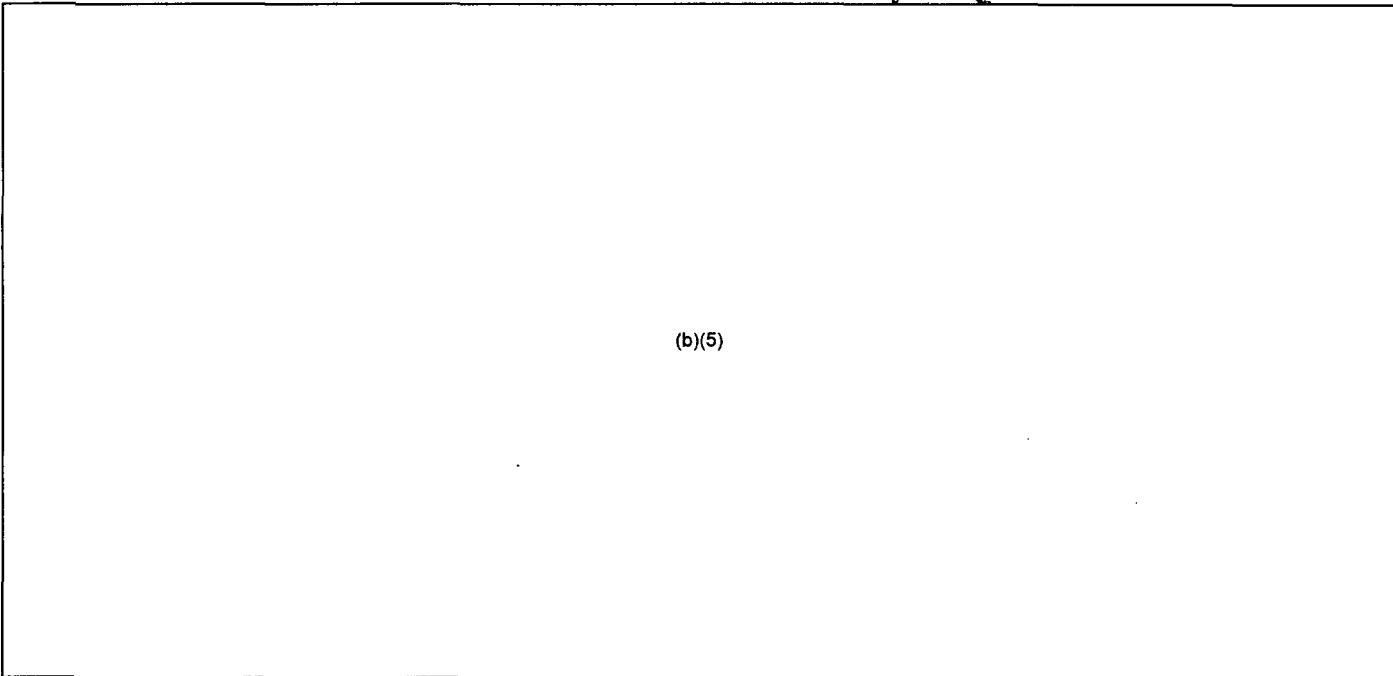
**From:** Lara, Julio  
**Sent:** Thursday, July 14, 2011 11:09 AM  
**To:** Lara, Julio  
**Subject:** FW: Inspection Report Template w cover letter rev 2  
**Attachments:** Inspection Report Template w cover letter rev 2.docx

---

**From:** Kobetz, Timothy  
**Sent:** Friday, May 06, 2011 9:17 AM  
**To:** Powell, Raymond; Doerflein, Lawrence; Lara, Julio; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Westreich, Barry; Cartwright, William; Lewin, Aron  
**Subject:** Inspection Report Template w cover letter rev 2

CLOSURE

Gentlefolk,



(b)(5)

Please let me know if this causes any problems. I will also post this on the SharePoint site.

Tim

NO

(b)(5)

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(b)(5)

(b)(5)

(b)(5)

(b)(5)

(b)(5)

**Rihm, Roger**

---

**From:** Lara, Julio  
**Sent:** Thursday, July 14, 2011 11:10 AM  
**To:** Lara, Julio  
**Subject:** FW: One more try with the Template  
**Attachments:** Inspection Report Template w cover letter rev 3.docx

---

**From:** Kobetz, Timothy  
**Sent:** Friday, May 06, 2011 12:38 PM  
**To:** Powell, Raymond; Doerflein, Lawrence; Lara, Julio; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Westreich, Barry; Cartwright, William; Lewin, Aron  
**Subject:** One more try with the Template

Gentlefolk,

Based on additional feedback this morning I have made a few more modifications to the first 3 pages. This will be the last version I send out. Sorry for any confusion I may have caused.

Tim

*Tim Kobetz*  
Chief, Reactor Inspection Branch  
Office of Nuclear Reactor Regulation  
301-415-1932 (work)  
 (work cell)

NOT FOR PUBLIC DISCLOSURE

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Rihm, Roger

---

**From:** Lara, Julio  
**Sent:** Thursday, July 14, 2011 11:17 AM  
**To:** Lara, Julio  
**Subject:** FW: Region I TI comments  
**Attachments:** Region TI comments.docx

---

**From:** Powell, Raymond  
**Sent:** Friday, March 18, 2011 4:21 PM  
**To:** Lara, Julio; Hopper, George; Hay, Michael  
**Subject:** Region I TI comments

many similar to region's III (great minds think alike?)

have a good weekend.

NOT FOR PUBLIC DISCLOSURE

Region I TI 2515/183 Consolidated Comments

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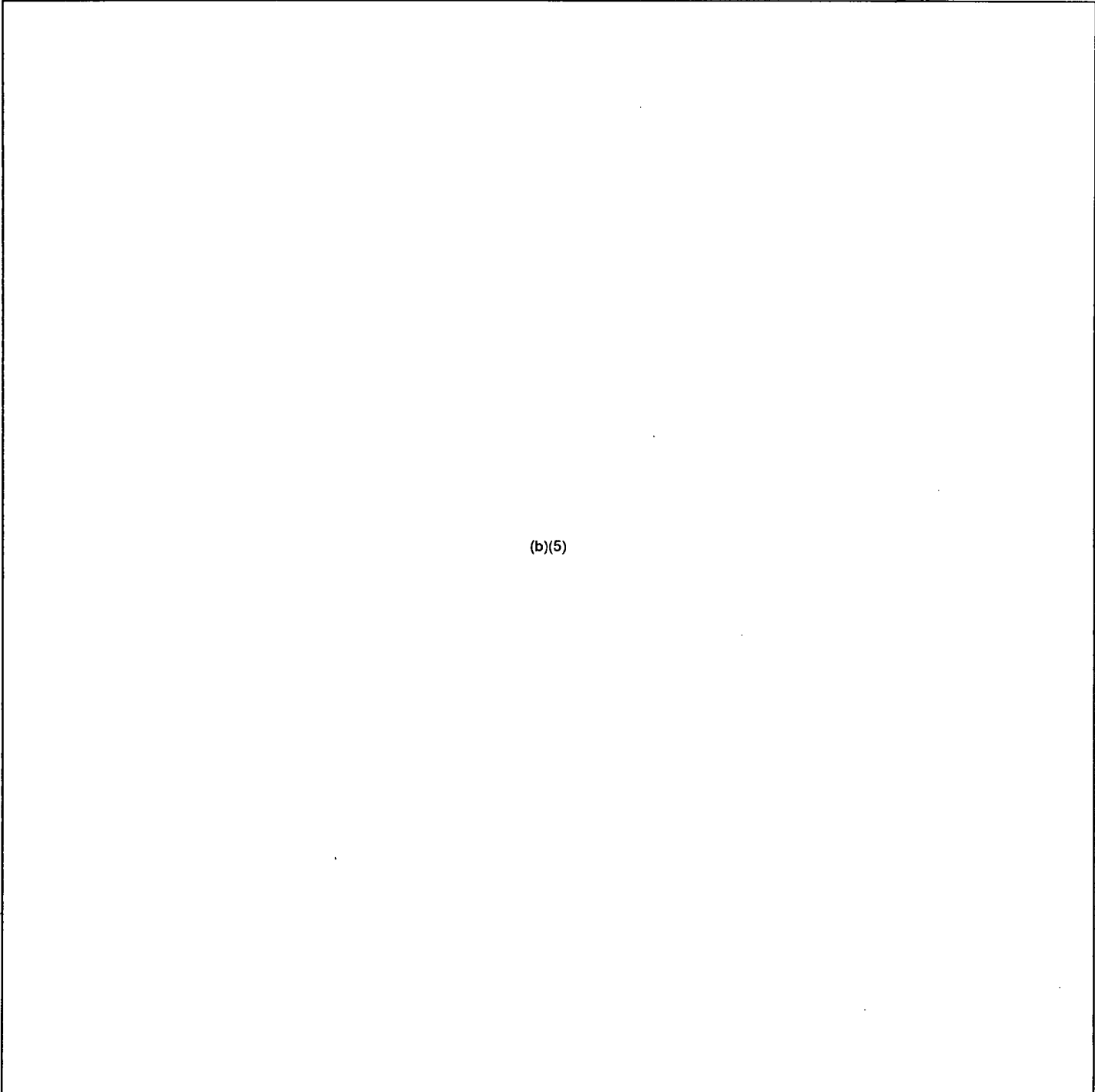
14

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# NRC INSPECTION MANUAL

TEMPORARY INSTRUCTION 2515/183

U/E



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**NOT FOR PUBLIC**

**Rihm, Roger**

---

**From:** Lara, Julio  
**Sent:** Thursday, July 14, 2011 11:20 AM  
**To:** Lara, Julio  
**Subject:** FW: TI-183 documentation - generic issues

**From:** Doerflein, Lawrence  
**Sent:** Wednesday, May 04, 2011 7:58 AM  
**To:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Messer, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Thomas, Eric; Bowman, Eric; Godl, Vijay; Matharu, Gurcharan; Mathew, Roy; Kobetz, Timothy; Cartwright, William  
**Cc:** Cahill, Christopher; Cook, William; Schmidt, Wayne; Pindale, Stephen; Scholl, Larry; Young, Keith; Wilson, Peter  
**Subject:** TI-183 documentation - generic issues

~~CONFIDENTIAL~~

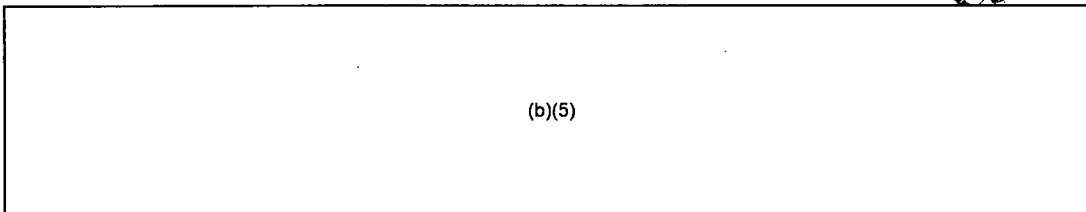
(b)(5)

Any thoughts?

**From:** O'Keefe, Neil  
**To:** R4DRP-SRI; R4DRP-RES; R4DRP-SRI  
**Cc:** Veigel, Anton; Hay, Michael; Ruesch, Eric; R4DRS-SRA  
**Subject:** Sample TI-183 Inspection Risk Guidance  
**Date:** Monday, March 28, 2011 10:48:40 AM  
**Attachments:** Sample TI 183 Guidance.docx  
**Importance:** High

---

All,



Please see the attachment.

Neil O'Keefe  
Chief, Engineering Branch 2, RIV  
(817) 860-8137

**NOT FOR PUBLIC DISCLOSURE**

**PRE**

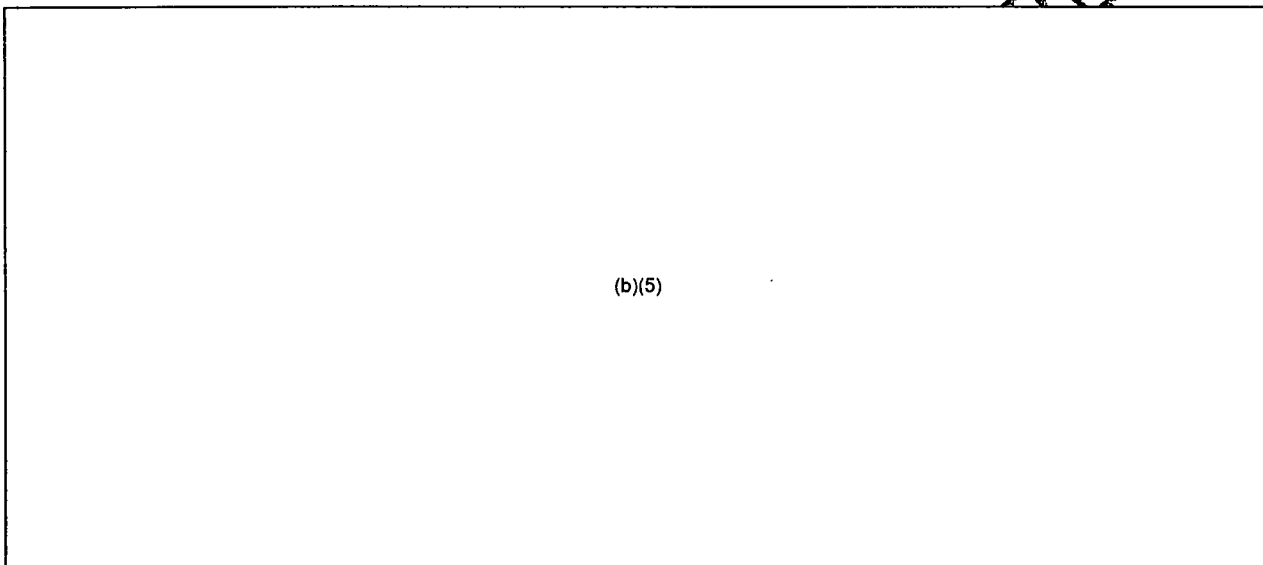
(b)(7)(E)

(b)(7)(E)

**From:** O'Keefe, Neil  
**To:** R4DRP-DIV  
**Cc:** Ruesch, Eric; Vogel, Anton  
**Subject:** TI-183 Reporting Template  
**Date:** Monday, April 04, 2011 3:47:32 PM  
**Attachments:** Draft TI Inspection Report Template Rev 4.docx

---

All,



Neil O'Keefe  
Chief, Engineering Branch 2, RIV  
(817) 860-8137

**NOT FOR PUBLICATION**



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(b)(5)

**From:** OKeefe, Neil  
**To:** Ruesch, Eric; Dumbacher, David  
**Cc:** Groom, Jeremy  
**Subject:** RE: TI-183 Report Template  
**Date:** Monday, April 11, 2011 9:08:14 AM

(b)(5)

**From:** Ruesch, Eric  
**Sent:** Monday, April 11, 2011 9:03 AM  
**To:** Dumbacher, David; OKeefe, Neil  
**Cc:** Groom, Jeremy  
**Subject:** RE: TI-183 Report Template

(b)(5)

Eric

---  
Eric A. Ruesch  
817-860-8126

**From:** Dumbacher, David  
**Sent:** Monday, April 11, 2011 8:57 AM  
**To:** OKeefe, Neil  
**Cc:** Ruesch, Eric; Groom, Jeremy  
**Subject:** RE: TI-183 Report Template

Neil

(b)(5)

Dave

David Dumbacher  
Senior Resident Inspector  
Candaway Plant  
8201 NRC Road  
Steedman Mo. 65077  
573-676-3181  
david.dumbacher@nrc.gov

**From:** OKeefe, Neil  
**Sent:** Monday, April 11, 2011 8:55 AM  
**To:** R4DRP-DIV

**Cc:** Ruesch, Eric; Hay, Michael; Vogel, Anton  
**Subject:** TI-183 Report Template

All,

Attached is the final template for the report to be used to document TI-183 results. Note that the page numbering is not correct.

Please remember to provide your results as they become available to Eric Ruesch so we can help standardize our results. Do not wait until the end to send in draft pieces.

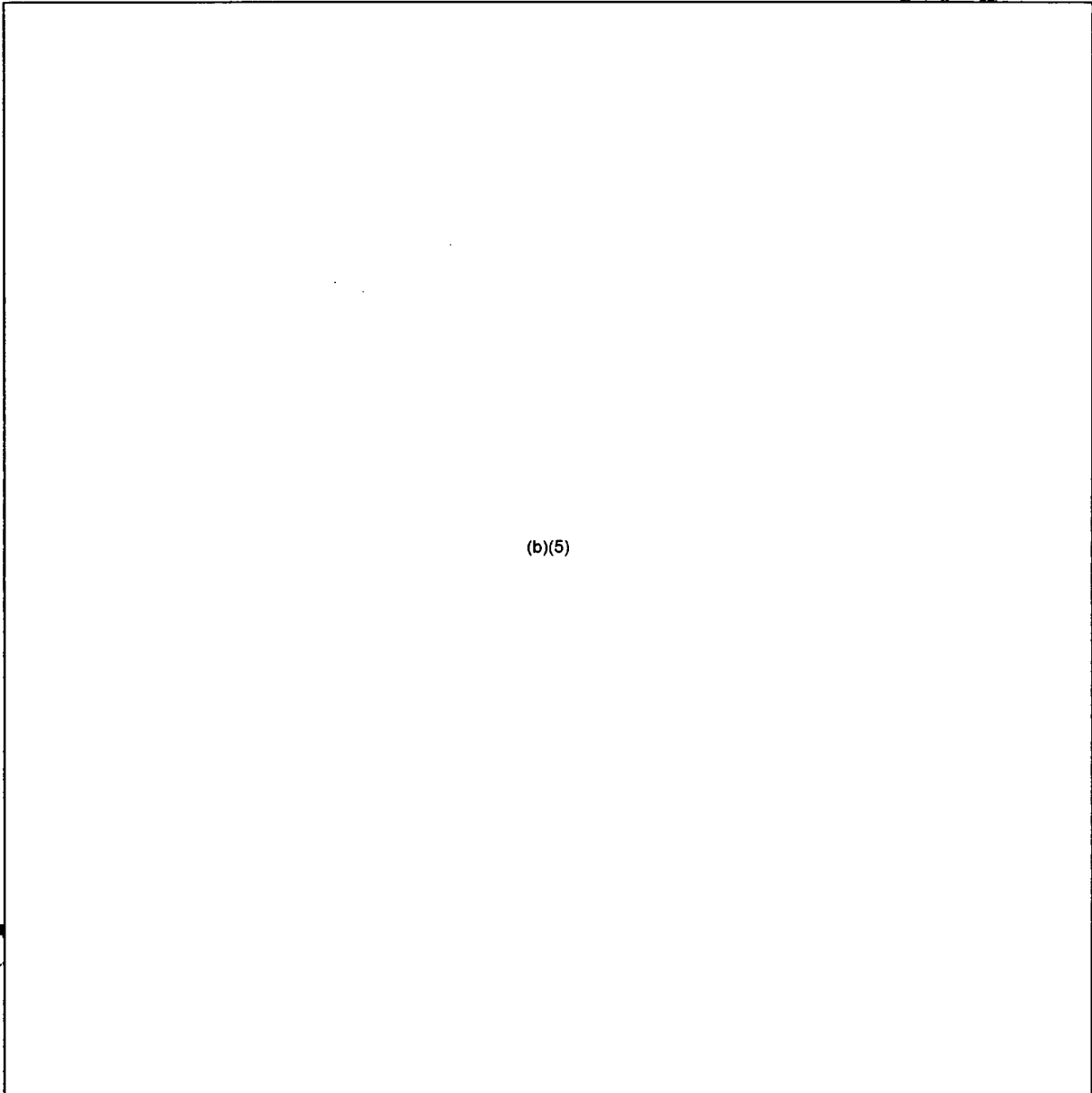
Neil O'Keefe  
Chief, Engineering Branch 2, RIV  
(817) 860-8137

**NOT FOR PUBLIC DISCLOSURE**

**From:** Bowman, Eric  
**To:** Lewin, Aron  
**Cc:** Lara, Julie; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Kobetz, Timothy; Heath, Jermaine  
**Subject:** RE: B.5.b questions  
**Date:** Wednesday, April 13, 2011 8:01:39 AM

---

Aron,



Thanks!

Eric

Eric E. Bowman  
Sr. Project Manager  
Generic Communications & Power Uprate Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
301-415-2963  
[Eric.Bowman@nrc.gov](mailto:Eric.Bowman@nrc.gov)

---

**From:** Lewin, Aron  
**Sent:** Tuesday, April 12, 2011 5:44 PM  
**To:** Bowman, Eric  
**Cc:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Lewin, Aron; Kapetz, Timothy; Heath, Jermaine  
**Subject:** B.5.b questions

Eric,

(b)(5)

Thanks,  
Aron  
x2259

**From:** Ruesch, Eric  
**To:** Walker, Wayne; Miller, Geoffrey; Gaddy, Vincent; Lantz, Ryan; Allen, Don; Clark, Jeff  
**Cc:** Kennedy, Kriss; Pruett, Troy; Vogel, Anton; Hay, Michael; Powers, Dale  
**Subject:** Final TI-183 template  
**Date:** Wednesday, April 13, 2011 12:35:00 PM  
**Attachments:** Inspection Report Template w cover letter.docx

---

DRP BC's,

(b)(5)

Any questions, please let me know.

Eric

---

Eric A. Ruesch  
Reactor Engineer—Technical Support  
Division of Reactor Safety, Region IV  
U.S. Nuclear Regulatory Commission  
(817) 860-8126  
eric.ruesch@nrc.gov

**NOT FOR PUBLIC DISCLOSURE**

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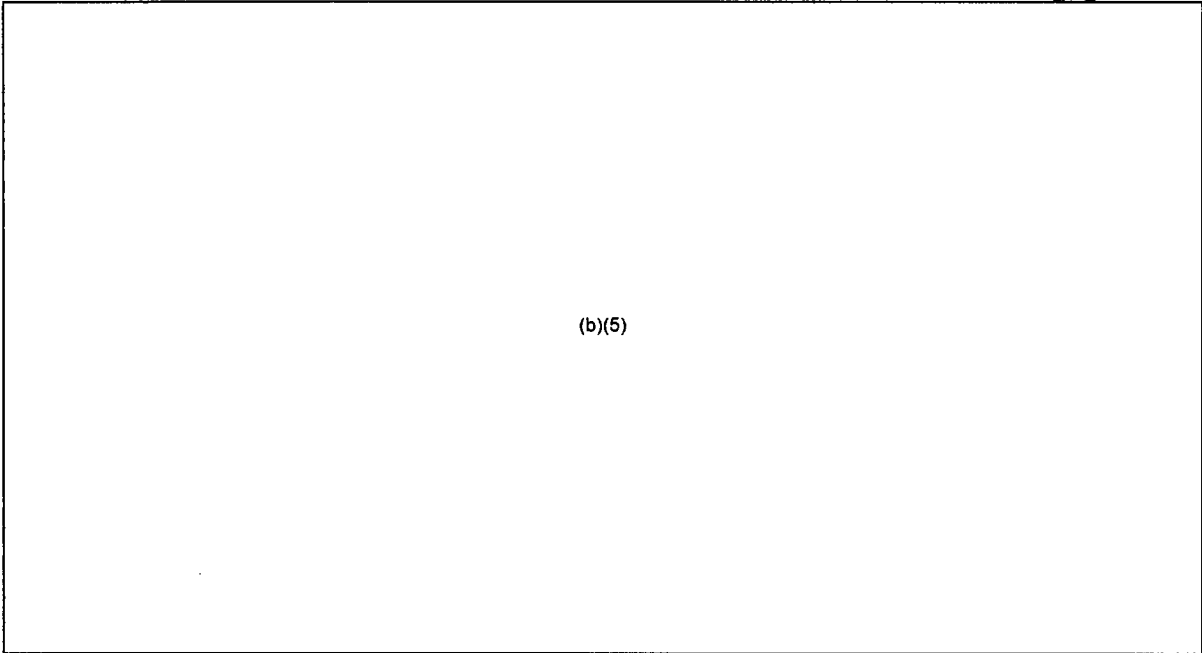
(b)(5)

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**From:** Lara, Julio  
**To:** Kobetz, Timothy; Lewin, Aron  
**Cc:** Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Westreich, Barry  
**Subject:** RE: TI Cover Letter Report Template  
**Date:** Thursday, April 14, 2011 9:30:40 AM  
**Importance:** High



**From:** Kobetz, Timothy  
**Sent:** Wednesday, April 13, 2011 1:03 PM  
**To:** Lewin, Aron  
**Cc:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Westreich, Barry  
**Subject:** RE: TI Cover Letter Report Template

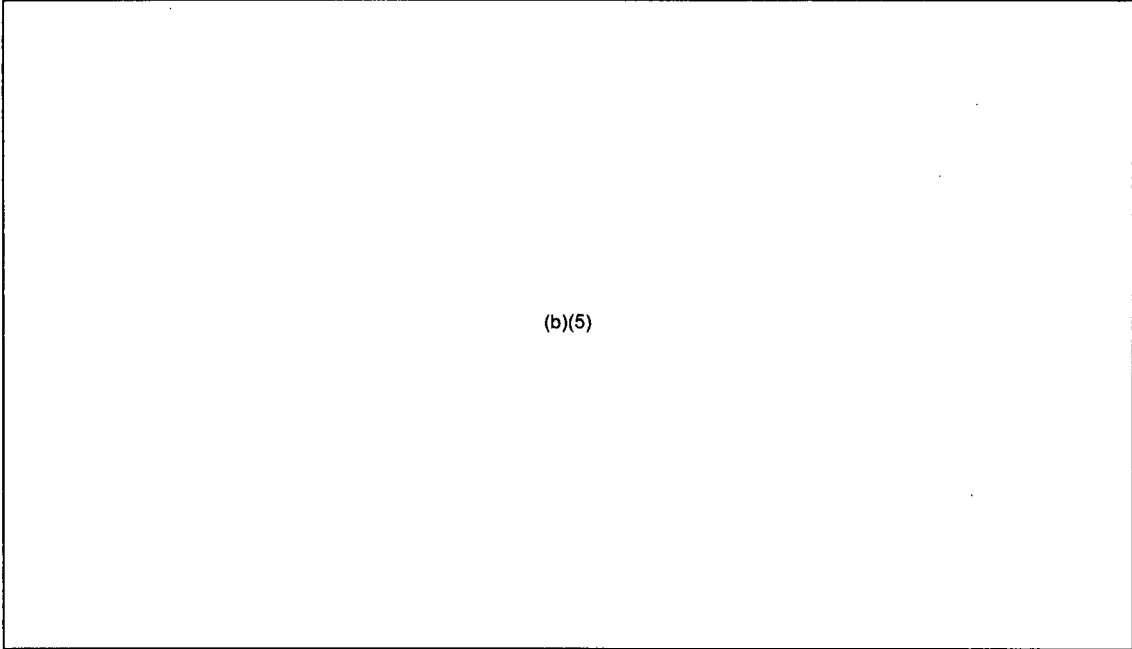
Looks good to me if the Regions agree. As far as INPO, talk to Eric Thomas. He's our INPO liaison and may have some additional info.

Tim

**From:** Lewin, Aron  
**Sent:** Wednesday, April 13, 2011 1:18 PM  
**To:** Kobetz, Timothy  
**Cc:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Westreich,

Barry  
**Subject:** TI Cover Letter Report Template

Tim,



Please let me know if there are any comments or issues.

Thanks,  
Aron  
240-274-8967

**NOT FOR PUBL**

**From:** Ruesch, Eric  
**To:** Allen, Don; Clark, Jeff; Gaddy, Vincent; Lantz, Ryan; Miller, Geoffrey; Walker, Wayne  
**Cc:** Kennedy, Kriss; Pruett, Troy; Vogel, Anton; Hay, Michael; Powers, Dale  
**Subject:** TI-183 FAQ  
**Date:** Monday, April 18, 2011 8:10:00 AM  
**Attachments:** TI-183 R-IV FAQs.pdf

---

DRP BC's,

Please provide the attached to the RI's. It answers several questions on TI-183 documentation and provides two examples of write-ups.

Thank you,  
Eric

---  
Eric A. Ruesch  
Reactor Engineer—Technical Support  
Division of Reactor Safety, Region IV  
U.S. Nuclear Regulatory Commission  
(817) 860-8126  
eric.ruesch@nrc.gov

**NOT FOR PUBLIC DISCLOSURE**



FAQ's for TI-183

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4/18/2011 8:06 AM

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**From:** Lewin, Aron  
**To:** Kobetz, Timothy  
**Cc:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hooper, George; Musser, Randy; Doerflin, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Thomas, Eric; Bowman, Eric; Goel, Vijay; Matharu, Gurcharan; Marnew, Roy  
**Subject:** 4/19/11 TI 2515/183 Call Highlights  
**Date:** Tuesday, April 19, 2011 2:44:53 PM

---

Tim,

Highlights from today's call.

(b)(5)

Julio,

(b)(5)

Thanks,  
Aron

**From:** Ruesch, Eric  
**To:** [Clark, Jeff](#)  
**Cc:** [Sanchez, Alfred](#)  
**Subject:** RE:  
**Date:** Thursday, April 21, 2011 1:04:00 PM

(b)(5)

Is that at all helpful?

Eric

Eric A. Ruesch  
817-860-8126

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

**From:** Clark, Jeff  
**Sent:** Thursday, April 21, 2011 11:23 AM  
**To:** Ruesch, Eric  
**Subject:** FW:

Eric,

(b)(5)

Jeff

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

**From:** Sanchez, Alfred  
**Sent:** Thursday, April 21, 2011 11:09 AM  
**To:** Clark, Jeff; Ruesch, Eric  
**Subject:** FW:

Eric and Jeff,

(b)(5)

Fred

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

**From:** ALFRED.SANCHEZ@NRC.GOV [<mailto:Alfred.sanchez@nrc.gov>]  
**Sent:** Thursday, April 21, 2011 11:04 AM  
**To:** Sanchez, Alfred  
**Subject:**

**From:** Ruesch, Eric  
**To:** Clark, Jeff; Gaddy, Vincent; Lantz, Ryan; Miller, Geoffrey; Walker, Wayne; Deese, Rick  
**Cc:** Kennedy, Kriss; Pruett, Troy; Veigel, Anton; Hay, Michael  
**Subject:** TI-183 report template - new revision  
**Date:** Tuesday, April 26, 2011 2:28:00 PM  
**Attachments:** Inspection Report Template w cover letter.docx

---

DRP BC's,

(b)(5)

Thank you,  
Eric

---  
Eric A. Ruesch  
Reactor Engineer—Technical Support  
Division of Reactor Safety, Region IV  
U.S. Nuclear Regulatory Commission  
(817) 860-8126  
eric.ruesch@nrc.gov

NOT FOR PUBLIC DISCLOSURE



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**From:** Ruesch, Eric  
**To:** R4DRP-DIV  
**Cc:** Hav, Michael; Vogel, Anton  
**Subject:** TI-183 full report example  
**Date:** Friday, April 29, 2011 5:01:24 PM  
**Attachments:** STP Report - TI-183 (EXAMPLE).pdf  
Inspection Report Template w cover letter rev1.docx  
TI-183 R-IV FAQs.pdf  
**Importance:** High

---

DRP,

Attached is the draft TI-183 report from South Texas. Please use it as an example for the level of information and depth of discussion needed when documenting the results of your inspections.

A few items to note, in response to several questions I have received:

- Please make sure you are using the most recent report template. I sent it out via the Branch Chiefs on Tuesday; it is also attached to this email. Changes from the original include:
  - Deletion of the "Summary of Findings"/"Summary of Issues" section
  - Corrections to inconsistent language in the cover letter
  - Addition of a "Scope" section
- Inspection dates are from the issuance of the TI (March 23) through the earlier of (1) April 29 or (2) the day you conducted your exit meeting
- Your report should contain no references to the IER. This inspection is an independent verification of the licensee's ability to respond to certain events, not a verification of a response to WRO

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I have also attached the FAQ that I sent out previously. If you have further questions, please let me know.

Thanks,  
Eric

Eric Ruesch  
Reactor Engineer—Technical Support  
Division of Reactor Safety, Region IV  
U.S. Nuclear Regulatory Commission  
(817) 860-8126  
eric.ruesch@nrc.gov



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FAQ's for TI-183

(b)(5)

4/18/2011 8:06 AM

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(b)(5)



(b)(5)

**From:** Lewin, Aron  
**To:** Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflin, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine  
**Cc:** Kolb, Timothy; Lewin, Aron; Kobetz, Timothy  
**Subject:** Sample Questions for TI 2515/184 Item 03.01.f  
**Date:** Tuesday, May 03, 2011 5:46:12 AM

---

All,

Below are some sample questions for Item 03.01.f. We can discuss today if needed.

Thanks.  
Aron

---

**From:** Kolb, Timothy  
**Sent:** Tuesday, May 03, 2011 5:51 AM  
**To:** Lewin, Aron  
**Subject:** RE: Request for Sample Questions for TI 2515/184

Aron:

(b)(5)

Thanks,  
Tim Kolb

---

**From:** Lewin, Aron  
**Sent:** Monday, May 02, 2011 2:18 PM  
**To:** Cowdrey, Christian; Kolb, Timothy  
**Cc:** Lewin, Aron  
**Subject:** Request for Sample Questions for TI 2515/184

Chris / Tim

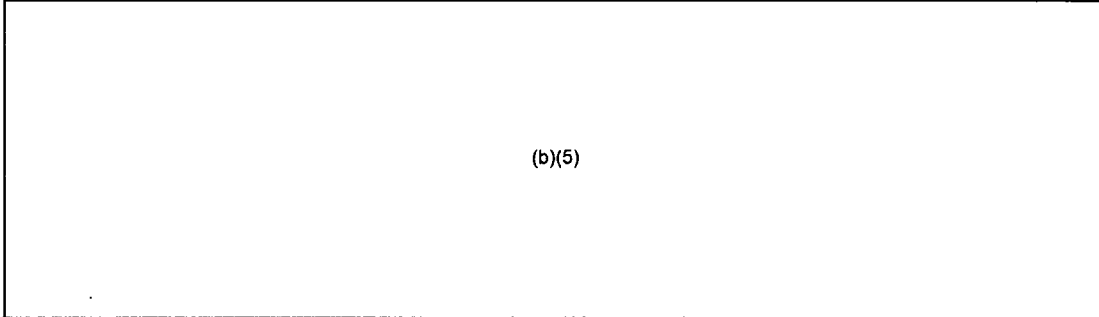
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Thanks,  
Aron  
X2259

**From:** Yancey, Dawn  
**To:** Ruesch, Eric  
**Cc:** Madison, Berni  
**Subject:** PIM Entries for TI-183  
**Date:** Tuesday, May 03, 2011 3:03:29 PM

---

Eric,



*Dawn V. Yancey*  
Resident Office Assistant  
Callaway Resident Office  
(573)676-3181

NOT FOR PUBLIC DIS

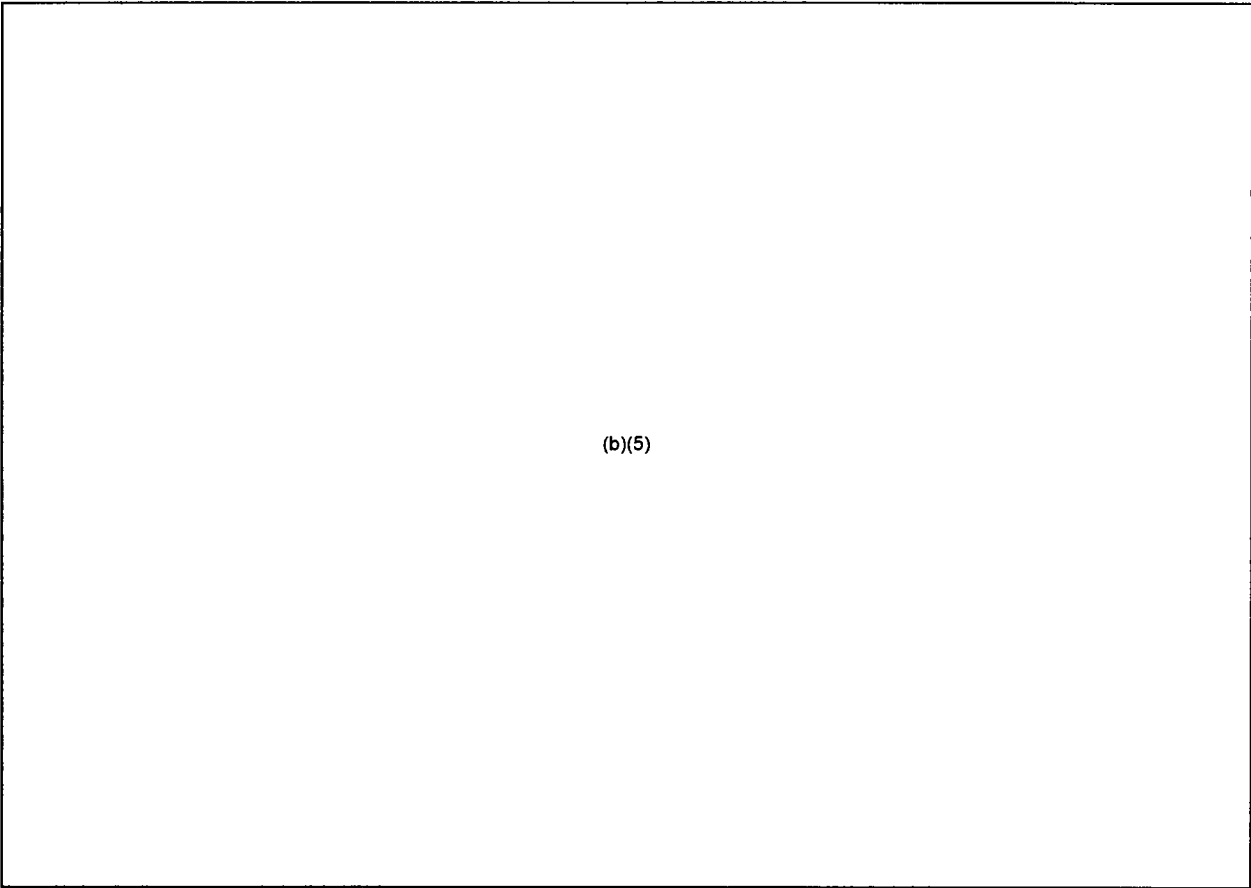
**From:** Lara, Julio  
**To:** Doerflein, Lawrence; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Thomas, Eric; Bowman, Eric; Kobetz, Timothy; Cartwright, William  
**Cc:** Canill, Christopher  
**Subject:** RE: TI-183 documentation - generic issues  
**Date:** Wednesday, May 04, 2011 9:57:52 AM

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(b)(5)

**From:** Doerflein, Lawrence  
**Sent:** Wednesday, May 04, 2011 7:58 AM  
**To:** Lara, Julio; Powell, Raymond; Powers, Dale; OKeefe, Neil; Duncan, Eric; Hopper, George; Musser, Randy; Doerflein, Lawrence; Hay, Michael; Ruesch, Eric; Heath, Jermaine; Lewin, Aron; Thomas, Eric; Bowman, Eric; Goel, Vijay; Matharu, Gurcharan; Mathew, Roy; Kobetz, Timothy; Cartwright, William  
**Cc:** Canill, Christopher; Cook, William; Schmidt, Wayne; Pindale, Stephen; Scholl, Larry; Young, Keith; Wilson, Peter  
**Subject:** TI-183 documentation - generic issues

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(b)(5)

Any thoughts?

~~NOT FOR PUBL~~

**From:** [Kumana, Rayomand](#)  
**To:** [Ruesch, Eric](#)  
**Subject:** RE: TI-183 Report Processing  
**Date:** Wednesday, May 04, 2011 1:47:11 PM

---

Eric,

(b)(5)

Rayomand J. Kumana  
Project Engineer  
DRP, Branch C  
NRC, Region IV  
817-860-8185  
[rayomand.kumana@nrc.gov](mailto:rayomand.kumana@nrc.gov)

---

**From:** Ruesch, Eric  
**Sent:** Wednesday, May 04, 2011 9:02 AM  
**To:** Clark, Jeff; Gaddy, Vincent; Lantz, Ryan; Miller, Geoffrey; Walker, Wayne  
**Cc:** Yancey, Dawn; Madison, Berni; Murray, Jenny; Kennedy, Kriss; Pruett, Troy; Allen, Don; Azua, Ray; Deese, Rick; Dykert, Jason; Hagar, Bob; Holcraft, Zachary; Kumana, Rayomand; Makris, Nestor; Melfi, Jim; Micewski, Laura; Proulx, David; Smith, Chris; Tutak, Greg; Vogel, Anton; Hay, Michael  
**Subject:** TI-183 Report Processing  
**Importance:** High

DRP BC's,

(b)(5)

(b)(5)

Please let me know if you have questions.

Thanks,  
Eric

---

Eric A. Ruesch  
Reactor Engineer—Technical Support  
Division of Reactor Safety, Region IV  
U.S. Nuclear Regulatory Commission  
(817) 860-8126  
eric.ruesch@nrc.gov

NOT FOR PUBLIC DISCLOSURE

**From:** Lara, Julio  
**To:** Kobetz, Timothy; Powell, Raymond; Doerflein, Lawrence; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Cartwright, William; Lewin, Aron  
**Subject:** RE: Inspection Report Template w cover letter rev 2  
**Date:** Friday, May 06, 2011 9:48:43 AM

---

Tim/Aron ,

(b)(5)

Please clarify.

---

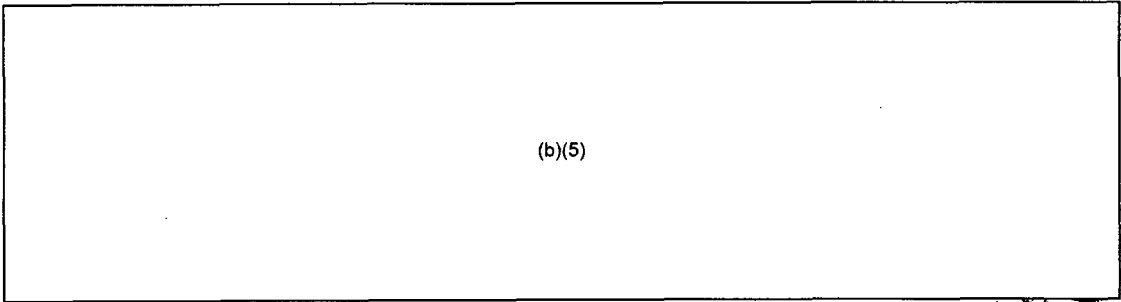
**From:** Kobetz, Timothy  
**Sent:** Friday, May 06, 2011 9:17 AM  
**To:** Powell, Raymond; Doerflein, Lawrence; Lara, Julio; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Westreich, Betsy; Cartwright, William; Lewin, Aron  
**Subject:** Inspection Report Template w cover letter rev 2

Genelefol

Attached is the final TI 183 template.

(b)(5)





(b)(5)

Please let me know if this causes any problems. I will also post this on the SharePoint site.

Tim

NOT FOR PUBLIC DISCLOSURE

**From:** Ruesch, Eric  
**To:** Kobetz, Timothy; Powell, Raymond; Doerflein, Lawrence; Lara, Julio; Hopper, George; Hay, Michael  
**Cc:** Westreich, Barry; Cartwright, William; Lewin, Aron  
**Subject:** RE: Inspection Report Template w cover letter rev 2  
**Date:** Friday, May 06, 2011 9:58:08 AM

---

Tim,

(b)(5)

Eric

---  
Eric A. Ruesch  
817-860-8126

---

**From:** Kobetz, Timothy  
**Sent:** Friday, May 06, 2011 9:17 AM  
**To:** Powell, Raymond; Doerflein, Lawrence; Lara, Julio; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Westreich, Barry; Cartwright, William; Lewin, Aron  
**Subject:** Inspection Report Template w cover letter rev 2

Gentlefolk,

Attached is the final 11183 template.

(b)(5)

(b)(5)

Please let me know if this causes any problems. I will also post this on the SharePoint site.

Tim

**NOT FOR PUBLIC DISCLOSURE**

**From:** Lara, Julio  
**To:** Powell, Raymond; Doerflein, Lawrence; Hopper, George; Hay, Michael; Ruesch, Eric  
**Subject:** RE: Inspection Report Template w cover letter rev 2  
**Date:** Friday, May 06, 2011 11:08:03 AM  
**Importance:** High

(b)(5)

**From:** Kobetz, Timothy  
**Sent:** Friday, May 06, 2011 10:34 AM  
**To:** Lara, Julio; Powell, Raymond; Doerflein, Lawrence; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Cartwright, William; Lewin, Aron  
**Subject:** RE: Inspection Report Template w cover letter rev 2

(b)(5)

**From:** Lara, Julio  
**Sent:** Friday, May 06, 2011 11:23 AM  
**To:** Kobetz, Timothy; Powell, Raymond; Doerflein, Lawrence; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Cartwright, William; Lewin, Aron  
**Subject:** RE: Inspection Report Template w cover letter rev 2  
**Importance:** High

(b)(5)

(b)(5)

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**From:** Kobetz, Timothy  
**Sent:** Friday, May 06, 2011 9:17 AM  
**To:** Powell, Raymond; Doerflein, Lawrence; Lara, Julio; Hopper, George; Hay, Michael; Ruesch, Eric  
**Cc:** Westreich, Barry; Cartwright, William; Lewin, Aro  
**Subject:** Inspection Report Template w cover letter rev 2

Gentlefolk,

Attached is the final TI 183 template.

(b)(5)

Please let me know if this causes any problems. I will also post this on the SharePoint site.



# NRC INSPECTION MANUAL

IRIB

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## TEMPORARY INSTRUCTION 2515/184

---

### AVAILABILITY AND READINESS INSPECTION OF SEVERE ACCIDENT MANAGEMENT GUIDELINES (SAMGs)

#### CORNERSTONE: MITIGATING SYSTEMS

**APPLICABILITY:** This Temporary Instruction (TI) applies to all holders of operating licenses for nuclear power reactors, except plants which have permanently ceased operations.

#### 2515/184-01 OBJECTIVES

The objectives of this TI are to:

- a. Determine that the severe accident management guidelines (SAMGs) are available and how they are being maintained.
- b. Determine the nature and extent of licensee implementation of SAMG training and exercises.

#### 2515/184-02 BACKGROUND

On March 30, 2011, the Executive Director for Operations chartered a task force to conduct a near-term evaluation of the need for agency actions following the events in Japan. During the task force's deliberations, the importance of severe accident management guidelines (SAMGs) has been highlighted. The SAMGs were implemented as a voluntary industry initiative in the 1990s and are not part of the agency's routine Reactor Oversight Program. In order to evaluate the current status of SAMGs onsite and determine the need for any further recommendations, the task force is requesting the enclosed information regarding SAMGs at operating power reactors be gathered, assessed, and summarized.

#### 2515/184-03 INSPECTION REQUIREMENTS AND GUIDANCE

**03.01** Assess the availability and readiness of the licensee's ability to access and implement the SAMGs at their facility. Answer the following questions by filling out the attached datasheet.

- a. When were the SAMGs last updated? Are controlled copies of the SAMG located in the technical support center (TSC) (Y/N), emergency operations facility (EOF) (Y/N), control room (Y/N)? For licensees that use one common EOF for multiple reactor sites, one review of the EOF will serve for all applicable sites.

- b. Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision (Y/N)?
- c. Does the licensee's configuration control and change management systems (e.g., 10CFR50.59 process) cause the licensee to update SAMGs to reflect design changes (Y/N/Partially – describe)?
- d. Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (Y/N/comments)?
  - 1. A high-level comparison means that the inspector should determine whether the major sections of the guidance documents are covered. It is not meant to be a step-by-step review of the SAMGs.
  - 2. The owners group guidance documents were normally the basis for the development of the SAMGs, however, other industry standards may also have been used.
  - 3. Some variations from the guidance documents may have been made to accommodate site specific plant design differences.
  - 4. The inspectors should not assess the adequacy of the SAMGs as it is beyond the scope of this TI.
- e. How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?
  - 1. There are various training methods that may be used by the licensee (e.g., table top exercise, classroom training, reading of training materials).
  - 2. Whichever training method is used the licensee should be able to provide documentation (e.g., training records) that the training was completed.
- f. Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators (shift technical advisor may be substituted for one of the 4 operators), 2 TSC staff, and 2 TSC managers designated to implement the SAMGs during an emergency to determine: (1) did they receive initial (Y/N) and periodic (Y/N/document periodicity) training on the SAMGs and how they relate to their assigned duties, and (2) can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?



- g. Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?

#### 2515/184-02 REPORTING REQUIREMENTS

The inspection results of this TI should be forwarded by each Region via memorandum to NRR/DIRS/IRIB, Attention: Tim Kobetz. The memorandum should be sent via e-mail to [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov) no later than May 27, 2011. Mr. Kobetz can also be reached at (301) 415-1932. The memorandum should be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

In addition, the next quarterly inspection report should document completion of the TI and reference the ADAMS accession number. The inspection results from this TI will be used to aid in determining whether additional NRC regulatory actions are warranted in this area.

#### 2515/184-03 COMPLETION SCHEDULE

This TI is to be initiated upon issuance and completed by May 27, 2011.

#### 2515/184-04 EXPIRATION

The TI will expire on June 30, 2012.

#### 2515/184-05 CONTACT

Any technical questions regarding this TI should be addressed to Tim Kobetz at 301-415-1932 or [timothy.kobetz@nrc.gov](mailto:timothy.kobetz@nrc.gov).

#### 2515/184-08 STATISTICAL DATA REPORTING

All direct inspection effort expended on this TI is to be charged to 2515/184 with an IPE code of TI. All indirect inspection effort expended on this TI for preparation and documentation should be attributed to activity codes TIP and TID respectively.

#### 2515/184-09 RESOURCE ESTIMATE

The estimated average time to complete the TI inspection requirements will be 16-20 hours per site.

END

ATTACHMENTS: Exhibit 1: Template for Inspection Results for TI 2515/184  
Attachment 1: Revision History Page

EXHIBIT 1

TABLE OF RESULTS

Letter or Number	Inspection Item	Yes	No	Response/Comments
a	When were the SAMGs last updated?			
	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)			
	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)			
	Are controlled copies of the SAMG located in the control room? (Y/N)			
b	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)			
c	Does the licensee's configuration control and change management systems cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially-describe)			
d	Perform a high-level comparison of the site's SAMGs with available industry guidance (e.g., owner's group guidance document and other industry standards as applicable). Are the SAMGs consistent with the owners group guidance (if any) having been incorporated (Y/N/comments)?			
e	How is training conducted on the SAMGs? Who is trained on the SAMGs? What is the periodicity of training?			
f	Interview 4 licensed operators (2 reactor operators and 2 senior reactor operators), 2 TSC staff, and 2 TSC managers assigned to apply the SAMGs during an emergency to determine:			
	(1) Did they receive initial training on the SAMGs? (Y/N)			
	Did they receive periodic training (Y/N/document periodicity) on the SAMGs and how they relate to their assigned duties?			
	(2) Can they articulate their responsibilities with respect to the use of SAMGs (Y/N/document who would actually implement the licensee's SAMGs)?			
g	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency (Y/N/document periodicity)?			

ATTACHMENT 1

Revision History for TI 2515/184  
 Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	ML11115A053 04/29/11 CN 11-008	Researched commitments for 4 years and found none.  This is a new document issued for inspections related to the NRC's followup to the Fukushima Daiichi Nuclear Event.	No	N/A	N/A

Summary of Observations  
Temporary Instruction 2515/184, "Availability and Readiness Inspection of  
Severe Accident Management Guidelines (SAMGs)"

**Summary of Observations:**

The SAMGs were implemented as a voluntary industry initiative in the 1990s and are not part of the agency's routine Reactor Oversight Program. On March 30, 2011, the Executive Director for Operations chartered a task force to conduct an evaluation of the need for agency actions following the events in Japan. The task force will evaluate the current status of SAMGs at operating power reactors and determine the need for any further agency actions.

The following are some general observations made during the performance of TI 2515/184. While individually, none of these observations posed a significant safety issue, they indicate that while the SAMG procedures are available at every site, there appears to be an inconsistent implementation of some aspects of this voluntary SAMG program.

SAMGs are typically available in plant locations critical to combating a potentially severe accident. However in some cases the procedures were either not available in all expected areas or not properly controlled. In addition, while SAMGs appear to be updated to reflect design changes at a facility, there does not appear to be a consistent approach to conducting periodic reviews. Finally, while personnel do appear to be properly trained and knowledgeable on SAMGs, exercises on SAMGs do not appear to be periodically conducted at all sites. This summary is being provided to the Near Term Task Force for use during its review of agency regulatory requirements in light of the Japan Fukushima event.

**Matrix of Observations by Facility:**

The attached matrix is a per-site summary of observations associated with TI 2515/184. The matrix was developed to provide NRC and external stakeholders with a quick method to review the observations; however, the matrix is not an in-depth assessment of the findings. As noted above, NRC is evaluating the current status of SAMGs at operating power reactors in order to determine the need for any further agency actions.

**Using the Matrix:**

The matrix provides basic answers in a way to help guide the user to information regarding a facility that they may be interested in. The first column under Item 03.01(a) indicates that all licensees have SAMG procedures. The inspection reports should be reviewed for additional information on when the SAMGs were last updated. Specific answers to training questions associated with Inspection Item 03.01(e) are not included in the matrix; however an overview of the training program is included in the matrix under Item 03.01(f). The inspection reports should be reviewed for additional information on the observations.

Summary of Inspection Results for TI 2515/184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)"

Plant / Site	Region	03.01(a)			03.01(b)		03.01(c)	03.01(d)	03.01(i) (see footnote 2)			03.01(j)
		Does the licensee have SAMG procedures? (see footnote 1)	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Are controlled copies of the SAMG located in the control room? (Y/N)	Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N)	Does the licensee's configuration control and change management system (e.g., ICR/RS, SA process) ease the licensee to update SAMGs to reflect design changes? (Y/N) (initially)	Are the SAMGs consistent with the owner's guidance (if any) having been incorporated? (Y/N)	Did personnel receive initial training on the SAMGs? (Y/N)	Did personnel receive periodic training on the SAMGs and how they relate to their assigned duties? (Y/N)	Can personnel articulate their responsibilities with respect to the use of SAMGs? (Y/N)	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency? (Y/N)
Beaver Valley	I	Y	Y	N	Y	Y	Y	Y	Y	N	N	N
Calvert Cliffs	I	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Fitzpatrick	I	Y	Y	Y	Y	N	Y	Y	Y	N	N	N
Cana	I	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N
Hopewell	I	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Inhale Point 2	I	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y
Inhale Point 3	I	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y
Lenaich	I	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
M.P. Stone	I	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Five Mile Creek	I	Y	Y	Y	Y	N	Y	Y	N	N	Y	Y
Upper Creek	I	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y
French Hollow	I	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Algon	I	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
Salem	I	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Sandwich	I	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N
Susquehanna	I	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N
Three Mile Island	I	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Vermont Yankee	I	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Browns Ferry	II	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Panhandle	II	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Catawba	II	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Crystal River	II	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
Forsyth	II	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y
Harris	II	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
Hatch	II	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
McGuire	II	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
North Anna	II	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
Onondaga	II	Y	Y	N	N	N	N	Y	Y	Y	Y	Y
Pohannon	II	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Seminole	II	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
St. Lucie	II	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Summer	II	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N
Sunny	II	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Turkey Point	II	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N
Vogtle	II	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Watts Bar	II	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Brandenburg	III	Y	Y	N	Y	N	Y	N	Y	Y	Y	Y
Byron	III	Y	Y	N	Y	N	Y	N	Y	Y	Y	N
Cherokee	III	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y
D.C. Cook	III	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N
Davis-Besse	III	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N
Dresden	III	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Duane Arnold	III	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fenn	III	Y	Y	N	Y	N	Y	Y	Y	N	N	N

Summary of Inspection Results for TI 2515184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)"

Plant / Site	Region	03 01(a)			03 01(b)	03 01(c)	03 01(d)	03 01(f) (see footnote 2)		03 01(g)		
		Does the licensee have SAMG procedures? (see footnote 1)	Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N)	Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N)	Are controlled copies of the SAMG located in the control room? (Y/N)	Are SAMGs covered by the licensee's procedure control and document management system including the requirements for periodic review and revision? (Y/N)	Does the licensee's configuration control and change management system (e.g., IOLDFH3339 process) cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially)	Are the SAMGs consistent with the contents of the guidance (if any) having been incorporated? (Y/N)	Did personnel receive initial training on the SAMGs and have they related to their assigned duties? (Y/N)	Can personnel attribute flow responsibilities with respect to the use of SAMGs? (Y/N)	Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency? (Y/N)	
Kewaunee	III	Y	Y	Y	Y	N	Y	N	Y	Y	N	
LaSalle	III	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y
McGuireville	III	Y	Y	Y	Y	N	Y	Y	N	N	N	N
Paksales	III	Y	Y	Y	N	N	N	Y	N	N	N	N
Perry	III	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N
Point Beach	III	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Travis Island	III	Y	Y	Y	Y	N	Y	N	N	Y	Y	Y
Quad Cities	III	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Arkansas Nuclear	IV	Y	Y	Y	Y	N	Partially	Y	Y	Y	Y	Y
Calhoun	IV	Y	Y	Y	N	N	N	Y	Y	Y	Y	N
Columbia	IV	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Comanche Peak	IV	Y	N	N	N	N	N	N	Y	Y	Y	N
Cropper	IV	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Duke Canyon	IV	Y	Y	Y	Y	Y	Partially	Y	Y	Y	Y	Y
Fertig Calhoun	IV	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Grand Gulf	IV	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Fido Verde	IV	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N
River Bend	IV	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
San Onofre	IV	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y
South Texas	IV	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Wabash	IV	Y	N	N	N	N	Partially	Y	Y	Y	Y	Y
Wolf Creek	IV	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

(1) See the attached plant data sheets regarding information on "when the SAMGs were last updated" as referred to in TI 2515184 Section 03 01(a)

(2) Specific answers to training questions associated with inspection item 03 01(f) are not included in the matrix, however, an overview of the training program is included in the matrix under item 03 01(f). The

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
WASHINGTON, DC 20555-0001

May 11, 2011

NRC BULLETIN 2011-01: MITIGATING STRATEGIES

**ADDRESSEES**

All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operation and have certified that fuel has been removed from the reactor vessel.

**PURPOSE**

The U.S. Nuclear Regulatory Commission (NRC) is issuing this bulletin to achieve the following objectives:

1. 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),
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
3. To require that addressees provide a written response to the NRC in accordance with 10 CFR 50.54(f).

**BACKGROUND**

Following the terrorist events of September 11, 2001, the readiness of NRC-regulated facilities to manage challenges to core cooling, containment and spent fuel pool cooling (SFP) following large explosions or fires was enhanced through a series of orders and imposition of license conditions. These requirements were formalized in the rulemaking of March 27, 2009, resulting in 10 CFR 50.54(hh)(2).

The NRC conducted a comprehensive inspection of the implementation of the mitigating strategies developed by licensees in 2008. Subsequently the NRC incorporated this inspectable area into the baseline reactor oversight process on a sample basis as part of the triennial fire protection inspection.

ML111250360

Events at the Fukushima - Daiichi Nuclear Power Station following the March 11, 2011, earthquake and tsunami highlight the potential importance of B.5.b mitigating strategies in responding to beyond design basis events.

The Commission has established a task force to consider the need for agency actions following the events in Japan and is considering further actions that could improve operational safety.

## **DISCUSSION**

The events in Japan highlight the importance and potential versatility of B.5.b mitigating strategies. Therefore, the NRC seeks comprehensive confirmation that licensees are maintaining equipment and strategies to satisfy 10 CFR 50.54(hh)(2).

In addition, the existing guidance on the implementation of the strategies, which was adopted by all licensees to meet the regulatory requirements for mitigating strategies, does not describe in detail the practices necessary for maintenance and testing of the equipment, training requirements, and validation of feasibility of the strategies. Based upon the information submitted by licensees in response to this bulletin, the NRC will determine if additional efforts are needed to ensure compliance with existing regulatory requirements and/or whether enhancement to the existing regulations and guidance are necessary.

## **APPLICABLE REGULATORY REQUIREMENTS**

As a result of the terrorist events of September 11, 2001, the NRC issued EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures" (the ICM Order) dated February 25, 2002. The ICM Order, which is designated as Safeguards Information (SGI), modified then-operating licenses for commercial power reactor facilities to require compliance with specified interim safeguards and security compensatory measures. Section B.5.b of the ICM Order requires licensees to adopt mitigation strategies using readily available resources to maintain or restore core cooling, containment, and SFP cooling capabilities to cope with the loss of large areas of the facility due to large fires and explosions from any cause, including beyond-design-basis aircraft impacts.

By letter dated February 25, 2005, the NRC staff provided guidance for implementing Section B.5.b of the ICM Order. This Phase 1 Guidance, designated as SGI, included best practices for mitigating losses of large areas of the plant and measures to mitigate fuel damage and minimize releases. Following issuance of the B.5.b Phase 1 Guidance, the NRC staff conducted inspections at operating reactor sites using TI 2515/164 (SGI) and subsequently TI 2515/168 (SGI) to ensure compliance with Section B.5.b of the ICM Order.

In December 2006, the Nuclear Energy Institute (NEI) issued NEI 06-12, Revision 2, "B.5.b Phase 2 & 3 Submittal Guideline," formerly designated for Official Use Only – Security Related Information (OUO-SRI), Agencywide Documents Access and Management System (ADAMS) Accession No. ML070090060. The NRC endorsed NEI 06-12, Revision 2, by letter dated December 22, 2006, as an acceptable means for developing and implementing the mitigation strategies requirement in Section B.5.b of the ICM Order. NEI 06-12, Revision 2, provides guidance for implementing a set of strategies intended to maintain or restore core cooling,



containment, and SFP cooling capabilities under the circumstances associated with the loss of a large area of the plant due to explosions or fire. NEI 06-12 provides guidance in the following areas:

- Adding make-up water to the SFP,
- Spraying water on the spent fuel,
- Enhanced initial command and control activities for challenges to core cooling and containment, and
- Enhanced response strategies for challenges to core cooling and containment.

The specific strategies covered in NEI 06-12, Revision 2, were developed based on the results of assessments conducted at currently licensed power reactor facilities for the purpose of enhancing plant specific mitigation capability for damage conditions caused by a large explosion or fire. These assessments identified a wide spectrum of potential plant specific strategies. NEI 06-12, Revision 2, specifies one set of strategies applicable to all pressurized-water reactors and another set applicable to all boiling-water reactors. Both sets are derived from the results of the plant specific assessments.

The B.5.b Phase 1 Guidance and NEI 06-12, Revision 2, were used by each licensee in preparing information submitted to the NRC that describes a plant specific approach to implementing mitigating strategies and supports each plant specific license condition. The NRC staff completed its review of the information submitted by each licensee, as well as information obtained during prior NRC inspections, and issued an OUO-SRI safety evaluation (SE) that documents the bases for its approval of the license condition for each facility. The SE issued for each licensee includes regulatory guidance in Section 3.0 of Appendix A, "Phase 1 Assessment," that recites the generic B.5.b Phase 1 Guidance, as clarified in TI 2515/168, in an OUO-SRI form rather than SGI.

By publishing new requirements in the Federal Register dated March 27, 2009 (74 FR 13926), the NRC amended 10 CFR Part 50, 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," and 10 CFR Part 73, "Physical Protection of Plants and Materials." This rulemaking added paragraph (i) to 10 CFR 50.34, "Contents of Applications; Technical Information," and paragraph (d) to 10 CFR 52.80 "Contents of Applications; Additional Technical Information," to require submittal of a "description and plans for implementation of the guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with the loss of large areas of the plant due to explosions or fire as required by § 50.54(hh)(2) of this chapter." This rulemaking also added 10 CFR 50.54(hh)(2) to impose mitigating strategies requirements similar to those imposed by the ICM Order and associated license conditions on all reactor applicants and licensees.

## REQUESTED ACTION

In order to confirm continued compliance with 10 CFR 50.54(hh)(2), within 30 days of the date of this bulletin, the NRC requests that licensees provide the following information on their mitigating strategies programs.

1. Is the equipment necessary to execute the mitigating strategies, as described in your submittals to the NRC, available and capable of performing its intended function?
2. Are the guidance and strategies implemented capable of being executed considering the current configuration of your facility and current staffing and skill levels of the staff?

Within 60 days of the date of this bulletin, the NRC requests that licensees provide information regarding their mitigation strategies programs for 10 CFR 50.54(hh)(2).

In responding to the following questions, licensees should provide information that addresses measures that are currently in place, noting any additional planned actions with expected completion dates.

1. Describe in detail the maintenance of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it is functional when needed.

Examples of the types of information to include when providing your response to Question (1) are:

- a. Measures implemented to maintain the equipment, including periodicity.
- b. Basis for establishing each maintenance item (e.g., manufacturer's recommendation, code or standard applicable to the craft). This should include consideration of storage environment impact on the maintenance necessary.

These examples are not meant to limit your response if you use other methods to address the issues described above.

2. Describe in detail the testing of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it will function when needed.

Examples of the types of information to include when providing your response to Question (2) are:

- a. A description of any testing accomplished to ensure the strategies were initially feasible.
- b. A description of any periodic testing instituted for the equipment, along with the basis for establishing that test requirement.

- c. A description of the corrective action process used when the equipment fails to adequately perform its test.

These examples are not meant to limit your response if you use other methods to address the issues described above.

- 3. Describe in detail the controls for assuring that the equipment is available when needed.

Examples of the types of information to include when providing your response to Question (3) are:

- a. A description of any inventory requirements established for the equipment.
- b. A listing of deficiencies noted in inventories for the equipment and corrective actions taken to prevent loss.

These examples are not meant to limit your response if you use other methods to address the issues described above.

- 4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.

Examples of the types of information to include when providing your response to Question (4) are:

- a. Measures taken to evaluate any plant configuration changes for their effect on feasibility of the mitigating strategies.
- b. Measures taken to validate that the procedures or guidelines developed to support the strategies can be executed. These measures could include drills, exercises, or walk through of the procedures by personnel that would be expected to accomplish the strategies.
- c. Measures taken to ensure procedures remain up-to-date and consistent with the current configuration of the plant.
- d. A description of the training program implemented in support of the mitigating strategies and the manner in which you evaluate its effectiveness.

These examples are not meant to limit your response if you use other methods to address the issues described above.

5. Describe in detail how you assure availability of off-site support.

Examples of the types of information to include when providing your response to Question (5) are:

- a. A listing of off-site organizations you rely on for emergency response.
- b. Measures taken to ensure the continuity of memoranda of agreement or understanding or other applicable contractual arrangements. This should include a listing of periods of lapsed contractual arrangements.
- c. A listing of any training or site familiarization provided to off-site responders. This should include any measures taken to ensure continued familiarity of personnel of the off-site responders in light of turnover and the passage of time.

These examples are not meant to limit your response if you use other methods to address the issues described above.

#### **REQUIRED RESPONSE**

Licensees should address the required written response to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, 11555 Rockville Pike, Rockville, MD 20852, pursuant to the provisions of 10 CFR 50.54(f). In addition, submit a copy of the response to the appropriate Regional Administrator. Before submitting responses to the NRC, licensees must evaluate them for proprietary, sensitive, safeguards, or classified information and mark such information appropriately. The addressees have two options for submitting responses:

1. Addressees may choose to submit written responses providing the information requested above within the requested time periods.
2. Addressees, who cannot meet the requested completion date must submit written responses within 15 days of the date of this bulletin that address any alternative course of action proposed, including the basis for the acceptability of the proposed alternate course of action.

#### **REASONS FOR INFORMATION REQUEST**

The NRC is requesting information to confirm compliance with Order EA-02-026, the subsequently imposed license conditions, and 10 CFR 50.54(hh)(2) and on the status of licensee mitigating strategies programs. The staff will use the information received to inform the Commission and to determine if further regulatory action is warranted.

#### **RELATED DOCUMENTATION**

- Information Notice No. 11-05 "Tohoku-Taiheiyou-Oki Earthquake Effects on Japanese Nuclear Power Plants," March 18, 2011

## **BACKFIT DISCUSSION**

Under the provisions of Section 182a of the Atomic Energy Act of 1954, as amended, and 10 CFR 50.54(f), this bulletin transmits an information request for the purpose of verifying compliance with existing applicable regulatory requirements (see the Applicable Regulatory Requirements section of this bulletin) and gathering information to determine the need for additional regulatory action. No backfit is either intended or approved by the issuance of this bulletin, and the staff has not performed a backfit analysis. If, as a result of information received in response to this bulletin, the NRC determines that new guidance, orders or regulations are needed, the NRC will prepare the necessary documentation to comply with the requirements of the Backfit Rule and/or any applicable finality provisions in 10 CFR Part 52 as part of the development of the new guidance, orders or regulations.

## **FEDERAL REGISTER NOTIFICATION**

The NRC did not publish a notice of opportunity for public comment on a draft of this bulletin in the *Federal Register* because the agency is requesting information from affected licensees on an expedited basis to assess the adequacy and consistency of regulatory programs. There is no legal requirement that the NRC publish for public comment such information requests.

## **CONGRESSIONAL REVIEW ACT**

The NRC determined that this bulletin is not a rule under the Congressional Review Act.

## **PAPERWORK REDUCTION ACT STATEMENT**

This bulletin contains information collections that are covered by the Office of Management and Budget clearance number 3150-0012, which expires January 31, 2013. This collection of information is mandatory under the provisions of Section 182a of the Atomic Energy Act of 1954, as amended, and 10 CFR 50.54(f). The burden to the public for these information collections is estimated to average 200 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection.

Send comments regarding this burden estimate or any other aspect of these information collections, including suggestions for reducing the burden, to the Information Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail to [Infocollects.Resource@NRC.GOV](mailto:Infocollects.Resource@NRC.GOV); and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0012), Office of Management and Budget (OMB), Washington, DC 20503.

## **PUBLIC PROTECTION NOTIFICATION**

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

**CONTACT**

Please direct any questions about this matter to the technical contact listed below.

*/RA/*

Timothy J. McGinty, Director  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Technical Contact: Eric E. Bowman, NRR  
301-415-2963  
[Eric.Bowman@nrc.gov](mailto:Eric.Bowman@nrc.gov)

Note: NRC Generic Communications may be found on the NRC public Web site,  
<http://www.nrc.gov>, under Electronic Reading Room/Document Collections

**CONTACT**

Please direct any questions about this matter to the technical contact listed below.

**/RA/**

Timothy J. McGinty, Director  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Technical Contact: Eric E. Bowman, NRR  
301-415-2963  
[Eric.Bowman@nrc.gov](mailto:Eric.Bowman@nrc.gov)

Note: NRC Generic Communications may be found on the NRC public Web site,  
<http://www.nrc.gov>, under Electronic Reading Room/Document Collections

ADAMS Accession Number: ML111250360    NRR-052    \* by e-mail

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NAME	EBowman	JDougherty	CHawes	BWestreich	LHill
DATE	05/05/11	05/10/11	05/05/11	05/06/11	05/09/11
OFFICE	OIS*	OGC:NLO	DPR/PGCB/BC	NRR/DPR/D	
NAME	TDonnell (KBenney for)	MSpencer	SRosenberg	TMcGinty	
DATE	05/09/11	05/09/11	05/10/11	05/11/11	

OFFICIAL RECORD COPY

EDO Principal Correspondence Control

FROM: DUE: 04/21/11 EDO CONTROL: G20110278  
DOC DT: 04/15/11  
FINAL REPLY:

Senator Edward J. Markey

TO:

Chairman Jaczko

FOR SIGNATURE OF : \*\* PRI \*\* CRC NO: 11-0232

Chairman Jaczko

DESC:

ROUTING:

Post-Fukushima Meltdown Inspections Conducted by  
NRC at U.S. Nuclear Power Plants  
(EDATS: SECY-2011-0239)

Borchardt  
Weber  
Virgilio  
Ash  
Muessle  
OCG/GC  
Leeds, NRR  
Burns, OGC  
Schmidt, OCA

DATE: 04/19/11

ASSIGNED TO: CONTACT:

EDO

Rihm

SPECIAL INSTRUCTIONS OR REMARKS:

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

*Template: SECY-017*

*E-Ris: SECY-01*



**EDATS Number:** SECY-2011-0239

**Source:** SECY

**General Information**

**Assigned To:** OEDO

**OEDO Due Date:** 4/21/2011 11:00 PM

**Other Assignees:**

**SECY Due Date:** 4/22/2011 11:00 PM

**Subject:** Post-Fukushima Meltdown Inspections Conducted by NRC at U.S. Nuclear Power Plants

**Description:**

**EC Routing:** NRR; OGC; OCA

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

**Other Information**

**Cross Reference Number:** G20110278, LTR-11-0232

**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

**OJCM Concurrence:** NO

**OJCA Concurrence:** NO

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

**Document Information**

**Originator Name:** Edward J. Markey

**Date of Incoming:** 4/15/2011

**Originating Organization:** Congress

**Document Received by SECY Date:** 4/19/2011

**Addressee:** Chairman Jaczko

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Letter

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Apr 19, 2011 14:31

PAPER NUMBER: LTR-11-0232 LOGGING DATE: 04/19/2011  
ACTION OFFICE: EDO

AUTHOR: REP Edward Markey  
AFFILIATION: CONG  
ADDRESSEE: Gregory Jackzo  
SUBJECT: Express concern regarding the post-Fukushima meltdown inspections currently being conducted by NRC personnel at U.S. nuclear power plants

ACTION:  
DISTRIBUTION:

LETTER DATE:

ACKNOWLEDGED  
SPECIAL HANDLING:

NOTES:

FILE LOCATION:

DATE DUE: 04/22/2011

DATE SIGNED:

(b)(5)

EDO --G20110278

COMMITTEES  
NATURAL RESOURCES  
RANKING DEMOCRAT  
ENERGY AND COMMERCE

EDWARD J. MARKEY  
7TH DISTRICT, MASSACHUSETTS

7108 RAYBURN HOUSE OF FICE BUILDING  
WASHINGTON, DC 20515-2107  
(202) 225-2836

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-2107**

DISTRICT OFFICES:

6 HIGH STREET, SUITE 101  
MEDFORD, MA 02155  
(781) 396-2900

188 CONCORD STREET, SUITE 102  
FRAMINGHAM, MA 01702  
(508) 875-2900

<http://markey.house.gov>

April 15, 2011

The Honorable Greg Jaczko  
Chairman  
Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Dear Chairman Jaczko:

I write to express my concern regarding the post-Fukushima meltdown inspections currently being conducted by Nuclear Regulatory Commission (NRC) personnel at U.S. nuclear power plants. According to reports I have received, the NRC has decided to keep the results of most of these investigations secret, and their scope and depth may be severely constrained. As such, they may not provide the sort of information needed to adequately assess, let alone remedy, the safety of U.S. nuclear facilities.

As you know, on March 23 the Commission voted to require a multi-phase review<sup>1</sup> of U.S. nuclear reactor safety in the wake of the Japanese meltdown. The near-term review portion of these efforts called for the establishment of a task force to:

“Evaluate currently available technical and operational information from the events that have occurred at the Fukushima Daiichi nuclear complex in Japan to identify potential or preliminary near term/immediate operational or regulatory issues affecting domestic operating reactors of all designs, including their spent fuel pools, in areas such as protection against earthquake, tsunami, flooding, hurricanes; station blackout and a degraded ability to restore power; severe accident mitigation; emergency preparedness; and combustible gas control.”

The task force was additionally directed to develop near-term recommendations for regulatory and other changes, and is also required to inform its efforts using stakeholder input. The longer (90 day) review is supposed to include more extensive stakeholder input, and the task force was directed in this phase to “evaluate all technical and policy issues related to the event to identify potential research, generic issues, changes to the reactor oversight process, rulemakings, and adjustments to the regulatory framework that should be conducted by NRC.” All of the results of these efforts were supposed to be made public.

---

<sup>1</sup> Tasking Memorandum – COMBJ-11-0002 - NRC Actions Following The Events In Japan

I have recently learned that the NRC has initiated inspections at operating nuclear power plants for purposes of assessing the operational or regulatory issues that may have arisen as a result of the Fukushima meltdown, and that the results of these inspections, which are intended to inform the 90 day review, must be completed by April 29. I have also learned of the following constraints that have been placed on these inspections:

- The NRC is only allowing its inspectors 40 hours in which to perform each inspection for nuclear power plants that contain one nuclear reactor. For nuclear power plants with more than one unit, inspectors are being provided with only 50-60 hours total in which to complete their work.
- The NRC inspectors were initially told to limit their inspections to the adequacy of safety measures needed to respond to Design Basis Events. This meant that inspectors would be assessing licensees' ability to withstand and respond only to events that have already been contemplated and analyzed by the NRC and for which regulatory requirements have been implemented, but not events such as the ones that occurred in Japan, which were previously believed to be impossible.
- After several NRC inspectors complained that it made no sense to limit the scope of the inspections to Design Basis Events, the guidance was changed to enable inspectors to look beyond them; however, they were explicitly told not to record any of their beyond Design Basis observations or findings in documents that would be made public as part of the Commission's review or public report(s). Instead, these findings would be entered into a private NRC database and kept secret.

These limitations, if true, severely undermines my confidence in the Commission's interests in conducting a full and transparent assessment of the ability of U.S. nuclear power plants to be kept safe in the event of an incident that exceeds the current design basis assumptions regarding earthquakes or electricity outages -- such as the ones that occurred in Japan. This also seems entirely at odds with the Commission-approved direction to study the implications of the Fukushima meltdown on U.S. facilities and report publicly on the findings of the study. This is unacceptable, and must immediately be remedied. We should stand prepared to learn from the catastrophe in Japan and plan ahead to address what was unforeseen but occurred anyway, rather than attempting to hide our vulnerabilities from public view and, potentially, use the fact that the information will be kept secret to avoid taking all necessary regulatory action. In order to better understand what the NRC is doing here, I request that you please respond to the following questions and requests for information:

1. Who at the Commission made the decisions to a) initially direct its inspectors to limit the scope of the inspections to Design Basis Events and b) subsequently direct its inspectors not to record findings or observations of any beyond Design Basis Events in a manner that would result in the public disclosure of any identified vulnerabilities? Please provide me with a copy of all documents (including reports, emails, correspondence, memos, phone or meeting minutes or other materials) related to both the

decisions regarding the scope of the inspections as well as the manner in which inspection findings and observations would be recorded and reported.

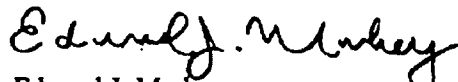
2. Will you immediately reverse the current direction to NRC inspectors to keep all findings and observations of vulnerabilities of U.S. reactors to beyond Design Basis events secret and excluded from all public reports on the Commission's Fukushima review? If not, why not?
3. The NRC review is supposed to evaluate the currently available information from the events that occurred in Japan to identify changes that might be needed at U.S. nuclear power plants of all designs. For each of the following events that are known to have occurred in Japan, please indicate a) whether the event in question is considered to be a "design-basis event" by the NRC, b) whether NRC inspectors will be required to evaluate whether the U.S. nuclear power plants they are inspecting are capable of preventing or mitigating such an event, c) if not, why not, since the Commission clearly stated that all such events were supposed to be analyzed, d) if not, how regulatory or other recommendations will be developed that ensure that U.S. nuclear power plants are capable of preventing or mitigating such an event, e) whether the findings and observations associated with the inspections designed to evaluate U.S. ability to prevent or mitigate such an event will be made public as part of the NRC's 30, 60 and 90 day reports (and if not, why not), and f) whether the NRC intends to address U.S. vulnerability to the event at all through regulatory or other requirements.
  - i) An earthquake that is more severe than the one the nuclear power plant was designed to withstand.
  - ii) For coastally-located nuclear power plants, a tsunami that is more severe than the one the nuclear power plant was designed to withstand.
  - iii) A loss of operating power that is longer than current regulations are required to address.
  - iv) A total station blackout (i.e. loss of operating power and failure of emergency diesel generators) that is longer than current regulations are required to address.
  - v) A hydrogen explosion that occurs due to the buildup of hydrogen in the core or other areas of a nuclear reactor due to the failure of mitigation technologies such as hardened vents or hydrogen re-combiners, and the causes of such failures.
  - vi) A hydrogen explosion that occurs due to the buildup of hydrogen in the spent fuel storage area of a nuclear reactor due to the absence of mitigation technologies such as hardened vents or hydrogen re-combiners.

- vii) A breach in the containment vessel of a nuclear reactor core caused by a hydrogen explosion.
  - viii) A breach in the structure of a spent nuclear fuel storage area due to an earthquake or hydrogen explosion.
  - ix) The failure of the recirculation pump seals within the reactor pressure vessel which may prevent cooling water from fully filling the pressure vessel and thus covering and cooling the nuclear fuel rods contained therein.
  - x) The failure of one or more safety relief valves within the primary containment area that could enable the transfer of radioactive core material between the drywell and the torus.
  - xi) The potential melting of core material through the pressure vessel and into the drywell or torus of the nuclear reactor.
  - xii) The failure of the isolation condenser and/or reactor core isolation cooling systems and subsequent inability to provide cooling function to the nuclear reactor cores.
  - xiii) The failure of the primary containment vessel spray cooling and core spray systems.
  - xiv) The failure of systems used to cool spent nuclear fuel storage areas, including areas that contain varying amounts of spent nuclear fuel of varying ages.
  - xv) The failure of diagnostic equipment to accurately monitor temperature, water levels, hydrogen/oxygen concentrations, pressures and radiation onsite, both during a total station blackout and after basic electricity function is restored (such as if the devices have been damaged by water, radiation or other events).
  - xvi) The absence of a source of fresh cooling water with which to cool the reactor core and spent nuclear fuel storage areas.
  - xvii) The absence of a means by which to store large quantities of highly radioactive water that has leaked or spilled after being used to cool the core and spent nuclear fuel storage areas.
  - xviii) Repeated earthquake aftershocks that further threaten the integrity of the already-compromised reactor core, spent nuclear fuel storage areas, and emergency operations.
  - xix) The ability to manually repair or restore function associated with any of the above failures or events when faced with extremely high levels of radiation that may threaten the health and safety of those both on and offsite.
4. The Commission directed its staff to obtain external stakeholder input as part of both its near-term and longer-term work. Please fully describe all plans to solicit such input. Specifically, will any licensee or other nuclear industry personnel be accompanying inspectors during these inspections at nuclear power plants? If so, will NRC also ensure that appropriate non-industry individuals that possess the appropriate expertise and security clearances are also provided such an opportunity?

5. Why have inspectors only been provided with 40 hours (or 50-60, in the case of a multi-unit nuclear power plant) with which to complete their work? Why does the Commission have confidence that the necessary knowledge with which to inform our own safety efforts can be obtained in such a short period of time?

Thank you very much for your attention to this important matter. Please provide your response no later than Friday April 29, 2011. If you have any questions or concerns, please have your staff contact Dr. Michal Freedhoff of my staff at 202-225-2836.

Sincerely,

  
Edward J. Markey

EDO Principal Correspondence Control

FROM: DUE: 04/07/11

EDO CONTROL: G20110216  
DOC DT: 03/20/11  
FINAL REPLY:

Nicholas R. White  
Manchester, Massachusetts

TO:

Chairman Jaczko

FOR SIGNATURE OF :

\*\* PRI \*\*

CRC NO: 11-0155

Leeds, NRR

DESC:

Fukushima Daiichi Nuclear Plant Accident -  
Implications for U.S. Nuclear Plants  
(EDATS: SECY-2011-0172)

ROUTING:

Borchardt  
Weber  
Virgilio  
Ash  
Muessle  
OGC/GC  
Wiggins, NSIR  
Doane, OIP  
Burns, OGC  
Wittick, OEDO

DATE: 03/29/11

ASSIGNED TO:

NRR

CONTACT:

Leeds

SPECIAL INSTRUCTIONS OR REMARKS:

Add EDO and OCM on for concurrence. EDO and OCM to  
review response prior to dispatch.

Template: SECY-017

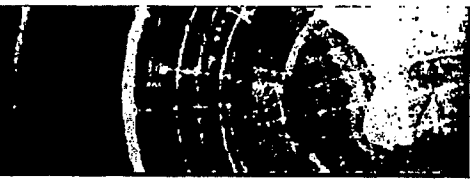
E-RIDS: SECY-01

FX 394 of 728



# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0172

**Source:** SECY

## General Information

**Assigned To:** NRR

**OEDO Due Date:** 4/7/2011 11:00 PM

**Other Assignees:**

**SECY Due Date:** 4/11/2011 11:00 PM

**Subject:** Fukushima Daiichi Nuclear Plant Accident - Implications for U.S. Nuclear Plants

**Description:**

**CC Routing:** NSIR; OIP; OGC

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110216, LTR-11-0155

**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:** NRR

**Urgency:** NO

**Approval Level:** No Approval Required

**OEDO Concurrence:** YES

**OCM Concurrence:** YES

**OCA Concurrence:** NO

**Special Instructions:** Add EDO and OCM on for concurrence. EDO and OCM to review prior to dispatch.

## Document Information

**Originator Name:** Nicholas R. White

**Date of Incoming:** 3/20/2011

**Originating Organization:** Citizens

**Document Received by SECY Date:** 3/29/2011

**Addressee:** Chairman Jaczko

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Letter

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Mar 25, 2011 08:49

PAPER NUMBER: LTR-11-0155                      LOGGING DATE: 03/25/2011  
ACTION OFFICE: EDO

AUTHOR: Nicholas White  
AFFILIATION: MA  
ADDRESSEE: Gregory Jaczko  
SUBJECT: Fukushima Dalichi nuclear plant accident - implications for U.S. nuclear plants

ACTION:  
DISTRIBUTION:

LETTER DATE:  
ACKNOWLEDGED  
SPECIAL HANDLING:  
NOTES:  
FILE LOCATION:

(b)(5)

DATE DUE: 04/08/2011                      DATE SIGNED:  
//

EDO --G20110216

(b)(6)

3/20/2011

Chairman Gregory B. Jaczko  
Nuclear Regulatory Commission  
11545 Rockville Pike,  
Rockville, MD 20852.

Dear Chairman Jaczko,

**Fukushima Daiichi Nuclear Plant Accident - Implications for US Nuclear Plants.**

You were shown on television on Wednesday March 16th speaking of the problem in the spent fuel ponds and in particular the pond in reactor building #4. NRC's account of the progress of the incident acknowledged that the cooling ponds, particularly of No. 3 and No. 4 reactors, may pose the greatest threat.

The necessary openness seems to be lacking in NRC documents relating to similar US plants, and I write to request specific answers to questions and for a more frank inclusion of these issues in publications from NRC.

I am an industrial physicist and obtained my doctorate working at the Nuclear Physics Department of Oxford University. I am a US citizen.

An NRC public document relating to the incident's implications was posted March 19<sup>1</sup>. I shall refer to this document as FAQs. It does not mention spent fuel. However I gather that industry confidential documents do so<sup>2</sup>.

According to Tokyo Electric Power Company in March 2010, there were/are 1760 tons of uranium in spent fuel rods stored in 7 ponds and one dry storage facility at Fukushima Daiichi<sup>4</sup>. Their presentation makes clear that the racks were modified to increase the quantity and density of fuel stored in each pond over the original design. Each reactor has a pond located at the top of the reactor structure. Each pond contains substantially more fuel than the payload in the reactor, for a total of up to 4.5 times the payload. The fuel is stored outside the containment. The only partition between the pond and the environment is a sheet metal wall and roof.

The sheet metal wall was blown away in reactors 1, 2, and 3, and fires have burned large holes in the wall of reactor 4, according to press reports and Google Earth pictures. Thus four spent fuel ponds are open to the atmosphere. Each is apparently loaded to the maximum possible, and at 3,450 fuel assemblies in each, they are loaded beyond the original design limit.

Precise knowledge of the water levels in the ponds is not available, and at the time of writing it is believed that water levels are being increased. Some statements seems to

indicate that there has always been some water in all the ponds - but it would be good to hear this confirmed. Pond 4 is structurally compromised, and Pond 3 contains spent mixed fuel - i.e. a mix for uranium and plutonium. There has been a statement that the in-ground pond number 7 was stable. The status of the dry long-term on-site storage has not been clarified publicly.

With this summary of my present understanding, may I pose the following questions to you and to the NRC, and suggest that these be answered publicly, possibly by posting on the web along with the other FAQs relating to the issue, and promptly:

1. Concerning spent fuel pond location
  - a) In how many sites in the US are the spent fuel ponds located at elevated locations as at Fukushima?
  - b) In how many sites in the US are the spent fuel ponds located in the reactor buildings?
  - c) In what fraction of sites in the US are the spent fuel ponds below grade level?
  - d) In how many sites in the US are the spent fuel ponds enclosed by walls which could easily be penetrated by a projectile such as a bullet or a small plane?
  - e) What is the largest quantity of spent fuel stored in a single pond in a United States reactor facility?
  
2. In the event of the loss of the coolant in a spent fuel pond, the fuel cladding will catch fire. What further events could or will occur?
  - a) Will the racks collapse?
  - b) If intact spent fuel rods collapse into the base of the pond, will they become critical in the absence of water? If water is subsequently applied?
  - c) What are the levels of plutonium isotopes in spent fuel rods in ponds in commercial reactors around the US? What proportion of the rods in use are composed of mixed fuel? How does this modify the previous answer 2b?
  
3. Reactors are often designed so that in the event of a meltdown, the molten fuel flows to a large distributed area within the containment, so as to prevent a critical mass from assembling. This precaution has not been applied to the ponds, so far as we have been told.
  - a) What passive safety measures are implemented, and in which facility designs, to prevent criticality in a worst-case scenario in cooling ponds?
  
4. Original intent in this BWR design was that spent fuel would be stored in the elevated pond only until initial activity was reduced - around 3 years.
  - a) What is the longest time that spent fuel rods have been kept in an elevated storage pond in the US?
  - b) In Fukushima, storage density was increased above the initial design. Press reports state the US increase in storage density in the ponds is greater. What is the mean and the maximum storage density in spent fuel ponds in the US?

5. The FAQs document states that reactors are designed to withstand specified ground movements. Values are not given.
- What are the horizontal acceleration and amplitude magnitudes used in the design and certification of US reactor facilities? Define the range of values used in US facilities if these vary by location.
  - Are these accelerations applied across the entire facility, including ponds, generators, auxiliary equipment, and to non-critical equipment capable of inflicting damage?
  - What will happen to the water level in approved pond designs during movement at these limits? Include a discussion of resonance.

6. In the Chernobyl event, the amount of non-volatile material dispersed was far higher than anticipated, reported by international agencies as between 3 and 6 tons<sup>5</sup>. In the event of a fire in stored spent fuel in a storage pond from which most of the water has been lost, what are the current estimates of the fraction of the fuel that can be vaporized, atomized, dispersed as fume and smoke, and distributed into the atmosphere?

7. With hindsight, what passive features of the reactor facility design would have helped at Fukushima, that had been omitted? For example:

- Pond location
- Pond containment
- Backup means of providing water, such as passive standpipes
- Runoff control

8. NRC stated that 'The damage to Fukushima Daiichi nuclear power station appears to have been caused by initiating events outside of the design basis for the facilities.'<sup>2</sup> This comes just after stating: "The NRC continues to determine that US nuclear plants are safe. This does not change the NRC's perception of earthquake hazard (i.e., ground motion levels) at US nuclear plants."<sup>1</sup>

- At this point, do you consider that the spent fuel rods posed a significant hazard?
- The design basis of Fukushima was inadequate. NRC states that all design rules for US plants have been based on local conditions. Does this mean generally that the safety margins should be increased?
- Has the NRC already come to the conclusion that spent fuel creates a greater hazard than was appreciated in the previous century. If so, a great deal of remedial work should have commenced six or so years ago. Has it? If not, why not?

9. In December 2006, the Nuclear Energy Institute (NEI) issued NEI 06-12, Revision 2, "B.5.b Phase 2 & 3 Submittal Guideline." NEI 06-12 is designated 'for Official Use Only – Security Related Information (OUO-SRI)'. Does this mean that the existence of spent fuel pond hazards, their nature, and their solutions, is being withheld from the public on security grounds?

10. Press reports are conflicting about the existence of backup generators onsite at US plants. What is the minimum requirement for backup power at US nuclear power plants: capacity, number, fuel reserves, fuel storage, protection?

I am concerned that the spent fuel rod issue is perceived by NRC as very serious, but that the information is being withheld from the public for ostensible security reasons. If this is true, the public must be made aware that they are having the facts concerning the risks hidden from them. The risk balance between alerting terrorists to target opportunities (surely too late in many instances) and concealing intrinsic safety and preparedness deficiencies has been altered by the events in Japan.

This is an open letter. I intend to seek answers to the questions posed, and others, wherever appropriate, and to ensure that the answers are made public. These questions were prompted in part by your own comments, and are posed with the goal of trying to constructively learn lessons from these sad events. NRC has so far failed to address these issues in its publicly posted documents. I remain personally agnostic with regard to the future role of nuclear power in providing electricity, but I am certain that there have been failures that we cannot afford to repeat.

Sincerely,



Dr. Nicholas R. White.

References:

1. 'NRC frequently asked questions related to the March 11, 2011 Japanese Earthquake and Tsunami', <http://www.nrc.gov/japan/faqs-related-to-japan.pdf>
2. <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2011/ML110760432.pdf>
3. In December 2006, the Nuclear Energy Institute (NEI) issued NEI 06-12, Revision 2, "B.5.b Phase 2 & 3 Submittal Guideline." NEI 06-12 is designated for Official Use Only – Security Related Information (OUO-SRI). NEC endorsed this document and publicly discusses in general terms the issues it raises including spent fuel pond loss of coolant.
4. [www.nirs.org/reactorwatch/accidents/6-1\\_powerpoint.pdf](http://www.nirs.org/reactorwatch/accidents/6-1_powerpoint.pdf)
5. Nuclear Energy Agency, OECD, Volume 3, No. 1, p.230. Chernobyl: Assessment of Radiological and Health Impacts, 2002 Update of *Chernobyl: Ten Years On*

EDO Principal Correspondence Control

FROM: DUE: 05/03/11

EDO CONTROL: G20110264  
DOC DT: 04/04/11  
FINAL REPLY:

Representative John J. Duncan, Jr.

TO:

Chairman Jaczko

FOR SIGNATURE OF :

\*\* GRN \*\*

CRC NO: 11-0220

Borchardt, EDO

DESC:

ROUTING:

Suggestion for Remediation of the Japanese Nuclear  
Disaster (EDATS: SECY-2011-0224)

Borchardt  
Weber  
Virgilio  
Ash  
Muessle  
OGC/GC  
Sheron, RES  
Leeds, NRR  
Burns, OGC  
Schmidt, OCA

DATE: 04/14/11

ASSIGNED TO:

CONTACT:

EDO

Rihm

SPECIAL INSTRUCTIONS OR REMARKS:

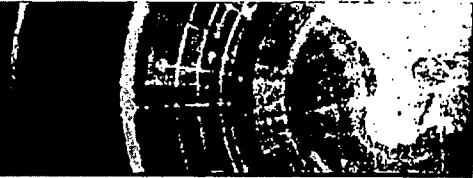
Please prepare response in accordance with OEDO  
Notice 2009-0441-02 (ML093290179). RES and NRR to  
provide input to Roger Rihm, OEDO, if required.  
Roger Rihm will coordinate response with OGC and  
OCA.

Template: SECY-017

E-RIDS: SECY-01  
FX 401 of 728

# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0224

**Source:** SECY

## General Information

**Assigned To:** OEDO

**OEDO Due Date:** 5/3/2011 11:00 PM

**Other Assignees:**

**SECY Due Date:** 5/5/2011 11:00 PM

**Subject:** Suggestion for Remediation of the Japanese Nuclear Disaster

**Description:**

**CC Routing:** RES; NRR

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110264, LTR-11-0220

**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

**Signature Level:** EDO

**Sensitivity:** None

**Urgency:** NO

**Approval Level:** No Approval Required

**OEDO Concurrence:** NO

**OCM Concurrence:** NO

**OCA Concurrence:** NO

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

## Document Information

**Originator Name:** Representative John J. Duncan, Jr.

**Date of Incoming:** 4/4/2011

**Originating Organization:** Congress

**Document Received by SECY Date:** 4/14/2011

**Addressee:** Chairman Jaczko

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Letter



OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Apr 13, 2011 10:37

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PAPER NUMBER: LTR-11-0220 LOGGING DATE: 04/13/2011  
ACTION OFFICE: EDO

AUTHOR: REP John Duncan  
AFFILIATION: CONG

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SUBJECT:

ACTION:  
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LETTER DATE:

ACKNOWLEDGED  
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(b)(5)

DATE DUE: 05/05/2011 DATE SIGNED:

JOHN J. DUNCAN, JR.  
2ND DISTRICT, TENNESSEE

2207 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-4202  
PHONE: (202) 225-5435  
FAX: (202) 225-6440

800 MARKET STREET, SUITE 110    200 E. BROADWAY AVE, SUITE 414  
KNOXVILLE, TN 37902    MARYVILLE, TN 37804-5782  
PHONE: (865) 523-3772    PHONE: (865) 984-5464  
FAX: (865) 544-0728    FAX: (865) 984-0521

6 EAST MADISON AVENUE COURTHOUSE  
ATHENS, TN 37303-4297  
PHONE: (423) 745-4571  
FAX: (423) 745-6025

Congress of the United States  
House of Representatives  
Washington, DC 20515-4202

April 4, 2011

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GOVERNMENT MANAGEMENT, ORGANIZATION,  
AND PROCUREMENT

Mr. Gregory B. Jaczko  
Chairman  
U.S. Regulatory Commission  
Mail Stop O-16G4  
Washington, D.C. 20555

Dear Chairman Jaczko:

I have been contacted by Robert Gentry, a Nuclear Physicist in my district.

Mr. Gentry has done extensive research over three decades and may provide some useful suggestions for remediation of the Japanese Nuclear Disaster.

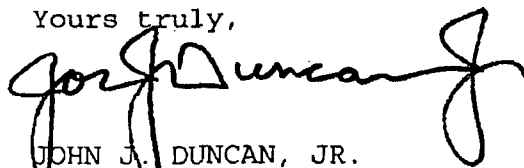
Mr. Gentry also researched activities involving high level radioactive solutions while a Visiting Scientist in the Chemistry Division at the Oak Ridge National Laboratory in Oak Ridge, Tennessee. During the mid 1990's, Mr. Gentry served as a Nuclear Waste Specialist at ATEC, a nuclear waste remediation company in Oak Ridge.

I am including the documents Mr. Gentry sent both my office and the Japanese Embassy in Washington, D.C.

My hope is that his work can help assist your staff in their analysis of the recent nuclear disaster.

With kindest regards, I am

Yours truly,



JOHN J. DUNCAN, JR.  
Member of Congress

JJD:HS Enclosure

Summary: Suggestions for remediation of the Japanese nuclear disaster, by Nuclear physicist Robert V. Gentry of Earth Science Associates, P. O. Box 12067, Knoxville, TN, 37912, 865-947-4726. Email: [esa@halos.com](mailto:esa@halos.com)

Because of my earlier research activities involving high level radioactive solutions while a Visiting Scientist in the Chemistry Division at the Oak Ridge National Laboratory in Oak Ridge, Tennessee, and also as a nuclear waste specialist at ATEC, a nuclear waste remediation company in Oak Ridge during the mid 1990s, I have a few elementary suggestions that may assist in alleviating the dire circumstances confronting those in charge of clean-up of the nuclear disaster now facing Japan.

First, to establish my credentials I refer to the fact that in April 1982, while still at the Oak Ridge National Laboratory, I published an article, together with my ORNL colleagues, in the well-known scientific journal, *Science* 218, 296 (1982), titled, *Differential Lead Retention in Zircons: Implications for Nuclear Waste Containment*, a copy of which is here attached.

<<...>> It describes the evidence showing that encapsulation of high level nuclear wastes in laboratory-synthesized zircons would be a very long term safe procedure for containment of these wastes in deep granite drill holes. I believe this may have application for remediation of the nuclear wastes from the present radiation disaster areas in Japan.

Very shortly after its publication this article came to the attention of the print media and also to the attention of the United States Senate, which at that time was considering options for potential sites for the long term safe storage of high level nuclear wastes. After some discussion of it on the Senate floor, Mississippi Senator Thad Cochran moved that it be published in its entirety, along with his own supporting remarks, in the *Congressional Record* of that day, April 30, 1982. Later in this email I discuss briefly how the results in this article relate to the Japanese reactor disasters cleanup.

From news reports coming from Japan I understand you face several critical issues, one of the most important ones being what to do with the large volumes of high-level activity contaminated water now in contact with the fuel rods in the reactors themselves, and perhaps also in separate fuel rod storage pools. Obviously this removal must be done so that workers can access those areas for remediation without receiving life-threatening radiation doses from the two worst radionuclides, Iodine-131, a relatively low energy beta emitter, and Cesium-137, a relatively high energy 662 keV gamma emitter.

The first step -- The main problem in pumping out the waste is that apparently there is no high volume safe receptacle immediately available where this high volume, level waste can be stored. Without this immediate availability there is apparently thought of pumping it out to sea. This is of course is a very bad idea because this would contribute greatly to the spread of the activity, not its containment, and hence further contribute to the fears of the Japanese people -- and perhaps of those in other nations -- even those in the U. S. as well that they too will be adversely affected by the spread of this radiation. Another idea is needed that would allow quick resolution of this first basic problem.

One idea comes to mind, one that should be easily accessible for the Japanese authorities to put into effect without a significant delay. It is simply this. A very large fleet of gas tanker trucks that are normally used to transport gasoline and other similar fuels should be quickly commandeered from across Japan and rushed to the disaster sites for transfer of the wastewater to them. Obviously, lead shielding would be needed to reduce radiation hazards to the driver while the waste-water-laden tanker was in transit away from the high level radiation sites.

The second step -- Having accomplished this transfer, it's obvious that what needs to now happen is for the Iodine -131 and Cesium -137 to be extracted from the tanker waste solutions and concentrated into much smaller volumes, thus leaving the waste water in a low-activity state suitable for -- most importantly -- re-use in cooling the fuel rods, rather than having to use huge volumes of fresh water, which obviously is at a premium in these situations.

In the nuclear industry several adsorbents are well known that have very high adsorption coefficients for Iodine and Cesium. Adsorbents for high adsorption of plutonium, uranium, and the various fission-product rare earths, are also well known. As Japanese nuclear authorities are most surely aware, the contact of these adsorbents in aqueous solution with the waste water is a tried-and-true method to do exactly what needs to be done under these conditions, which is to concentrate the bad actors Iodine-131 and Cesium-137 -- and whatever other activities such as U-235, U-233, U-238 and Pu-239 (especially) -- are also desired to be scavenged and concentrated into relatively small quantities so they can be safely transported away from the Fukushima site and allow remediation to continue, without the quite hazardous activity levels now existing there and the surrounding complexes.

The extraction and denuclearization of the wastewater -- One simple plan for relatively easy radionuclide extraction would be to set up a flexible pipeline connecting one tanker filled with waste water to the extraction vessel loaded with the appropriate adsorbent. In this case the water exiting the extraction vessel

would be greatly reduced in activity, so much so that it could then either be useable for direct reinsertion into the reactor for cooling or, if necessary, for it to pass through another extraction to bring the activity down sufficiently so that it could then be re-used for cooling. In the latter case this could be accomplished using two or more tankers in tandem with the extraction module operating in between.

So far, so good, but an even bigger problem will then loom on the nuclear horizon -- namely, what to do about the long term safety and storage of the concentrated radionuclides and, even more importantly, of the radioactivity in spent and damaged fuel rods from these reactors. The news I have just read from Japan indicates quite possibly the reactors will not be restarted. This means both the relatively small amounts of concentrated waste radionuclides -- as well as the much larger quantity of enriched uranium, plutonium and fission products, that will come from the processing and extraction from the fuel rods -- will have to go somewhere else.

My suggestion as to how this problem might be solved focuses on the results referred to earlier; those published in Science in April 1982, which then came to the attention of the U. S. Senate and then published in the *Congressional Record* on April 30, 1982. On the basis of the information in that article it should be relatively easy to encapsulate the relatively small quantities of concentrated radionuclides from the waste water extractions into synthetic zircons prior to burial in deep granite drill holes. Of course these holes could then be sealed to insure the public that there would be no further radiation hazard. Later, soon after this initial emergency situation has been remediated, the same could be accomplished for the enriched uranium, plutonium and fission products that are usually extracted in the re-processing of the spent and damaged fuel rods.

If for any reason you wish to contact me you may do so through my email, [esa@halos.com](mailto:esa@halos.com), or through the address information and/or phone number given at the beginning of this email.

Respectfully,

Robert V. Gentry

## Differential Lead Retention in Zircons: Implications for Nuclear Waste Containment

**Abstract.** *An innovative ultrasensitive technique was used for lead isotopic analysis of individual zircons extracted from granite core samples at depths of 960, 2170, 2900, 3930, and 4310 meters. The results show that lead, a relatively mobile element compared to the nuclear waste-related actinides uranium and thorium, has been highly retained at elevated temperatures (105° to 313°C) under conditions relevant to the burial of synthetic rock waste containers in deep granite holes.*

We report here the measurement of Pb isotope ratios of whole, undissolved zircons, which were loaded directly onto the rhenium filament of a thermal ionization mass spectrometer. This innovation eliminates the Pb contamination introduced in standard chemical dissolution procedures. By using this technique, we were able to measure contamination-free Pb isotope ratios on single, microscopic (~ 50 to 75 μm) zircon crystals, which we estimate contained only ~ 0.2 to 0.5 ng of Pb. We applied this ultralow-level detection method to study the differential retention of Pb in zircons (ZrSiO<sub>4</sub>) extracted from Precambrian granite core samples (1) taken from depths of 960, 2170, 2900, 3930, and 4310 m. These depths correspond to presently recorded temperatures of 105°, 151°, 197°, 277°, and 313°C, respectively (2). We measured about the same <sup>206</sup>Pb/<sup>207</sup>Pb ratio for zircons from all five depths, and we found that the total number of Pb counts measured per individual zircon was, to the limit of our experimental procedures, independent of depth. Taken together, these results strongly suggest that there has been little or no differential Pb loss which can be attributed to the higher temperatures existing at greater depths. As discussed below, this evidence for high Pb retention under adverse environmental conditions appears to have immediate and practical application to the question of long-term containment of hazardous nuclear wastes.

Samples of granite (2) from Los Alamos National Laboratory drill holes GT-2 and EE-2 from all five depths were individually crushed and then passed through different heavy liquid (methylene iodide) separatory funnels to obtain the high-density fraction containing the zircons. This procedure was repeated several times with different samples from each depth. The high-density fraction was then washed thoroughly with acetone to eliminate the methylene iodide residue before being placed on a standard 1 by 3 inch glass microscope slide. Under a polarizing microscope, the zircons were picked out of the high-density fraction with a fine-tipped needle and then loaded either onto pyrolytic graph-

ite disks for ion microprobe analysis or onto V-shaped rhenium filaments, which were mechanically compressed before mass spectrometric measurements. (Surficial residues on the zircons burned off at temperatures well below that used to measure Pb from within the zircons.) Some zircons were analyzed by x-ray fluorescence before mass analysis.

Our efforts to measure lead isotope ratios in zircons with an Applied Research Laboratory ion microprobe failed because of molecular ion interferences. We then concentrated on determining relative abundances of U, Th, and Zr, using mostly an <sup>16</sup>O<sup>-</sup> primary ion beam. Ion count rates were obtained on the <sup>90</sup>Zr<sup>+</sup>, <sup>232</sup>ThO<sup>+</sup>, and <sup>238</sup>UO<sup>+</sup> peaks. The data were then quantified with sensitivity factors obtained from six different National Bureau of Standards glass standards containing Zr, Th, and U. Two or three zircons from three depths were analyzed, and usually four determinations were made from each zircon. Frequently, there were significant differences in the U and Th concentrations from two different locations on the same zircon. The results are given in Table 1 as a range of values obtained from each zircon.

The most important results came from the thermal ionization experiments. The thermal ionization mass spectrometer used in this work is similar to others described previously (3). It has a single magnet with 90° deflection and a 30-cm

central radius of curvature. It is equipped with a pulse-counting detection system to allow complete isotopic analyses to be made on small quantities (<1 ng) of suitable elements ionized from a single filament. The filaments, made of V-shaped rhenium foil 0.64 cm long and 0.08 cm deep (4), were baked out at 2000°C before loading the zircons. Ions are formed by resistive heating of the filament; typical temperatures for this work were 1400° to 1470°C (uncorrected pyrometer readings).

Previous work done to develop a technique for analyzing small lead samples led to the use of silica gel to enhance ionization efficiency (5). Because individual zircons are chemically somewhat similar to silica, we decided to try to analyze lead from individual zircons loaded directly on the rhenium filament. Such a technique would have several advantages over traditional methods: contamination would be essentially eliminated because no chemical separation would be required and, since the zircons are small (~ 50 μm in diameter), they would provide an approximate point source of ions, which is known to optimize ion-optical conditions in the mass spectrometer (6).

Test experiments with zircons from other localities (7) were uniformly successful; ion signals were observed at masses (*m*) 206, 207, and 208 which could definitely be ascribed to Pb isotopes. To help ensure that we were at the correct ion lens conditions, we focused on the <sup>138</sup>BaO<sup>+</sup> peak (the zircons contained some Ba), which was reasonably intense at 1200°C. Surficial residues left on the zircons after the acetone wash burned off before the operating temperature of 1450°C, where the lead signal was measured. Great care had to be exercised to avoid making the temperature too high; very rapid evaporation of the lead occurred only a little above the operating temperature. Typical count rates were 100 to 3000 counts per second for <sup>206</sup>Pb<sup>+</sup>. Traces of thallium (*m* = 203 and 205) were sometimes observed, but burned out more rapidly than the lead. Other than thallium, lead gave the only substantive peaks in the range *m* = 202 to 210. There was, however, a general background generated by the sample; chemically unseparated samples such as these zircons almost always yield such backgrounds. This background has little effect on the 206, 207, and 208 peaks, but made precise measurement of the <sup>204</sup>Pb signal, which was very small, impossible. For example, in an analysis typical of these experiments, 1.6 × 10<sup>5</sup> counts from <sup>206</sup>Pb were collected; the back-

Table 1. Ion microprobe determinations of U and Th concentration ranges in atomic parts per million on separate zircons from 960, 3930, and 4310 m. Calculations were based on a comparison of <sup>238</sup>UO<sup>+</sup>, <sup>232</sup>ThO<sup>+</sup>, and Zr<sup>+</sup> peak sizes and on the assumption that the zircons were pure ZrSiO<sub>4</sub>.

Zircon depth (m)	Th (ppm, atomic)	U (ppm, atomic)
4310	40-85	125-210
4310	63-175	110-550
3930	63-120	83-220
3930	60-90	90-110
960	220-750	465-1130
960	100-275	1250-3300
960	800-2000	240-5300

ground correction was about 40 counts and, after correction, 18 counts remained at mass 204. Although these counts are listed as  $^{204}\text{Pb}$  counts in Table 2, more work is needed to determine how much may be uncompensated background.

Table 2 shows the results of our mass analyses of filaments loaded with single and multiple zircons from five granite cores. The range of  $^{206}\text{Pb}/^{208}\text{Pb}$  values reflects the fact that this ratio varied from one group of zircons to another, and sometimes varied during measurements on a single zircon. These variations are not surprising in view of the ion microprobe analyses, which showed significant U/Th variations at different points on a single zircon ( $^{232}\text{Th}$  decays to  $^{208}\text{Pb}$  and  $^{238}\text{U}$  decays to  $^{206}\text{Pb}$ ). These variable  $^{206}\text{Pb}/^{208}\text{Pb}$  ratios do not furnish any direct information on differential Pb retention in these zircons. For that purpose, it is generally accepted that the radiogenic  $^{206}\text{Pb}/^{207}\text{Pb}$  ratios derived from  $^{238}\text{U}/^{235}\text{U}$  decay are more specific. We note that Zartman's (8) isotopic measurements of Pb, which was chemically extracted from zircons taken from the GT-2 core at 2900 m, yield an adjusted  $^{206}\text{Pb}/^{207}\text{Pb}$  ratio (9) that approximates our ratios.

In a conventional chemical extraction of lead from zircons, the lead measured in the mass analysis is considered to be a combination of radiogenic lead (from U and Th decay) and nonradiogenic lead (from common lead contamination and from some initial lead in the zircon). The radiogenic component is obtained by subtracting out a nonradiogenic component proportional to the amount of  $^{204}\text{Pb}$ . In our experiments, however, the direct loading procedure virtually eliminated the common lead contamination, and we circumvented the need to make adjustments for initial lead in the zircons by accepting only analyses (10) showing a ratio of  $^{204}\text{Pb}$  to total Pb of less than  $2 \times 10^{-3}$ . Thus the  $^{206}\text{Pb}/^{207}\text{Pb}$  ratios shown in Table 2 represent highly radiogenic lead and hence are potential indicators of Pb retention.

We consider that the most important observations on the data in Table 2 are: (i) the fact that the  $^{206}\text{Pb}/^{207}\text{Pb}$  ratios on single zircons closely approximate the ratio obtained when a group of similar zircons was loaded simultaneously on a single filament, (ii) the relative uniformity of the  $^{206}\text{Pb}/^{207}\text{Pb}$  ratios for zircons from all depths, and (iii) the fact that the total number of Pb counts per zircon (the counts in column 4 of Table 2 divided by the product of columns 2 and 3) shows no systematic decrease with depth, as

Table 2. Results of thermal ionization mass measurements for zircons with a  $^{204}\text{Pb}$ /total Pb ratio of less than  $2 \times 10^{-3}$ . The background correction was taken from the 208.5 mass position; it was applied to the raw data to obtain the isotopic abundances, which were used to compute the isotopic ratios. Standard deviations are listed with the Pb isotopic ratios.

Zircon depth (m)	Filaments analyzed	Average zircons per filament	Total Pb counts	Counts of $^{204}\text{Pb}$	$\frac{^{204}\text{Pb}}{\text{total Pb}}$	Average $\frac{^{206}\text{Pb}}{^{207}\text{Pb}}$	Range $\frac{^{206}\text{Pb}}{^{208}\text{Pb}}$
960	4	10	$1.2 \times 10^6$	235	$2 \times 10^{-4}$	$9.6 \pm 0.3$	6.5-9.2
960	4	1	$1.3 \times 10^5$	35	$2.7 \times 10^{-4}$	$9.9 \pm 0.4$	5.8-14
2170	3	5	$8.9 \times 10^5$	269	$3 \times 10^{-4}$	$10.0 \pm 0.4$	6.4-12.4
2900	3	4	$4.1 \times 10^5$	114	$2.8 \times 10^{-4}$	$11.2 \pm 0.3$	4-11.4
3930	2	10	$6.5 \times 10^5$	132	$2 \times 10^{-4}$	$11.0 \pm 0.4$	5.9-8.7
3930	2	1	$8 \times 10^4$	46	$5.8 \times 10^{-4}$	$10.4 \pm 0.1$	3.1-6.9
4310	7	10	$5.6 \times 10^6$	1400	$2.5 \times 10^{-4}$	$9.7 \pm 0.6$	3.4-9.8
4310	2	1	$1.6 \times 10^5$	100	$6 \times 10^{-4}$	$9.8 \pm 0.4$	4.5-10.7

would be expected if differential Pb loss had occurred at higher temperatures. Taken together, items (ii) and (iii) provide strong evidence for high Pb retention in zircons even for a prolonged period in an environment at an elevated temperature. These results have possible implications for long-term nuclear waste disposal.

For example, Ringwood (11, 12) has suggested that highly radiation-damaged minerals that have successfully retained U, Th, and Pb (13) over a significant fraction of earth history might also serve to immobilize high-level nuclear waste in synthetic rock (SYNROC) containers, which could be buried in deep granite holes. Even though zircons are not envisioned as part of Ringwood's special type of synthetic rock waste container, our results are relevant since they show that Pb, which is much more mobile in zircons than U and Th (12, 14), has been highly retained at depths (960 to 4310 m) which more than span the proposed burial depths (1000 to 3000 m) for synthetic rock containers in granite (11). The inclusion of this elevated temperature effect in our samples means that our results provide data which have heretofore been unavailable in support of nuclear waste containment in deep granite. In addition, the contamination-free method we used to analyze the zircons for radiogenic Pb may prove valuable in searching for other minerals suitable for synthetic rock waste containment.

Because it has been suggested that temperatures in the granite formation are rising (15), we do not know precisely how long the zircons have been exposed to the present temperatures. However, by using diffusion theory and the measured diffusion coefficient of Pb in zircon (16), we can estimate future loss of Pb by diffusion in synthetic rock-encapsulated zircons buried at the proposed depths of 1000 to 3000 m (11) if we assume a temperature profile similar to that in the

drill holes. At a burial depth of 3000 m ( $\sim 200^\circ\text{C}$ ), we calculate that it would take  $5 \times 10^{10}$  years for 1 percent of the Pb to diffuse out of a 50- $\mu\text{m}$  crystal. At 2200 m ( $\sim 150^\circ\text{C}$ ) it would take  $7.4 \times 10^{13}$  years, and at 1000 m ( $\sim 100^\circ\text{C}$ ) it would take  $7.7 \times 10^{17}$  years for 1 percent loss to occur (16). Since all these values greatly exceed the  $10^5$  to  $10^6$  years estimated for waste activity to be reduced to a safe level (11), and since, as noted earlier, U and Th are bound even more tightly than Pb in zircons (12, 14), our results appear to lend considerable support to the synthetic rock concept of nuclear waste containment in deep granite holes.

ROBERT V. GENTRY\*  
THOMAS J. SWORSKI

Chemistry Division,  
Oak Ridge National Laboratory,  
Oak Ridge, Tennessee 37830

HENRY S. MCKOWN  
DAVID H. SMITH  
R. E. EBY  
W. H. CHRISTIE

Analytical Chemistry Division,  
Oak Ridge National Laboratory

#### References and Notes

1. A. W. Laughlin and A. Eddy, *Los Alamos Sci. Lab. Rep. LA-6930-MS* (1977). A. W. Laughlin provided the core samples used in this work.
2. R. Laney and A. W. Laughlin, *Geophys. Res. Lett.* **8**, 301 (1981).
3. D. H. Smith, W. H. Christie, H. S. McKown, R. L. Walker, G. R. Hertel, *Int. J. Mass Spectrom. Ion Phys.* **10**, 343 (1972).
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6. D. H. Smith, W. H. Christie, R. E. Eby, *Int. J. Mass Spectrom. Ion Phys.* **36**, 301 (1980).
7. O. Kopp and H. McSween of the Department of Geological Sciences, University of Tennessee, Knoxville, provided zircons from Gjerdstad, Norway; Oaxaca, Mexico; and Henderson County, North Carolina.
8. R. E. Zartman, *Los Alamos Sci. Lab. Rep. LA-7923-MS* (1979).
9. If the  $^{206}\text{Pb}$  in Zartman's (8) Pb isotopic abundances in his zircons is attributed to common lead, the corrected  $^{206}\text{Pb}/^{207}\text{Pb}$  ratio for the zircons from 2900 m is 11.3.
10. This criterion resulted in the rejection of four single zircon analyses whose average  $^{206}\text{Pb}/^{207}\text{Pb}$  ratio was  $8.8 \pm 1.3$ . These lower ratios imply that some zircons contain more initial Pb than others, as noted in some other runs.

11. A. E. Ringwood, *Safe Disposal of High Level Nuclear Reactor Wastes: A New Strategy* (Australian National Univ. Press, Canberra, 1978).

12. A. E. Ringwood, K. D. Reeve, J. D. Tewhey, in *Scientific Basis for Nuclear Waste Management*, J. G. Moore, Ed. (Plenum, New York, 1981), vol. 3, p. 147.

13. V. M. Overby and A. E. Ringwood, *J. Waste Manage.*, in press. See also A. E. Ringwood, *Lawrence Livermore Natl. Lab. Rep. UCRL-15347* (1981).

14. R. T. Pidgeon, J. O'Neill, L. Silver, *Science* 154, 1538 (1966); *Forstchr. Mineral.* 50, 118 (1973).

15. D. G. Brookins, R. B. Forbes, D. L. Turner, A. W. Laughlin, C. W. Naefer, *Los Alamos Sci. Lab. Rep. LA-6829-MS* (1977).

16. In general, if  $R$  is the gas constant,  $T$  is the absolute temperature, and  $D$  and  $Q$  are, respectively, the diffusion coefficient and activation energy of a certain nuclide in a given diffusing medium, then  $D = D_0 e^{-Q/RT}$ , where  $D_0$  is a temperature-independent parameter. In particu-

lar, if  $C_0$  is the initial concentration of that nuclide within a sphere of radius  $a$ , then the average nuclide concentration  $\bar{C}$  within that sphere at some later time  $t$  is given by,

$$\bar{C}/C_0 = \frac{6}{\pi^2} \sum_{n=1}^{\infty} \frac{e^{-\lambda^2 \pi^2 D t / a^2}}{\lambda^2}$$

[see L. O. Nicolaysen, *Geochim. Cosmochim. Acta* 11, 41 (1957)]. We used measured values of  $D_0 = 2.2 \times 10^{-2}$  and  $Q = 38$  kcal/mole for diffusion of Pb in zircon [see Sh. A. Magomedov, *Geokhimiya* 2, 263 (1970)] and a computer program to calculate the times when  $\bar{C}/C_0 = 0.99$  for  $T = 100^\circ, 150^\circ,$  and  $200^\circ\text{C}$ .

17. Research sponsored by the U.S. Department of Energy, Division of Basic Energy Sciences, under contract W-7405-eng-26 with the Union Carbide Corporation.  
\* Visiting scientist from Columbia Union College, Takoma Park, Md. 20112.

3 November 1981; revised 22 January 1982

## Ramón and Maya Ruins: An Ecological, Not an Economic, Relation

**Abstract.** *Economically important trees such as ramón have been shown to have a high density in the civic-ceremonial core zone of ancient Maya ruins. The distribution of such trees is probably the result of their requirements for growth and reproduction, which are optimal on the ruins, and not because they are the descendants of trees planted by the Maya aristocracy.*

The role that the *ramón* tree (*Brosimum alicastrum*) played in Maya culture has been the subject of intriguing speculation. Early reports (1) noted that *ramón* is a common tree on all Maya ruins, leading Puleston (2) to propose that *ramón* was a subsistence alternative for the Classic Maya of the central southern lowlands. Puleston also suggested that its occurrence in the ceremonial precincts and on housemounds at Tikal, Guatemala, was evidence of its cultivation in residential areas. Some Mayanists appear to have accepted this proposal (3); others (4) doubt that the Maya would

have depended entirely on such a resource. Folan *et al.* (5) have suggested that the Maya aristocracy maintained and controlled the distribution of economically important fruit, fiber, bark, and resin trees in the city centers. They also contend the present trees are descendants of those planted by the ancient Maya and that their distribution today corresponds to that in Classic times.

*Ramón* and other economically important species were used by the indigenous people in the past as well as today. But the trees grow on Maya ruins because their requirements for growth and repro-

duction are probably optimal on the ruins, not because the Maya may have cultivated them 1000 years ago. The data from Tikal and from Cobá in the Yucatán, Mexico, we suggest, are probably biased to the *ramón* and associated species (5). If all tree species had been considered, as at Lamanai, Belize, then the frequency and density or dominance of useful trees would probably be no greater than those of nonuseful trees.

We have already described six forest associations commonly occurring at Lamanai (6). *Ramón* occurred in nine transects in only two of the associations—on ruins and in highbush forest. In the latter it was present in only two of eight sampled transects. Three more transects are now included in the data: two ruin sites and a naturally occurring limestone outcrop 12 km south of Lamanai. Even though *ramón* was present in all 12 transects, it was dominant only in two stands.

A correlation matrix (7) with important values (8) was used to determine whether there were naturally occurring groupings in the 12 transects. A dendrogram (Fig. 1) identifies high and low structures among the ruins and highbush forest. On the basis of the measure of similarity the forest-covered limestone outcrop, where there was no evidence of structures, is closer to the high structures than to the low ones.

Six species can be described as being associated with high structures. They are *Brosimum alicastrum* (*ramón*), *Protium copal* (*copal*), *Bursera simaruba* (*chacha*), *Pimenta dioica* (*naba kook*), *Talisia oviliformis* (*kinep*), and *Allophylus camptostachys* (*bikhach*). Four species, *Spondias mombin* (*hu hu*), *Cryosophila argentea* (*akuum*), *Guazuma ulmifolia* (*pixoy*), and *Stemmadenia donnelsmithii* (*chalkin*), were more common on the low structures and throughout the highbush forest (9).

The density of *ramón* trees is greatest on the steep sides of the highest structures, where the soil rarely exceeds 15 cm in depth and covers identifiable structures or collapsed structural limestone material. Because of the softness of the local limestone, roots have caused extensive damage to structures. Soil moisture content is low even during the rainy season, and drainage is rapid from the steep sides of the structures. Because the limestone base is close to the soil surface, there are high concentrations of exchangeable Ca (24,500 ppm) and Mg (500 ppm) as well as high cation exchange capacity and pH (7.5).

Soil depth increases to approximately 25 cm on low structures and plazas. Soil

Table 1. Comparison of the distribution and dominance of *ramón* at three Maya ceremonial centers. Abbreviation: N.A., not available.

Designation of vegetation units	Area sampled (ha)	Number of <i>ramón</i> per hectare	Total trees per hectare	Important trees (percent of total)
<i>Tikal</i>				
0 to 0.5 km	5	63		
0.5 to 1.0 km	5	49		
2.5 to 3.0 km	5	4	N.A.	N.A.
4.5 to 5.0 km	5	71		
<i>Cobá</i>				
A	19.3	56		
B	25.7	13		
E	49.3	1.3		
H	45	6	N.A.	N.A.
J	50	8		
K	50.5	4		
<i>Lamanai</i>				
High structures	15	106	780	53
Outcrop	20	33	780	32
Low structures	25	17	655	17
Highbush	30	12	685	6



**Remarks of Senator Thad Cochran recorded in the Congressional Record on April 30, 1982.**

“There is a great deal of controversy and concern, as has already been expressed, about the [nuclear waste storage] sites the Department of Energy is now considering for possible site characterization. There is no hard evidence that any of them will prove suitable for a permanent repository.

“Past problems with hasty site selection have caused delays and undermined public confidence. As an example, Mr. President, in 1972, the Atomic Energy Commission had to abandon a salt site in Lyons, Kans., that they were planning to use for a waste repository because water was discovered leaking into the mine, and scientists decided the mine had too many holes in it.

“Salt, despite serious problems associated with it, has been a favorite geologic medium with the Department of Energy up to this point because it has been the most extensively studied medium. Even though many experts believe that granite and other forms of crystalline rock may be very promising media, they are not being aggressively investigated. . . .

“The fact is that the time that would be required for characterization of granite falls behind the timetables set by DOE and the schedule that this bill contains as it is now drafted, and it arbitrarily, therefore, eliminates granite from consideration in the selection process.

“This decision flies in the face of scientific evidence that granite may be the best possible medium for a site for nuclear waste disposal.

“As evidence, Mr. President, I cite an article contained in a recent edition (April 16, 1982) of *Science* magazine. The article is authored by scientists affiliated with the chemistry division of the Oak Ridge National Laboratory addressing the question of using natural rock granite as a site to insure the maximum possible degree that radioactive material can be stored in a way that would not permit escape or create any hazard.

“The authors used an innovative ultrasensitive technique for a lead isotope analysis in a natural site of granite at Los Alamos National Laboratory in New Mexico.”The results showed, Mr. President, that lead, which is a relatively mobile element compared with nuclear waste, has been highly retained at elevated temperatures under conditions that are similar to those that would apply to the storage of high-level nuclear wastes in deep granite holes.

“This study is crucial and it is important because it was based not just on laboratory work but on an analysis in a natural site under adverse environmental conditions.

“The Department of Energy should be able to incorporate this kind of finding and this research immediately in its review process. But to follow the dictates of this legislation and the predisposition of the Department to continue studying other kinds of formations would result in their not being able to take advantage of this kind of research. Mr. President, I ask unanimous consent that a copy of this article I have just referred to be printed in the *Record*.”(Cochran 1982, S4307)

Remarks of Senator Thad Cochran recorded in the Congressional Record on April 30, 1982.

"There is a great deal of controversy and concern, as has already been expressed, about the [nuclear waste storage] sites the Department of Energy is now considering for possible site characterization. There is no hard evidence that any of them will prove suitable for a permanent repository.

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6 pgs.

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FROM: DUE: 05/13/11

EDO CONTROL: G20110292

DOC DT: 04/14/11

FINAL REPLY:

State Senator Bob Huff

TO:

Chairman Jaczko

FOR SIGNATURE OF :

\*\* GRN \*\*

CRC NO: 11-0239

Leeds, NRR

DESC:

The Japan Earthquake/Impact and Lessons for  
California - Seismic Issues Surrounding  
California's Nuclear Power Plants  
(EDATS: SECY-2011-0250)

ROUTING:

Borchardt  
Weber  
Virgilio  
Ash  
Muessle  
OGC/GC  
Collins, RIV  
Burns, OGC  
Bowman, OEDO

DATE: 04/22/11

ASSIGNED TO:

CONTACT:

NRR

Leeds

SPECIAL INSTRUCTIONS OR REMARKS:

Template: SECY-017

E-RIDS: SECY-01  
FX 413 of 728

# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0250

**Source:** SECY

## General Information

**Assigned To:** NRR

**OEDO Due Date:** 5/13/2011 11:00 PM

**Other Assignees:**

**SECY Due Date:** 5/13/2011 11:00 PM

**Subject:** The Japan Earthquake/Impact and Lessons for California - Seismic Issues Surrounding California's Nuclear Power Plants

**Description:**

**CC Routing:** RegionIV; OGC

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110292, LTR-11-0239

**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

**Signature Level:** NRR

**Sensitivity:** None

**Urgency:** NO

**Approval Level:** No Approval Required

**OEDO Concurrence:** NO

**OCM Concurrence:** NO

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**Special Instructions:**

## Document Information

**Originator Name:** State Senator Bob Huff

**Date of Incoming:** 4/14/2011

**Originating Organization:** State of California

**Document Received by SECY Date:** 4/22/2011

**Addressee:** Chairman Jaczko

**Date Response Requested by Originator:** NONE

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OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Apr 22, 2011 07:43

PAPER NUMBER: LTR-11-0239                      LOGGING DATE: 04/21/2011  
ACTION OFFICE: EDO

AUTHOR: Bob Huff  
AFFILIATION: CA  
ADDRESSEE: Gregory Jaczko

SUBJECT: The California State Senate Select Committee on Earthquake and Disaster Preparedness,  
Response and Recovery hearing entitled "The Japan Earthquake; The Impact and Lessons for  
CA...submits questions on subject matters

ACTION:  
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CAPITOL OFFICE  
STATE CAPITOL, ROOM 5097  
SACRAMENTO, CA 95814  
TEL (916) 651-4029  
FAX (916) 324-0922

DISTRICT OFFICE  
20888 AMAR RD., SUITE 205  
WALNUT, CA 91789  
TEL (909) 598-3981  
FAX (909) 598-6459

WEB  
WWW.SENATE.CA.GOV/HUFF

# California State Senate

SENATOR  
BOB HUFF

REPUBLICAN CAUCUS CHAIRMAN  
TWENTY-NINTH SENATE DISTRICT

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VICE-CHAIR  
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EDUCATION  
TRANSPORTATION  
AND HOUSING



April 14, 2011

Chairman Gregory B. Jaczko  
U.S. Nuclear Regulatory Commission  
Mail Stop O-16G4  
Washington, DC 20555-0001

Dear Chairman Jaczko:

On Monday, March 21, 2011, the California State Senate Select Committee on Earthquake and Disaster Preparedness, Response and Recovery held a hearing entitled, *The Japan Earthquake: The Impact and Lessons for California*.

At this hearing we heard testimony that the Nuclear Regulatory Commission (NRC) does not include seismicity in the scope of review for relicensing nuclear power plants. Yet, as of April 5, 2011, the commission's website states:

The agency requires plant designs to withstand the effects of natural phenomena including earthquakes (i.e., seismic events). The agency's requirements, including General Design Criteria for licensing a plant, are described in Title 10 of the *Code of Federal Regulations* (10 CFR). These license requirements include traditional engineering practices such as "safety margins." Practices such as these add an extra element of safety into design, construction, and operations.

The NRC has always required licensees to design, operate, and maintain safety-significant structures, systems, and components to withstand the effects of earthquakes and to maintain the capability to perform their intended safety functions. The agency ensures these requirements are satisfied through the licensing, reactor oversight, and enforcement processes.

The website also says:

The licensing bases for existing nuclear power plants are based on historical data at each site. This data is used to determine design basis loads from the area's maximum credible earthquake, with an additional margin included. The NRC also requires existing plants to assess their potential vulnerability to earthquake events, including those that might exceed the design basis, as part of the Individual Plant Examination of External Events Program. This process examines the available

safety margins of existing plants for various earthquakes and ensures these margins, together with the plant's accident management programs, continue to protect public health and safety.

Today, the NRC utilizes a risk-informed regulatory approach, including insights from probabilistic assessments and traditional deterministic engineering methods to make regulatory decisions about existing plants (e.g., licensing amendment decisions). Any new nuclear plant the NRC licenses will use a probabilistic, performance-based approach to establish the plant's seismic hazard and the seismic loads for the plant's design basis.

Therefore, as a member of this committee, I am respectfully seeking answers to the following:

1. Is seismicity included in the scope of review for relicensing? If not, why?
2. Are the seismic safety standards for relicensing an existing nuclear power plant lower than the seismic safety standards for licensing a new nuclear power plant?
3. Must a licensed (or relicensed) operator continue to meet all conditions during the previous licensing (or relicensing) process in order to continue operating under the license?
4. Does the commission already have the authority to suspend or terminate a nuclear power plant's license at any time based purely on the seismic threat? Or is the commission limited to addressing seismic concerns only during the relicensing process?
5. How sufficient are a power plant's NRC-mandated ongoing seismic programs in supporting the informational, decision-making needs of a nuclear power plant's relicensing process? Is additional seismic information required or desirable to support relicensing?

In July 2007, a magnitude 6.8 earthquake in Japan rocked the Kashiwazaki Nuclear Power Plant, the largest nuclear plant in the world. The plant experienced ground motion nearly twice that which was anticipated when the plant was designed, resulting in minor radioactive leaks. The plant was immediately shut down and remained offline for two years. The cost resulting from this loss of power totals more than \$12 billion; \$6 billion in replacement fuel costs and \$6 billion in economic impacts. On March 11, the 9.0 magnitude Tohoku earthquake and related tsunami caused serious and life threatening damage to six nuclear reactors in Japan. Radiation has been emitted from the Fukushima Dai-ichi nuclear plant and there are still problems cooling the reactors and spent fuel.

After Japan, California is one of the most seismically active areas in the world to house Nuclear Power Plants. In fact your commission has reported that the California nuclear plants are the only ones in the nation that are located in the "highest seismic hazard areas". At Diablo Canyon Nuclear Power Plant there are two earthquake faults, the Hosgri fault and the newly discovered Shoreline fault. The Cristianitos fault is located in

close proximity to the San Onofre Nuclear Generating Station. It is clear that seismic activity must be taken into account to ensure our nuclear power plants are safe.

California is at a critical moment in its nuclear history. The NRC is currently reviewing an application from Pacific Gas & Electric to relicense Units 1 and 2 at Diablo Canyon Nuclear Power Plant. Current licenses expire on 2024 and 2025 respectively. Southern California Edison is expected to submit a license renewal application for Units 2 and 3 at San Onofre Nuclear Generating Station in 2012. The current licenses expire in 2022.

When California reactors were permitted in the late 1960's, little was known about offshore seismic faults. In fact, the NRC did not require either SCE or PG&E to look for active faults lying under our coastal waters. By the time San Onofre and Diablo Canyon applied for rate recovery there was one known active fault offshore at each reactor's site and cost overruns to meet revised NRC standards were over \$4 billion.

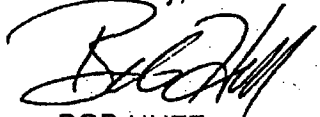
In 2008 the California Energy Commission report, required by Assembly Bill 1632, presented very clear warnings of potential seismic threats for both of California's nuclear plants. The report found that the San Onofre plant could experience "large and more frequent earthquakes than the maximum 7.0 magnitude earthquake predicted when the plant was designed."

In November 2008, the U.S. Geological Service discovered a previously unknown significant fault potentially running directly underneath Diablo Canyon Nuclear Power Plant. This new fault represents the second active fault in the immediate vicinity of the plant. The characteristics of the new fault, as well as its relationship with the first fault, are largely unknown as detailed seismic studies have yet to be completed. In particular, it is unclear if the Shoreline Fault intersects the Hosgri Fault, which is also located offshore of Diablo Canyon. An intersection of the faults could significantly alter previously held assumptions about potential seismic activity and the threat to Diablo Canyon Nuclear Power Plant.

In light of the recent tragedy in Japan and much of the evidence about the seismic issues surrounding California's nuclear power plants, I respectfully request the NRC take all necessary steps possible to protect California by ensuring the safety of our nuclear power plants.

I greatly appreciate your consideration of this request and look forward to your response.

Sincerely,



BOB HUFF  
Senator, 29<sup>th</sup> District



OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Apr 22, 2011 07:44

PAPER NUMBER: LTR-11-0236  
ACTION OFFICE: EDO  
  
AUTHOR: SEN Barbara Mikulski  
AFFILIATION: CONG  
ADDRESSEE: Gregory Jaczko  
SUBJECT: Expresses thanks for NRC's support to Japan and continued efforts to keep domestic plants safe

LOGGING DATE: 04/21/2011

TO: Wiggins, NSIR  
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BARBARA A. MIKULSKI  
MARYLAND

HART SENATE OFFICE BUILDING  
WASHINGTON, DC 20510-2003

(202) 224-4654  
FED: (301) 224-4623

United States Senate  
WASHINGTON, DC 20510-2003

April 20, 2011

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

Dear Chairman Jaczko,

Thank you once again to you and your staff for the outstanding visit on Monday. The wealth of knowledge displayed by your team was highly impressive. The informative briefing and operations center tour were top-notch, and I greatly appreciated the opportunity to learn more about the fantastic work being done by the staff at the Nuclear Regulatory Commission each day.

The NRC is being relied upon to provide support and guidance during the nuclear crisis in Japan, and is working hard to keep domestic plants safe right here in our backyard. The essential work of these federal employees is paramount as we work to ensure a safe energy future. They are working around the clock and deserve the utmost appreciation for their service.

Please thank the staff once again for all that they do. They have my sincere gratitude.

Sincerely,



Barbara A. Mikulski  
United States Senator

SUITE 400  
1628 THAMES STREET  
BALTIMORE, MD 21201  
(410) 952-4810

SUITE 202  
60 WEST STREET  
ANNAPOLIS, MD 21401-2002  
(410) 203-1905

SUITE 401  
6402 RIVER LANE  
GREENBELT, MD 20770-1001  
(301) 251-6001

ROOM 203  
57 WEST WASHINGTON AVENUE  
FREDERICK, MD 21730-1000  
(301) 251-2000

SUITE 100  
210 MARY STREET  
GALVESTON, MD 21021-2001  
(410) 445-2000

OFFICE OF THE SECRETARY  
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Date Printed: Apr 27, 2011 09:16

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LTR-11-0251

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EDO / OIP

To: Leeds, NRR

AUTHOR:

Norio Sasaki

cys: EDO  
DEDMRT  
DEDR  
DEDCM  
AO

AFFILIATION:

JAPAN

ADDRESSEE:

CHRM Gregory Jaczko

SUBJECT:

Expresses appreciation shown in support of Japan

NSIR  
Bowman

ACTION:

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FX 421 of 728

**TOSHIBA CORPORATION**

1-1, SHIBAURA 1-CHOME, MINATO-KU TOKYO 105-8001, JAPAN  
PHONE: +81-3-3457-2007  
FACSIMILE: +81-3-5444-9201

**Norio Sasaki**  
President and Chief Executive Officer

April 21, 2011

The Honorable Gregory Jaczko  
Chairman  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Dear Chairman Jaczko:

I would like to express my appreciation for your enormous support to Japan.

Immediately after the Tsunami, I directed Toshiba's nuclear engineering division to focus as many resources as possible for the safe shutdown and stabilization of the nuclear power units at the Fukushima sites.

In addition to more than 800 Toshiba nuclear engineers, our U.S. business partners, Babcock & Wilcox, the Shaw Group, Westinghouse and Exelon, have gathered their experts at our headquarters in Tokyo and formed a strong U.S./Japan team to support the Fukushima restoration efforts. So far more than 50 U.S. engineers from those companies have worked at the Toshiba headquarters and more than 150 engineers in the U.S. are also supporting these efforts.

The U.S./Japan team has produced a 10 year comprehensive mid/long term Fukushima recovery plan, and has also contributed to important activities such as unmanned aerial vehicle survey, high radiation protection design, spent fuel pool cooling/cleanup design, network monitoring and various other important activities.

Mr. Charles Casto, leading your team in Tokyo, visited us at our U.S./Japan team office in our Tokyo headquarters and we had an opportunity to explain about our mid/long term management plan. We had good discussions on how United States and Japan can work together to overcome the crisis and recover the trust for the nuclear power industry.

Once the four units are stabilized, Japan will need to review existing regulations to consider possible changes for a large Tsunami and other disasters. This will include higher construction ground for new plants and watertight buildings and facilities. In addition to the need for additional protection against a Tsunami, the Fukushima incident has shown us the need to reinforce our protection against emergency and accident management. This will include needs

for alternative power source, alternative cooling methods and counter-measures against hydrogen buildup, as well as other safety issues.

Japanese nuclear safety regulations have long been modeled on those of the United States. With the NRC closely following the situation in Japan, your agency's perspectives will undoubtedly prove valuable as Japan reassess and revises its safety regulations. Such review and revision will require a large effort, but it is needed for the safe future of the nuclear power industry. As part of that, I strongly believe that it is essential to have continued strong international leadership and support from the NRC for nuclear safety.

We appreciate your continuous support and we will make every effort with our partner U.S. companies to restore the Fukushima site as soon as possible.

Best regards,



Norio Sasaki

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: May 04, 2011 10:41

PAPER NUMBER: LTR-11-0264                      LOGGING DATE: 05/04/2011  
ACTION OFFICE: OCA  
  
AUTHOR: SEN Barbara Boxer  
AFFILIATION: CONG  
ADDRESSEE: Gregory Jaczko  
SUBJECT: Post hearing questions from the April 12, 2011 hearing entitled "Review of the nuclear emergency in Japan and implementations for the U.S."

ACTION:  
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JOHN CANTWELL, OREGON  
JESSE SESSIONS, ALABAMA  
MIKE CRAPANZANO, ARIZONA  
LARRY CROWLEY, COLORADO  
TOM COONS, NEVADA  
JOHN CORNYN, TEXAS

## United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

GETTINA ROOPER, MAJORITY STAFF DIRECTOR  
BLINDA WALKER, MINORITY STAFF DIRECTOR

May 3, 2011

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

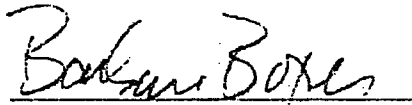
Dear Chairman Jaczko:


Thank you for appearing before the Committee on Environment and Public Works on April 12, 2011 at a joint hearing entitled, "Review of the Nuclear Emergency in Japan and Implications for the U.S." We appreciate your testimony, and we know that your input will prove valuable as we continue our work on this important topic.

Enclosed are questions that have been submitted by Senators Boxer and Inhofe for the hearing record. Please submit your answers to these questions by COB May 17, 2011 to the attention of Katie Lee, Senate Committee on Environment and Public Works, 410 Dirksen Senate Office Building, Washington, D.C. 20510. In addition, please provide the Committee with a copy of your answers via electronic mail to [Katie.Lee@epw.senate.gov](mailto:Katie.Lee@epw.senate.gov). To facilitate the publication of the record, please reproduce the questions with your responses.

Again, thank you for your assistance. Please contact Grant Cope or Kathy Dedrick of the Majority Staff at (202) 224-8832, or Annie Caputo of the Minority Staff at (202) 224-6176 with any questions you may have. We look forward to reviewing your answers.

Sincerely,

  
Barbara Boxer  
Chairman

  
James M. Inhofe  
Ranking Member

FORM 05/14/07 (11-0001)

FX 425 of 728

**Environment and Public Works Committee Hearing**  
**April 12, 2011**  
**Follow-Up Questions for Written Submission**

Questions for Jaczko

Questions from:

Senator Barbara Boxer

1. On April 11<sup>th</sup>, PG&E asked the Nuclear Regulatory Commission to delay issuance of the Diablo Canyon license renewal until after PG&E has completed the 3-D seismic studies and submitted a report to the NRC addressing the results. According to press accounts, the NRC is moving forward with safety and other reviews of Diablo Canyon in preparation for a ruling on PG&E's request for a license extension. What specifically did PG&E communicate to the NRC regarding its request for a license extension? Why is the NRC continuing its review of PG&E's application?

Will the NRC ensure that all stakeholders, including local citizens, are able to comment on the relevance of the 3-D seismic studies as part of the normal NRC relicensing process?

2. The NRC license renewal process does not require a review of emergency planning, security, current safety performance or seismic issues because, according to the NRC, these items are dealt with on an ongoing basis. As a Commissioner you argued that "considering emergency preparedness during the license renewal process would be good public policy and a very valuable exercise." Do you still believe in the value of this analysis?

Are there other issues that could be appropriately addressed within the license renewal process?

3. Do you have an estimate of how long it will take before the Japanese are safely able to maintain cooling and effectively shutdown the reactors? How long does the NRC expect to have staff on the ground in Japan?
4. Can you describe the enhanced inspection activities your resident inspectors are undertaking here in the U.S., in response to the disaster in Japan?
5. The NRC recently issued an information notice to licensees to make them aware of events in Japan and the kind of activities they should undertake. It is my understanding that this notice does not require specific action, but encourages it. Is this understanding correct? If so, do you expect the NRC will issue new requirements (rather than just recommendations) in response to the disaster in Japan?



Senator James M. Inhofe

1. Please provide a list of all dates when the NRC Operations Center was activated in a response mode since 1980. Please include the basis for its activation, the duration of its activation which mode it was in, and a description of the various response modes.
2. Please provide a list of all the occasions since 1980 that an NRC Chairman has exercised emergency authority granted under Section 3 of the Reorganization Plan of 1980. Please indicate the basis for and duration of the exercise of emergency authority.
3. Please provide a comprehensive list of all actions you have taken under your emergency authority since March 11<sup>th</sup>.
4. On April 1<sup>st</sup>, the NRC appointed a task force to examine the agency's regulatory requirements, programs, processes, and implementation in light of information from the Fukushima Daiichi site in Japan, following the March 11 earthquake and tsunami.
  - a. How much do you estimate this review will cost?
  - b. Will the Commission need to reprogram funds from other programs to support this review? If so, from which programs?
  - c. In addition to the announced task force members, how many staff will support this review? Please indicate the offices and programs where they currently work and the estimated time they will spend in support of the review.
5. What, if any, additional resources are needed to ensure that adequate funding of the Fukushima task force does not impair progress on new plant licensing and design certification?
6. Please provide a list of the fees billed under 10 CFR Part 170 to license renewal applicants currently under review and the 20 most recently issued license renewals.

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: May 13, 2011 10:35

PAPER NUMBER: LTR-11-0287

LOGGING DATE: 05/12/2011

ACTION OFFICE: EDO

To: Leeds, NRR

AUTHOR: Isaac Rivera

cys  
EDO  
DEDMRT  
DEDR  
DEDCM  
AD

AFFILIATION: CO

ADDRESSEE: Gregory Jaczko

R1  
Bowman

SUBJECT: In light of the Japan events, urge reconsideration of the licensing of the Vermont Yankee nuclear plant

ACTION:

DISTRIBUTION:

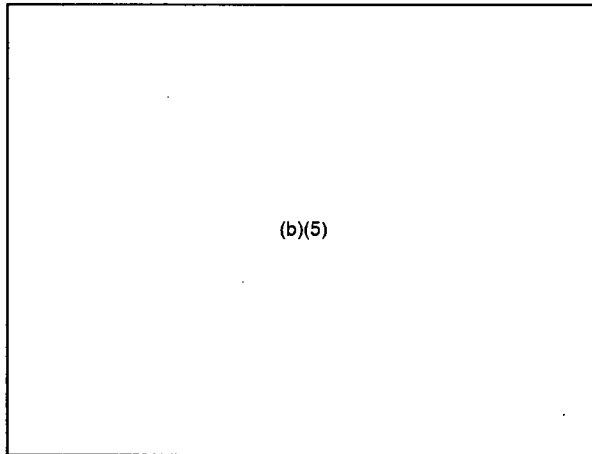
LETTER DATE:

ACKNOWLEDGED

SPECIAL HANDLING:

NOTES:

FILE LOCATION:



DATE DUE:

DATE SIGNED:

Honorable Gregory B. Jaczko  
Chairman  
Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Dear Chairman Jaczko,

In light of the recent events, surrounding nuclear safety in Japan and around the world, I urge you to reconsider the licensing of the Vermont Yankee Nuclear Plant. Your agency, even with a Vermont Senate vote of 26 - 4 against the re-licensing of the plant still managed to give approval to the extension of their operating license. The reason why the Senate vote against the extension was so overwhelming was because of the recent failures within the tower cooling system that failed in 2007, and the amount of tritium leaks that followed soon thereafter. This plant began operations in 1972, it is now 2011 and there is no reason to believe that this plant is in fact safe. The history of its safety record shows that it is clearly in no real condition to safely produce electricity for the people of Vermont.

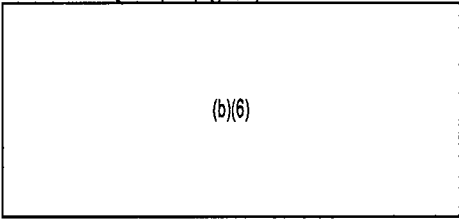
Along with the shattered safety record that the Vermont Nuclear plant currently has, there are many utility companies that could see a future with out the plant at all. Including Dillon, an Electric Counterpart of the Vermont Electric Cooperative. This electric cooperative has managed to produce electricity from methane gas coming from local landfills. With promising alternatives like these that pose no threat to humans or the environment, why allow such an extension?

The primary purpose of the NRC is to protect humans and the environment from nuclear harm. There are 20+ nuclear power plants around the country that were built around the same time as the Vermont Plant, that could still pose some serious damage with nature's unpredictable help or man made systematic failures such as in the state of Vermont. I urge you to stop renewing their licenses in order to prevent any harm to our fellow Americans and it's environment.

Thank you for listening,



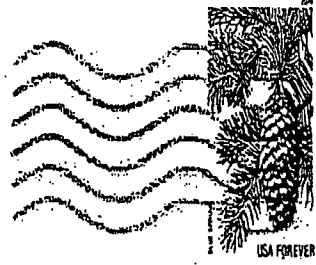
Isaac Rivera



(b)(6)

DENVER CO 802

09 MAY 2011 PM 8:7



Honorable Gregory B. Jacko  
11555 Rockville Pike  
Rockville, MD 20857

2085212738



EDO Principal Correspondence Control

FROM: DUE: 06/24/11

EDO CONTROL: G20110419  
DOC DT: 05/09/11  
FINAL REPLY:

Mike Weightman  
Office for Nuclear Regulation, UK

TO:

Chairman Jaczko

FOR SIGNATURE OF :

\*\* PRI \*\*

CRC NO: 11-0332

Chairman Jaczko

DESC:

Lessons Learned from Events in Japan - Fukushima  
(EDATS: SECY-2011-0329)

ROUTING:

Borchardt  
Weber  
Virgilio  
Ash  
Muessle  
OGC/GC  
Doane, OIP  
Burns, OGC  
Bowman, OEDO

DATE: 06/07/11

ASSIGNED TO:

CONTACT:

NRR

Leeds

SPECIAL INSTRUCTIONS OR REMARKS:

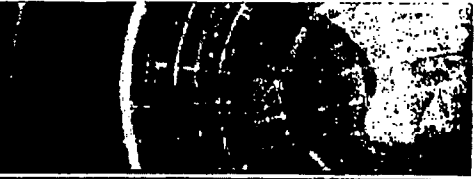
Coordinate response with OIP.

Template: SECY-017

E-RIDS: SECY-01  
FX 431 of 728

# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0329

**Source:** SECY

## General Information

**Assigned To:** NRR

**OEDO Due Date:** 6/24/2011 11:00 PM

**Other Assignees:**

**SECY Due Date:** 6/28/2011 11:00 PM

**Subject:** Lessons Learned from the Events in Japan - Fukushima

**Description:**

**CC Routing:** OIP; OGC

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110419, LTR-11-0332

**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:** Coordinate response with OIP.

## Document Information

**Originator Name:** Mike Weightman

**Date of Incoming:** 5/9/2011

**Originating Organization:** Office of Nuclear Regulation,  
UK

**Document Received by SECY Date:** 6/7/2011

**Addressee:** Chairman Jaczko

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Letter

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Jun 07, 2011 12:57

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PAPER NUMBER: LTR-Y1-0832      LOGGING DATE: 06/07/2011  
ACTION OFFICE: OIP EDO

AUTHOR: Mike Weightman  
AFFILIATION:  
ADDRESSEE: Gregory Jaczko  
SUBJECT: Reporting lessons learned from events in Japan

ACTION:  
DISTRIBUTION:

LETTER DATE:  
ACKNOWLEDGED  
SPECIAL HANDLING:

NOTES:

FILE LOCATION:

(b)(5)

DATE DUE: 06/28/2011      DATE SIGNED:

EDO --G20110419

# Office for Nuclear Regulation

An agency of HSE

Redgrave Court Merton Road Bootle Merseyside L20 7HS  
Tel: 0151 951 4000 www.hse.gov.uk/nuclear

Chairman Gregory Jazkco  
USNRC  
Washington, DC 20555-0001  
USA.

HM Nuclear Installations Inspectorate  
**MIKE WEIGHTMAN**  
HM Chief Inspector  
Direct Dial: (+44) 151 951 4168  
Fax: (+44) 0151 951 4821  
mike.weightman@hse.gsi.gov.uk

9<sup>th</sup> May 2011

Dear <sup>Greg</sup>Gregory

Thank you for a productive discussion recently regarding our responses to the tragic events in Japan. I know we both have great sympathy with the people of Japan regarding their suffering and loss of life. I am very sorry that we never got the opportunity to talk in Vienna, since then I know we have both been extremely busy.

As we discussed, the UK Secretary of State for Energy and Climate Change has asked me to provide a report of the circumstances of the accident at Fukushima. This report has the objective of identifying any lesson to be learnt by the UK nuclear industry, to provide an interim report by the middle of May 2011, with a final report within 6 months. You very helpfully explained that the USNRC has been similarly commissioned

Thank you for agreeing that we should co-operate in our separate and distinct review and report activities. This cooperation will be beneficial for many reasons not least the sharing of information as well as maximising the potential for effective and consistent learning. With this in mind it is good that our activities have parallel timescales.

The picture of events in Japan, and more specifically at the Fukushima Dai-ichi Nuclear Power Plant, is not yet fully clear and I am therefore still developing the scope for my report. My technical assistant, Gary Booth, is acting as Programme Manager for my report and will keep you fully aware of progress. Gary will be the most appropriate contact for your review team and will be in touch shortly to exchange details and advise you regarding the current status of my report.

Thank you once again,

Yours sincerely



**Dr Mike Weightman**  
HM Chief Inspector of Nuclear Installations  
and Head of ONR



July 26, 2011

Dr. Mike Weightman  
HM Chief Inspector of Nuclear Installations  
and Head of ONR  
Office for Nuclear Regulation  
4N1 Redgrave Court, Merton Road  
Bootle Merseyside  
L20 7HS

Dear Dr. Weightman:

It was great to catch up with you during the International Atomic Energy Agency Ministerial Meeting last month. I enjoyed our discussions on insights into the lessons learned from the Fukushima event. Thanks for leading Working Session 1, "Future Actions for Continuous Improvements of Nuclear Installations Safety." I found the discussions beneficial and believe all in attendance found them insightful. We are continuing our review of the event, and earlier this month the NRC staff issued their recommendations from the near term task force. A copy of the task force's report was sent to you via e-mail from Ms. Margaret Doane, Director of NRC's Office of International Programs. The report is with the Commission for consideration and appropriate action. I welcome any comments you may have on our recommendations.

Regarding coordination between our agencies, the Point of Contact for the NRC's lessons learned review is David Skeen, Director, Headquarters Fukushima Team. He can be reached at 301-415-3298 or at [david.skeen@nrc.gov](mailto:david.skeen@nrc.gov). Please have Mr. Booth contact Mr. Skeen, if he has questions or wishes to exchange information.

I look forward to getting together with you at the upcoming General Conference in September.

Sincerely,

/RA/

Gregory B. Jaczko

Dr. Mike Weightman  
HM Chief Inspector of Nuclear Installations  
and Head of ONR  
Office for Nuclear Regulation  
4N1 Redgrave Court, Merton Road  
Bootle Merseyside  
L20 7HS

Dear Dr. Weightman:

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I look forward to getting together with you at the upcoming General Conference in September.

Sincerely,

Gregory B. Jaczko

**DISTRIBUTION:**

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OFFICE	ICA/OIP	BC: ICA/OIP	DD/OIP	D/OIP
NAME	SBloom:	CAbrams:	SMoore:	MDoane:
DATE	07/18/2011	07/18/2011	07/18/2011	07/18/2011

**OFFICIAL RECORD COPY**

EDO Principal Correspondence Control

FROM: DUE: / /

EDO CONTROL: G20110573  
DOC DT: 06/30/11  
FINAL REPLY:

State Representative Al Carlson  
North Dakota House of Representatives

State Representative Tom Holbrook  
Illinois House of Representatives

TO:

Commission

FOR SIGNATURE OF :

\*\* GRN \*\*

CRC NO: 11-0389

DESC:

Lessons Learned from the Events in Japan  
(EDATS: SECY-2011-0439)

ROUTING:

Borchardt  
Weber  
Virgilio  
Ash  
Mamish  
OGC/GC  
Leeds, NRR  
Johnson, NRO  
Satorius, RIII  
Collins, RIV  
Burns, OGC  
Bowman, OEDO

DATE: 08/02/11

ASSIGNED TO:

CONTACT:

FSME

Carpenter

SPECIAL INSTRUCTIONS OR REMARKS:

For Appropriate Action.

# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0439

**Source:** SECY

## General Information

**Assigned To:** FSME

**OEDO Due Date:**

**Other Assignees:**

**SECY Due Date:**

**Subject:** Lessons Learned from the Events in Japan

**Description:**

**CC Routing:** RegionIII; RegionIV; OGC; NRO

**ADAMS Accession Numbers - Incoming:**  
ML11215A106

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110573, LTR-11-0389

**Staff Initiated:** NO

**Related Task:**

**Recurring Item:** NO

**File Routing:** EDATS

**Agency Lesson Learned:** NO

**OEDO Monthly Report Item:** NO

## Process Information

**Action Type:** Appropriate Action

**Priority:** Medium

**Sensitivity:** None

**Signature Level:** No Signature Required

**Urgency:** NO

**Approval Level:** No Approval Required

**OEDO Concurrence:** NO

**OCM Concurrence:** NO

**OCA Concurrence:** NO

**Special Instructions:** For Appropriate Action.

## Document Information

**Originator Name:** State Rep. Al Carlson and Rep. Tom Holbrook

**Date of Incoming:** 6/30/2011

**Originating Organization:** Illinois House of Representatives, North Dakota House of Representatives

**Document Received by SECY Date:** 8/2/2011

**Addressee:** The Commission

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Letter

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Aug 02, 2011 14:45

PAPER NUMBER: LTR-11-0389                      LOGGING DATE: 07/01/2011  
ACTION OFFICE: EDO

AUTHOR: Al Carlson  
AFFILIATION:  
ADDRESSEE: CHRM Gregory Jaczko  
SUBJECT: Review of lessons learned from the events in Japan

ACTION:  
DISTRIBUTION:

LETTER DATE:  
ACKNOWLEDGED  
SPECIAL HANDLING:  
NOTES:  
FILE LOCATION:

(b)(5)

DATE DUE: 08/31/2011                      DATE SIGNED:

Received OEDO: August 2, 2011

EDO --G20110573



NATIONAL CONFERENCE of STATE LEGISLATURES

*The Forum for America's Ideas*

Richard Moore  
Senator  
Massachusetts Senate  
President, NCSL

Tim Rice  
Executive Director  
Illinois Legislative Information System  
Staff Chair, NCSL

William Pound  
Executive Director

June 30, 2011

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

Commissioner William D. Magwood, IV  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Commissioner Kristine L. Svinicki  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Commissioner William C. Ostendorff  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Commissioner George Apostolakis  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Chairman Jaczko and Commissioners Svinicki, Apostolakis, Magwood and Ostendorff:

The unfortunate events in Japan related to the impact of the tsunami on the Fukushima nuclear power plants have attracted policy-maker and general public attention. The National Conference of State Legislatures' (NCSL) Energy Supply Task Force members have spent two years identifying best practice options for states to meet their long-term energy requirements. While this year our Task Force is focused more directly on motor fuel issues, we continue to monitor electric supply issues such as the siting of new facilities and licensing approval for new generation technologies.

As policy makers we understand that prudence requires analysis of lessons learned from the Japanese experience and an assessment of similar risks at U.S. nuclear energy facilities. Many members of the Task Force have received extensive briefings on, and made visits to, nuclear plants in their states. We urge the federal government to ensure that a national analysis includes an assessment of how potential delays in permitting new generation technologies – nuclear, clean coal, solar – may adversely impact the nation's energy security, economy and quality of life.

With the American public pressing for lower carbon emissions from power plants; the Environmental Protection Agency moving to regulate such emissions; and the need for increased electric base load reliability as well as increasing renewable energy production, action should be taken to ensure that we maintain a robust fuel mix portfolio that includes nuclear power.

Members of the NCSL Energy Supply Task Force encourage the prudent and timely review of lessons learned from the events in Japanese and urge the Nuclear Regulatory Commission to ensure

Denver  
7700 East First Place  
Denver, Colorado 80230  
Phone 303.364.7700 Fax 303.364.7800

Washington  
444 North Capital Street, N.W. Suite 515  
Washington, D.C. 20001  
Phone 202.624.5400 Fax 202.737.1069

Website [www.ncsl.org](http://www.ncsl.org)  
Email [info@ncsl.org](mailto:info@ncsl.org)


June 30, 2011

p. 2

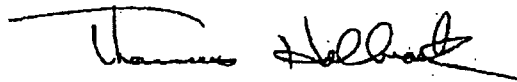
a the framework exists to move forward future reviews of licensing, siting and construction of new reactor designs and new nuclear energy facilities while ensuring public health and safety.

The members of the Task Force look forward to working with you in the future on these issues and would welcome an opportunity to meet with the NRC or commission staff. As leaders nationally on energy issues among the more than 7,300 state legislators, we are very interested in how partnerships between state and federal agencies can be mutually beneficial. We look forward to working with you to increase public and policy-maker education and ensure a reliable and affordable electric power supply for our nation now and into the future.

Sincerely,



Rep. Al Carlson  
Majority Leader,  
North Dakota House of Representatives  
Co-chair, NCSL Energy Supply Task Force



Rep. Tom Holbrook  
Chair, Environment and Energy Committee  
Illinois House of Representatives  
Co-chair, NCSL Energy Supply Task Force

Cc: Members of Congress  
Spiros C. Droggitis, Assoc. Dir. for Federal & External Affairs, U.S. Nuclear Regulatory Commission  
Annette L. Vietti-Cook, Secretary of the Commission, U.S. Nuclear Regulatory Commission

August 25, 2011

The Honorable Al Carlson  
Majority Leader  
North Dakota House of Representatives  
Co-chair, NCSL Energy Supply Task Force  
National Conference of State Legislatures  
444 North Capitol Street, NW, Suite 515  
Washington, DC 20001

Dear Representative Carlson:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of June 30, 2011, about the various review initiatives of the National Conference of State Legislatures (NCSL) Energy Supply Task Force and your expression of support for nuclear energy.

In your letter, you urged the Federal Government to promptly perform a national analysis of the permitting of new generation technologies and to take action to ensure a robust fuel mix portfolio that includes nuclear power. To provide an historical and statutory perspective, the NRC was formed by the Energy Reorganization Act of 1974, which divided the former Atomic Energy Commission into the NRC and the Energy Research and Development Administration (later renamed as the U.S. Department of Energy (DOE)). DOE's mission is to perform research and development activities in support of a national goal of energy independence, whereas the NRC's mission is to regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment. The promotion and research of energy technologies, including nuclear power, are not within the purview of the NRC.

We acknowledge and appreciate your urging the prudent and timely review of the lessons learned from the events in Japan. We continue to believe that our regulatory framework and requirements provide for a rigorous and comprehensive license review process that examines the necessary siting, design, construction, and operation issues for commercial nuclear power plants. As such, the NRC is continuing to process existing applications for new and renewed licenses in accordance with the schedules that have been established. The staff will implement the recommendations of the NRC's task force on Fukushima in reviewing these applications, as directed by the Commission. Furthermore, we have the regulatory tools in place to require changes to existing licenses or license applications should the Commission determine that any such changes are necessary.

The NRC has a long history of and commitment to transparency, participation, and collaboration in our regulatory activities. As a result of the recent nuclear events in Japan, the public, policymakers, and other stakeholders are following the NRC's actions more closely than ever. We appreciate and welcome the interest you expressed in meeting with the NRC staff in the future. In addition to meeting with us, we encourage you keep abreast of the NRC's regulatory activities through a variety of meetings open for public observation (Category 1 and 2 meetings)



A. Carlson

-2-

or for public participation (Category 3 meetings). Schedules of all NRC meetings are available on the NRC Web site at <http://www.nrc.gov/public-involve/public-meetings/index.cfm>.

Thank you for your interest in these matters.

Sincerely,

*/RA by Timothy J. McGinty for/*

Eric J. Leeds, Director  
Office of Nuclear Reactor Regulation

August 25, 2011

The Honorable Thomas Holbrook  
Chair, Environmental and Energy Committee  
Illinois House of Representatives  
Co-chair, NCSL Energy Supply Task Force  
National Conference of State Legislatures  
444 North Capitol Street, NW, Suite 515  
Washington, DC 20001

Dear Representative Holbrook:

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T. Holbrook

-2-

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Thank you for your interest in these matters.

Sincerely,

/RA by Timothy J. McGinty for/

Eric J. Leeds, Director  
Office of Nuclear Reactor Regulation

T. Holbrook

-2-

or for public participation (Category 3 meetings). Schedules of all NRC meetings are available on the NRC Web site at <http://www.nrc.gov/public-involve/public-meetings/index.cfm>.

Thank you for your interest in these matters.

Sincerely,

/RA by Timothy J. McGinty for/

Eric J. Leeds, Director  
Office of Nuclear Reactor Regulation

Identical letters sent to : the Honorable Al Carlson and the Honorable Thomas Holbrook

**DISTRIBUTION:** G20110573/LTR-11-0389/EDATS: SECY-2011-0439

PUBLIC	RidsNrrOd Resource
LPL4 Reading	RidsOgcMailCenter
RidsEdoMailCenter Resource	RidsRgn3MailCenter Resource
RidsNroOd Resource	RidsRgn4MailCenter Resource
RidsNrrDorl Resource	RidsSecyMailCenter Resource
RidsNrrDorlLp4 Resource	RST01_F Resource
RidsNrrLAJBurkhardt Resource	TLiu
RidsNrrMailCenter Resource	LGibson

**ADAMS Accession Nos.:** Package ML112210354, Incoming ML11215A106, Letter ML112210362  
\*via email

OFFICE	NRR/DORL/PM	NRR/DORL/LPL4/LA	QTE*	OGC - NLO
NAME	TLiu	JBurkhardt	KAzariah-Kribbs	MSpencer
DATE	8/10/11	8/9/11	8/9/11	8/15/11
OFFICE	NRR/DORL/LPL4/BC*	NRR/DORL/D	NRR/D	
NAME	MMarkley	JGitter	ELeeds (TMcGinty for)	
DATE	8/16/11	8/18/11	8/25/11	

OFFICIAL RECORD COPY

EDO Principal Correspondence Control

FROM: DUE: 08/18/11

EDO CONTROL: G20110502

DOC DT: 07/07/11

FINAL REPLY:

Denis R. McDonough and John O. Brennan  
The White House

TO:

Agency Heads

FOR SIGNATURE OF :

\*\* GRN \*\*

CRC NO: 11-0398

Chairman Jaczko

DESC:

Japan 2011 Earthquake After Action Report  
(EDATS: SECY-2011-0398)

ROUTING:

Borchardt  
Weber  
Virgilio  
Ash  
Muessle  
OGC/GC  
Merzke, OEDO

DATE: 07/08/11

ASSIGNED TO:

CONTACT:

NSIR

Wiggins

SPECIAL INSTRUCTIONS OR REMARKS:

*Demoflate: SECY-017*

*E-Recs: SECY-01*

**EDATS Number:** SECY-2011-0398

**Source:** SECY

**General Information**

**Assigned To:** NSIR

**OEDO Due Date:** 8/18/2011 11:00 PM

**Other Assignees:**

**SECY Due Date:** 8/22/2011 11:00 PM

**Subject:** Japan 2011 Earthquake After Action Report

**Description:**

**CC Routing:** NONE

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

**Other Information**

**Cross Reference Number:** G20110502, LTR-11-0398

**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

**DCM Concurrence:** NO

**OCA Concurrence:** NO

**Special Instructions:**

**Document Information**

**Originator Name:** Denis R. McDonough and John O. Brennan

**Date of Incoming:** 7/7/2011

**Originating Organization:** White House

**Document Received by SECY Date:** 7/8/2011

**Addressee:** Federal Department and Agency Heads

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Memo

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Jul 08, 2011 08:26

PAPER NUMBER: LTR-11-0398      LOGGING DATE: 07/08/2011  
ACTION OFFICE: EDO

AUTHOR: Denis McDonough  
AFFILIATION: WH  
ADDRESSEE: Federal Depts and Agency Heads  
SUBJECT: Japan 2011 Earthquake After Action Report

ACTION:  
DISTRIBUTION:

LETTER DATE:

ACKNOWLEDGED  
SPECIAL HANDLING:

NOTES:

FILE LOCATION:

(b)(5)

DATE DUE: 08/22/2011      DATE SIGNED:

EDO --G20110502

## THE WHITE HOUSE

WASHINGTON

July 7, 2011

MEMORANDUM FOR ASSISTANT TO THE PRESIDENT AND DEPUTY CHIEF OF  
STAFF

THE DEPUTY SECRETARY OF STATE  
THE DEPUTY SECRETARY OF THE TREASURY  
THE DEPUTY SECRETARY OF DEFENSE  
THE DEPUTY ATTORNEY GENERAL  
THE DEPUTY SECRETARY OF THE INTERIOR  
THE DEPUTY SECRETARY OF AGRICULTURE  
THE DEPUTY SECRETARY OF COMMERCE  
THE DEPUTY SECRETARY OF LABOR  
THE DEPUTY SECRETARY OF HEALTH AND HUMAN SERVICES  
THE DEPUTY SECRETARY OF HOUSING AND URBAN  
DEVELOPMENT  
THE DEPUTY SECRETARY OF TRANSPORTATION  
THE DEPUTY SECRETARY OF ENERGY  
THE DEPUTY SECRETARY OF EDUCATION  
THE DEPUTY SECRETARY OF VETERANS AFFAIRS  
THE DEPUTY SECRETARY OF HOMELAND SECURITY  
DEPUTY ADMINISTRATOR OF THE ENVIRONMENTAL  
PROTECTION AGENCY  
DEPUTY DIRECTOR OF THE OFFICE OF MANAGEMENT AND  
BUDGET  
DEPUTY UNITED STATES TRADE REPRESENTATIVE  
DEPUTY REPRESENTATIVE OF THE UNITED STATES OF  
AMERICA TO THE UNITED NATIONS  
CHAIRMAN OF THE NUCLEAR REGULATORY COMMISSION  
DEPUTY ASSISTANT TO THE PRESIDENT AND NATIONAL  
SECURITY ADVISOR TO THE VICE PRESIDENT  
MEMBER OF THE COUNCIL OF ECONOMIC ADVISERS

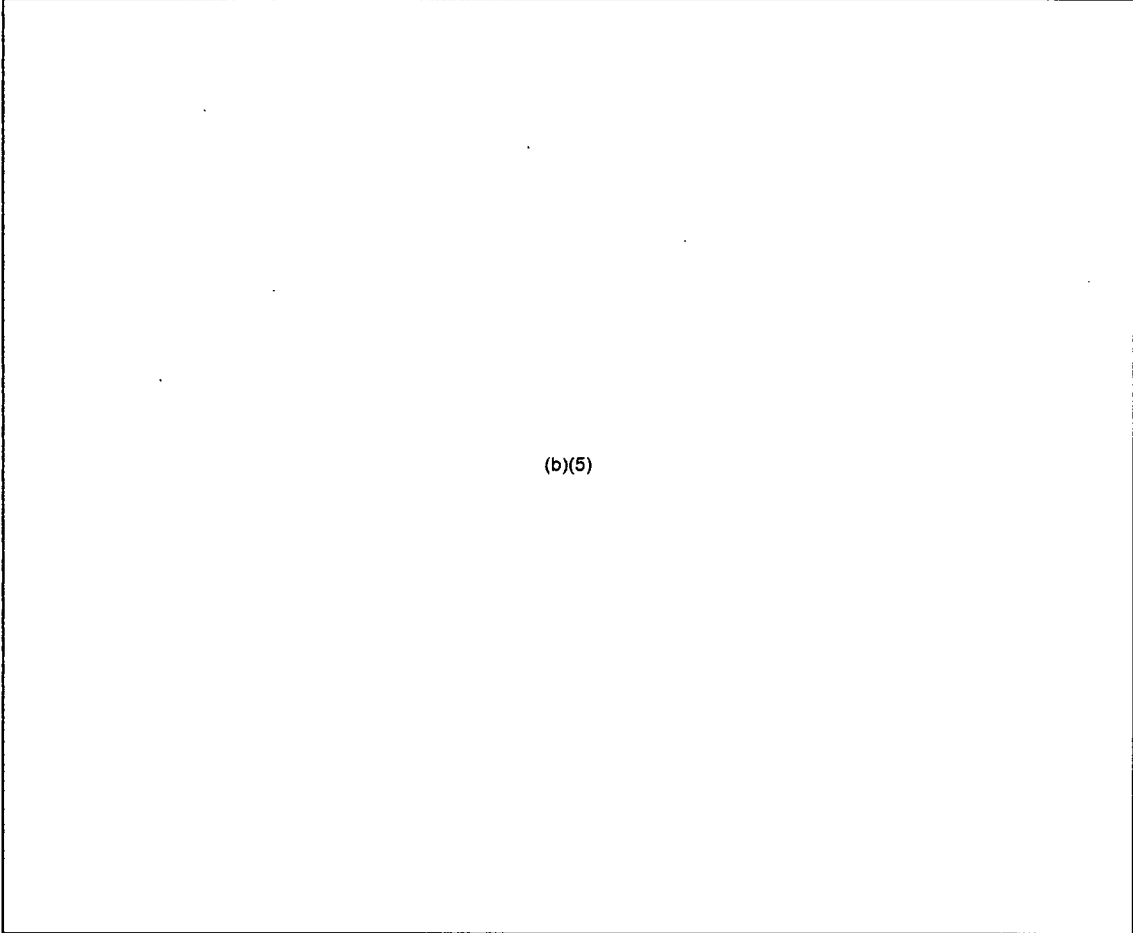
SUBJECT: Japan 2011 Earthquake After Action Report

On behalf of the President, we would like to express our sincere appreciation for your laudable work supporting the Government of Japan in the wake of the earthquake, tsunami, and nuclear crisis earlier this year.

While many of your teams are still contributing vital support to the effort - and will likely remain engaged for several months - the response phase is clearly over.

(b)(5)





(b)(5)

Please provide your responses to Richard Reed, Special Assistant to the President and Senior Director for Resilience Policy

(b)(6)

within 60 days.

Thank you for your attention to this important effort.

Denis R. McDonough  
Assistant to the President  
and Deputy National  
Security Advisor

John O. Brennan  
Assistant to the President for  
Homeland Security and  
Counterterrorism

**Champ, Billie**

**From:** NRCHQ  
**Sent:** Thursday, July 07, 2011 10:42 PM.  
**To:** Dodmead, James; Mangefrida, Michael; Giles, Vanessa; Parsons, Darryl  
**Subject:** FW: eWash: WH 415  
**Attachments:** 4411003312ewash.pdf

**From:** eWash-WHSR(SMTP [redacted] (b)(6))  
**Sent:** Thursday, July 07, 2011 10:42:10 PM  
**To:** [ewash@state.gov](mailto:ewash@state.gov); [ExecSecCom@do.treas.gov](mailto:ExecSecCom@do.treas.gov); [redacted] (b)(6);  
[JCC@usdoj.gov](mailto:JCC@usdoj.gov); [DOI\\_Watch\\_office@ios.doi.gov](mailto:DOI_Watch_office@ios.doi.gov); [Fay\\_ludicello@ios.doi.gov](mailto:Fay_ludicello@ios.doi.gov);  
[opscenter@usda.gov](mailto:opscenter@usda.gov); [ewash@doc.gov](mailto:ewash@doc.gov);  
Ekaterini Malliou (HHS Executive Secretariat); [HHSComSec@hhs.gov](mailto:HHSComSec@hhs.gov);  
[HHSExecSec@hhs.gov](mailto:HHSExecSec@hhs.gov); [contact-exsec@dol.gov](mailto:contact-exsec@dol.gov); [eoc@dol.gov](mailto:eoc@dol.gov); [CMC-01@dot.gov](mailto:CMC-01@dot.gov);  
[CMC-02@dot.gov](mailto:CMC-02@dot.gov); [S60\\_policy@dot.gov](mailto:S60_policy@dot.gov); [cornell.c.thompson@hud.gov](mailto:cornell.c.thompson@hud.gov);  
[HUDeWash@hud.gov](mailto:HUDeWash@hud.gov); [DOE.Commcenter@in.doe.gov](mailto:DOE.Commcenter@in.doe.gov); [EDExecSec@ed.gov](mailto:EDExecSec@ed.gov);  
[vaioc@va.gov](mailto:vaioc@va.gov); [CommCenterStaff@hq.dhs.gov](mailto:CommCenterStaff@hq.dhs.gov); [martin.john@epa.gov](mailto:martin.john@epa.gov);  
[williams.steven@epa.gov](mailto:williams.steven@epa.gov); NRCHQ  
**Cc:** eWash-WHSR  
**Subject:** eWash: WH 415  
**Auto forwarded by a Rule**

**CLASSIFICATION: UNCLASSIFIED**

<b>FROM:</b> NSS	<b>PH:</b> [redacted] (b)(6)	<b>ROOM:</b> 5013
<b>SUBJECT:</b> Japan 2011 Earthquake After Action Report	<b>PAGES:</b> 3	

**PLEASE DELIVER TO:**

<u>LOCATION</u>	<u>DELIVER TO</u>	<u>ROOM</u>	<u>PHONE</u>
STATE	DEPUTY SECRETARY OF STATE		
TREASURY	DEPUTY SECRETARY OF THE TREASURY		
DEFENSE	DEPUTY SECRETARY OF DEFENSE		
JUSTICE	DEPUTY ATTORNEY GENERAL		

INTERIOR	DEPUTY SECRETARY OF THE INTERIOR		
AGRICULTURE	DEPUTY SECRETARY OF AGRICULTURE		
COMMERCE	DEPUTY SECRETARY OF COMMERCE		
LABOR	DEPUTY SECRETARY OF LABOR		
DHHS	DEPUTY SECRETARY OF HEALTH AND HUMAN SERVICES		
HUD	DEPUTY SECRETARY OF HOUSING AND URBAN DEVELOPMENT		
TRANSPORTATION	DEPUTY SECRETARY OF TRANSPORTATION		
ENERGY	DEPUTY SECRETARY OF ENERGY		
EDUCATION	DEPUTY SECRETARY OF EDUCATION		
VETERANS AFFAIRS	DEPUTY SECRETARY OF VETERANS AFFAIRS		
DHS	DEPUTY SECRETARY OF HOMELAND SECURITY		
EPA	DEPUTY ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY		
USUN	DEPUTY REPRESENTATIVE OF THE UNITED STATES OF AMERICA TO THE UNITED NATIONS		
NRC	CHAIRMAN OF THE NUCLEAR REGULATORY COMMISSION		

**SPECIAL DELIVERY INSTRUCTIONS/REMARKS:**

NSS POC: MR. RICHARD REED (b)(6)

EDO Principal Correspondence Control

FROM: DUE: / /

EDO CONTROL: G20110550  
DOC DT: 07/18/11  
FINAL REPLY:

Peter Crane  
Seattle, Washington

TO:

The Commission

FOR SIGNATURE OF :

\*\* GRN \*\*

CRC NO: 11-0428

DESC:

NRC Task Force on Fukushima Accident - Radiation  
Doses to Public from Nuclear Medicine (Potassium  
Iodide/KI) (EDATS: SECY-2011-0422)

ROUTING:

Borchardt  
Weber  
Virgilio  
Ash  
Mamish  
OGC/GC  
Carpenter, FSME  
Burns, OGC  
Brenner, OPA  
Bowman, OEDO

DATE: 07/26/11

ASSIGNED TO:

NRR

CONTACT:

Leeds

SPECIAL INSTRUCTIONS OR REMARKS:

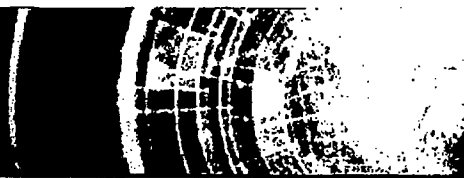
For Appropriate Action.

Template: SECY-017

E-RIDS: SECY-01  
FX 455 of 728

# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0422

**Source:** SECY

## General Information

**Assigned To:** NRR

**OEDO Due Date:** NONE

**Other Assignees:**

**SECY Due Date:** NONE

**Subject:** NRC Task Force on Fukushima Accident - Radiation Doses to Public from Nuclear Medicine (Potassium Iodide/KI)

**Description:**

**CC Routing:** FSME; OGC; OPA

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110550, LTR-11-0428

**Staff Initiated:** NO

**Related Task:**

**Recurring Item:** NO

**File Routing:** EDATS

**Agency Lesson Learned:** NO

**OEDO Monthly Report Item:** NO

## Process Information

**Action Type:** Appropriate Action

**Priority:** Medium

**Signature Level:** No Signature Required

**Sensitivity:** None

**Urgency:** NO

**Approval Level:** No Approval Required

**OEDO Concurrence:** NO

**OCM Concurrence:** NO

**OCA Concurrence:** NO

**Special Instructions:** For Appropriate Action.

## Document Information

**Originator Name:** Peter Crane

**Date of Incoming:** 7/18/2011

**Originating Organization:** Citizens

**Document Received by SECY Date:** 7/26/2011

**Addressee:** The Commission

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Memo

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Jul 20, 2011 15:37

PAPER NUMBER: LTR-11-0428                      LOGGING DATE: 07/20/2011  
ACTION OFFICE: EDO

AUTHOR: Peter Crane  
AFFILIATION: WA  
ADDRESSEE: Chairman Gregory Jaczko and Commissioners  
SUBJECT: NRC Task Force on Fukushima

ACTION:  
DISTRIBUTION:

LETTER DATE:

ACKNOWLEDGED  
SPECIAL HANDLING:

NOTES:

FILE LOCATION:

(b)(5)

DATE DUE:

DATE SIGNED:

EDO --G20110550

Peter Crane / (b)(6) / (b)(6) / (b)(6) / (b)(6) (home), (b)(6) (cell)

July 18, 2011

MEMORANDUM FOR: Chairman Gregory B. Jaczko  
Commissioner Kristine L. Svinicki  
Commissioner George Apostolakis  
Commissioner William D. Magwood, IV  
Commissioner William C. Ostendorff

FROM: Peter Crane  
Counsel for Special Projects, USNRC (retired)

On July 13, the NRC issued press announcements on two unrelated matters: the public release of the report of the NRC staff's Task Force on the Fukushima accident (news release No. 11-127), and the Commission's directive to the staff "to examine feasibility and need of study on radiation doses to public from nuclear medicine" (news release No. 11-128).

The Task Force report touches on, though only very minimally, the use of potassium iodide (KI) as a thyroid blocking agent; the directive on nuclear medicine relates directly to the issue of the release of patients with high doses of radioactive iodine-131 in their systems. Both as an NRC employee and as a retiree, I have been involved with these two subjects for many years – nearly 30 years, in the case of KI, and almost 20 years, with respect to radioactive patients – and I have considerable institutional knowledge in these areas.<sup>1</sup> I feel obligated to the current Commissioners, the agency, and the public, to share some of this history with them, and explain why the July 13 issuances are problematic. Since I see that the schedule calls for the Task Force to brief the Commission on July 19, I will in the interest of time deal with the first today and the second in a memorandum to be submitted in the near future.

The charter of the NRC staff Task Force on Fukushima was set forth in a March 23, 2011, tasking memorandum from Chairman Jaczko to R. W. Borchardt, the Executive Director for Operations (Appendix B to the report, p. 77), and the March 30, 2011, memorandum from Mr. Borchardt to Martin Virgilio and Charles Miller (Appendix C to the report, p. 79). The Task Force was given the specific task of considering, among other things, "Emergency preparedness (e.g. emergency communications, radiological protection, emergency planning zones, dose projections and modeling, protective actions)." [Emphasis added.]

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<sup>1</sup>In an appendix, I will describe my 27-year service at NRC.



Protective actions include, as the report acknowledges, potassium iodide. The following seem like obvious questions: How widely was potassium iodide distributed in Japan? How far away from Fukushima did radioactive iodine show up in foodstuffs, water, and air? What kind of radiation doses to the thyroid were received by Japanese citizens, especially children, and at what distances from the reactors? What does this suggest about the need for KI beyond the 10 mile radius in which the NRC now offers it?

These are all questions that can be answered, to a greater or lesser extent, by any informed citizen who reads the newspapers and has access to a computer, but anyone whose only source of information is the NRC Task Force, which was in theory addressing such issues, would be out of luck. Indeed, such a person would not even realize that these issues existed, for the Task Force has tiptoed around them.

The Task Force must surely be aware that the NRC has come under sharp criticism for its role in preventing the implementation of a law, Section 127 of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, which would have extended the availability of KI out to a 20-mile radius. A January 2008 decision by the President's Science Advisor, Dr. John H. Marburger III, declined to implement that portion of the Act. The Task Force must also know that a bipartisan group of some 30 Members of Congress, including Rep. Ed Markey, the law's sponsor, has called on the President to revisit that decision and authorize the broader stockpiling and distribution of the drug, and that this issue is under reconsideration by the Administration.

But no reader of this report would realize any of that, or find a scintilla of information that might shed light on the question of whether current policy needs revision. What is more, an Associated Press story on March 31, 2011, quoted Patricia Milligan, the NRC's senior expert on KI matters, as saying that the NRC was "absolutely confident" that the 10 mile radius for stockpiling of KI was sufficient. Considering that the accident was still unfolding rapidly at that time, this was highly premature. It was only on March 23, after all, that Chairman Jaczko had directed the staff to examine, among other things, "emergency planning zones" and "protective actions." If the staff had completed its review of the KI issue in the intervening eight days, this was quick work indeed.<sup>2</sup>

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<sup>2</sup> Normally the NRC's consideration of KI policy is measured in years. When the NRC Commissioners, over the fierce opposition of the NRC staff, granted my petition for rulemaking on KI in early 2001, changing the NRC's regulations and also offering supplies of KI to states, it was the culmination of a process that had begun with a Differing Professional Opinion that I had filed 12 years earlier.

The Marburger decision and the NRC's role in it deserve further discussion here. As the Commission is probably aware, the legislation authorizing the expansion of KI distribution from 10 to 20 miles from nuclear power plants was passed by an overwhelming margin in 2002 and signed into law by President Bush. The White House, in a 2002 statement, hailed the result, saying that henceforth, KI, which it called "crucial" and "critical," would be available wherever needed, not just within what it termed the "artificial ten-mile barrier." The Department of Health and Human Services was given the task of implementing the law, which NRC had opposed.

But to begin distribution of KI, which HHS was eager to do, for it saw a plain need to improve protection for America's children, it was required to publish guidelines. Opponents of the law prevailed on the Office of Management and Budget to withhold its approval of those guidelines, and thereby delay implementation of the law, to the great frustration of HHS.

The same law directed the National Academies of Science to perform a study of KI. Published in 2004 under the title *Distribution and Administration of Potassium Iodide in the Event of a Nuclear Incident*, it made clear, inter alia, that "children are most likely to benefit from KI prophylaxis" (p. 4); that thyroids are at risk in a nuclear incident from "inhalation of contaminated air or ingestion of contaminated food or milk" (p. 3); that "KI should be available to infants, children, and pregnant and lactating women" (p. 5); that though KI distribution to date focused only on the 10-mile Emergency Planning Zone utilized by the NRC, the variation from site to site meant that "no single best solution exists," and that a specific incident might require KI "beyond the EPZ as well" (p. 161); and that as a result, "**KI distribution programs should consider predistribution, local stockpiling outside the emergency planning zone (EPZ), and national stockpiles and distribution capacity.**" (p. 160, emphasis in the original)

In a November 1, 2005, letter to HHS, the NRC brazenly misrepresented the findings of the NAS report. Writing to Dr. Robert Claypool of HHS, William F. Kane, NRC Deputy Executive Director for Reactor and Preparedness Programs, asserted – purportedly on the basis of the NAS report – that the only pathway of concern beyond the 10-mile radius would be ingestion, which could be controlled by interdiction of foodstuffs, and, in a particularly egregious distortion, declared that "the Academy raised questions about the usefulness of expanded distribution of KI."<sup>3</sup>

HHS Secretary Michael Leavitt responded with a letter to NRC Chairman Nils Diaz<sup>4</sup>, dated

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<sup>3</sup> This letter may be found on the NRC's ADAMS system, using accession no. ML052790498.

<sup>4</sup> I have so far been unable to find this letter on ADAMS, except as an attachment to a letter that Professor Frank von Hippel of Princeton University and I sent to Senator Joseph Lieberman on September 26, 2007, with a copy to the

March 27, 2006, which though couched in superficially civil terms was an acid rebuke that made clear that NRC had quoted snippets of the NAS report out of context to produce a misleading impression. He quoted the actual words of the NAS report back to Diaz: "A specific incident might call for protective actions to be restricted to a small part of the EPZ **or require that they be implemented beyond the EPZ as well,**" boldfacing the last 11 words for emphasis.<sup>5</sup>

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NRC, which may be found as LTR-07-0685 on the ADAMS system. If Secretary Leavitt's letter is not on the system in its own right (and if not, one may ask why not), it should be added.

<sup>5</sup>Secretary Leavitt also wrote:

Section 127 of the Bioterrorism Preparedness and Response Act of 2002 requires the President to make KI available to State and local governments for stockpiling and distribution, and to establish guidelines for the stockpiling of KI and for its distribution and utilization in the event of a nuclear incident. Additionally, subsection 127(f) states that these requirements "*cease to apply as requirements if the President determines that there is an alternative and more effective prophylaxis or preventive measures for adverse thyroid conditions...*" The President has not made the necessary determination here. Rather, as the President stated in 2002 when forming the Department of Homeland Security, "*...one Department would be responsible for distributing Potassium Iodide to citizens exposed - no matter where they lived. There would no longer be an artificial ten-mile barrier to treatment.*" Currently, we do not believe there are "alternative and more effective... measures" than to make KI available up to 20 miles from a nuclear facility, in conjunction with the protective measures established by the NRC. [Emphasis in the original.]

Unaware at the time of HHS Secretary Leavitt's letter to NRC, I drew the Kane letter's mischaracterization of the NAS report to the attention both of the Commission, by email, and the NRC's Office of Inspector General. This was, as usual, fruitless. The EDO, Luis Reyes, replied a few weeks later with a short note that neither mentioned the NAS report nor gave a direct answer to the charge that the Kane letter had mischaracterized its findings. Instead, he wrote that "the Commission believes that Mr. Kane's letter reflected the NRC's well-considered, scientifically-based position on expanded distribution of KI." Apparently, it was a matter of indifference whether the Kane letter was factual, so long as it supported the Commission's position.

OIG declined to investigate. Its Allegations Coordinator, George Mulley, explained to me on the telephone that the first thing that OIG did, when examining an allegation, was to ask what federal law had been broken, and that there was nothing in the U.S. Code that made it illegal to deceive another federal agency. This was, I submit, an unduly pinched view of OIG's mandate.

But it was hardly surprising. OIG's record of mishandling allegations concerning the staff's treatment of KI matters goes back many years, and includes one occasion on which, contrary to OIG procedures, Inspector General David Williams disposed of an allegation with no written record, and without even informing his head of investigations, Leo Norton, that the allegation had been received. Norton, an honorable and candid person, agreed with me that this was an "off the books" handling of an allegation, and said that I could quote him to that effect. It was unique in his experience, he said, and "no way to do business." For more on OIG and KI, see also the joint letter from Professor Frank von Hippel and me to Senator Joseph Lieberman, dated 9/26/2006, with copies to the NRC, cited above, and accessible through ADAMS as LTR-07-0685.

I might add that though the concurrence page on the Kane letter, as it appears on the NRC website, indicates that the originator of the document was Patricia Milligan, the responsibility for it extends to all who reviewed and signed off on it. The same applies to those who, after seeing Secretary Leavitt's letter, nevertheless approved the response to Senator Isakson's question, which will be discussed shortly.

Secretary Leavitt's letter plainly did not faze the NRC, however, which in an April 10, 2006, letter to Senator George Voinovich, responding to questions arising from a recent oversight hearing, repeated the assertion that the NAS supported the NRC position on the undesirability of stockpiling KI beyond ten miles, and attached the Kane letter.<sup>6</sup> (The answer came in response to a question from Sen. Isakson.) By now, there was no excuse for inaccuracy. If the staff had somehow contrived to misread the NAS report at the time it wrote to Dr. Claypool in November 2005, any such misunderstanding had been cleared up by Secretary Leavitt, in his letter of March 27, 2006.

With his declared intention of implementing the law and providing KI in the 10 to 20- mile radius, Secretary Leavitt was on a collision course with the NRC and the nuclear industry. The White House was persuaded to forget or ignore what it had said in 2002 about eliminating the "artificial 10 mile barrier" to the distribution of this "crucial" and "critical" drug. On July 2, 2007, President Bush signed an order that stripped Leavitt of his authority over the law and transferred it to the NRC and to his own Science Advisor, Dr. Marburger, who would have the

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<sup>6</sup> The relevant section of the letter, at pp. 29-30, reads as follows, and may be found on the NRC website using accession no. ML060930353:

QUESTIONS FROM SENATOR ISAKSON:

During the hearing, I brought up the issue of potassium iodide, but didn't get a chance to pursue my question with the Commission. It is my understanding that the Department of Health and Human Services (HHS) has made a recommendation to expand the stockpiling of potassium iodide beyond the 10-mile radius around a nuclear facility which is the current requirement. Please provide the Commission's position on the HHS's recommendation for the record.

ANSWER:

Based on the NRC's decades of experience with nuclear power plant emergency preparedness and radiological protection of the public, it is the NRC's conclusion that expanded distribution of potassium iodide (KI) is unnecessary. Expanded distribution of KI is unnecessary because of the current, well-established, and scientifically sound framework of the NRC's emergency preparedness regulations. This framework includes predetermined protective actions for populations within the 10- and 50-mile ingestion exposure pathway Emergency Planning Zones (EPZs) to provide the necessary protection of public health and safety. These predetermined protective actions include interdiction of contaminated milk, food, and water, as well as protective measures for livestock. **NRC's conclusion is supported by a January 2004 study by the National Academy of Sciences**, which found that food testing and interdiction programs in place throughout the United States are more effective preventive strategies than expanded distribution of KI for ingestion pathways. Additionally, many States and other interested entities, including Federal agencies, have expressed opposition to the distribution of KI beyond the existing 10-mile EPZs. Additional detail on the Commission's position on HHS's draft guidelines for expanded KI distribution are [*sic*] provided in the November 1, 2005 letter from Mr. William Kane, NRC's Deputy Executive Director for Reactor and Preparedness Programs, to Dr. Claypool of HHS's Office of Mass Casualty Planning, which is attached (Attachment 7) for your convenience.

final say on whether to implement the law.

At Marburger's request, a technical evaluation paper on KI was prepared by the Potassium Iodide (KI) Subcommittee of the Federal Radiological Preparedness Coordinating Committee (FRPCC), an interagency group. On October 23, 2007, FRPCC Chair Vanessa Quinn, of FEMA, transmitted the paper to Marburger, with a cover letter that made plain the leading role of the NRC staff in the effort.<sup>7</sup>

Marburger's decision, issued on January 22, 2008, predictably found no need to implement the 2002 law. This is not the place to get into the legal question of whether his refusal to do so was consistent with Congressional intent and a proper reading of the statute, though I have strong views on that point; I would like instead to stay with the technical and policy bases for his decision.

Perhaps the most extraordinary thing about the Marburger decision was that the President's Science Advisor felt able to issue a 13-page decision on a drug for the prevention of cancer without ever using the word "cancer." Instead, he referred euphemistically to "adverse thyroid conditions." From the chief scientist in the United States Government, this defies comprehension. Is it conceivable that any Government official would issue a decision on the use of Sabin vaccine without ever employing the word "polio"? Of course not. But when the subject is KI and thyroid cancer, this happens again and again.<sup>8</sup>

Let us now look at the important question of what exactly Marburger was relying *on*. At p. 12 of

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<sup>7</sup>Quinn wrote: "I would be remiss if I did not specifically mention the hard work and effort put into this project by Trish Milligan, KI Subcommittee Co-Chair. Her technical knowledge and willingness to spearhead the overall coordination of this technical evaluation paper was invaluable." Just the day before, October 22, 2007, an article in *USA Today*, entitled "White House may stop plan for anti-radiation pills," included the following: "Patricia Milligan, the NRC's senior adviser for preparedness, says the commission opposes broad distribution of the pills because the best way to eliminate risk is to make sure people don't eat contaminated food. She also says the NRC is concerned about undermining the reputation of the nuclear industry. 'It's always a concern that if you expand the distribution (of the pills), you don't have confidence in the plants,' she says. 'We have studies that show the safety of our plants.'"

<sup>8</sup>This is certainly true at NRC as well. For example, at NRC headquarters, on July 1, 1997, anyone whose office windows faced west might have seen a television crew, with the familiar eye of the CBS Evening News on its videocamera, interviewing me in front of the building. Four hours later, the NRC, under Chairman Shirley Jackson, issued a press release stating that agency would buy KI for any state that wanted it. (At the time, the matter had been pending for seven years.) But the news release was careful not to use the word "cancer," and therefore was less helpful to readers than it might have been. It probably made little difference, however, for the NRC did nothing to implement this commitment, and two years later, still under Chairman Jackson, the Commission retracted its promise, saying that budget constraints did not allow expenditures on new initiatives of this kind.

his decision, he wrote:

Some concerned citizens groups criticize meteorological analyses that assume a wind that blows constantly in a single direction, suggesting that variable trajectory models would better account for complex wind patterns, leading to accident consequences extending beyond current projections. In fact the opposite is true. The NRC and FEMA outline their strategies for emergency planning in the 2002 study *Assessment of the Use of Potassium Iodide (KI) as a Supplemental Public Protective Action during Severe Reactor Accidents* (NUREG 1633)<sup>9</sup>, which addresses the effect of meteorology on accident consequences, specifically its effect on where the offsite release goes....

The footnote included a citation to this document, which states on its cover page that it was "Prepared by P. A. Milligan/NRR."<sup>9</sup>

What Marburger evidently did not know was that officially, this document was in the dumpster. In November 2002, the Commission had decided, on a 4-1 vote, with Commissioner Dicus the lone dissenter, that it was unfit for publication, and that no more resources should be spent on bringing it up to standard. Commissioners' comments on it were not gentle. Commissioner McGaffigan noted that although it was the 9/11 attacks that had spurred states' interest in KI stockpiling, "the draft NUREG is silent on the subject." Commissioner Diaz wrote:

The draft NUREG now before us is the third version we have been asked to review since mid1998. (The first version was withdrawn by the Commission and we disapproved the second one.) ... In my opinion, it's time to pull the plug.<sup>10</sup>

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<sup>9</sup><http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2002/secy2002-0089/attachment1.pdf>

<sup>10</sup>The story of the three rejected versions of NUREG-1633 is a curious one. The first version managed not to include, in its 37 pages, the fact that the Food and Drug Administration had found KI to be "safe and effective." (This was comparable to the FDA issuing a report casting doubt on the safety of a particular nuclear power plant without mentioning that there was an organization called the NRC that had found this plant to be safe.) The document strove to raise anxieties about the safety of the drug, and to warn of the lawsuits that would be faced by any state that gave it out in an emergency. It also asserted that American can authorities cautioned against giving the drug to children and pregnant women, whereas in reality, it is universally recognized, here and abroad, that the principal *benefit* of the drug is to children and pregnant women. (I should in fairness mention that NUREG-1633 was not wrong about everything, however. For example, it said of Chernobyl, at p. 14: "[I]nhalation most like was a major source of the dose received in some areas near the plant." This contradicts an assertion often made by opponents of KI: that virtually all the post-Chernobyl thyroid cancers resulted from drinking contaminated milk.)

The Commission soon received scathing comments from state health officials and others. Dr. Karim Rimawi, director of the Bureau of Environmental Radiation Protection in the New York State Health Department, wrote on September 29, 1998, that the Department "had looked forward to NRC's report in the

I do not know where Dr. Marburger got his copy of the draft NUREG – perhaps it was not from the NRC at all – but surely he could and should have been warned by his NRC advisor that the document had been rejected by the Commissioners and therefore had no place in his decision.

Relying as it did on an invalid document, Marburger's decision must therefore be considered at least partially tainted. Its pernicious effects, moreover, have extended far beyond the question of implementing the 2002 law. After its issuance, the interagency group that maintains the Strategic National Stockpile removed KI from the arsenal of protective drugs that comprise that stockpile, to which it had been added after 9/11.<sup>11</sup> I am told that the group felt that it had no choice, in light of the Marburger decision.

At a time at which in every other sphere of life, America is *increasing* its preparedness against terrorism, the NRC has thus been instrumental in *diminishing* our country's preparedness to deal with acts of nuclear terrorism or other nuclear catastrophes. It must be borne in mind what the consequences of insufficient preparedness will be, if such a disaster occurs: an increased incidence of thyroid cancer, especially in children who were very young, or still in the womb, at the time of exposure.<sup>12</sup>

I would be the last person to argue that KI is a panacea for protection against radiological

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hope that it would assist us," but found that it had been "prepared to justify a position advocating against the use of KI for public protection, rather than as an objective review of the relevant information." "This bias," he wrote, "raises doubt as to the value of the document." He also commented: "It selectively references sources that support that point of view and ignores others that tend to justify the use of KI."

Shortly afterwards, the Commission ordered NUREG-1633 withdrawn. Commissioner Ed McGaffigan, in a memorandum quoted in the October 12, 1998, issue of *Inside N.R.C.*, wrote: "As I admitted at the public meeting, I had not read enclosure 8 [draft NUREG-1633] in any detail when I agreed to put it out for public comment and peer review as the SRM was drafted. I made the mistake of thinking no harm could come from just putting a document out for public comment. I was wrong." (At p. 8.)

Revision of the NUREG was entrusted to a large Core Group, headed by Aby Mohseni. It was on his watch that the entire Core Group, during a particularly a cold February in Rockville, spent a week at NRC expense in Tempe, Arizona. This second version was also rejected, and the project then passed into the hands of Patricia Milligan, who produced the third and final version. By the time the Commission rejected it in 2002 and "pulled the plug," in Commissioner Diaz's words, the NRC had spent a small fortune on NUREG-1633, with nothing of value to show for it.

<sup>11</sup> [http://www.washingtonpost.com/national/us-health-care-system-unprepared-for-major-nuclear-emergency-officials-say/2011/04/07/AF6ZSavC\\_story.html](http://www.washingtonpost.com/national/us-health-care-system-unprepared-for-major-nuclear-emergency-officials-say/2011/04/07/AF6ZSavC_story.html)

<sup>12</sup> If the example of Chernobyl is an accurate guide, we will begin seeing the first post-Fukushima childhood thyroid cancers in about five years.

disasters. Indeed, in the early days of the Fukushima accident, I went on television in Seattle to say that it would “irresponsible scaremongering” to suggest that anyone in the U.S. should now be taking KI to protect against the releases from Japan. But it is likewise irresponsible in the extreme not to have adequate supplies on hand in this country, for accidents or acts of terrorism occurring here, and of all the possible reasons for failing to stockpile it, protecting the public image of the nuclear power industry is surely the rock-bottom worst.<sup>13</sup>

The real question is whether KI would be useful in the event of a major release, for if not, there is no point in having it, regardless of its low cost. The opponents of KI stockpiling have long maintained that KI is unnecessary, because the whole problem of thyroid protection can be solved by instructing people to refrain from drinking milk after a major nuclear release. For example, in the early days of the Fukushima accident, a March 13 article in the *New York Times* quoted a radiation expert at Columbia, Dr. David Brenner:

Dr. Brenner said the iodine pills were protective, but were “a bit of a myth” because their use is based on the belief that the risk is from inhaling radioactive iodine. Actually, he said, 98 percent of people’s exposure comes from milk and other dairy products.

“The way radioactive iodine gets into human beings is an indirect route,” he said. “It falls to the ground, cows eat it and make milk with radioactive iodine, and you get it from drinking the milk. You get very little from inhaling it. The way to prevent it is just to stop people from drinking the milk.” He said that the epidemic of thyroid cancer around Chernobyl could have been prevented if the government had immediately stopped people from drinking milk.

I have no idea where Dr. Brenner got this 98% figure; most sources I have seen think that 70 or 80 percent of the Chernobyl exposures came from the milk pathway, not more. At any rate, once I-131 began showing up in Tokyo’s tap water, I wrote a letter to the *New York Times*, published on March 26, that was implicitly a slap at Dr. Brenner and the reporter who had so uncritically relied on him.<sup>14</sup>

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<sup>13</sup> Even if we assume for purposes of argument that stockpiling KI would cause Americans to worry about the safety of nuclear power plants (and after Fukushima, it seems unlikely that KI would play any significant role in any such worries they may have), that is separate from the question of whether we should have the drug on hand as part of preparedness for acts of *terrorism*. The public relations needs of the nuclear power industry regarding power plant safety should have no bearing on whether we are ready to cope with a nuclear device exploded by terrorists.

<sup>14</sup> To the Editor:

The detection of radioactive iodine 131 in Tokyo’s drinking water (“Anxiety Up as Tokyo Issues Warning on Its Tap Water,” front page, March 24), in amounts considered unhealthy for children, makes clear that potassium



Whether for that reason or some other, Dr. Brenner's public position on KI changed almost instantaneously. On the afternoon of the same day, March 26, a glowing profile of him, "Countering Fears With Just the Facts," was posted on the *New York Times* website (it appeared in print on March 29), which included the following:

Potassium iodide pills are widely recommended to protect the thyroid gland from radioactive iodine, but Dr. Brenner said it was better just to stop drinking milk until the threat had passed.

His message changed, however, when radioactive iodine turned up in tap water in Tokyo. Though the public was advised that babies, children and pregnant women should not drink the water, Dr. Brenner conceded that some exposure might still be hard to avoid, and that using potassium iodide was a reasonable precaution.

"I've been maybe a little overstrong in saying that potassium iodide doesn't have a role to play," he said. "But usually the problem is milk. To me, the levels in water came as a surprise."

But is it really a "myth," as Dr. Brenner suggested in the earlier article, that inhalation of I-131 after a radiological release is a danger?

Nearly 20 years ago, the Environmental Protection Agency issued a "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," EPA 400-R-92-001 (May 1992)<sup>15</sup>, that included the following, at p. 5-20: "If a major release of radioiodine or respirable particulate

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iodide must be administered if children are to be adequately protected against thyroid cancer caused by ingested and inhaled iodine 131. Interdiction of milk supplies, though important, is plainly insufficient.

Japan's apparent preparedness with potassium iodide contrasts with the situation in the United States. In response to 9/11, Congress passed a law to create stockpiles of potassium iodide for populations within a 20-mile radius of nuclear reactors, rather than the 10-mile radius within which the Nuclear Regulatory Commission offers it to states that request it.

But the N.R.C., which had opposed the law, fought successfully to keep it from taking effect. In 2008 President George W. Bush's science adviser, John H. Marburger III, declared that potassium iodide was not needed beyond the 10-mile radius, and that the law therefore would not be implemented.

The events in Japan demand that the Obama administration act quickly to reverse this unjustified rejection of a sensible law.

Peter Crane  
Seattle, March 24, 2011

<sup>15</sup><http://www.epa.gov/radiation/docs/er/400-r-92-001.pdf>

materials occurs, **inhalation dose will be the controlling pathway.**" [Emphasis added.] It recommended, among other things, consideration of the use of KI. It made the point that though evacuation in an emergency is the ideal option, you can get a radiation dose while evacuating, and that automobiles offer only about 10% shielding.

The Food and Drug Administration issued guidance on KI in 2001.<sup>16</sup> At p. 8, after noting that the post-Chernobyl exposures to radioiodines came "largely" from the milk pathway, it said:

In this or similar accidents, for those residing in the immediate area of the accident or otherwise directly exposed to the radioactive plume, **inhalation of radioiodines may be a significant contributor to individual and population exposures.** ... The risk depends on factors such as the magnitude and rate of the radioiodine release, wind direction and other atmospheric conditions, and thus may affect people both near and far from the accident site. [Emphasis added.]

There was also a useful report from the International Atomic Energy Agency in 2002.<sup>17</sup> At p. 52, the joint IAEA/WHO committee that prepared it makes the point that "iodine prophylaxis is intended **primarily as a protective action against inhalation,**" in the short term, and suggests amending the International Basic Safety Standards to reflect this. [Emphasis added.]

In 2003, the Medical Preparedness and Response Sub-Group of the Department of Homeland Security Working Group on Radiological Dispersal Device Preparedness prepared a report saying that if terrorists detonated a radiological dispersal device containing radioiodine or a 10-kiloton improvised nuclear weapon, millions of doses of KI might be needed to deal with the fallout. It said, at p. 62: "Urgent consideration for giving KI to pregnant women (especially 2nd and 3rd trimesters) and children is appropriate."<sup>18</sup>

On June 30, 2011, in response to a Freedom of Information Act request, the NRC placed a large number of documents relating to the Fukushima accident onto the ADAMS system.<sup>19</sup> They

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<sup>16</sup><http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm080542.pdf>

<sup>17</sup> [http://www-pub.iaea.org/MTCD/publications/PDF/Pub1133\\_scr.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Pub1133_scr.pdf)

<sup>18</sup>

[http://www.orau.gov/hsc/RadMassCasualties/content/resources/Radiologic\\_Medical\\_Countermeasures\\_051403.pdf](http://www.orau.gov/hsc/RadMassCasualties/content/resources/Radiologic_Medical_Countermeasures_051403.pdf)

<sup>19</sup> For this information, I am indebted to David Lochbaum, an NRC alumnus now with the Union of Concerned Scientists.

include a March 25, 2011, email from Elmo Collins, Regional Administrator in NRC's Region IV, to Linda Howell, as he prepared to leave for Japan. The subject line is "Japan," and it reads, in its entirety, as follows: "I'll need to pick up some KI and make sure I have my dosimetry as needed – what dose meter would be good for me to take? Thanks, Elmo."

Of course Mr. Collins provided himself with KI, and rightly so. NRC personnel are not reckless when it comes to their own safety or that of their children, nor should they be.<sup>20</sup> But if ever there is a nuclear catastrophe in this country, whether caused by terrorism or an accident, and Americans living more than 10 miles from a nuclear power plant discover that *their* children have been inadequately protected against radioactive iodine owing to the NRC's unremitting, no-holds-barred battle to prevent or limit KI stockpiling – a battle that has included misrepresenting, *including to Congress*, the findings of a Congressionally mandated study of the issue by the National Academies of Science, and working to ensure that the sensible recommendations of the NAS were rejected by the President – the consequences would be devastating, not only for the affected children, but also for the NRC.

What would the country say when it learned that KI had been removed from the Strategic National Stockpile, with the result that we are less well prepared to cope with the medical effects

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<sup>20</sup>By the same token, consider a March 4, 1994, letter from Jim Martin, an NRC retiree, to Hugh Thompson, then Deputy Executive Director for Operations, which was placed in the Public Document Room at that time:

Please hold the bottom line: do not require that utilities distribute KI to the general public as a license condition. This was my bottom line over many years of discussions of the subject at the staff and the commission levels. As I said to Peter Crane at one time: If I lived near a nuclear plant, I'd have some KI for my family (it's so cheap!), but I think it would be legally obscene to require KI predistribution to the public as a condition of a license. If Peter wants KI available in the schools, then let the PTAs run car washes and buy some! At the time, they cost only 2-3 cents apiece.

I recall this meeting well; Mr. Martin made the point that for the price of the pack of cigarettes in his shirt pocket (at the time, in 1983, they sold for about \$.75 a pack in the D.C. area), he could protect his whole family with KI, and he would be "crazy" not to do so. Please understand: I do not by any means intend to demonize Mr. Martin, whose letter, if read in its entirety, which I recommend, is more thoughtful and balanced than this one passage, taken in isolation, might suggest. The problem with his proposed solution, however, is that unless people are *told* that KI is desirable, the PTA's of America are not going to know to hold such bake sales, and in an actual emergency, only knowledgeable insiders, such as NRC personnel and their families, will be protected.

Incidentally, Mr. Martin made another observation in his letter, from which it can be inferred that the site at which KI would be of greatest value in preventing cancer is Indian Point (IP): "The major technical basis document at the time was the Blond & Aldrich report on the efficacy of KI. Indeed, it showed that a 'national' KI predistribution program would not be cost effective in terms of cancers avoided (half or more of the calculated cancers arise beyond 50 miles at most sites – **all except for IP, as I recall**, so the emphasis must be on the area beyond 50 miles, for the cancer issue)." [Emphasis added.]

of a nuclear disaster than we were a few years ago? The NRC Chairman and Commissioners would probably find themselves having to explain their actions not only to Congressional committees but to grand juries. Under those circumstances, it is hard to imagine that the Nuclear Regulatory Commission would even survive for long, at least under that name.<sup>21</sup> More likely, it would be abolished and replaced by some new regulatory body, as is currently happening in Japan.<sup>22</sup>

Press reports indicate that radioiodine from Fukushima has turned up in air, water, and foodstuffs far from the damaged nuclear plants.<sup>23</sup> To continue to insist that KI stockpiling in this country be limited to a 10 mile radius around nuclear plants, and then only in states which request the drug, would be irresponsible beyond measure. The sooner the NRC faces up to this reality, the better, and not only for the American public, but also for its own sake. The Task Force should be told to address the KI issue thoroughly and promptly. In addition, the Inspector General should be asked to investigate the staff's handling of KI matters in recent years, including, but not limited to, the appearance of NUREG-1633 in the Marburger decision, the accuracy of the 2005 Kane letter to

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<sup>21</sup> After 9/11, Commissioner McGaffigan called me to tell me that I had "saved the NRC from itself," through the efforts that resulted in the NRC's rule change on KI, a few months earlier.

<sup>22</sup> <http://mdn.mainichi.jp/mdnnews/news/20110717p2g00m0dm054000c.html>

<sup>23</sup> Consider this excerpt from an article carried by National Public Radio on March 20, at <http://www.npr.org/2011/03/20/134705754/japans-efforts-to-ease-nuke-crisis-hit-setback>:

#### **Government Admits Mistake**

Officials have begun distributing protective potassium iodide pills to people from the area around the power plant. But one official in Fukushima, Kazuma Yokota, told reporters that the government now realizes it should have distributed the pills earlier last week.

Potassium iodide protects people against thyroid cancer if they have been exposed to radioactive iodine, but it must be taken promptly.

The pills help reduce chances of thyroid cancer, one of the diseases that may develop from radiation exposure, by preventing the body from absorbing radioactive iodine. The official, Kazuma Yokota, said the explosion that occurred while venting the plant's Unit 3 reactor last Sunday should have triggered the distribution. But the order came only three days later.

"We should have made this decision and announced it sooner," Yokota told reporters at the emergency command center in the city of Fukushima. "It is true that we had not foreseen a disaster of these proportions. We had not practiced or trained for something this bad. We must admit that we were not fully prepared."

HHS, and the 2006 response to Senator Voinovich.<sup>24</sup>

What I have described in this memorandum are facts as I understand them, as informed by nearly 30 years of observing the NRC's handling of the KI issue. It has been prepared in a spirit of trying to be of service both to the American people and to the NRC. In this case, dealing as it does with a medication, a quotation from Gotthold Lessing's 18<sup>th</sup> Century play "Nathan the Wise" is particularly apposite: "It is medicine, not poison, that I am handing you."

/s/

Peter Crane, Counsel for Special Projects (retired)

cc: Senator George Voinovich  
Senator Johnny Isakson  
Senator Thomas Carper  
Representative Ed Markey  
Representative Henry Waxman

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<sup>24</sup> If need be, the Commission should explain to the Inspector General that his office's mandate in conducting investigations of "fraud, waste, and abuse" is not confined, as Mr. Mulley of OIG appeared to believe, to cases in which a federal crime appears to have been committed. Of course, federal law requires NRC communications to Congress to be accurate.

## Appendix -- My Service with NRC

For the benefit of Commissioners who do not know me, I joined the NRC in early 1975, when it was 10 weeks old, and spent 27 years serving the agency in various capacities. I had been hired as a legal assistant, GS-12, by Commissioner (later Chairman) Marcus A. Rowden. In those days, it was standard for Commissioners to have two assistants, one technical and one legal, and two secretaries. (The Chairman at the time had a staff of seven: one technical assistant for reactors, another for materials, a legal assistant, an executive assistant, and three secretaries.) For the first year I was there, however, Commissioner Rowden made do with just a single assistant, me, until he added Hugh Thompson as a technical assistant in 1976.

I moved to the Office of General Counsel on the expiration of Chairman Rowden's term in 1977. Over the next 24 years (there was a one-year break in service, during which I was an administrative judge in Micronesia), I defended the NRC's actions in court with vigor and conviction. My first case, in the D.C. Circuit, involved the Mark II containment; my last, in the Sixth Circuit, resulted in a decision upholding the NRC regulatory scheme for approving the design of dry casks for spent fuel storage.

In the Ninth Circuit, some 30 years ago, I briefed, argued, and won a case defending the adequacy of the fixes that the NRC ordered in Babcock and Wilcox reactors after the Three Mile Island accident. At one point in the 1980's, I served very briefly as Acting General Counsel, in which capacity I called on the Solicitor General, the late Rex Lee, to ask him to take to the Supreme Court a case which I had briefed, argued, and lost in the D.C. Circuit. It involved the NRC's refusal to treat the "psychological impacts" of the resumed operation of Three Mile Island Unit 1 as environmental impacts within the meaning of the National Environmental Policy Act. Lee was fully in accord. He took the case to the Supreme Court, which reversed the D.C. Circuit and upheld the NRC position on a unanimous vote.

I was made Counsel for Special Projects in the mid-1980's and retired with that title in 1999. In 2001, I was brought on as a contractor to write speeches for then Chairman Meserve, and I continued in that function under Chairman Diaz until 2005. During my long tenure with NRC, I was privileged, in addition to my usual legal duties, to write speeches, testimony, and/or personal statements for Chairmen Rowden, Palladino, Hendrie, Zech, Jackson, Selin, Meserve, and Diaz, including Senate confirmation testimony for three of those just named.

While at NRC, I was invited to speak at a United Nations conference in Moscow in 1997 on responding to man-made disasters. In 1998, in my private capacity, I was a speaker at a conference at Cambridge University in England on the U.S. Government's handling of the KI issue. The conference was co-sponsored by the university, the European Commission, the National Cancer Institute, and DOE. The paper I presented may be found in published form in the 1999 volume *Radiation and Thyroid Cancer*, edited by G. Thomas, A. Karaoglou, and E. D. Williams.

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AUTHOR: SEN Barbara Boxer (and Inhofe)  
AFFILIATION: CONG  
ADDRESSEE: Gregory Jaczko

SUBJECT: Post-hearing questions from the June 16, 2011 oversight hearing regarding the NRC's preliminary results of the nuclear safety review in the U.S. following events at Fukushima Daiichi

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 COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS  
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SENATE MAJORITY STAFF  
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August 3, 2011

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

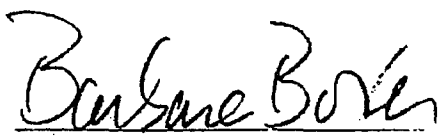
Dear Chairman Jaczko:

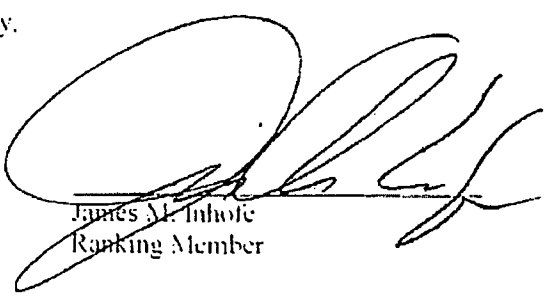
Thank you for appearing before the Committee on Environment and Public Works on June 16, 2011 at the oversight hearing regarding the Nuclear Regulatory Commission's preliminary results of the nuclear safety review in the United States following the emergency at the Fukushima Daiichi Power Plant in Japan. We appreciate your testimony, and we know that your input will prove valuable as we continue our work on this important topic.

Enclosed are questions that have been submitted by Senators Boxer, Baucus, Inhofe, Vitter, and Sessions for the hearing record. Please submit your answers to these questions by COB August 18, 2011 to the attention of Katie Lee, Senate Committee on Environment and Public Works, 410 Dirksen Senate Office Building, Washington, D.C. 20510. In addition, please provide the Committee with a copy of your answers via electronic mail to [Katie.Lee@epw.senate.gov](mailto:Katie.Lee@epw.senate.gov). To facilitate the publication of the record, please reproduce the questions with your responses.

Again, thank you for your assistance. Please contact Kathy Dedrick of the Majority Staff at (202) 224-8832, or Annie Caputo of the Minority Staff at (202) 224-6176 with any questions you may have. We look forward to reviewing your answers.

Sincerely,

  
 Barbara Boxer  
 Chairman

  
 James M. Inhofe  
 Ranking Member



**Environment and Public Works Committee Hearing**  
**June 16, 2011**  
**Follow-Up Questions for Written Submission**

Questions for Jaczko

Questions from:

Senator Barbara Boxer

1. It has been reported that in April the Japanese government raised the legal limit for radiation exposure for children from 1 to 20 millisieverts a year. Have any studies been done showing that such a high level is safe for children? What levels of radiation have been recorded in the areas near Fukushima, but outside the evacuation zone?
2. Following the tragic events of September 11, 2001, the NRC took decisive actions, including the ordering of so-called "B-5-b" strategies and equipment to help cool down reactor cores and spent fuel pools after large explosions or fires. We are more than 60 days into NRC's Task Force review of U.S. nuclear plants post-Japan. Can you assure me that the NRC is prepared to take similarly decisive actions to address deficiencies identified by the Task Force?
3. Recent NRC inspections turned up numerous problems that need to be corrected at the two plants in California. For example, Diablo Canyon Power Plant is relying on state highways and access roads to reach an alternative seawater source for cooling and diesel fuel that may be inaccessible after an earthquake; and, at San Onofre, the storage locations for some firefighting equipment could be impacted by a seismic event. What is the NRC doing to immediately address issues like these that were identified through inspections conducted after the nuclear emergency in Japan?
4. The NRC's recent inspections have found inconsistencies in how licensees meet the requirements of the voluntary initiatives that the nuclear industry has undertaken to improve safety, when contrasted with the regulatory requirements established and enforced by the NRC. As a result of the Task Force review, will the NRC consider new regulations to provide increased safety and more consistency across nuclear plants in the United States?
5. A recent GAO report (GAO-11-563) recommended that the NRC evaluate whether the nuclear power industry's voluntary Groundwater Protection Initiative has resulted in prompt detection of leaks and, based on these evaluations, determine whether the agency should expand groundwater monitoring requirements. Does the NRC intend to undertake an assessment to ensure that the Groundwater Protection Initiative leads to prompt detection of leaks as nuclear power plants age? If so, please describe what such an assessment will entail.

6. The Associated Press (AP) recently published a series of articles critical of the NRC's oversight of the nuclear power industry. The NRC said it disagreed with many of the AP investigation's observations and conclusions. To what extent has the NRC taken actions to address specific concerns raised in the AP reports?

Senator Max Baucus

1. The Fukushima incident on March 11<sup>th</sup>, 2011, and its aftermath, demonstrated that nuclear facilities with damaged spent fuel pools on-site posed a threat to Japanese public safety. It seems to be counterintuitive to store domestic spent fuel in liquid form for longer than necessary when there are viable alternatives. What is keeping us from expediting the process of converting this liquid form of radioactive material to a safer, solid form?
2. According to the Blue Ribbon Commission's recent report, "local, state, and tribal governments need access to sound, independent scientific and technical expertise" before they commit themselves to a proposed waste site. How can we make the information and the process more transparent to locals to help them make informed decisions? In the event that a community decides to withdraw their offer to host a site, it is important they be able to do so without penalization. What kind of costs do you expect to incur if such back outs were made?
3. Regardless of the location for permanent deep burial, it appears that dry cask storage will be required to meet shipment regulations and for eventual permanent storage. What are the technical and regulatory challenges to storing dry casks on-site until cooling safety standards are met and a permanent location has been established?
4. Currently there is a substantial amount of money in the Nuclear Waste Fund. How could Nuclear Waste Fund dollars be used expeditiously to transport spent fuel for large scale storage?
5. What is the NRC's view of the Blue Ribbon Commission's conclusion about what agency should be responsible for the search for a permanent storage location?
6. Some nuclear safety advocates have focused on the potential for re-entry and reversibility of buried dry cask sites. Given the delicate balance between safety and accessibility to materials in the future, can you comment on the level of accessibility to dry casks after sealing an underground facility and possible proliferation threats upon re-entry?

Senator James M. Inhofe

1. Please provide a list of all dates when the NRC Operations Center was activated in a response mode since 1980. Please include the basis for its activation, the duration of its activation, which mode it was in, and a description of the various response modes.
2. Please provide a list of all the occasions since 1980 that an NRC Chairman has exercised emergency authority granted under Section 3 of the Reorganization Plan of 1980. Please indicate the basis for and duration of the exercise of emergency authority.
3. Please provide a list of the fees billed under 10 CFR Part 170 to license renewal applicants currently under review and the 20 most recently issued license renewals.
4. Please describe the documented public health impacts due to tritium leaks from NRC-regulated facilities.
5. When will the NRC issue the Yucca Mountain Technical Evaluation Report?
6. In keeping with your commitment in the hearing, please provide a comprehensive account of all actions you have taken under your emergency authority since March 11<sup>th</sup>.
7. Do you believe the Commission would benefit from greater involvement of the ACRS on the NRC's longer term review rather than merely reviewing the staff's final product? If not, why not?
8. Please describe the processes the NRC uses to revise its regulatory requirements following new information or world events. Notwithstanding the seriousness of the events in Japan, there doesn't seem to be a reason to alter the Commission's normal processes to take account of any lessons learned from the events in Japan given the repeated assurances that U.S. plants are operating safely. Do you agree? If not, why not?
9. Do the Commission's regulations provide a mechanism for applying lessons learned from Japan to COLs or certified designs already issued? Is there any material difference in NRC's ability to apply those lessons to COLs or certified designs as opposed to plants that are currently licensed and operating?
10. Given NRC's authority to apply lessons learned from Japan to the operating fleet, and the state of the art review the COL and design certification applications have undergone, it doesn't make any sense to delay the licensing process on these applications during the review of the Japan situation. Do you agree? If not, why not?

Senator David Vitter

1. What is the mission of the NRC?
2. Where does the NRC derive its authority?
3. In 1987 Federal law in an Amendment to the Nuclear Waste Policy Act made what location the nation's repository for spent Nuclear fuel?
4. What does this statement mean to you: "I will restore the basic principle that government decisions should be based on the best-available, scientifically valid evidence and not on the ideological predispositions of agency officials or political appointees."?
5. In 2009 Secretary Chu arbitrarily and in violation of established federal law declared that Yucca Mountain would not be the storage facility for spent nuclear fuel and subsequently ordered the DoE's withdrawal of the license application for Yucca Mountain. In 2010 the ALSB ruled that the DoE did not have the authority to withdraw the application as it contravenes congressional intent and existing federal law. Absent the moral or legal authority to disavow expressed congressional intent as established by federal law, what "scientifically valid evidence" without regard to "the ideological predispositions of agency officials or political appointees" was used to determine Yucca Mountain's adequacy as the Spent Fuel site for the United States?
6. Please explain your activity and inactivity with respect to Yucca Mountain since the ASLB rendered its decision on June 29, 2010. As well, please specifically address the following questions:
  - Have the commissioners voted?
  - Were there any recusals?
  - Did you consider recusing yourself?
  - Did you vote?
  - What was/is your vote?
  - Do you consider your vote to be final? Why or Why Not?
  - Under what circumstances might you consider changing your vote?
7. During the events at Fukushima you ordered a 50 mile evacuation limit for reasons of safety - in part because of the risk caused by spent fuel housed at each of the affected reactors. Do you stand by this action?
8. Please explain your justification for the increase in risk to American citizenry by your actions attempting to kill and delay the federally designated facility for U.S. spent nuclear fuel at Yucca Mountain. In addition, what health, social, or economic models have you used to help you determine the "acceptable" increase in risk to American lives and businesses?

9. Where do you derive the authority to act in a manner inconsistent with established Federal law?

10. Please provide statistics for the following items:

- Total number of new reactors licensed since your chairmanship
- Total number of new reactors built since your chairmanship
- The size of America's nuclear fleet before you became chairman as well as the number as it stands today
- The total number of students in graduate nuclear programs across the country
- The total number of new reactors built in China since you became chairman
- The total number of reactors China had built prior to your chairmanship
- The total amount of taxpayer money spent on the Yucca Mountain repository prior to your becoming chairman
- The total number of employees at the NRC prior to your becoming chairman and each year since you have been chairman

Senator Jeff Sessions

1. Do the NRC's licensing standards for nuclear power plants take into account the risk of earthquakes or tsunamis? Does the NRC Staff evaluate the ability of a plant to perform to a more severe earthquake than the design earthquake (i.e., a one in 10,000 year event)?
2. Are all potential nuclear plant sites evaluated for seismic and tsunami activity before the NRC approves them for construction?
3. Please describe how the Commission intends to proceed with hearings on new nuclear plant applications in the near future, and any steps that the NRC is taking to make the hearing process as efficient as is reasonably possible.
4. I am concerned by the slow pace of review for the AP1000 reactor. When will the NRC Staff complete its review of the amendments to the AP1000? How many NRC Staff people were involved, and do you know how many NRC Staff hours were expended in the review of the design amendments? What were the conclusions? Did the NRC's review of the AP1000 design cover: (A) The ability of the plant to survive a severe earthquake; and (B) The ability of the plant's passive cooling system to operate during a loss of offsite power?
5. There has been a great deal of concern about the NRC's handling of the Yucca Mountain licensing. Please provide an update on the status of licensing proceedings related to Yucca Mountain. What specific steps is the Commission taking toward hearing, and ruling upon, the pending appeals of the determination by the Atomic Safety Licensing Board that U.S. Department of Energy was not authorized to withdraw the Yucca Mountain licensing application?

November 10, 2011

The Honorable Barbara Boxer  
Chairman, Committee on Environment and  
Public Works  
United States Senate  
Washington, DC 20510

Dear Chairman Boxer:

The U.S. Nuclear Regulatory Commission appeared before the Committee on Environment and Public Works and the Subcommittee on Clean Air and Nuclear Safety on June 16, 2011 at the hearing entitled "Nuclear Regulatory Commission's Preliminary Results of the Nuclear Safety Review in the United States Following the Emergency at the Fukushima Daiichi Power Plant in Japan". From that hearing, you forwarded questions for the hearing record. The responses to those questions are enclosed. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

*//RAJ/*

Rebecca L. Schmidt, Director  
Office of Congressional Affairs

Enclosures:  
As stated

cc: Senator James M. Inhofe



Questions from Senator Boxer

QUESTION 1.      It has been reported that in April the Japanese government raised the legal limit for radiation exposure for children from 1 to 20 millisieverts a year (mSv/yr). Have any studies been done showing that such a high level is safe for children? What levels of radiation have been recorded in the areas near Fukushima, but outside the evacuation zone?

ANSWER.

There have been reports that the permissible radiation exposure level for children in the Fukushima prefecture was raised to 20 mSv/yr. For perspective, 20 mSv/yr is applied in many countries as a radiation dose limit for occupationally exposed workers. This level of radiation exposure is usually well below exposures that would be harmful. Health effects research compiled by committees, such as the International Commission on Radiation Protection (ICRP), establishes recommendations for radiation protection of workers and the public (including children). In its latest recommendations ICRP recommended a range of 20 to 100mSv as an appropriate level to protect the public *during* an emergency situation. For protection of the public from exposure due to contamination *after* an accident, the recommended range was 1 to 20 mSv/year.

Children are, in general, more sensitive to radiation than adults because more of their cells are dividing and there is a greater opportunity for radiation to disrupt the process. As a reference, Protective Action Guides (PAGs) developed by the United States Environmental Protection Agency (EPA) provide radiological criteria for the early, intermediate, and late phases of a domestic nuclear accident. During the development of the intermediate (relocation) phase PAGs, consideration was given to the higher risk

of effects on health to children and fetuses from radiation dose and the higher risk to some other population groups from relocation. To avoid the complexity of implementing separate PAGs for individual members of the population, the relocation PAG was established at a level that provides adequate protection for the general population. Currently, this value is 20 mSv/yr for the first year and 5 mSv/yr for subsequent years, with a maximum of 50 mSv for 50 years.

In current radiation protection practice, there are no data to directly indicate that there are any deleterious effects of radiation, principally cancer, at these relatively low dose levels.

With respect to doses to the public outside the evacuation zone, the NRC expects to receive data and studies from the Japanese agencies in the future.

**QUESTION 2.**

**Following the tragic events of September 11, 2001, the NRC took decisive actions, including the ordering of so-called "B-5-b" strategies and equipment to help cool down reactor cores and spent fuel pools after large explosions or fires. We are more than 60 days into NRC's Task Force review of U.S. nuclear plants post-Japan. Can you assure me that the NRC is prepared to take similarly decisive actions to address deficiencies identified by the Task Force?**

**ANSWER.**

After the attacks of September 11, 2001, the Commission issued new security guidance in a letter dated October 6, 2001, followed by formal orders requiring the B.5.b strategies on February 25, 2002. After the events in Japan on March 11, 2011, the NRC staff took swift action to perform inspections at all commercial U.S. reactors to determine the readiness of the facilities to implement severe accident management guidelines. The staff also inspected those facilities to assess readiness to implement the B.5.b strategies, now codified in Title 10 CFR 50.54(hh). In addition, on May 11, 2011, the NRC issued *Bulletin 2011-01, Mitigating Strategies*, to require U.S. reactor licensees to provide a comprehensive verification of their compliance with the regulatory requirements of 10 CFR 50.54(hh)(2) and provide information associated with licensee mitigating strategies.

On March 23, 2011, following a unanimous Commission vote, NRC Chairman Jaczko issued *Tasking Memorandum-COMGBJ-11-0002-NRC Actions Following the Events in Japan*. This memorandum directed the staff to establish a senior level agency task force to conduct a methodical and systematic review of NRC processes and regulations. The

Task Force was directed to determine if improvements to the regulatory system are necessary, and also suggest policy recommendations to the Commission, if warranted. On July 12, 2011, the Task Force submitted a report entitled *Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century*, to the Commission.

The NRC staff has engaged with licensees and external stakeholders to review and assess the recommendations of the Near-Term Task Force (NTTF) in a comprehensive and holistic manner for the purpose of providing the Commission with fully-informed options and recommendations. On October 18, 2011, the Commission directed the NRC staff to initiate actions to be implemented without delay stemming from the NTTF report. These actions include the development of orders to require reliable hardened vents for certain boiling water reactor facilities, the initiation of rulemakings to strengthen mitigation capability for the loss of all A/C electrical power, and to strengthen onsite emergency response capabilities and procedures, and reviews of seismic and flooding hazards, emergency equipment and plant staff training. Additionally, in the notation vote paper submitted to the Commission on October 3, 2011, the staff provided its proposed prioritization of the NTTF recommendations to (1) reflect regulatory actions to be taken by the staff in response to the Fukushima lessons learned; (2) identify implementation challenges; (3) include technical and regulatory bases for the prioritization; (4) identify additional recommendations, if any; and (5) include a schedule and milestones with recommendations for appropriate stakeholder engagement and involvement of the Advisory Committee for Reactor Safeguards. Action on this paper is currently pending before the Commission.

**QUESTION 3.**

**Recent NRC inspections turned up numerous problems that need to be corrected at the two plants in California. For example, Diablo Canyon Power Plant is relying on state highways and access roads to reach an alternative seawater source for cooling and diesel fuel that may be inaccessible after an earthquake; and, at San Onofre, the storage locations for some firefighting equipment could be impacted by a seismic event. What is the NRC doing to immediately address issues like these that were identified through inspections conducted after the nuclear emergency in Japan?**

**ANSWER.**

For the examples noted above, NRC inspectors have verified that those issues have been resolved by the licensees for these facilities (Diablo Canyon and San Onofre). The NRC's process for issues identified during inspections requires our inspectors to verify that they are entered into the licensee's corrective action program for resolution, commensurate with their safety significance. Our inspection program follows up on completion of those corrective actions. The timing and resources for NRC follow-up will be proportionate to the significance of the issue.

**QUESTION 4.**

**The NRC's recent inspections have found inconsistencies in how licensees meet the requirements of the voluntary initiatives that the nuclear industry has undertaken to improve safety, when contrasted with the regulatory requirements established and enforced by the NRC. As a result of the Task Force review, will the NRC consider new regulations to provide increased safety and more consistency across nuclear plants in the United States?**

**ANSWER.**

The NRC staff has engaged with licensees and external stakeholders to review and assess the recommendations of the Near-Term Task Force (NTTF) in a comprehensive and holistic manner for the purpose of providing the Commission with fully-informed options and recommendations. On October 18, 2011, the Commission directed the NRC staff to initiate actions to be implemented without delay stemming from the NTTF report. These actions include the development of orders to require reliable hardened vents for certain boiling water reactor facilities, the initiation of rulemakings to strengthen mitigation capability for the loss of all A/C electrical power, and to strengthen onsite emergency response capabilities and procedures, and reviews of seismic and flooding hazards, emergency equipment and plant staff training. Additionally, in the notation vote paper submitted to the Commission on October 3, 2011, the staff provided its proposed prioritization of the NTTF recommendations to (1) reflect regulatory actions to be taken by the staff in response to the Fukushima lessons learned; (2) identify implementation challenges; (3) include technical and regulatory bases for the prioritization; (4) identify additional recommendations, if any; and (5) include a schedule and milestones with recommendations for appropriate stakeholder engagement and involvement of the

Advisory Committee for Reactor Safeguards. Action on this paper is currently pending before the Commission.

**QUESTION 5.**

**A recent GAO report (GAO-11-563) recommended that the NRC evaluate whether the nuclear power industry's voluntary Groundwater Protection Initiative has resulted in prompt detection of leaks and, based on these evaluations, determine whether the agency should expand groundwater monitoring requirements. Does the NRC intend to undertake an assessment to ensure that the Groundwater Protection Initiative leads to prompt detection of leaks as nuclear power plants age? If so, please describe what such an assessment will entail.**

**ANSWER.**

The NRC agrees with the referenced GAO recommendations and has activities underway to address them. GAO recommended that the NRC Chairman direct agency staff to "periodically evaluate the extent to which the industry's voluntary Groundwater Protection Initiative will result in prompt detection of leaks and, based upon these evaluations, determine whether the agency should expand its groundwater monitoring requirements." The NRC routinely inspects nuclear power plant licensees using NRC Inspection Procedure 71124.06, "Radioactive Gaseous and Liquid Effluent Treatment." This procedure requires qualified NRC staff to inspect and verify continued implementation of licensee Groundwater Protection Initiative programs, to review records of identified leakage and spill events, to assess whether the source of the leak or spill was identified and mitigated, and to review any remediation actions taken for effectiveness. Through NRC's inspections of licensee programs, the agency is able to regularly review the status of industry implementation of the Groundwater Protection



Initiative and determine if there is a need to expand groundwater monitoring requirements.

In a recent decision, the Commission directed the staff to monitor industry's voluntary initiatives and present information to the Commission if they find that voluntary initiatives are not conducted in a committed and enduring fashion.

**QUESTION 6.**

**The Associated Press (AP) recently published a series of articles critical of the NRC's oversight of the nuclear power industry. The NRC said it disagreed with many of the AP investigation's observations and conclusions. To what extent has the NRC taken actions to address specific concerns raised in the AP reports?**

**ANSWER.**

As an independent regulatory agency, the NRC has a robust and comprehensive approach to holding U.S. nuclear power plants to strict safety standards. The AP article fails to recognize that the NRC's own inspection and maintenance requirements have led plants to detect and repair, replace or otherwise fix the equipment, systems, or address other issues that were described in the article and in other instances which were not highlighted. For example, the NRC's inspections last year at the Fort Calhoun plant in Nebraska showed that the plant needed to correct deficiencies in its flood response plan. The NRC increased its oversight of Fort Calhoun while the plant responded, and as a result, the plant was well positioned to maintain public health and safety during the extreme Missouri River flooding.

Questions from Senator Baucus

QUESTION 1.       **The Fukushima incident on March 11<sup>th</sup>, 2011, and its aftermath, demonstrated that nuclear facilities with damaged spent fuel pools on-site posed a threat to Japanese public safety. It seems to be counterintuitive to store domestic spent fuel in liquid form for longer than necessary when there are viable alternatives. What is keeping us from expediting the process of converting this form of radioactive material to a safer, solid form?**

ANSWER.

The spent fuel stored in the spent fuel pools at commercial reactor sites is always in a solid form. While there are differences between fuel designs, all have similar general characteristics. During manufacturing and before use in a reactor, the nuclear fuel itself is formed into solid pellets. The pellets are then enclosed in metal tubes generally referred to as cladding. When the fuel pellets are sealed within the metal tubes, this combination constitutes a fuel rod. While the number of fuel rods varies depending on the design, the fuel rods are grouped together and held in place by a metal frame structure. The combination of fuel rods and metal frame structure is a fuel assembly. It is these fuel assemblies that are stored in the spent fuel pools.

As the fuel is used in the reactor, various radioactive materials are produced in the fuel. As those materials decay they produce radiation and heat. When the fuel assemblies are stored in the spent fuel pools, they are covered with water. The water provides shielding for the site workers from the radiation and a means to keeping the spent fuel cool.

The fuel assemblies can eventually be moved out of the spent fuel pool and placed into casks. The casks are dry internally and externally. This means the radioactive material in the spent fuel must have decayed away sufficiently to allow storage in the cask, with respect to both the radiation and heat being generated by the fuel assemblies. The current typical practice is to load the casks with fuel assemblies that have been out of the reactor for five years or more, and that only enough casks are loaded to accommodate the next refueling cycle. To load fuel assemblies that have been out of the reactor less than five years would require significantly more casks.

The NRC considers both spent fuel pools and dry cask storage as safe means of storing spent nuclear fuel, and both are currently necessary. There are pros and cons to moving as many fuel assemblies into casks as quickly as possible. Currently, the NRC is evaluating whether or not implementing such an idea would result in a net increase in safety.

QUESTION 2.

According to the Blue Ribbon Commission's recent report, "local, state, and tribal governments need access to sound, independent scientific and technical expertise" before they commit themselves to a proposed waste site. How can we make the information and the process more transparent to locals to help them make informed decisions? In the event that a community decides to withdraw the offer to host a site, it is important they be able to do so without penalization. What kind costs do you expect to incur if such back outs were made?

ANSWER.

The NRC has an active public outreach program to explain its regulatory program and processes. The NRC will keep the public informed by continuing to make information available on its public website and will hold public meetings and workshops to seek input from a range of stakeholders.

It is difficult to speculate on the costs that would be incurred by NRC if this situation occurred; any such costs would be dependent upon when withdrawal occurs in the regulatory process. If withdrawal occurs after the NRC staff has started its review of a license application, the costs would be greater compared to if withdrawal occurs before a license application is received. The NRC's costs associated with the review of an application are billed to the applicant pursuant to the Omnibus Consolidated Appropriations Act of 1990, as amended, and NRC implementing regulations.



**QUESTION 3.**

**Regardless of the location for permanent deep burial, it appears that dry cask storage will be required to meet shipment regulations and for eventual permanent storage. What are the technical and regulatory challenges to storing dry casks on-site until cooling safety standards are met and a permanent location has been established?**

**ANSWER.**

The Commission has determined through its 2010 update to the waste confidence rule that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation of that reactor (which may include the term of a revised or renewed license) in a combination of storage in its spent fuel pool and either onsite or offsite independent spent fuel storage installations. Further, the Commission found that there is reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary. While the NRC staff does not believe that there are any insurmountable technical or regulatory challenges for transporting or storing spent fuel, pursuant to Commission direction, staff has begun investigations into extended storage (>120 years) and subsequent transportation.

**QUESTION 4.**

**Currently there is a substantial amount of money in the Nuclear Waste Fund. How could Nuclear Waste Fund dollars be used to expeditiously transport fuel for large scale storage?**

**ANSWER.**

As an independent safety regulator, it is not within the purview of the NRC to make recommendations on such matters. The Department of Energy, which manages the Nuclear Waste Fund would be in the best position to make such recommendations.



**QUESTION 5.**

**What is the NRC's view of the Blue Ribbon Commission's conclusion about what agency should be responsible for the search for a permanent storage location?**

**ANSWER.**

The NRC, as an independent safety regulator, takes no position on which agency should be responsible for the search for a permanent spent fuel storage location.

**QUESTION 6.**

**Some nuclear safety advocates have focused on the potential for re-entry and reversibility of buried dry cask sites. Given the delicate balance between safety and accessibility to materials in the future, can you comment on the level of accessibility to dry casks after sealing an underground facility and possible proliferation threats upon re-entry?**

**ANSWER.**

The Nuclear Waste Policy Act and current NRC regulations require that a geologic repository be designed to preserve the option of waste retrieval prior to permanent closure. Retrieving high-level waste might be necessary if, during the operational phase of the repository, monitoring and performance assessment analyses determine that the repository may not comply with EPA standards or NRC regulations. After permanent closure, NRC assumes that waste will not be retrieved and that the repository will not be reopened (i.e. sealing is viewed as a permanent condition). Once a decision has been made to close a repository, the method used to seal the repository should prevent access to the buried waste and pose a minimal proliferation threat.

**Questions from Senator Inhofe**

**QUESTION 1.** Please provide a list of all dates when the NRC Operations Center was activated in a response mode since 1980. Please include the basis for its activation, the duration of its activation, which mode it was in, and a description of the various response modes.

**ANSWER.**

Please refer to the answer to this question provided to the Committee by letter dated October 13, 2011.

**QUESTION 2.** Please provide a list of all the occasions since 1980 that an NRC Chairman has exercised emergency authority granted under Section 3 of the Reorganization Plan of 1980. Please indicate the basis for and duration of the exercise of emergency authority.

**ANSWER.**

A list of the times and the associated duration in which the NRC has responded to an emergency situation is contained in the response to the previous question, which was provided to the Committee by letter dated October 13, 2011.

**QUESTION 3.** Please provide a list of the fees billed under 10 CFR 170 to license renewal applicants currently under review and the 20 most recently issued license renewals.

**ANSWER.**

Please refer to the answer to this question provided to the Committee by letter dated October 13, 2011.

**Question 4. Please describe the documented public health impacts due to tritium leaks from NRC regulated facilities.**

**ANSWER:**

We are not aware of documented public health impacts due to tritium leaks from NRC-regulated facilities. The tritium concentrations resulting from leaks at power reactors have not reached levels that would cause adverse health impacts to the public. Only a small percentage of these leaks have been detectable outside of the nuclear sites. For the few leaks where tritium was detected off site, all had groundwater concentrations significantly below any regulatory limits.

**QUESTION 5.      When will the NRC issue the Yucca Mountain Technical  
Evaluation Report?**

**ANSWER.**

The technical evaluation report on the "Repository Safety After Permanent Closure" was issued on July 21, 2011. The technical evaluation report on pre-closure activities was issued on September 1, 2011, and the technical evaluation report on administrative and programmatic activities was issued on September 13, 2011.

**QUESTION 6.** In keeping with your commitment in the hearing, please provide a comprehensive account of all actions you have taken under your emergency authority since March 11<sup>th</sup>.

**ANSWER.**

**Summary of Chairman's Response to  
Japan Earthquake, Tsunami and Nuclear Emergency**

The following constitutes a summary of actions taken in response to the emergency in Japan. An overview of the communications to my Commission colleagues during this time period is included at the end of the narrative summary.

On Friday, March 11, when the earthquake and tsunami struck, the NRC's headquarters Operations Center began operating on a 24-hour basis to monitor and analyze events at the nuclear power plants in Japan. At the request of the Japanese government, and through the United States Agency for International Development (USAID), the NRC sent a team of its technical experts to provide on-the-ground support, and we maintained continual contact with them. And, within the United States, the NRC worked closely with other Federal agencies as part of our government's response to the situation.

I traveled to Japan over the weekend of March 26-27 to convey a message of support and cooperation to our Japanese counterparts and to assess the current situation. During the time I was there, I also met with senior Japanese government and TEPCO officials, and consulted with our NRC team of experts who were in Japan as part of our assistance effort.

The decision to recommend a 50-mile radius evacuation of U.S. citizens near the Fukushima Daiichi site was based on limited information and the best assessment of conditions as we understood them at the time. Four of the six plants at the site were facing extraordinary challenges, including hydrogen explosions and the possibility of overheating in a spent fuel pool containing a recent full core offload of fuel. In addition, radiation monitors were showing very high levels of radiation on the plant site, which would impede workers trying to stabilize the reactors.

Calculations performed by NRC experts indicated that EPA protective action dose guidelines could be exceeded at a distance of 50 miles from the site if the situation continued to deteriorate - as seemed possible - and a large-scale release occurred. These calculations were considerations for the NRC in making a prudent, conservative input for a travel advisory, to the White House and Department of State, to evacuate American citizens out to 50 miles from the affected nuclear site.

The NRC began to systematically and methodically evaluate the lessons being learned at Fukushima Daiichi as they might apply to the safety of reactors in the United States and relay important information to our country's nuclear power plants. In communicating



this information to licensees, we sought to assist them in considering the ramifications of a similar event for their facilities and to take site-specific actions, as appropriate.

In addition to communicating information to licensees, the NRC also focused and enhanced our oversight on issues highlighted by our observations of the events at Fukushima. We issued instructions to our inspectors, calling for immediate, independent assessments of each plant's level of preparedness. The instructions covered Extensive Damage Mitigation Guidelines, station blackout, and seismic and flooding issues, as well as Severe Accident Management Guidelines. Our resident inspector program, which stations NRC inspectors at all operating U.S. nuclear plants, enabled the NRC to take prompt oversight action.

As a follow-up to the Extensive Damage Mitigation Guidelines inspections and our other routine oversight activities, we issued a Bulletin on licensee mitigation strategies. In response to the Bulletin, plants were expected to provide information on a broad range of issues, including whether they have the people and equipment in place to carry out their mitigation strategies. Licensees were also required to provide information on how they will keep their strategies and plans updated to reflect changing conditions. This information enables the agency to determine whether additional actions to ensure compliance or other improvements are necessary.

The Commission has undertaken a systematic and methodical review of our nuclear safety program. On March 21, the Commission established a senior-level Task Force, made up of some of the agency's most experienced and expert staff. Collectively, the Task Force members have more than 135 years of regulatory experience. They were asked to conduct a short-term review, to assist the Commission to better understand the events in Japan and determine the implications for domestic nuclear safety.

In line with our overall agency approach to nuclear safety, the Task Force took a defense-in-depth approach focused on prevention, mitigation, and emergency response. They examined a broad range of issues, including seismic, flooding, and other natural hazards, how to maintain power during these types of events, how to mitigate the potential loss of power, and emergency preparedness. In working through these issues, the Task Force relied on information and analysis from the NRC Operations Center, the NRC's site team in Japan, and dozens of other agency experts. They also called on experts from throughout the federal government, including the Federal Emergency Management Agency, which engaged the Task Force in discussions of offsite emergency preparedness and provided insights on the U.S. National Response Framework; the Institute of Nuclear Power Operations, which shared information on the industry's post-Fukushima actions; and other groups and individuals who shared their views with the Task Force.

The time constraints of the short-term review understandably placed limitations on the extent of stakeholder involvement, but in line with the NRC commitment to openness and transparency, three public meetings – at the 30-day, 60-day and 90-day mark – were held by the Commission, and the final short-term Task Force Report and recommendations were provided to the Commission on July 12, and made public on July 3.

The longer-term review report will also be made publicly available. During the longer-term review, the public, licensees, public interest groups and other key stakeholders will

have extensive opportunities for input. In addition, the report emerging from the longer-term review will be reviewed by the Advisory Committee on Reactor Safety.

Our safety review is examining a broad range of events and risks. Those include hazards specifically contemplated in the design basis and others beyond the design basis. Specifically, we are evaluating the requirements and safety margins for seismic and flooding events, and other external events that might inflict widespread damage to the plant and lead to an extended station blackout. Our review is not limited to the type of seismic/tsunami event experienced by Japan. We are also looking at risks posed by other types of flooding (including dam failures and river flooding), fires, and combinations of different events.

In addition to prevention, we are reexamining effective mitigation strategies for severe accidents. The Fukushima event has highlighted the challenges of coping with long-term station blackout and underscored the importance of mitigating its consequences. In moving forward with this part of our review, we are guided by two main goals: (1) to prevent core damage and containment failure, and (2) to prevent spent fuel damage and mitigate releases. Among the considerations being examined are: (1) the effectiveness of containment venting strategies; (2) the fuel inventory of spent fuel pools; and (3) hydrogen control measures for the reactor building.

We are also examining a number of cross-cutting considerations related to a plant's ability to mitigate a long-term station blackout event. Our current approach is a robust, multi-layered framework. It includes regulatory requirements for emergency operating procedures to address design basis events, requirements under the station blackout rule for coping and recovering from beyond design basis events, guidelines for responding to extensive plant damage from fires or explosions, and voluntary guidelines for mitigating severe accidents. Because these various regulatory requirements and voluntary guidelines are not currently integrated, we are assessing whether changes should be made that might better ensure a seamless response to severe accidents.

As part of our review, the NRC is also examining implications for our approach to emergency preparedness. The Fukushima event has demonstrated the challenges in implementing emergency response plans in the context of widespread infrastructure damage, multi-unit events, and long-term station blackout. Although we have recently completed a revised emergency preparedness rule, we are taking a fresh look at these issues to see if there are other possible improvements.

In line with our national approach to emergency preparedness, the NRC recognizes that this is a shared responsibility with other federal agencies, state and local authorities, and the private sector licensees. As we examine these issues more closely, we will work with those entities to ensure that we have a full appreciation of their roles and perspectives and make the best decisions for nuclear safety.

In considering the Task Force recommendations, the Commission must move forward with the urgency called for by these real safety issues. Although the Task Force did not find imminent risk to public health and safety, they did identify significant concerns with specific issues and what they described as the NRC's "patchwork of regulatory requirements and other safety initiatives," and they recommended improving the agency's regulatory framework. As stated in the Task Force report, "...an accident involving core damage and uncontrolled release of radioactive material to the

environment, even one without significant health consequences, is inherently unacceptable." Fukushima clearly demonstrated that extraordinary circumstances can challenge plants in unexpected ways, and we must commit to a strong and timely response. The American public expects no less.

#### Communicating with the Commission

Throughout the two months of the emergency in Japan, I ensured my colleagues on the Commission were kept updated on events as they unfolded. These updates were in the form of briefings by me, occurring once per day in the first week after the earthquake, and on an ad hoc basis after March 18th. Commissioner's staff also received briefings from the Executive Team working in the NRC Operations center. In addition, each office received written status reports from our Operations center at regular intervals.

**Between Friday, March 11<sup>th</sup>, when the earthquake and tsunami occurred, and May 16<sup>th</sup>, when the NRC exited monitoring mode, Commission offices participated in approximately 65 briefing calls and received more than 100 written status updates.**

#### First 24 Hours of NRC Response

At 9:46 am on Friday March 11<sup>th</sup> the NRC Operations Center entered monitoring mode in response to the events in Japan.

At 10:09 am on 3/11/2011 - 23 minutes after entering monitoring mode, the NRC Operations Center sent an email to announce the change in status to monitoring mode. All Commission offices received this announcement.

At 1:04 pm on 3/11/2011 - 3 hours and 18 minutes after entering monitoring mode, the first briefing of the Commissioner's Assistants was conducted by the Executive Team (ET) working at the Operations Center.

**In the first twenty-four hours after entering monitoring mode, the Commissioner's Assistants were briefed by the ET four times.**

#### Discussions with Commission, Meetings and Hearings (March 11<sup>th</sup> through May 16<sup>th</sup>)

Friday March 11<sup>th</sup>, Individual meeting with Commissioner Apostolakis  
Saturday March 12<sup>th</sup>, 3:00 pm, Non-Sunshine Act Discussion (NSAD) Briefing call with Commission  
Sunday March 13<sup>th</sup>, 4:00 pm, NSAD Briefing call with Commission  
Monday March 14<sup>th</sup>, 4:30 pm, NSAD Briefing call with Commission  
Tuesday March 15<sup>th</sup>, 7:30 pm, NSAD Briefing call with Commission  
Wednesday March 16<sup>th</sup>  
Testimony before House Joint Subcommittees of Energy and Commerce Committee  
Public Briefing of Senate Environment and Public Works Committee  
Thursday March 17<sup>th</sup>, 4:00 pm, NSAD Briefing call with Commission  
Friday March 18<sup>th</sup>, 10:00 am, NSAD Briefing call with Commission  
Sunday March 20<sup>th</sup>, Phone call with Commissioner Ostendorff  
Monday March 21<sup>st</sup>  
Commission Meeting – Briefing on NRC Response to Recent Nuclear Events in Japan

Individual meeting with Commissioner Ostendorff  
Wednesday March 23<sup>rd</sup>, Individual meeting with Commissioner Svinicki  
Thursday March 24<sup>th</sup>, Individual meeting with Commissioner Apostolakis  
Friday March 25<sup>th</sup>, Individual meeting with Commissioner Apostolakis  
Saturday March 26<sup>th</sup>  
Phone Call with Commissioner Magwood  
6:40 pm, NSAD Briefing Call with Commission  
Wednesday March 30<sup>th</sup>  
9:00 am NSAD Briefing Call with Commission (2 Commissioners participated)  
Testimony before Senate Appropriations Committee, Energy and Water  
Subcommittee Individual meeting with Commissioner Svinicki  
Thursday March 31<sup>st</sup>  
9:00 am NSAD Briefing Call with Commission (1 Commissioner participated)  
Testimony before House Appropriations Committee, Energy and Water Subcommittee  
Closed Commission Meeting: Discussion of Adjudicatory Issues  
Individual meeting with Commissioner Ostendorff  
Thursday April 7<sup>th</sup> –  
NSAD Briefing Call with Commission scheduled, Commission decided to cancel  
Individual meeting with Commissioner Ostendorff  
Tuesday, April 12<sup>th</sup>  
Testimony before Senate Environment and Public Works Committee and Clean Air and  
Nuclear Safety Subcommittee  
Thursday, April 28<sup>th</sup>  
Commission Meeting – Briefing on the Status of NRC Response to Events in Japan  
and Briefing on Station Blackout (open and closed portions)  
Tuesday, May 3<sup>rd</sup>  
Commission Meeting – Information Briefing on Emergency Preparedness  
Wednesday, May 4<sup>th</sup>  
Testimony before House Committee on Energy and Commerce Subcommittees on  
Energy and Power, and Environment and the Economy  
Thursday, May 12<sup>th</sup>  
Commission Meeting – Briefing on the Progress of the Task Force Review (30-day  
status) of NRC Processes and Regulations Following the Events in Japan

#### Commissioner's Assistant Phone Calls

After receiving three briefings in approximately the first 12 hours after entering monitoring mode, beginning on Saturday March 12<sup>th</sup>, Commissioners Assistants (CAs) agreed to an every-8-hour briefing schedule.

On Tuesday March 15<sup>th</sup>, CAs decided to move to every-12-hour briefings.

On Thursday March 31<sup>st</sup>, per the recommendation of CAs, the briefings became once daily.

On Sunday April 10<sup>th</sup>, CAs decided to go to twice-a-week briefings, Tues/Thurs schedule.

**As of May 16<sup>th</sup>, there had been approximately 65 briefings from the Executive Team to Commissioners Assistants.**

Written Status Updates from Headquarters Operations Officer (HOO)

Date:	# of Reports Generated:
3/11	3
3/12	8
3/13	4
3/14	4
3/15	4
3/16	3
3/17	3

Beginning on March 18<sup>th</sup>, decreased to twice-daily production of Status Update reports.

On Monday April 11<sup>th</sup>, decreased to once-daily production of Status Update reports.

On Friday April 22<sup>nd</sup>, decreased to once-daily production of Status Update reports, Mondays – Fridays.

**As of May 16<sup>th</sup>, when the NRC exited monitoring mode, the Commission had received more than 100 written status updates. In addition, the Commission received other written information, and had access to the internal website where all of these reports were being maintained.**

**QUESTION 7. Do you believe the Commission would benefit from greater involvement of the ACRS on the NRC's longer term review rather than merely reviewing the staff's final product? If not, why not?**

**ANSWER.**

The ACRS has a great wealth of knowledge and experience that is valued at the NRC. The ACRS was established as a statutory Committee to the Atomic Energy Commission by a 1957 amendment to the Atomic Energy Act of 1954. The functions of the Committee are described in Sections 29 and 182b of the Act. The Energy Reorganization Act of 1974 transferred the AEC licensing functions to the NRC, and the ACRS has continued in the same advisory role to the NRC.

An October 28, 2009 Memorandum of Understanding (MOU) between the Office of the Executive Director for Operations and the Executive Director for the Advisory Committee on Reactor Safeguards outlines the process for ACRS involvement and review of relevant NRC staff actions. The MOU establishes a process for ensuring that ACRS reviews are done at a sufficiently early stage to permit effective and efficient interaction. The NRC staff solicits ACRS views early in the development of NRC rules and safety- and risk- significant guidance; in licensing decisions; and in resolution of technical issues. As such, it is important to point out that the ACRS' review of the task force recommendations will consist of multiple reviews and interactions and will not be a single review of the staff's final products.

**QUESTION 8.**

**Please describe the processes the NRC uses to revise its regulatory requirements following new information or world events. Notwithstanding the seriousness of the events in Japan, there doesn't seem to be a reason to alter the Commission's normal processes to take account of any lessons learned from the events in Japan given the repeated assurances that U.S. plants are operating safely. Do you agree? If not, why not?**

**ANSWER.**

The Commission has not altered its normal processes to take account of the lessons learned from the events in Japan. The NRC has an active operational events program where domestic and world nuclear events are promptly evaluated for their applicability and significance to the U.S. nuclear power plants. This includes information sharing agreements with world nuclear organizations.

Using the Japanese example, there were initial and follow-on assessments using the information as it became available from the Fukushima accident, and vulnerabilities that may be common to the plants in the United States.

Commission procedures for policy making decisions are also being followed in response to events in Japan. On March 23, 2011 following a unanimous Commission vote, NRC Chairman Jaczko issued *Tasking Memorandum-COMGBJ-11-0002-NRC Actions Following the Events in Japan*. This memorandum directed the staff to establish a senior level agency task force to conduct a methodical and systematic review of NRC processes and regulations. The Task Force was directed to determine if improvements

to the regulatory system are necessary, and also suggest policy recommendations to the Commission, if warranted. On July 12, 2011, the Task Force submitted a report entitled *Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century*, to the Commission.

The NRC has engaged with licensees and external stakeholders to review and assess the recommendations of the Near-Term Task Force (NTTF) in a comprehensive and holistic manner for the purpose of providing the Commission with fully-informed options and recommendations. On October 18, 2011, the Commission voted to direct the NRC staff to begin immediately implementing seven of the 12 safety requirements from the NRC's Near-Term Task Force on lessons learned from the reactor accident at Fukushima. These issues cover issues including the loss of all A/C electrical power at a reactor, reviews of seismic and flooding hazards, emergency equipment and plant staff training. Additionally, in the Commission notation vote paper submitted to the Commission on October 3, 2011, the staff provided the prioritization of the NTTF recommendations to (1) reflect regulatory actions to be taken by the staff in response to the Fukushima lessons learned; (2) identify implementation challenges; (3) include technical and regulatory bases for the prioritization; (4) identify additional recommendations, if any; and (5) include a schedule and milestones with recommendations for appropriate stakeholder engagement and involvement of the Advisory Committee for Reactor Safeguards. Action on this paper is currently pending before the Commission.



**QUESTION 9.**

**Do the Commission's regulations provide a mechanism for applying lessons learned from Japan to COLs or certified designs already issued? Is there any material difference in NRC's ability to apply those lessons to COLs or certified designs as opposed to plants that are currently licensed and operating?**

**ANSWER.**

Yes. The Commission can apply lessons learned from Japan to combined licenses (COL) and design certifications. Although the Commission has yet to issue any COLs, once issued, the Commission could modify, add, or delete any terms or conditions of the COL to reflect any new Commission requirements in accordance with the regulatory provisions found in 10 CFR 52.83, 52.98, and 50.109, depending on whether the COL references an early site permit (ESP) or a design certification rule (DCR), and whether the license conditions address matters within the scope of the referenced ESP or certified design. The criteria for implementation of any Commission decisions as a result of lessons learned from Japan would generally be comparable for both COLs and for operating reactors, which is 10 CFR 50.109 (the Backfit Rule).

Regarding design certifications, the Commission can apply lessons learned from Japan through an amendment to an existing certified design rule or in a separate rulemaking if the "issue finality" provisions of 10 CFR 52.63 are met.

On October 18, 2011, the Commission voted to direct the NRC staff to begin immediately implementing seven of the 12 safety requirements from the NRC's Near-Term Task Force on lessons learned from the reactor accident at Fukushima. These issues cover issues including the loss of all A/C electrical power at a reactor, reviews of

seismic and flooding hazards, emergency equipment and plant staff training.

Additionally, in the Commission notation vote paper submitted to the Commission on October 3, 2011, the staff provided the prioritization of the NTF recommendations to (1) reflect regulatory actions to be taken by the staff in response to the Fukushima lessons learned; (2) identify implementation challenges; (3) include technical and regulatory bases for the prioritization; (4) identify additional recommendations, if any; and (5) include a schedule and milestones with recommendations for appropriate stakeholder engagement and involvement of the Advisory Committee for Reactor Safeguards. Action on this paper is currently pending before the Commission.

**QUESTION 10.**

**Given NRC's authority to apply lessons learned from Japan to the operating fleet, and the state of the art review the COL and design certification applications have undergone, it doesn't make any sense to delay the licensing process on these applications during the review of the Japan situation. Do you agree? If not, why not?**

**ANSWER.**

On September 9, 2011, in response to a series of petitions, the Commission declined to suspend the licensing process. The Fukushima Task Force report contains three specific recommendations for near-term combined license (COL) applications: 1) COLs referencing the AP1000 and ESBWR should address the prestaged equipment requirements for coping with station blackout beyond 72 hours, and have ITAAC to confirm effective implementation of minimum and extended coping time for station blackout ; 2) enhance onsite emergency response capability through the integration of emergency operating procedures, severe accident management guidelines, and extensive damage mitigation guidelines; and 3) enhance emergency planning to address prolonged station blackout and multi-unit accidents. Prior to issuance of the COLs, the Commission could choose to adopt some or all of these recommendations and implement them in the COLs through license conditions. Alternatively, the Commission could issue the COLs and later modify, add, or delete any terms and conditions of the COLs to reflect any new Commission requirements in accordance with the regulatory provisions found in 10 CFR 52.83, 52.98, and 50.109, depending on whether the COL references an early site permit (ESP) or a certified design and whether the license conditions address matters within the scope of the referenced early site permit (ESP) or

certified design. Under this approach, the criteria for implementation of any Commission decisions on the Task Force recommendations generally would be comparable for both the near-term COLs and for operating reactors which is 10 CFR 50.109 (the Backfit Rule).

**Questions from Senator Vitter**

**QUESTION 1.      What is the mission of the NRC?**

**ANSWER:**

The NRC's mission is to license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.

**QUESTION 2.      Where does the NRC derive its authority?**

**ANSWER:**

The NRC derives its authority from several Federal statutes. These include the Atomic Energy Act of 1954 (42 U.S.C. § 2011 *et seq*), the Energy Reorganization Act of 1974 (42 U.S.C. § 5801 *et seq*), and the Reorganization Plan No. 1 of 1980.

QUESTION 3.

**In 1987 Federal law in an Amendment to the Nuclear Waste Policy Act made what location the nation's repository for spent Nuclear fuel?**

ANSWER:

Congress named Yucca Mountain, Nevada as the only site to be characterized as a potential high level waste repository.

**QUESTION 4.**

**What does this statement mean to you: "I will restore the basic principle that government decisions should be based on the best-available, scientifically valid evidence and not on the ideological predispositions of agency officials or political appointees."?**

**ANSWER.**

**This statement says that agency decisions should be based on sound science.**



**QUESTION 5.**

**In 2009, Secretary Chu arbitrarily and in violation of established federal law declared that Yucca Mountain would not be the storage facility for spent nuclear fuel and subsequently ordered the DOE's withdrawal of the license application for Yucca Mountain. In 2010, the ASLB ruled that DOE did not have the authority to withdraw the application as it contravenes congressional intent and existing federal law. Absent the moral or legal authority to disavow expressed congressional intent as established by federal law, what "scientifically valid evidence" without regard to "the ideological predispositions of agency officials or political appointees" was used to determine Yucca Mountain's adequacy as the Spent Fuel site for the United States?**

**ANSWER.**

The Department of Energy is the best source to address what information the Secretary considered when deciding to file a motion to withdraw its construction authorization application.

**QUESTION 6.**

**Please explain your activity and inactivity with respect to Yucca Mountain since the ASLB rendered its decision on June 29, 2010. As well, please specifically address the following questions:**

- **Have the commissioners voted?**
- **Were there any recusals?**
- **Did you consider recusing yourself?**
- **Did you vote?**
- **What was/is your vote?**
- **Do you consider your vote to be final? Why or why not?**
- **Under what circumstances might you consider changing your vote?**

**ANSWER.**

**Have the commissioners voted?**

Yes. The Office of Commission Appellate Adjudication (an office charged principally with drafting appellate opinions for the Commission) submitted to the Commission a notation vote paper to the Commission associated with the June 29, 2010, ASLB decision, providing recommendations for Commission action. All four participating Commissioners have filed notation vote sheets with the Secretary of the Commission with respect to that paper, consistent with the notation voting process in Chapter III of the Internal Commission Procedures, as follows:

- **Chairman Jaczko – August 25, 2010 (withdrawn on August 27, 2010, re-filed on October 29, 2010)**
- **Commissioner Svinicki – August 25, 2010**

- Commissioner Ostendorff – August 26, 2010
- Commissioner Magwood – September 15, 2010

**Were there any recusals?**

Commissioner Apostolakis recused himself from the *Yucca Mountain* adjudicatory proceeding on July 15, 2010.

**Did you consider recusing yourself?**

I recused myself from deliberations on the Yucca Mountain matter for the first year of my tenure on the Commission to demonstrate my impartiality.

**Did you vote?**

Yes, as stated above, I voted on October 29, 2010. The Commission's voting is complete and the Commission issued a unanimous Order on September 9, 2011. This Order indicated that we were evenly divided on DOE's motion to withdraw its construction authorization application with prejudice and directed the Board to, by the close of the current fiscal year, complete all necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding.

**What was/is your vote?**

Individual votes by those sitting on the Commission on adjudicatory matters are not made public, allowing the Commission order to speak for the Commission.

**Do you consider your vote to be final?**

As mentioned above, the notation vote process in Chapter III of the Internal Commission Procedures applies here. As to adjudicatory matters, OCAA transmits to the Commission a notation vote paper, which typically contains one or more proposed adjudicatory decisions, together with a recommendation for Commission action. Individual Commissioners then cast votes on the matter. Completion of Commission action on an adjudicatory matter is a dynamic process. In adjudicatory

matters (as in all voting matters) votes may subsequently be supplemented, withdrawn and re-filed, edited or otherwise revised during the deliberative process. Once voting is completed, OCAA will compile a draft memorandum and order reflecting the Commissioners' votes. Following the filing of notation votes, the Commission may engage in additional deliberations in order to reach a majority position on an adjudicatory matter. Over the course of those deliberations, one or more Commissioners may revise aspects of a vote, or an entire vote, in order to reach compromise on a decision that reflects the opinion of either the full Commission, or a majority thereof. Once a Commission majority reaches agreement, the Commissioners affirm their positions on the final decision in a public affirmation session, and the final order is issued. That final decision serves as the Commission record on the adjudicatory question or questions at hand. The Commission issued a final order associated with the June 29, 2010 ASLB decision on September 9, 2011. (CLI-11-7)

**Under what circumstances might you consider changing your vote?**

In view of the final order issued on September 9, 2011, this matter is no longer pending before the Commission.

**QUESTION 7.**

**During the events at Fukushima you ordered a 50-mile evacuation limit for reasons of safety – in part because of the risk caused by spent fuel housed at each of the affected reactors. Do you stand by this action?**

**ANSWER.**

Yes, NRC continues to believe that its 50-mile evacuation recommendation was prudent and conservative regarding the protection of U.S. citizens in Japan.

The decision to recommend a 50-mile radius evacuation of U.S. citizens near the Fukushima Daiichi site was based on limited information and the best assessment of conditions as we understood them at the time. Four of the six plants at the site were facing extraordinary challenges, including hydrogen explosions and the possibility of overheating in a spent fuel pool containing a recent full core offload of fuel. In addition, radiation monitors were showing very high levels of radiation on the plant site, which would impede workers trying to stabilize the reactors.

Calculations performed by NRC experts indicated that EPA protective action dose guidelines could be exceeded at a distance of 50 miles from the site if the situation continued to deteriorate – as seemed possible – and a large scale release occurred. These calculations were considerations for the NRC in making a prudent, conservative input for a travel advisory, to the White House and Department of State, to evacuate American citizens out to 50 miles from the affected nuclear site. Subsequent environmental sampling by Government of Japan and U.S. Department of Energy scientists found radioactive materials deposited out to 50 miles of the Fukushima Daiichi

site that exceeded EPA dose guidelines. The U.S. and international scientific agency consensus is that the extent of this deposition resulted from significant reactor core degradation and loss of containment barriers from Units 1, 2 and 3 reactors.

Over the past few months, conditions at the damaged Fukushima Daiichi facility in Japan have steadily improved and Tokyo Electric Power Company is progressing on recovery efforts. Based on current site conditions as reported by the Government of Japan, and models done by the U.S. Department of Energy, the NRC staff performed additional technical analyses that indicate that additional large radioactive releases are unlikely to occur. With conditions at and around the Fukushima Daiichi facility stabilizing, the State Department's Travel Alert reduced the existing 50-mile evacuation recommendation that was issued on October 7, 2011.

**QUESTION 8.**

**Please explain your justification for the increase in risk to American citizenry by your actions attempting to kill and delay the federally designated facility for U.S. spent fuel at Yucca Mountain. In addition, what health, social, or economic models have you use to help you determine the "acceptable" increase in risk to American lives and businesses?**

**ANSWER.**

The role of the NRC, as an independent regulator, is to review a licensee's application for a proposed geologic repository and determine the safety of the repository. As discussed earlier, DOE submitted a motion to withdraw the Yucca Mountain application. On September 9, 2011, the Commission issued a unanimous Order in the matter. This Order indicated that we were evenly divided on DOE's motion to withdraw its construction authorization application with prejudice and directed the Board to, by the close of the current fiscal year, complete all necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding.

The Commission does not believe the delay in licensing a federal repository poses an immediate risk to the public. The Commission has determined through our revision of our Waste Confidence rule that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and either onsite or offsite independent spent fuel storage installations. Further, the

Commission finds there is reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary.



**QUESTION 9.        Where do you derive the authority to act in a manner  
                         inconsistent with established Federal law?**

**ANSWER.**

I follow the authorities given to the Chairman in the Atomic Energy Act of 1954 (42 U.S.C. § 2011 *et seq.*), the Energy Reorganization Act of 1974 (42 U.S.C. § 5801 *et seq.*), and the Reorganization Plan No. 1 of 1980 and other applicable statutes.

**QUESTION 10.**

**Please provide statistics for the following items:**

- a. Total number of new reactors licensed since your chairmanship**
- b. Total number of new reactors built since your chairmanship**
- c. The size of America's nuclear fleet before you became chairman as well as the number as it stands today**
- d. The total number of students in graduate nuclear programs across the country**
- e. The total number of new reactors built in China since you became chairman**
- f. The total number of reactors China had built prior to your chairmanship**
- g. The total amount of taxpayer money spent on the Yucca Mountain repository prior to your becoming chairman**
- h. The total number of employees at the NRC prior to your becoming chairman and each year since you have been chairman**

**ANSWER.**

- a. Total number of new reactors licensed since your chairmanship**

There have been no new reactors licensed during my tenure, or the tenures of the previous four NRC Chairmen. The last new reactor licensed was Watts Bar 1 in 1996. Currently, the NRC has 12 COL applications for 20 units under active review. NRC expects to issue decisions about the COLs for 4 new reactors early in 2012.

As of June 30, 2011 the NRC has completed the technical reviews on a design certification (DC) application and two design certification amendments: GE-Hitachi's Economic Simplified Boiling Water Reactor, Westinghouse's AP1000 DC amendment and STP Nuclear Operating Company's ABWR DC amendment to address the aircraft impact rule. The NRC expects to complete the rulemaking activities for the AP1000 by the end of 2011.

In addition, as of March 2011, 71 units at 41 sites have received renewed licenses.

**b. Total number of new reactors built since your chairmanship**

There have been no new reactors built since 1996. Currently, one reactor at the Watts Barr 2 site is under construction. Additionally, on March 8, 2010, Southern Nuclear Operating Company began site construction at Vogtle Unit 3 under a limited work authorization issued in August 2009. Site activities authorized under the limited work authorization include preliminary construction activities such as excavation and placement of engineered backfill.

**c. The size of America's nuclear fleet before you became chairman as well as the number as it stands today**

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**d. The total number of students in graduate nuclear programs across the country**

According to the Department of Education's "Digest of Education Statistics: 2010," in 2008 there were 1,201 nuclear graduate enrollments in degree-granting institutions

**e. The total number of new reactors built in China since you became chairman**

The NRC is a domestic safety regulator. Please contact the Department of State or the Chinese government for information on the Chinese nuclear program. Additionally, the International Atomic Energy Agency's (IAEA) Power Reactor Information System has current information on international construction activities.

**f. The total number of reactors China had built prior to your chairmanship**

The NRC does not track such statistics. As mentioned above, the IAEA's Power Reactor Information System is a good source of information on this topic.

**g. The total amount of taxpayer money spent on the Yucca Mountain repository prior to your becoming chairman**

Prior to my becoming Chairman on May 13, 2009, the NRC had expended approximately \$550 million in Nuclear Waste Funds in its activities related to the Yucca Mountain nuclear waste repository. The amount appropriated to the NRC has declined each year since FY '09. The Nuclear Waste Fund consists of money collected from fees levied against utilities that produce nuclear energy and must be appropriated by Congress prior to being expended by NRC. The total amount spent may be better answered by the Department of Energy, which manages the Nuclear Waste Fund.

**h. The total number of employees at the NRC prior to your becoming chairman and each year since you have been chairman.**

When I became Chairman of NRC on May 13, 2009, NRC had approximately 3937 employees. One year later in May, 2010, the NRC had approximately 3976 employees, and as of May, 2011 the NRC has approximately 3962 employees.

**Question from Senator Sessions**

**QUESTION 1.** Do the NRC's licensing standards for nuclear power plants take into account the risk of earthquakes or tsunamis? Does the NRC Staff evaluate the ability of a plant to perform to a more severe earthquake than the design earthquake (i.e., a one in 10,000 year event)?

**ANSWER.**

Yes, the NRC's regulations require that nuclear power plants take into account the risk caused by natural hazards, including earthquakes and tsunamis. The regulatory requirements establish the seismic design bases for currently operating nuclear power plants. Specifically, they require the design basis for systems, structures, and components to reflect appropriate consideration of the most severe of the natural phenomenon that have been historically reported for the site and surrounding area, with sufficient margin. 10 CFR Part 50, Appendix A, requires specifically that "nuclear power plant structures, systems and components important to safety be designed to withstand the effects of natural phenomena such as earthquakes, tornados, hurricanes, floods, tsunami, and seiches without loss of capability to perform their safety functions." Even those nuclear plants that are located within areas with low and moderate seismic activity are designed for safety in the event of such a natural disaster. The NRC requires that safety-significant structures, systems, and components be designed to take into account even rare and extreme seismic and tsunami events. In addition to the design of the plants, significant effort goes into emergency response planning and accident management.

The NRC also requires the nuclear industry to evaluate the nuclear power plant's capability to perform beyond the design basis earthquake and has made substantial efforts over time to ensure that nuclear power plant vulnerabilities to postulated internal and external events were considered and mitigated in the current design of its regulated facilities. In the mid-to-late 1990's, the NRC staff reviewed the potential for earthquake ground motions beyond the design basis as part of the individual plant examination of external events. From this review, the staff determined that seismic designs of operating nuclear plants in the U.S. have adequate safety margins for withstanding earthquakes. The NRC is currently in the process of conducting a generic review (i.e., Generic Issue-199 (GI-199), Implications of Updated Probabilistic Seismic Hazard Estimates in the Central and Eastern U.S. on Existing Plants), to re-assess the resistance of U.S. nuclear plants to earthquakes. This is an ongoing effort and a draft Generic Letter has been developed to move the process into the regulatory assessment stage. The public comment period on the draft Generic Letter closed on October 31, 2011. The NRC staff will consider the comments before finalizing the Generic Letter, which the staff expects to issue near the end of this year. The draft letter's approach would have U.S. nuclear power plants perform their analysis within either one or two years, depending on the analysis method used, and deliver their results to the NRC. The agency will then determine whether additional actions are necessary.

In addition, the Commission is considering whether and how to implement seismic and flood hazard reevaluation recommendations that resulted from Near-Term Task Force review of insights from the Fukushima Daiichi accident.

**QUESTION 2.**

**Are all potential nuclear plant sites evaluated for seismic and tsunami activity before the NRC approves them for construction?**

**ANSWER.**

Yes, several NRC regulations require an evaluation of the seismic and tsunami hazards at all potential nuclear plant sites before granting a license or permit to construct any safety-related structures. These include 10 CFR 50.34, 10 CFR Part 50, Appendix A, Criterion 2, and 10 CFR Part 100. Both the tsunami and seismic hazard evaluations are based on site-specific conditions for each new plant site. In addition to potential site flooding induced by a tsunami, nuclear plant sites are evaluated for all other potential flooding mechanisms, including floods induced by storm surge (hurricanes), rivers, and dam failures.

**QUESTION 3.**

**Please describe how the Commission intends to proceed with hearings on new nuclear plant applications in the near future, and any steps that the NRC is taking to make the hearing process as efficient as is reasonably possible.**

**ANSWER.**

The Atomic Energy Act requires the NRC to hold a hearing on any license application for a construction permit, which includes an application for a combined construction permit and operating license (combined license, or COL) for a new nuclear plant prior to issuance of the license, whether an outside party has requested a hearing on a particular issue or not. An interested party may obtain a contested hearing before an Atomic Safety and Licensing Board by demonstrating standing and a disputed issue material to the NRC's licensing decision. The time needed for the consideration and resolution of the contested hearing will be informed by a number of factors, including the nature of the legal and/or factual issues that must be decided. These issues may vary in number, and in legal and technical complexity. With this in mind, the Commission's rules of procedure applicable to COL contested proceedings provide for model milestones to be used by the Boards as guidelines in developing hearing schedules, and provide broad latitude for the Board and the Commission to take action in individual proceedings – to ensure prompt and effective resolution of matters set for adjudication.

The Commission itself presides over the mandatory hearing associated with a combined license application. The Commission recently approved a process to facilitate timely, effective decisions in these cases. The mandatory hearing process begins upon completion of the NRC staff's Final Environmental Impact Statement and Final Safety Evaluation Report. The Commission's goal is to issue a decision within four months of



the completion of those documents, or after the Commission affirms the related design certification rule, whichever occurs later. The Commission's objective is to evaluate the adequacy of the staff's review, rather than duplicating the time- and labor-intensive, detailed review of the application, which already has been completed by the staff, or revisiting matters previously addressed and resolved in the context of other reviews (for example, review of an early site permit application, or a design certification rule). This high-level review allows the Commission to focus on significant safety, security, and environmental issues, and meet our goal of completing our work within four months of the issuance of the staff's review documents. Our mandatory hearing decision will explain the basis for our conclusions, which will include our determinations on whether the staff's review has been adequate to satisfy each of the safety and environmental regulatory findings required for a combined license.

The hearing process is ongoing for two proposed COL applications. On September 27 and 28, 2011, the Commission held the mandatory hearing associated with the application for Vogtle Electric Generating Plant, Units 3 and 4, and on October 12 and 13, 2011, the Commission held the mandatory hearing associated with the application for the Virgil C. Summer Nuclear Station, Units 2 and 3. To date, both hearings are proceeding consistent with the four-month goal. The Commission is now in the process of reviewing both matters.

**QUESTION 4.**

**I am concerned by the slow pace of review for the AP1000 reactor. When will the NRC Staff complete its review of the amendments to the AP1000? How many NRC Staff people were involved, and do you know how many NRC Staff hours were expended in the review of the design amendments? What were the conclusions? Did the NRC's review of the AP1000 cover: (A) The ability of the plant to survive a severe earthquake; and (B) The ability of the plant's passive cooling system to operate during a loss of offsite power?**

**ANSWER.**

The NRC has completed its technical review of the AP1000 Design Certification (DC) Amendment and issued its Final Safety Evaluation Report (FSER) for AP1000 Design Certification Amendment (NUREG-1793, Supplement 2) on August 5, 2011, to Westinghouse Electric Company. The FSER contains the documentation supporting the NRC conclusions that the DC amendment meets existing regulatory requirements. The proposed Final Rule for the AP1000 Design Certification Amendment was sent to the Commission on October 18, 2011.

The AP1000 DC Amendment review involved NRC staff from over 20 different technical disciplines from six different NRC offices (Office of New Reactors, Office of Nuclear Security and Incident Response, Office of Nuclear Reactor Regulation, Office of Enforcement, Region II, and Office of Nuclear Regulatory Research). The review included such topics as Reactor Coolant System and Connected Systems, Steam Power and Power Conversion, Radioactive Waste Management, Severe Accidents/Probabilistic Risk Assessment (PRA), Design of Structures, Components, Equipment, and Systems.

Engineered Safety Features, and Instrumentation and Control. To date, the NRC staff has spent a total of approximately 52,000 hours on the review.

With respect to your concern about the ability of a plant using the AP1000 certified design to survive a severe earthquake, the AP1000 design is to be certified to a generic site with a defined level of earthquake ground motion. The level of earthquake ground motion was selected by Westinghouse, who then analyzed the plant's design in order to demonstrate that the design could withstand the Westinghouse-selected earthquake ground motion. The level of earthquake ground motion is established in the AP1000 design certification rule (DCR) as a *site parameter*. A combined license (COL) applicant referencing the AP1000 DCR must demonstrate that the actual *site characteristic* for earthquake ground motion at the site where the plant is to be built meets the AP1000-specified site parameter. The COL applicant must comply with 10 CFR Part 100 when determining the actual site characteristic for earthquake ground motion. If the site-specific earthquake ground motion is larger than the AP1000-specified site parameter for earthquake ground motion, then the COL applicant must prepare and submit to the NRC a site-specific analysis, including potential re-design of the safety-related structures for the AP1000.

With respect to your query as to whether the NRC reviewed the ability of the plant's passive cooling system to operate during a loss of offsite power, the AP1000 design relies on passive safety-related systems and equipment to automatically establish and maintain safe-shutdown conditions for the plant following design-basis events, assuming the most limiting single failure. These passive safety systems are designed with sufficient capability to maintain safe-shutdown conditions for 72 hours, without operator actions and without non-safety-related onsite or offsite power.

**QUESTION 5.**

**There has been a great deal of concern about the NRC's handling of the Yucca Mountain licensing. Please provide an update on the status of licensing proceedings related to Yucca Mountain. What specific steps is the Commission taking toward hearing, and ruling upon, the pending appeals of the determination by the Atomic Safety [and] Licensing Board that the U.S. Department of Energy was not authorized to withdraw the Yucca Mountain licensing application?**

**ANSWER.**

The Commission issued a unanimous Order on September 9, 2011, stating it had found itself evenly divided on whether to take the affirmative action of overturning or upholding the Board's decision. In that Order, the Commission directed the Board to complete all necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding by the close of fiscal year 2011.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ML112550314  
Non-Public

August 30, 2011

The Honorable Darrell E. Issa  
Chairman, Committee on Oversight and Government Reform  
United States House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

I am responding to your letter of August 5, 2011, seeking additional documents related to your Committee's investigation. Specifically, you requested documents related to the July 6, 2011 response to the Committee's May 26, 2011 letter focused on the 50-mile evacuation recommendation in response to events in Japan, as well as documents related to NRC's responses to the Committee's previous inquiries during the current investigation.

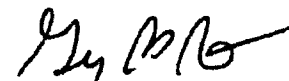
Based on an August 11, 2011 telephone conversation between John Ohly on your Committee staff and NRC staff, it is our understanding that, with respect to Request #4 in your August 5 letter, you are only interested in internal NRC correspondence shedding light on how the agency internally processed and interpreted the scope and terms of your earlier document requests. Our staff followed this guidance in providing the enclosed responses.

Please note that documents in this response have not been released to the public and have thus been marked "not for public disclosure." I respectfully ask that the Committee honor these markings. Also note that, generally, internal NRC communications that summarize communications with the Executive Branch are not being provided.

If NRC staff find additional documents responsive to this request in the course of their work, our Office of Congressional Affairs will provide them to the Committee. I understand that my colleagues on the Commission may respond to you under separate cover.

As I have conveyed in my previous correspondence with you, I would be happy to meet and discuss your concerns. I look forward to that opportunity.

Sincerely,



Gregory B. Jaczko

Enclosure: As stated

cc: Representative Elijah E. Cummings

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Aug 09, 2011 15:13

PAPER NUMBER: LTR-11-0472

LOGGING DATE: 08/08/2011

ACTION OFFICE:

OGC

AUTHOR: REP Darrell Issa

AFFILIATION: CONG

ADDRESSEE: CHRM Gregory Jaczko

SUBJECT: Request for documents and information related to NRC's response following the earthquake and tsunami that damaged Japan's Fukushima Daiichi nuclear power plant

ACTION:

DISTRIBUTION:

LETTER DATE:

ACKNOWLEDGED

SPECIAL HANDLING:

NOTES:

FILE LOCATION:

(b)(5)

DATE DUE: 08/11/2011

DATE SIGNED:

OFFICE OF THE CLERK  
U.S. HOUSE OF REPRESENTATIVES  
WASHINGTON, DC 20541-5500  
TELEPHONE: 202-225-4800  
FACSIMILE: 202-225-8100  
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WASHINGTON, DC 20541-5500  
TELEPHONE: 202-225-4800  
FACSIMILE: 202-225-8100  
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ONE HUNDRED TWELFTH CONGRESS

Congress of the United States  
House of Representatives

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

Telephone: 202-225-2823  
Facsimile: 202-225-2824  
Website: www.house.gov  
http://www.house.gov/ogwr

August 5, 2011

OFFICE OF THE CLERK  
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WASHINGTON, DC 20541-5500  
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WASHINGTON, DC 20541-5500  
TELEPHONE: 202-225-4800  
FACSIMILE: 202-225-8100  
WWW.HOUSE.GOV

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

Dear Chairman Jaczko:

On May 26, 2011, I wrote to you to request documents and information related to the Nuclear Regulatory Commission's (NRC) response following the earthquake and tsunami that damaged Japan's Fukushima Daiichi nuclear power facility. Consistent with normal procedures, NRC staff gathered responsive materials and provided them to the NRC's Office of Congressional Affairs (OCA) to deliver to the Committee. The Committee has recently learned, however, that the NRC's July 6, 2011 response did not include or accurately reflect the information submitted to OCA.

Request #5 in my letter dated May 26, 2011 asked for "Documents, including e-mails and internal correspondence, related to concerns, dissenting opinions, or objections to the March 16, 2011 recommendation or associated calculations." On July 6, 2011, weeks after the deadline to submit this information to the Committee had passed, the NRC provided this response to request #5:

Before and during the time the decision was made to recommend extending the evacuation zone to 50 miles, no dissenting opinions or objections were found in the team chronologies (Reactor Safety Team, Protective Measures Team or Executive Team) from the NRC Operations Center or in other internal documentation. After the fact, discussions continued among the staff about the pros and cons of the decision.

The only contemporaneous debate that took place was over whether or not to release modeling data (aka "RASCAL run") used as part of the decision-making process. Some staff on the Protective Measures Team (PMT) have expressed concern that attaching this data to the March 16, 2011 press release could give the mistaken impression that the decision was driven by the modeling data alone. The Chairman believed transparency was important and directed that the modeling data be

attached to the press release. The press release stated that a variety of factors were taken into account.

Documentation related to the staff's work regarding the NRC's recommendation will be provided with the response to Question #3.<sup>1</sup>

As the NRC produced no additional responsive documents, these three paragraphs represent the entirety of the NRC's response to request #5.

The Committee subsequently learned that staff did in fact provide dissenting opinions to the Executive Team in advance of the decision to recommend a 50-mile evacuation radius. Apparently, NRC staff documented these disagreements and submitted that information to OCA. It remains unclear why this material was not included in the response to the Committee as the staff intended. Furthermore, it is unclear why the July 6, 2011 response stated that "no dissenting opinions or objections were found."<sup>2</sup>

Your fellow commissioners and NRC staff have attempted to be responsive to requests for information from this Committee. Still, we encounter persistent delays in receiving responsive materials from the NRC. While you may believe that it is within your authority as Chairman to limit what information is shared with your fellow Commissioners, it is wholly improper for you to withhold information from Congress. Furthermore, making false statements to Congress is a serious offense.<sup>3</sup>

Although it is the Committee's preference to continue to receive documents voluntarily from the Commission, continued obstruction of this investigation will require the use of compulsory process.

So that the Committee can advance its investigation, please provide the following information no later than August 15, 2011:

1. Any responsive documents or information supplied by NRC staff to OCA staff not included in the NRC's June 6, 2011 response. For each document or individual submission of information, explain why it was not produced.
2. Documents and communications from any NRC employee or Commissioner related to the NRC's response to request #5, including, but not limited to, all e-mail correspondence between NRC staff and OCA staff regarding documents supplied to OCA in response to request #5.

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<sup>1</sup> Letter from U.S. Nuclear Regulatory Commission to Rep. Darrell Issa, Chairman, H. Comm. on Oversight & Gov't Reform, "Responses to Information Requests from House Oversight and Government Reform Committee - Letter of May 26, 2011." (Jul. 6, 2011) (emphasis added).

<sup>2</sup> *Id.*

<sup>3</sup> See 18 U.S.C. § 1001.

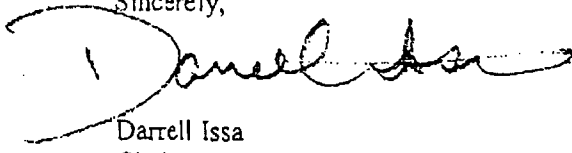


The Honorable Gregory B. Jaczko  
August 5, 2011  
Page 3

3. An explanation as to whether the NRC's July 6, 2011 response was treated as Chairman correspondence or Commission correspondence. Provide all documents and communications related to the decision to treat this response as Chairman or Commission correspondence.
4. Documents and communications from any NRC employee or Commissioner related to any document request by this Committee, including, but not limited to, to all e-mail correspondence between NRC staff and OCA staff.

If you have any questions about this request, please contact John Ohly of the Committee staff at (202) 225-5074. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Darrell Issa", written over a horizontal line.

Darrell Issa  
Chairman

cc: The Honorable Elijah E. Cummings, Ranking Member

The Honorable William Ostendorff, Commissioner  
U.S. Nuclear Regulatory Commission

The Honorable Kristine Svinicki, Commissioner  
U.S. Nuclear Regulatory Commission

The Honorable William Magwood, Commissioner  
U.S. Nuclear Regulatory Commission

The Honorable George Apostolakis, Commissioner  
U.S. Nuclear Regulatory Commission



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 30, 2011

The Honorable Darrell E. Issa  
Chairman, Committee on Oversight and Government Reform  
United States House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

I am responding to your letter of August 5, 2011, seeking additional documents related to your Committee's investigation. Specifically, you requested documents related to the July 6, 2011 response to the Committee's May 26, 2011 letter focused on the 50-mile evacuation recommendation in response to events in Japan, as well as documents related to NRC's responses to the Committee's previous inquiries during the current investigation.

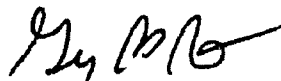
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Please note that documents in this response have not been released to the public and have thus been marked "not for public disclosure." I respectfully ask that the Committee honor these markings. Also note that, generally, internal NRC communications that summarize communications with the Executive Branch are not being provided.

If NRC staff find additional documents responsive to this request in the course of their work, our Office of Congressional Affairs will provide them to the Committee. I understand that my colleagues on the Commission may respond to you under separate cover.

As I have conveyed in my previous correspondence with you, I would be happy to meet and discuss your concerns. I look forward to that opportunity.

Sincerely,



Gregory B. Jaczko

Enclosure: As stated

cc: Representative Elijah E. Cummings

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Aug 17, 2011 14:56

PAPER NUMBER:

LTR-11-0489  
EDO OPA

LOGGING DATE: 08/17/2011

ACTION OFFICE:

To: Leeds, NRR

AUTHOR:

David Agnew

AFFILIATION:

ADDRESSEE:

Commissioners Resource

SUBJECT:

Protect public health and safety implement the Fukushima Task Force recommendations

cys: EDO  
DEDMRT  
DEDR  
DEDCM  
AO  
R1  
OPA  
Bowman, OPA

ACTION:

DISTRIBUTION:

LETTER DATE:

ACKNOWLEDGED

SPECIAL HANDLING:

NOTES:

FILE LOCATION:

(b)(5)

DATE DUE:

DATE SIGNED:

Template: SECT-017

E-RIDS: SECT-01

**Joosten, Sandy**

---

**From:** David Agnew [gogreens@comcast.net]  
**Sent:** Wednesday, August 10, 2011 9:39 AM  
**To:** CHAIRMAN Resource  
**Subject:** On moving the Fukushima task force recommendations

Dear Chairman Jaczko,

On behalf of Cape Downwinders, a citizens group living downwind of the Pilgrim Nuclear Power Station, I thank you for voting to adopt the recommendations of the NRC Task Force on Fukushima.

I have emailed the other commissioners urging them to do the same, and I've cc'd that message to you.

Gratefully,  
David Agnew, Coordinator  
Cape Downwinders  
18 Marthas Lane  
Harwich, MA 02645

ESD/OPA App.

OPA

**Joosten, Sandy**

---

**From:** David Agnew [gogreens@comcast.net]  
**Sent:** Wednesday, August 10, 2011 9:36 AM  
**To:** CMRAPOSTOLAKIS Resource; CmrMagmood@nrc.gov; CMROSTENDORFF Resource;  
CmrSvinick@nrc.gov  
**Cc:** CHAIRMAN Resource  
**Subject:** Protect public health and safety - implement the Fukushima task force recommendations

Dear Commissioners George Apostolakis, William Magwood, William Ostendorff, and Kristine Svinicki,

On behalf of Cape Downwinders, a citizens group living downwind of the Pilgrim Nuclear Power Station, I write to urge you to vote to adopt the recommendations of the NRC Task Force on Fukushima. As you know, the cause of the Fukushima meltdowns - 'station blackout' - could happen to any reactor.

I understand that the NRC's 'worst case scenario' is 1% melted fuel, at one reactor, with 1% leakage from containment, for one week. To this day, five months post-Fukushima, the NRC position is that no accident worse than this can happen in the U.S. because... you can't imagine it. The NRC lacks imagination, for ALL of Fukushima's fuel melted; at THREE reactors; with containment leakage FAR more than 1%; and these releases continue unabated FOUR MONTHS later.

The GE Mark I containment design shared by 23 operating US reactors has been known deficient since 1972. (Harold Denton famously said "if you look at the WASH 1400 safety study, you'll find something like a 90% probability of that containment failing.") Three such designs suffered core melts at Fukushima and all three failed - despite direct torus vents. How long must we wait for the "lesson learned"?

If there were a major accident in the U.S., there is no adequate fund of cleanup money; no federal agency in charge; and no agreed-upon cleanup standard. In short, the government is recklessly unprepared for a major accident.

The NRC states that its "primary mission" is "protecting public health and safety", and yet:

1. Following a fire and near-disaster at the Browns Ferry nuclear station in Alabama 36 years ago, the NRC instituted new fire regulations. The NRC now estimates that fire is one of the most likely causes of a severe nuclear accident, and yet 48 operating reactors are in violation of the fire regulations and Browns Ferry has yet to meet the regulations.
2. In 2002 the NRC ignored their own evidence of severe corrosion at the Davis-Besse reactor in Ohio, allowing the utility to continue operation without inspection. Eventual inspection revealed that six inches of steel had been eaten away, leaving just 3/8" of steel to prevent a major disaster.
3. Days after the nuclear disaster at Fukushima, the NRC granted a 20-year license extension to Vermont Yankee, a reactor of the same design as the three that were experiencing complete meltdowns at the time.
4. At reactor license extension proceedings, the NRC forbids any mention of emergency planning, and the reactors are allowed to continue operation after their operating license expires.

The Associated Press recently released a four-part report which showed that the NRC has consistently weakened its standards rather than require licensees to comply with safety regulations. The AP reports also documented that at least 75% of US reactors have leaked radioactive tritium into groundwater, and that populations around these nuclear facilities have increased such that evacuation plans are now just wishful thinking.

In June 2011, the NRC reported to Congress that it had completed 93% of licensing actions within one year and 100% within two years of the date the nuclear operators asked for them. These are actions to save licensees money, such as license amendments, exemptions from regulations, and relief from inspection requirements. The NRC also reported on their efforts to resolve 5 generic safety issues. The NRC has been "working" on the oldest of these 5 safety issues for nearly 15 years. The average time these 5 generic safety issues have been waiting to be resolved is 10 years.

An agency whose "primary mission" is truly "protecting public health and safety" would not study its study of post-Fukushima safety recommendations. Please implement the commonsense reforms of the task force now.

Respectfully,  
David Agnew, Coordinator  
Cape Downwinders  
18 Marthas Lane  
Harwich, MA 02645

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Aug 17, 2011 14:56

PAPER NUMBER:

LTR-11-0492  
EDO *ofA*

LOGGING DATE: 08/17/2011

ACTION OFFICE:

To: Leeds, NRR

AUTHOR:

Robert Smith

*cys*  
EDO  
DEDMRT  
DEDR  
DEDGM  
AO  
OPA  
RIV  
Bowman

AFFILIATION:

ADDRESSEE:

Chairman and Commissioner Resource

SUBJECT:

Nuclear plant safety/Japan/Nebraska

ACTION:

DISTRIBUTION:

(b)(5)

LETTER DATE:

ACKNOWLEDGED

SPECIAL HANDLING:

(b)(5)

NOTES:

FILE LOCATION:

DATE DUE:

DATE SIGNED:

**Joosten, Sandy**

---

**From:** (b)(6)  
**Sent:** Wednesday, August 10, 2011 11:00 AM  
**To:** CHAIRMAN Resource; CMRSVINICKI Resource; CMRAPOSTOLAKIS Resource; CMRMAGWOOD Resource; CMROSTENDORFF Resource  
**Cc:** OPA Resource; OPA1 RESOURCE; OPA2 Resource; Resource, OPA3; OPA4 Resource  
**Subject:** Nuclear Plant Safety / Japan / Nebraska

Dear Mr. Jaczko, Ms. Svinicki, Mr. Apostolakis, Mr. Magwood, IV, Mr. Ostendorff,

I am sending this information to make sure that both the Nuclear Regulatory Commission (NRC) and the Senate Committee Environment and Public Works receives this information in order to see if the suggestions below would help provide additional safety at our Nuclear Power Plants.

**Due to the delicate nature of this information I would like to make sure that this correspondence request/communication does not have any impact on my current/future employment. I can only hope that the public service work that I have been working on is viewed as a public service work and does not have any impact on my family's well being.**

I hope that this email/Fax that I have sent to the President and various Federal Agencies has been forwarded to your ~~office for review. I have asked in my emails and fax to forward this information to the Nuclear Regulatory Commission~~ (NRC) and the Senate Committee Environment and Public Works. If my solution below provides for an avenue of additional safety that would work please let me know.

Please let me know what sites are available to track the progress of the situation at the Nebraska Nuclear Power Plant. It appears that the news reporting has been very limited. I have sent to you in the emails below with regard to my concerns with a current ratecase proceeding from a safety perspective. My suggestions below might help in the future with providing additional safety at Nuclear Power Plants.

I am monitoring the issues as it relates to safety issues at these plants since it might have an impact on current/future ratecase proceedings. I have a potential motion that I might be filing with a current ratecase that basically is trying to make part of the web public docket my safety suggestions to provide additional safety.

I would appreciate a response from the NRC and the Senate Committee if this might be an option to provide for additional safety. Please let me know where I can obtain a copy of the recommendations that are being worked on with the NRC and the Senate Committee.

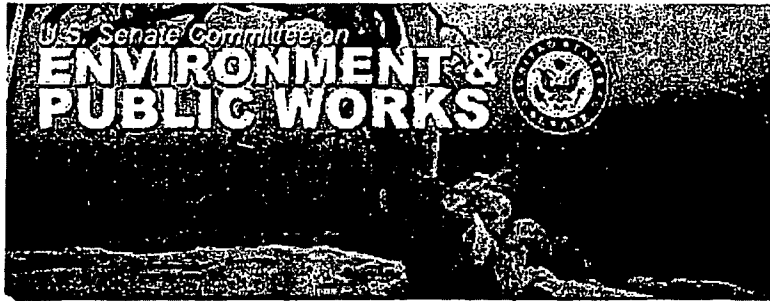
Please forward this email to the members of the U.S. Senate Committee on Environment & Public Works. I would send this information to the all the Senators but they are utilizing a web email form that will not accept the images as outlined in the emails below. The images would provide for a clear description of my safety suggestions. I can look up each senator to see if I can send this email directly but after a quick check I noticed that the only way to send them this email correspondence would be without the images. I will send a quick email to Ms. Boxer of the email without the full email trail to let her know that I have sent this information to the NRC.

If you have any questions please do not hesitate to email me at (b)(6)

Thanks,

Robert H. Smith





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[Frank R. Lautenberg](#)  
[Benjamin L. Cardin](#)  
[Bernard Sanders](#)  
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### Senate Minority Committee Members

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Wednesday, August 03, 2011 12:03 PM

**To:** [president@whitehouse.gov](mailto:president@whitehouse.gov); [vice\\_president@whitehouse.gov](mailto:vice_president@whitehouse.gov); [fellowsprogram@supremecourt.gov](mailto:fellowsprogram@supremecourt.gov)

**Cc:** [Bill@billnelson.senate.gov](mailto:Bill@billnelson.senate.gov); 'Shelby, Senator (Shelby)'; [senator\\_bingaman@bingaman.senate.gov](mailto:senator_bingaman@bingaman.senate.gov);

[senator@dorgan.senate.gov](mailto:senator@dorgan.senate.gov); [senator\\_leahy@leahy.senate.gov](mailto:senator_leahy@leahy.senate.gov); [senator\\_lugar@lugar.senate.gov](mailto:senator_lugar@lugar.senate.gov);

[AsktheLeader@mail.house.gov](mailto:AsktheLeader@mail.house.gov)

**Subject:** FW: Preliminary Draft Motion Dated May 6th, 2011 Dockets 110009-EI, 100009-EI, 100410-EI and 080677-EI

Dear Mr. President and Justices,

Please give this email to Mr. Boehner since I always receive a message that his email inbox is full. I will send the fax.

Please give a copy of this email to Mr. Ryan and Mr. Cantor as well.

Due to the delicate nature of this information I would like to make sure that this correspondence request/communication does not have any impact on my current/future employment. I can only hope that the public service work that I have been working on is viewed as a public service work and does not have any impact on my family's well being.

Please do not be upset since I am only trying to help.

Please send all my email correspondence to the Senate Committee Environment and Public Works and the Nuclear Regulatory Commission (NRC) with regard to the Nuclear Safety solutions that I have brought up in my email that I sent to your office during the Japan Tsunami. Maybe my suggestions could help with the effort to improve the Safety at the Nuclear Power Plants?

I would like to know from the Committee and/or NRC if this would be a viable option. I think that Ms. Boxer was heading up the committee.

If there are any questions please do not hesitate to email me at (b)(6)

Thanks,

Robert H. Smith

Work For A Purpose! ©

#### Confidentiality Statement

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**From:** RSmith (b)(6) [\(b\)\(6\)">\[mailto:\(b\)\(6\)\]](mailto:<span style=)

**Sent:** Wednesday, August 03, 2011 11:18 AM

**To:** 'rick.scott@eog.myflorida.com'; 'jennifer.carroll@eog.myflorida.com'

**Cc:** 'Bill@billnelson.senate.gov'

**Subject:** FW: Preliminary Draft Motion Dated May 6th, 2011 Dockets 110009-EI, 100009-EI, 100410-EI and 080677-EI

Dear Mr. Scott and Ms. Carroll,

Sorry for the typo.

Thanks,

Robert H. Smith

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**From:** RSmith [redacted] [mailto:[redacted]]  
**Sent:** Wednesday, August 03, 2011 11:11 AM  
**To:** 'rick.scott@eog.myflorida.com'; 'jennifer.carroll@eog.myflorida.com'  
**Cc:** 'Bill@billnelson.senate.gov'  
**Subject:** FW: Preliminary Draft Motion Dated May 6th, 2011 Dockets 110009-EI, 100009-EI, 100410-EI and 080677-EI

Dear Mr. Scott and Ms. Carroll,

This is for your information. I do not know if you are aware of the Nuclear Regulatory Commission hearing in Washington yesterday regarding Safety at Nuclear Plants.

This supports why my correspondence should be made part of the public web docket if it is going to be pertinent to additional Safety requirements that are going to be needed at these plants.

My position is fully warranted/supported by this type of disclosure. If my suggestions are utilized by the Nuclear Regulatory Commission (NRC) then my concerns are fully warranted and there is no reason why this information has not been published. Even though there is a delay with hearing from the NRC this does not preclude the proper planning to maybe address additional safety features that might be able to be installed with these proceedings. I know that the parallel piping (with the ability to switch the use of the pumps from each reactor) with a portable power solution would be a very good idea. The companies can install extra pumps in each reactor to provide additional pumping capacity if pumps at one reactor do not work. You can then provide for pumping to/from any reactor to a reactor that is in trouble. I think that these costs should be able to be obtained very easily.

With the Japan situation:

If they were able to bring a ship into port with portable generation in order to run the pumps at the plant they would have had power right after the tsunami by bringing the ship into port and hooking the ships generators to the pumps that needed to run at the plant. If the reactors have the parallel piping suggestion that I have brought up and the Earthquake took out one set of pumps at one reactor then they could have used switching to run pumps at another reactor to cool the reactor that was in trouble. They would have to install additional pumping capacity at each reactor so that one reactor can potentially run multiple reactors at one time.

With the Nebraska situation:

Can use the same methodology but this would be a little different since the portable pump solution would require that they can bring in a small vessel to the Nuclear Power Plant depending on the depth of the water at the plant. I do not know the exact specifications of a generator that is on a ship that would be able to provide this power but I am sure that

something can be done to bring in this type of set in this type of situation if it was warranted. I understand that Nebraska situation the water might be subsiding but this would be another way to bring power to the plant. If they have the duplicate pump set up they would be able to cool the plant in this type of situation as well.

The idea is that it is very difficult with a flood situation to bring power back to the plant with a landline from other generation. This is evident by the floods in Nebraska. With Japan the plant is located near the Ocean in which bringing a ship in would not be too much of a problem. Our Navy ships have adequate power to supply the backup up power to run the pumps at the plant. If the earthquake takes out the pumps and there are working pumps at another reactor then you can run the power from the ship to the distribution at the plant to the pumps at the reactor in which the pumps are working. You can then provide switching to the plant in which the pumps are not working due to the earthquake. If there is a flood issue bringing portable power to the plant makes the most sense since you can run these pumps until regular power is restored.

What do you think? I think that you were in the Navy? Correct? If you have seen the generation on the ships then you might already know that the technology exists for this type of solution. If you use a Nuclear Powered ship (as long as it can go into port) you can have an unlimited supply of power until the power is restored to provide the cooling to keep the plants cool.

I am just trying to help.

Thanks,

Robert H. Smith

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**From:** RSmith (b)(6) [mailto:(b)(6)]

**Sent:** Wednesday, August 03, 2011 10:12 AM

**To:** 'Records Clerk'; 'Samantha Cibula'; 'Curt Kiser'; 'John Slemkewicz'; 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office Of Commissioner Graham'; 'Office of Commissioner Balbis'; 'Office of Commissioner Brown'

**Subject:** FW: Preliminary Draft Motion Dated May 6th, 2011 Dockets 110009-EI, 100009-EI, 100410-EI and 080677-EI

Dear Records Clerk,

Here is the preliminary motion. I did not send this email to the records clerk email address yesterday. According to a response from one of the recipients of the email they indicated that the information would be made part of the public record(s)/added to the docket(s) electronic record if the information was stated in the Subject Line.

I will try this but I do not think that this will be made part of the electronic docket/web public docket as indicated that it is too time consuming to append the PDF file to the electronic consumer file like all my correspondence has been in the past.

I am waiting to hear some of the testimony regarding the Safety aspect of this case since this is a very important issue. As a result of the Nuclear Regulatory Commission (NRC) hearing in Washington yesterday the NRC will looking into potential safety upgrades for Nuclear Plants. Notice that they indicate that they are going to have to provide for additional Safety to plan for simultaneous accidents at adjacent reactors, something they have never done.

CSPAN



## ENHANCING REACTOR SAFETY

AUG 2, 2011

Senate Committee Environment and Public Works

Commissioners testified on the NRC's 90 day report, which was released in July. It laid out numerous areas for improvement, based on the experience in Japan after the March 11 earthquake and tsunami. American plants need to plan for simultaneous accidents at adjacent reactors, something they have never done.

2 hours, 15 minutes 75 Views

My position is fully warranted/supported by this type of disclosure. If my suggestions are utilized by the Nuclear Regulatory Commission (NRC) then my concerns are fully warranted and there is no reason why this information has not been published. Even though there is a delay with hearing from the NRC this does not preclude the proper planning to maybe address additional safety features that might be able to be installed with these proceedings. I know that the parallel piping (with the ability to switch the use of the pumps from each reactor) with a portable power solution would be a very good idea. The companies can install extra pumps in each reactor to provide additional pumping capacity if pumps at one reactor do not work. You can then provide for pumping to/from any reactor to a reactor that is in trouble. I think that these costs should be able to be obtained very easily.

This is why my email correspondence and my preliminary motion are important to Docket 110009-EI. I have included all other dockets in the motion since there is one Utility Cash account at the Utility and it is very important that this motion be maintained for all Dockets since any cash impact with regard to any of the proceedings would have an impact on all dockets that are related to the company.

I would have filed back in May but I wanted to learn more about the due process aspect of the DCA filing and where the responsibility was going to reside with a decision with the over earnings issue. I have learned from the informal meeting that only the Commissioners can have the final say and that a Staff recommendation is not the final say therefore this is why I sent the preliminary motion.

This would lead to having to file a motion to make sure that something is put on the record for the Commissioners to rule on the motion.

I am not an attorney therefore it is going to take some time for me to make sure that I have everything covered.

I will try anyway to see if this preliminary motion will be made part of the public record(s)/added to the docket(s) electronic record.

Thanks,

Robert H. Smith

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**From:** (b)(6) (b)(6)  
**Sent:** Saturday, March 26, 2011 1:57 PM  
**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'  
**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov'; 'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'AsktheLeader@mail.house.gov'  
**Subject:** FW: Japan's Nuclear Plant Cooling Issues  
**Importance:** High

Mr. President and Justices,

Here is another suggestion. I do not know if this type of setup is already in place at existing Nuclear Power Plants.

What about providing redundancy by having piping run at a plant where there are multiple reactors in which they can switch the flow of water from one reactor to another to maintain some level of coolness a reactor that is having a problem. This way there are multiple cooling pumps that are capable to cool a reactor that is in trouble. I do not know if the possibility exists that by utilizing a switching type of set up they will have a set of cooling pumps to help with a troubled reactor. I fully understand that they would need cooling pumps for all the reactors but maybe there would enough time to provide switching to deal with a troubled reactor by having the ability to switch the flow of water to cool a reactor that is in real trouble.

I still think that my suggestion below is a very valid suggestion I that it could provide immediate power to run the plant when they lose electric and if a portable pump system is developed they would have a portable pump setup to cool the reactor in trouble. With the combination of the switch setup above and my suggestion for bringing power to the Nuclear Power station in addition to maybe providing a portable pump setup that this added redundancy would provide the solution to this type of situation in the future.

This is what transparency and open government would call for. You have to remember that people who are working for these companies sometimes are reluctant to speak due to exposure to ramifications if they do speak.

You would not believe that the current RateCase that I am working on as an interested party the Florida Public Service Commission is not putting my email correspondence on the record that I have sent previously with regard to my suggestion for a possible solution to this type of issue. This solution might have an impact on the outcome of this case. There is no reason why the Florida Public Service Commission should not be following both Federal and State regulations to put my suggestion on the record. I am both a shareholder and a ratepayer and I want to make sure that if they are accelerating the recovery of the Nuclear plant costs that there is ample cash flow to make sure that the proper maintenance and repairs can be completed if needed. Both Federal and State law provide for a person with a legal interest to have the "full right to be heard according to law". In order to protect my legal interests in all of these proceedings it is imperative that I should be treated no differently than Florida Power & Light. There is no excuse and now the Commission will not even read my emails regarding my request to make sure that the record is fully updated in order to ensure that other parties with a legal interest have access to my email communications regarding these ratecase proceedings. In the past the Commission has made all my correspondence part of the public record like they should to ensure that there are no "Ex Parte" communications that might have an impact on potential questions that might have to be asked to provide guidance with the ruling in these proceedings.

There is no excuse and based upon Transparency and Open Government there should be no issue with making all my emails part of the public record. Even though these are addressed to you and the Prime Minister of Japan there should be no reason why based upon my Constitutional rights and Federal and State laws that they would discontinue posting my information on the public web site in order to ensure that the proceeding is being heard in accordance with both Federal and State laws.

I have sent numerous emails regarding my concern that the Florida Public Service Commission might be creating an "Ex Parte" situation and a partial type of rate case proceeding. I have also kept the General Council at the Florida Power & Light in the loop regarding my concerns and my suggestions. Florida Power & Light has brought up a suggestion about a cooling tower type setup. This might not work if a tsunami takes this setup out. I am not saying that this might be a potential additional layer of redundancy but if an earthquake and/or tsunami damage's the cooling tower then you will be put into the same situation that Japan is currently facing. My suggestion will bring the power plant to the troubled Nuclear power plant to provide power to operate the existing cooling pumps to keep the plants cool right after the tsunami. If a portable pump setup can developed and put into place that you will have all you need to run the plants when they are in distress even if the currently cooling pumps are damaged at the plant. If you add my suggestion with putting in piping to run any distressed plant from reactors cooling pumps from a working plant's cooling pumps that you should potentially have all you need to make sure that you can keep the plants up and running. I would like to know if the cooling pumps were working immediately after the earthquake/tsunami. If the cooling pumps were damaged due to the built up distress after the events (earthquake/tsunami) then maybe the reason why the cooling pumps are not working now is due to the distress of not having adequate cooling right after the events. My solution would potentially cover these issues.

They have indicated to me that it is costing too much time and resources to populate my correspondence. I have provided the proper technology in order for them to populate my email correspondence with minimal cost and with very little resources. This is just not a valid excuse. I gave them an example of a 2 minute turnaround time to make sure that my email correspondence is being updated to the public record to be in compliance with both Federal and State laws.

It appears that they are continuously ignoring my emails.

This is a Safety issue and it is imperative that they comply with Federal and State Laws and make my email correspondence part of the web public record. They should not be ignoring my emails since this is a very important issue and if my suggestion works then this might have a global impact with safety at Nuclear Power Plants.

This is just not cool!

I know that I have sent you numerous emails about this type of issue. I know that I brought this up immediately with the BP spill with regard to providing the proper redundancy. There may be a similar problem with this situation as well.

Please do not perceive this as negative feedback.

This is showing you that a balance of Government regulation and Business interests have to be maintained.

Where do we draw the line?

This is very important and this is just not a cool situation!

I am looking forward to a response from both the Department of Energy and the Nuclear Regulatory Commission.

I will send the fax.

Thanks,

Robert H. Smith

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Friday, March 18, 2011 1:44 PM

**To:** president@whitehouse.gov; vice\_president@whitehouse.gov; fellowsprogram@supremecourt.gov

**Cc:** Bill@billnelson.senate.gov; 'Shelby, Senator (Shelby)'; senator\_bingaman@bingaman.senate.gov;

senator@dorgan.senate.gov; senator\_leahy@leahy.senate.gov; senator\_lugar@lugar.senate.gov;

AsktheLeader@mail.house.gov

**Subject:** FW: Japan's Nuclear Plant Cooling Issues

**Importance:** High

Mr. President and Justices,



I am not an engineer but I thought this would be worth the try.

I understand the USS Ronald Regan is near Japan. I am well aware of the danger of the radiation exposure at the plant sites. Does the Japanese have a ship that would meet the specifications as per below? Would this be feasible currently or in the future to provide the proper power? I understand that they might be done running the replacement power lines. Would this have worked very quickly if this was an option for a current Naval ship (American or Japanese) or if a ship was developed for this purpose?

I understand that there might be an issue with getting a ship this large into the port but what if a ship was designed to be able to be brought into port at a Nuclear Power plant with just the steam turbine setup. If the wiring is setup to the Dock then we can use the power from the ship to run the pumps as long as they are operational. If a portable pump setup can be developed then we would have a portable pump setup with the power needed to run the pumps at the plant.

If we have a portable pump setup and we can use this type of pump setup to move concrete from the port to the reactor then if the reactor core has been fully jeopardized then maybe you can seal the reactor to minimize the radiation exposure?

Is the 194MW accurate for this ship?

This is an older ship therefore I do not know if the new ships have more generation power.

Would this amount of power be enough to run the cooling systems at the plant?



**194 megawatts = 194 000 kilowatts**

[More about calculator.](#)



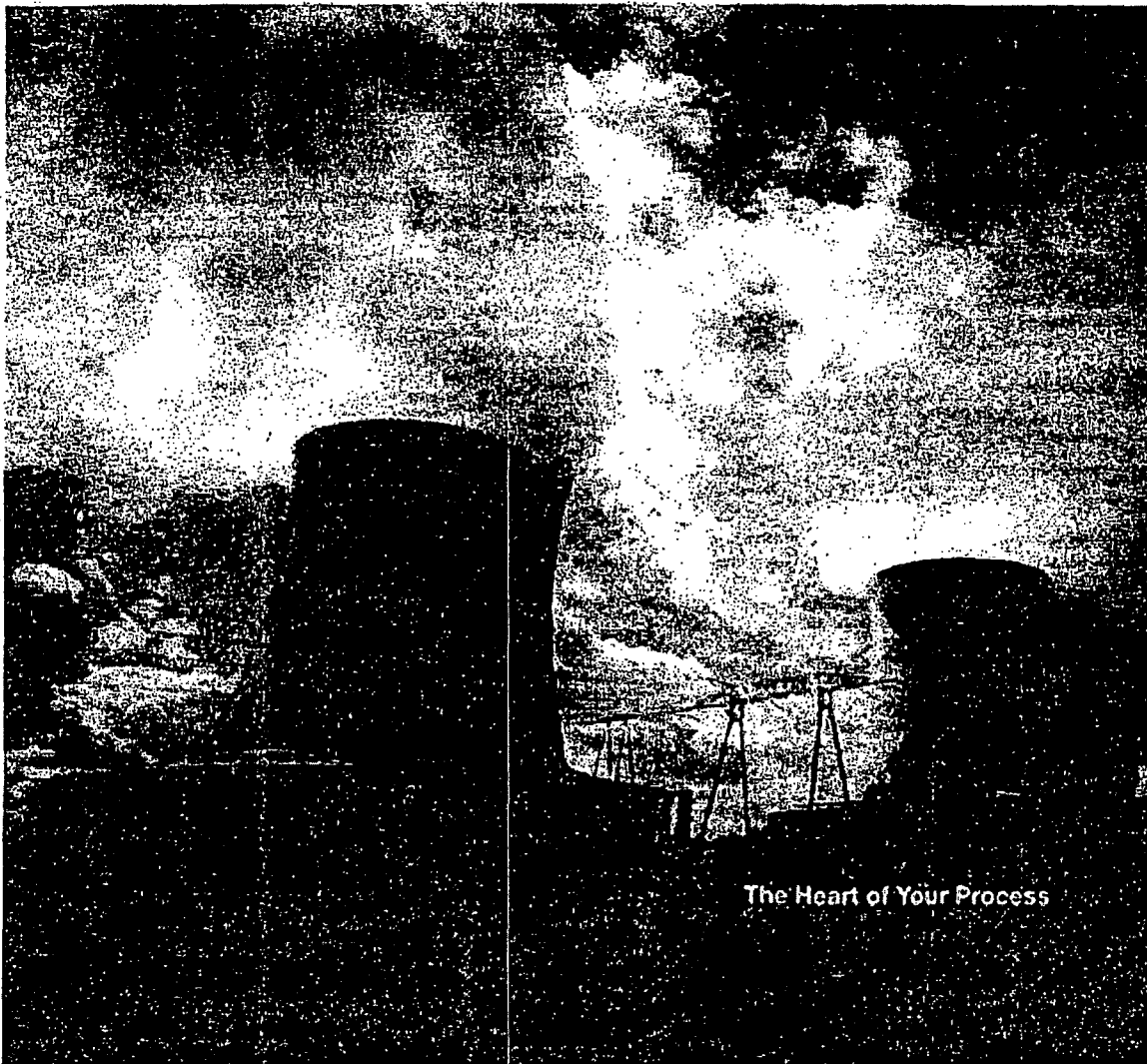
**1 megawatt = 1000 kilowatts**

[More about calculator.](#)

**SULZER**

Sulzer Pumps

**Serving the Nuclear Power Industry**



## Sulzer Pumps Production and Testing Facilities for the Nuclear Power Industry

### Sulzer Pumps United States

The Sulzer Pumps USA factory (SPUSA) in Portland is a producer of engineered pumps focusing on the power generation, HPI and oil & gas production markets. Their quality control systems are independently audited to ISO 9001 standard.

#### Testing Facilities

Flow	170 to 64,000 gpm
Head	6,000 psi
Power	20,000 hp
RPM	6,000 rpm
NPSH limits	2 ft to 500 ft
Electrical	110 - 13,200 volt
Crane	50-ton

### Sulzer Pumps Houston

Sulzer Pumps Houston (SPHO) is designed expressly to produce and test vertical pumps and features the latest computerized machining equipment, a large fabrication shop and a 160,000 gallon test laboratory.

#### Testing Facilities

Flow	20 to 125,000 gpm
Head	720 psi (300 ft range) Max
Power	4,000 hp / 7,200 kW (Max)
RPM	320 - 3,600 rpm
NPSH limits	2 ft to 30 ft
Electrical	4,000 hp / 13,200 volt (Max)
Crane	30-ton

### Sulzer Pumps Canada

Our Burnaby facility has the ability to manufacture the most advanced pump designs and focuses on combined cycle and nuclear power generation applications.

A key asset of this site is the test bed which is capable of running at 50 or 60 Hz specifically designed for testing pumps for nuclear applications. Computerizing the manufacturing facility, the project management and quality control systems are certified for the supply of pumping equipment to the demanding nuclear power generation business.

#### Testing Facilities

Flow	10 to 10,000 gpm
Temp	Low Pressure Loop up to 84°C High Pressure Loop up to 316°C
Max Pressure	10,000 psi / 689 bar / 475 bar / 4020 / 3160 / 316 bar
Storage Tank	2,271 m <sup>3</sup>
Cooling	11,700 kW

#### Testing Facilities

50 Hz	0.540 kW	120 kV / 7.0 kV / 6.4 kV
	5.370 kW	3.81 kV
	3.133 kW	2.4 kV
60 Hz	184 kW	375 V
	11,180 kW	13.8 kV
	8,206 kW	6.3 kV / 6.0 kV
Test Bed I	5.071 kW	5.16 kV
	3,099 kW	2.9 kV
	224 kW	800 V / 450 V
Test Bed	#1	5.3 m x 3.0 m x 6.3 m
	#2	3.7 m x 3.2 m x 7.6 m
	#3	11.5 m x 2.7 m x 8.4 m
Crane	54-Ton	

### Sulzer Pumps Germany

Sulzer Pumpen (Deutschland) GmbH is internationally recognized as partner for pre-engineered as well as engineered pumps with focus on the power generation, HPI and general industries. Within its focus segments Sulzer Pumps Germany offers a complete product range to serve the requirements of customers worldwide. Our management system follows the total quality management process and fully complies with the requirements of ISO 9001-2000.

#### Testing Facilities

50 Hz	4,000 kW	max 15.6 kV
60 Hz	5,500 kW	max 3,300 V
Test Bed I	500 kW	max 400 V / 1000 V
Test Bed II	10,000 gpm / 2,270 m <sup>3</sup> / 500 m <sup>3</sup>	max 8-4 m deep
	500 m <sup>3</sup> / 6.9 m deep	2 x 1,000 mm pipes with orifice
Crane	20-ton and 5-ton cranes	15,000 m <sup>3</sup> h

# Sulzer Pumps Production and Testing Facilities for the Nuclear Power Industry

## Sulzer Pumps France

The Sulzer Pumps France facility supplies engineered pumps focusing on the power generation and oil & gas production markets. The facility is equipped with one of the largest pump test beds in Europe and has extensive experience in supplying high energy boiler feed pumps to the world's major power contractors. The state of the art facilities ensure that the highest quality standards are maintained whilst the quality and managerial systems comply with the requirements of ISO 9001.

Testing Facilities	
Main Test Bed	<ul style="list-style-type: none"> <li>Sump Capacity: 1,200 m<sup>3</sup> (up to 10 m deep)</li> <li>300 mm dia up to 1,500 m<sup>3</sup> @ 200°C, 300 bar</li> <li>1,000 mm dia up to 2,000 m<sup>3</sup></li> <li>1,500 mm dia up to 62,000 m<sup>3</sup></li> </ul>
Power	<ul style="list-style-type: none"> <li>50 HL</li> <li>1,000 kW - 220 / 380 V</li> <li>11,000 kW - 5,500 V to 6,600 V adjustable</li> <li>110,500 V</li> </ul>
Crane	50 Ton & 20 Ton Single
Other 1561 Areas	Sump Capacity: 300 m <sup>3</sup> 3.9 m to 9 m deep

## Sulzer Pumps UK

Sulzer Pumps (UK) Ltd of Leeds has grown from a small engineering company to an international supplier of engineered pumps with a focus on the oil and gas, HPI and the power generation industries. With a purpose-built factory for the dedicated production of centrifugal pumps, some of the world's largest and most powerful pumps have been designed, manufactured, packaged and tested at Leeds for customers on all continents. Extensive facilities ensure the highest quality production from design and machining through to assembly and testing. Focusing on quality, our management systems comply with the requirements of British Standard BS EN ISO 9001.

Testing Facilities	
60Hz	<ul style="list-style-type: none"> <li>1,000 kW - 415 V - 1,175 A - 3,800 V - 175 A</li> <li>6,000 kW - 67 A</li> <li>8,000 kW - 87 A</li> <li>6,000 V - 525 A</li> <li>18,700 kW - 11,000 V - 1,250 A</li> </ul>
50Hz	<ul style="list-style-type: none"> <li>1,000 kW - 415 V - 1,472 A</li> <li>3,000 kW - 3,120 - 3,800 V - 550 A</li> </ul>
Main Test Bed	<ul style="list-style-type: none"> <li>Sump Capacity: 1,100 m<sup>3</sup> 9 m deep</li> <li>250 mm dia up to 2,000 m<sup>3</sup> @ 200°C</li> <li>300 mm dia up to 10,000 m<sup>3</sup></li> <li>1,500 mm dia up to 28,800 m<sup>3</sup></li> </ul>
Crane	50 Ton Tandem 8 m Hook
Large Closed Loop	<ul style="list-style-type: none"> <li>Suppression Tank: Max Flow = 6,000 m<sup>3</sup>/h</li> <li>42 m: Max Power = 7,500 kW</li> </ul>
Small Closed Loop	<ul style="list-style-type: none"> <li>Suppression Tank: Max Flow = 2,500 m<sup>3</sup>/h</li> <li>30 m: Max Power = 3,000 kW</li> </ul>

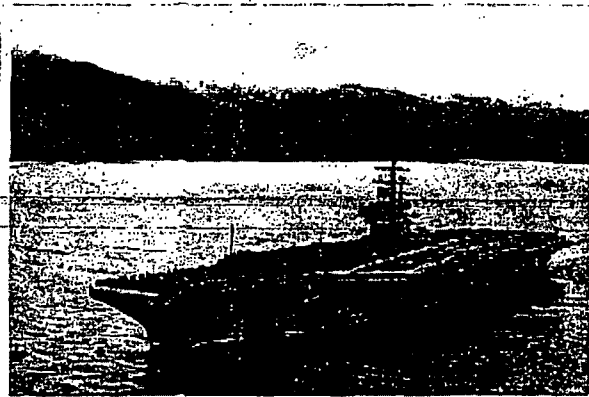
## Sulzer Pumps Dalian

Sulzer Pumps Dalian, China, specializes in the manufacture of various industrial pumps. With complete quality inspection and control system, Sulzer Pumps Dalian has obtained the most prestigious quality qualification of ISO 9001, and achieved Nuclear Pressure Equipment Design & Manufacturing Qualification Certificates issued by China National Nuclear Safety Bureau. Now this company is capable of manufacturing and packaging 24 pump series, including HPI, oil and gas, power generation, petrochemical processing, fertilizer, water supply, waste water treatment, chemical processing, nuclear power generation, textiles, iron and steel, marine, mining, pulp and paper, food and beverage industries, as well as many others. Sulzer (Dalian) Pumps & Compressors Ltd will continue to devote its effort to establishing a customer-oriented company, and to creating high lifecycle value for our customers with innovative products and services.

Testing Facilities	
Test Bed I (Water)	<ul style="list-style-type: none"> <li>Sub Station: 4 MW</li> <li>HL: 50 HL</li> <li>Voltage: 10,500 V / 6,000 V / 380 V</li> <li>Max Motor Start: 3,200 kW</li> <li>Sump Capacity: 1,500 m<sup>3</sup> - 10 m deep</li> <li>Flow: 1,500 m<sup>3</sup>/h</li> <li>Crane: 20 ton</li> </ul>
Test Bed II (Closed Loop)	<ul style="list-style-type: none"> <li>Voltage: 350</li> <li>Max Motor Start: 200 kW</li> <li>Flow: 1,000 m<sup>3</sup>/h</li> <li>Crane: 10 ton</li> </ul>

(11.3 m)

Propulsion: Limit: 41 ft (12.5 m)  
2 × Westinghouse A4W nuclear  
reactors  
4 × steam turbines  
4 × shafts  
260,000 shp (194 MW)

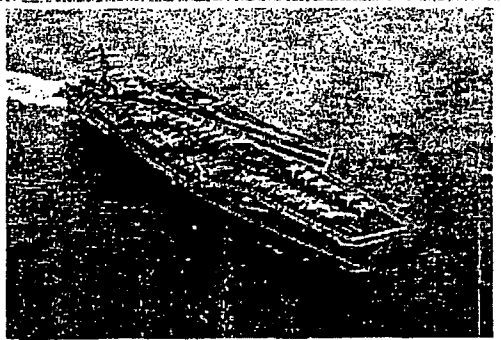


*USS Ronald Reagan*

Career (United  
States)



Name: *USS Ronald Reagan (CVN-76)*  
Namesake: President Ronald Reagan  
Ordered: 8 December 1994  
Builder: Northrop Grumman Newport News  
Laid down: 12 February 1998  
Launched: 4 March 2001  
Sponsored by: Nancy Reagan  
Commissioned: 12 July 2003



USS Nimitz (CVN-68) at sea near San Diego, CA

Career (United States)



Name: USS Nimitz  
Namesake: Fleet Admiral Chester W. Nimitz  
Ordered: 31 March 1967  
Builder: Newport News Shipbuilding  
~~Launched: 22 June 1968~~  
Launched: 13 May 1972  
Commissioned: 3 May 1975

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**From:** RSmith [(b)(6)] [mailto:(b)(6)]

**Sent:** Wednesday, March 16, 2011 10:57 AM

**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'

**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov'; 'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'John Boehner <AsktheLeader@mail.house.gov>'

**Subject:** FW: Japan's Nuclear Plant Cooling Issues

**Importance:** High

Mr. President and Justices,

Here is the email from the Cabinet Secretariat, Government of Japan.

I would like to receive a response from the Department of Energy and/or the Nuclear Regulatory Commission to see if this can be a viable option for our Nuclear plants.

The following questions would have to be answered:

1. Would the setup in the email below (Navy Ship/Cruise Ship) provide adequate power to run the pumps at the Nuclear Plant to keep the plant operational as long as there was no damage to the pumps? Can a ship be built for these type(s) of situations? This can be a global effort so that there are multiple ships that are ready to go to an area in which there is an issue with a loss of the power/pumps at a Nuclear Power Plant. All these ships will be available to help any country that is having this type of problem. I am sure that this type of ship could have been deployed immediately after the tsunami subsided in order to pull these ships up to the port to provide the power and/or backup up pump system.
2. If the pumps are damaged can piping be installed to run from the Dock into the piping at the plant in order to provide either seawater and/or fresh water to keep the plant running? This way a portable pump setup can be used to provide the water needed to cool the plant.
3. What is the specifications of the pump at the plant and can a portable system movable and/or permanent mounted on a ship meet these specifications in order to provide a potential permanent solution to run these pumps until the backup generators could be repaired to run the plant as normal? I know that some of the Navy ships and/or cruise ships have water treatment plants on board in order to provide fresh water. The combined piping from the Dock to the reactor as well as the water source should be adequate to keep the plant cool until the plant can take over the operations on its own after the proper repairs have been made.
4. What is the cost to build a fleet of these ships in order to provide the safety needed to protect people from a similar issue that Japan is currently having? Life is priceless therefore there is no need for a discussion for this type of cost justification. Let's look at the economic analysis of the cost of this type of fleet versus the actual revenues that are being earned with these plants. If the total cost represents a fraction of the actual costs to build/maintain these plants then it appears that this would be very insignificant issue as well.
5. Some Navy/Military ships are nuclear therefore I am sure they should have adequate power to run for enough time to get the backup generators fixed and running to run the plant. This can be an option for the new fleet. Just think these ships can be stored in strategic places to be ready to go be able to travel to the Nuclear plant that needs the backup solution in order to provide the protection to keep the Nuclear Plant running safely. Considering the previous cost estimates for the clean-up efforts related to former Nuclear disasters I am sure that should work very well. I sent my email on Saturday March 12<sup>th</sup>, 10:46 AM. I am sure that if this setup existed then this would be a very easy and quick solution to deploy. If it was just a power issue to the backup generators and or pumps I am sure that the existing distribution system at the Nuclear Plant would have provided the gateway to hookup a Navy/Military ship to the existing distribution (electrical) system at the plant to provide the proper power to pumps if they were operational. This way the plant could have operated as normal until the proper repairs have been made.

6. Provide a GPS system to activate the fleet when an issue like this occurs so that they are already set to go and sail to the Nuclear Plant that is in distress. I understand that there are multiple sites that are impacted in Japan. This is why I thought of the global effort to provide the funding and fleet of ships to meet the goal if there are multiple plants that are in need of backup power.

7. I understand that if there is a total failure at the plant with regard to a breach in the reactor core then additional safeguards would have to be put into place to seal the reactor as quickly to prevent and limit the exposure to radiation. Maybe the ship could provide the capability to seal the reactor by pumping cement to fully seal the plant? If there is no power at the plant as a result of the natural disaster then all of this type(s) of safeguards might be able to be put into place in order to provide additional safety features in order to protect life which is the most important issue here.

Please have the Department of Energy and/or Nuclear Regulatory Commission answer the questions above to see if this is a viable option.

If I can think of anything else I will sent you another email.

I will fax a copy of this email as well.

Thanks,

Robert H. Smith

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

From: 首相官邸HP発信専用 [mailto:hentou@kantei.go.jp]

Sent: Tuesday, March 15, 2011 7:24 PM

To: (b)(6)

Subject: [首相官邸より]

We acknowledge receipt of your message. Best regards, E-mail Team, Cab



inet Secretariat, Government of Japan

**From:** RSmith (b)(6) [mailto:(b)(6)]  
**Sent:** Monday, March 14, 2011 10:36 AM  
**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'  
**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov'; 'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'John Boehner <AsktheLeader@mail.house.gov>'  
**Subject:** FW: Japan's Nuclear Plant Cooling Issues  
**Importance:** High

Mr. President and Justices,

I sent my email to the Official Residence of the Prime Minister. I just heard that there was another explosion at a plant. This is not looking very good.

I would like to know if this issue is just related to supplying power to the pumps or if the pumps have failed. If so, then my suggestion below would be a very good suggestion to bring in a portable pump setup to take place of the damaged pumps.

How about creating a ship that contains the portable pump solution with the appropriate level of power to run the pumps? If the current pumps work then provide the distribution hookup from the Dock to provide power directly to the pumps.

If the existing pumps are not working then build a setup with multiple pumps that are stored on the ship to put into place when these situations occur. You can use the ship as the power source and if you have multiple pumps to use if tubing to the reactor can be run into the plant to also pump water from the ocean into the reactor you would have more redundancy to pump more water into the plant.

We have nuclear navy ships and I would think that Japan would also have this type of ship. I would think that there would have been enough power to supply to the pumps or a portable pump setup.

I think that we should take a look at this on our end. I would like to hear back from our Energy department to see if this is a feasible option.

I cannot believe what is going on.

Please make sure that Mr. Boehner receives a copy of this email. His email inbox is always full.

This is not good!

Thanks,

Robert H. Smith

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**From:** RSmith (b)(6) [mailto:(b)(6)]  
**Sent:** Saturday, March 12, 2011 10:46 AM  
**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'  
**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov'; 'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'John Boehner <AsktheLeader@mail.house.gov>'  
**Subject:** Japan's Nuclear Plant Cooling Issues  
**Importance:** High

Dear Mr. President and Justices,

I am watching what is unfolding with the Nuclear Plants in Japan.

I have a couple of questions. Are the cooling pumps still functional? If so, and this was a power issue how come I did not see any large naval ships being brought in to potentially provide the power needed to run the pumps?

This might have been an option to tap into a moving power plant to supply the appropriate power to run the pumps if they were operational.

If they were damaged by the Earthquake then this might have not been an option. In the future what about having a backup pump plan in which they can use a military war ship or cruise ship that probably would have enough power to run the pumps at the plant.

Of course if the pumps are damaged you would have to look into have a backup pump setup (portable pump setup if possible) in order to move these into place and then tap into the war ship and/or cruise ship to supply the power to keep the nuclear reactors cool. The design of the plant maybe should have taken this into account.

If the other plants are in jeopardy then let's take a look at this pronto!

Would this be a good option? I am not sure, but this is not looking good.

This is just not cool!

Thanks,

Robert H. Smith

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**From:** (b)(6) [mailto:(b)(6)]  
**Sent:** Monday, March 28, 2011 2:45 PM

**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'  
**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov';  
'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov';  
'AsktheLeader@mail.house.gov'  
**Subject:** FW: Correspondence from Mr. Robert H. Smith

Mr. President and Justices,

I am going to try and fax again. I have been having trouble with the fax since it is disconnecting at times and the full fax has not been received at this time.

Please make sure that Mr. Boehner receives this email since I receive a message that his inbox is full.

I think that this is important so I am going to keep trying.

I am sorry I noticed one typo.

I am trying very hard.

Thanks,

Robert H. Smith

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**From:** (b)(6) [mailto:(b)(6)]  
**Sent:** Monday, March 28, 2011 10:34 AM  
**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'  
**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov';  
'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov';  
'AsktheLeader@mail.house.gov'  
**Subject:** FW: Correspondence from Mr. Robert H. Smith

Mr. President and Justices,

Please make sure that Mr. Boehner receives this email since I receive a message that his inbox is full. I will send the fax.

This appears to not be Transparency and Open Government. There is no reason why my email correspondence is not being made part of the public web record when this is of extreme importance to Global Security at Nuclear Power Plants.

There is no reason why they should not be publishing my emails on the public web Dockets.

This might be very pertinent to the current Docket case with regard to the recovery of Nuclear costs.

I trust that everyone understands my concerns.

Thanks,

Robert H. Smith

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Monday, March 28, 2011 10:16 AM

**To:** "Mary Anne Helton" <MHelton@PSC.STATE.FL.US>; "Curt Kiser" <CKiser@PSC.STATE.FL.US>; 'Records Clerk'; 'Office of Commissioner Brown'; 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office of Commissioner Balbis'; 'John Slemkewicz'; 'Ann Cole'; 'Dorothy Menasco'; 'Lisa Bennett'; 'Jennifer Crawford'; 'Marshall Willis'

**Cc:** 'rick.scott@eog.myflorida.com'; 'jennifer.carroll@eog.myflorida.com'; (b)(6); (b)(6); 'ken.hoffman@fpl.com'; 'vkaufman@kagmlaw.com'; 'mcglothlin.joseph@leg.state.fl.us'; 'John.'

**Subject:** FW: Correspondence from Mr. Robert H. Smith

To all,

This is a picture from the Associated Press. There has been talk of pumps and fresh water being shipped (US Navy Ships) to the Nuclear Plant to help with the pumping of water to hopefully help with cooling the reactors. I sent my email with this being a potential solution on Saturday, March 12, 2011 10:46 AM. I wish this was done sooner since the possibility exists that due to not providing the power/cooling immediately after the earthquake/tsunami the possibility exists that the damage to the cooling pumps/ability to operate the cooling pumps might have been caused by the lack of immediate power/cooling that would have been needed to prevent some of the damage that happened after the

earthquake/tsunami. I understand that we do not know this answer yet but my suggestion appears to be the solution going forward.

Below is my latest email to see if another possibility with a future design at the Nuclear Power plants could provide piping that would be run in parallel to be able to pump cool water to another reactor by having the ability to do switching. See email below. They can put extra pump capacity in both plants in order to provide the ability to pump water to the reactor that is having trouble with its existing cooling pumps. This way with the over sizing of the pumps at both plants you would have the ability to switch out the piping through a valve to move water from one cooling pump at one of the reactors to another. If you provide for the appropriate redundancy then this might provide another barrier of protection. I have updated the President, Justices and various US Senators of the issues that I am having with populating my information to the record with these Dockets. I have stressed my concerns about full transparency and Open Government with regard to the issues.

If you take a look at the picture below it is evident that if a ship was designed as I have indicated in my previous emails that the combination of all my safety suggestions might potentially help with providing the proper backup and redundancy to provide the protection needed to prevent an issue like this in the future.

It is evident that by the US Navy sending the ships with the Fresh water that the cooling tower at the Nuclear Plant in Japan did not work to provide the proper support to cool one of the reactors.

I am sure that the possibility exists that a cooling pump setup that resides on a ship along with the proper power plant to run the pump will be able to hook up to a pipe that is run from the Dock to the plant in trouble in order to provide the proper cooling to keep the reactor cool.

Please make sure that all my correspondence is being made part of the public Dockets since this is very important.

I am waiting for a response from the Commission that my correspondence has been updated to all the Dockets.

Ignoring putting these emails on the record is not professional and it appears that full transparency and open Government would be the responsibility of both the Florida Public Service Commission and the Governor's office.

This is of importance to Global Security at Nuclear Power Plants and these emails should be made part of the public record if they are providing an adequate solution to such an important Global problem.

There is no reason why the Commission has stopped at this point and the excuse that it is too time consuming and cost too much money is just not valid.

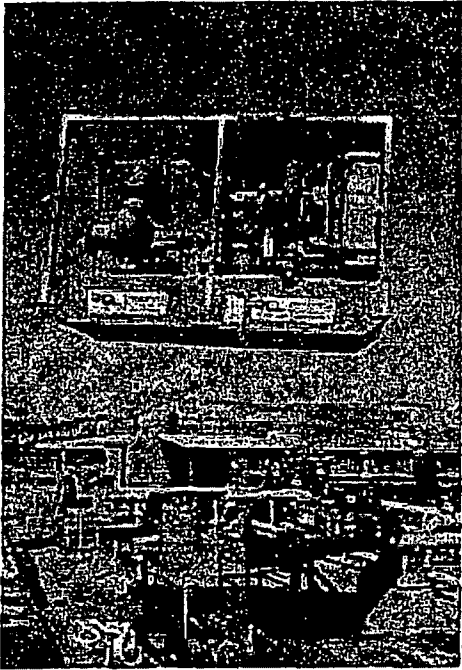
I trust that everyone understands the importance of this transparency and open Government.

I am waiting for a response to hear that my emails have been updated on the public web record. They should be based upon Federal and State law.

Thanks,

Robert H. Smith

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AP - A water pump is lifted by crane onto a U.S. military boat to ship to Fukushima Dai-ichi nuclear power plant.

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Saturday, March 26, 2011 1:57 PM

**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'

**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov'; 'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'AsktheLeader@mail.house.gov'

**Subject:** FW: Japan's Nuclear Plant Cooling Issues

**Importance:** High

Mr. President and Justices,

Here is another suggestion. I do not know if this type of setup is already in place at existing Nuclear Power Plants.

---

What about providing redundancy by having piping run at a plant where there are multiple reactors in which they can switch the flow of water from one reactor to another to maintain some level of coolness a reactor that is having a problem. This way there are multiple cooling pumps that are capable to cool a reactor that is in trouble. I do not know if the possibility exists that by utilizing a switching type of set up they will have a set of cooling pumps to help with a troubled reactor. I fully understand that they would need cooling pumps for all the reactors but maybe there would enough time to provide switching to deal with a troubled reactor by having the ability to switch the flow of water to cool a reactor that is in real trouble.

I still think that my suggestion below is a very valid suggestion I that it could provide immediate power to run the plant when they lose electric and if a portable pump system is developed they would have a portable pump setup to cool the reactor in trouble. With the combination of the switch setup above and my suggestion for bringing power to the Nuclear Power station in addition to maybe providing a portable pump setup that this added redundancy would provide the solution to this type of situation in the future.

This is what transparency and open government would call for. You have to remember that people who are working for these companies sometimes are reluctant to speak due to exposure to ramifications if they do speak.

You would not believe that the current RateCase that I am working on as an interested party the Florida Public Service Commission is not putting my email correspondence on the record that I have sent previously with regard to my suggestion for a possible solution to this type of issue. This solution might have an impact on the outcome of this case. There is no reason why the Florida Public Service Commission should not be following both Federal and State regulations to put my suggestion on the record. I am both a shareholder and a ratepayer and I want to make sure that if they are accelerating the recovery of the Nuclear plant costs that there is ample cash flow to make sure that the proper maintenance and repairs can be completed if needed. Both Federal and State law provide for a person with a legal interest to have the "full right to be heard according to law". In order to protect my legal interests in all of these proceedings it is imperative that I should be treated no differently than Florida Power & Light. There is no excuse and now the Commission will not even read my emails regarding my request to make sure that the record is fully updated in order to ensure that other parties with a legal interest have access to my email communications regarding these ratecase proceedings. In the past the Commission has made all my correspondence part of the public record like they should to ensure that there are no "Ex Parte" communications that might have an impact on potential questions that might have to be asked to provide guidance with the ruling in these proceedings.



There is no excuse and based upon Transparency and Open Government there should be no issue with making all my emails part of the public record. Even though these are addressed to you and the Prime Minister of Japan there should be no reason why based upon my Constitutional rights and Federal and State laws that they would discontinue posting my information on the public web site in order to ensure that the proceeding is being heard in accordance with both Federal and State laws.

I have sent numerous emails regarding my concern that the Florida Public Service Commission might be creating an "Ex Parte" situation and a partial type of rate case proceeding. I have also kept the General Council at the Florida Power & Light in the loop regarding my concerns and my suggestions. Florida Power & Light has brought up a suggestion about a cooling tower type setup. This might not work if a tsunami takes this setup out. I am not saying that this might be a potential additional layer of redundancy but if an earthquake and/or tsunami damage's the cooling tower then you will be put into the same situation that Japan is currently facing. My suggestion will bring the power plant to the troubled Nuclear power plant to provide power to operate the existing cooling pumps to keep the plants cool right after the tsunami. If a portable pump setup can developed and put into place that you will have all you need to run the plants when they are in distress even if the currently cooling pumps are damaged at the plant. If you add my suggestion with putting in piping to run any distressed plant from reactors cooling pumps from a working plant's cooling pumps that you should potentially have all you need to make sure that you can keep the plants up and running. I would like to know if the cooling pumps were working immediately after the earthquake/tsunami. If the cooling pumps were damaged due to the built up distress after the events (earthquake/tsunami) then maybe the reason why the cooling pumps are not working now is due to the distress of not having adequate cooling right after the events. My solution would potentially cover these issues.

They have indicated to me that it is costing too much time and resources to populate my correspondence. I have provided the proper technology in order for them to populate my email correspondence with minimal cost and with very little resources. This is just not a valid excuse. I gave them an example of a 2 minute turnaround time to make sure that my email correspondence is being updated to the public record to be in compliance with both Federal and State laws.

It appears that they are continuously ignoring my emails.

This is a Safety issue and it is imperative that they comply with Federal and State Laws and make my email correspondence part of the web public record. They should not be ignoring my emails since this is a very important issue and if my suggestion works then this might have a global impact with safety at Nuclear Power Plants.

This is just not cool!

I know that I have sent you numerous emails about this type of issue. I know that I brought this up immediately with the BP spill with regard to providing the proper redundancy. There may be a similar problem with this situation as well.

Please do not perceive this as negative feedback.

This is showing you that a balance of Government regulation and Business interests have to be maintained.

Where do we draw the line?

This is very important and this is just not a cool situation!

I am looking forward to a response from both the Department of Energy and the Nuclear Regulatory Commission.

I will send the fax.

Thanks,

Robert H. Smith

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Friday, March 25, 2011 3:50 PM

**To:** 'Mary Anne Helton' <MHelton@PSC.STATE.FL.US>; 'Curt Kiser' <CKiser@PSC.STATE.FL.US>; 'Records Clerk'; 'Office of Commissioner Brown'; 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office of Commissioner Balbis'; 'John Slemkewicz'; 'Ann Cole'; 'Dorothy Menasco'; 'Lisa Bennett'; 'Jennifer Crawford'; 'Marshall Willis'

**Cc:** 'rick.scott@eog.myflorida.com'; 'jennifer.carroll@eog.myflorida.com'; (b)(6); (b)(6); 'ken.hoffman@fpl.com'; 'vkaufman@kagmlaw.com'; 'mcglothlin.joseph@leg.state.fl.us'; 'John.'

**Subject:** FW: Correspondence from Mr. Robert H. Smith

To all,

I was researching Title 5 U.S.C. § 706 and noticed that the regulation below indicates that:

The reviewing court shall— (2) hold unlawful and set aside agency action, findings, and conclusions found to be— under the following criteria:

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

Based upon the above statement I explained below it appears that I might not be receiving the proper due process to be fully heard according to law which might fall under Title 5 U.S.C. § 706(2)(A).

(B) contrary to constitutional right, power, privilege, or immunity;

Based upon the statement since I am a ratepayer and a shareholder of the company I would think I would be entitled to "propound discovery" in order for me to protect my legal interests from both a ratepayer and/or shareholder perspective. This includes providing questioning to put on the web public record if it might be pertinent to the outcome of these proceedings.

(C) in excess of statutory jurisdiction, au-

thority, or limitations, or short of statutory right;

Based upon the statement above it appears that the Commission should be following the existing protocol in that they should be publishing my email correspondence on the web public record equitably without bias just like they are doing for other parties with a legal interest in these proceedings. Picking and choosing which email correspondence should be made part of the public record might fall under the requirement above.

(D) without observance of procedure required by law;

Based upon the above statement the normal procedure that the Commission has been following is to provide the "full right to be heard according to law" and make sure that there is no "Ex Parte" communications. This might fall under this requirement as well.

(E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute; or

The section above is supporting my reasoning for publishing my email to the web since my email correspondence might be pertinent to the questioning in the case and based upon meeting the requirements of Title 5 U.S.C. §556 and §557 of the Federal Administrative Procedures Act my email would have to be published to make sure that we are in conformity with no "Ex Parte" communications. Title 5 U.S.C. § 706(2)(E) references specifically Title 5 U.S.C. §556 and §557 of the Federal Administrative Procedures Act.

(F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

Based upon the above statement it appears that under Federal Preemption under Title 5 of the Administrative Procedures Act that selectively not publishing my email correspondence to the public web Docket just like other parties with a legal interest might create a situation "One Sided" or "Ex Parte" communication issue in which a reviewing court might hold unlawful and set aside agency action, findings, and conclusions found to be unwarranted by the facts to the extent that the facts are subject to a new trial (trial de novo) by the reviewing court (Federal Court). It appears that Federal Preemption under Title 5 U.S.C. §556 and §557 of the Federal Administrative Procedures Act and Title 5 U.S.C. § 706(2)(F) might give rise to a form of appeal in which the appeals court holds a trial (trial de novo) as if no prior trial had been held.

Based upon my research this type of trial might be utilized when the following situations arise:

A trial de novo may be ordered on appeals from administrative agency decisions or arbitration awards.

The courts, on a de novo basis, may sometimes review administrative decisions.

The primary difference between an appeal and a proceeding from a trial de novo is that new evidence may not be presented in an appeal. With a trial de novo new evidence may be presented.

I am not an attorney but it seems that my concerns are fully warranted and all my email correspondence should be made part of the web public Docket(s).

Considering that this is about a potential solution to provide additional safety specifications there should be no reason why my email correspondence has not been made part of the public record just like Florida Power & Light's email.

How come no one at the Commission is picking up my emails? If this is a valid Safety solution then the Commission should be honoring my emails and making them part of the web public Docket in order for all interested parties with a legal interest to have this information if it might have an impact on the outcome of these proceedings.

I trust that everyone understands my concerns.

Thanks,

Robert H. Smith

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Friday, March 25, 2011 9:42 AM

**To:** "Mary Anne Helton" <MHelton@PSC.STATE.FL.US>; "Curt Kiser" <CKiser@PSC.STATE.FL.US>; 'Records Clerk'; 'Office of Commissioner Brown'; 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office of Commissioner Balbis'; 'John Slemkewicz'; 'Ann Cole'; 'Dorothy Menasco'; 'Lisa Bennett'; 'Jennifer Crawford'; 'Marshall Willis'

**Cc:** 'rick.scott@eog.myflorida.com'; 'jennifer.carroll@eog.myflorida.com'; (b)(6);

(b)(6); 'ken.hoffman@fpl.com'; 'vkaufman@kagmlaw.com'; 'mcglothlin.joseph@leg.state.fl.us'; 'John.'

**Subject:** FW: Correspondence from Mr. Robert H. Smith

To all,

I am sure you are aware of the current situation in Japan with regard to the current status of the nuclear plants in Japan.

I was taking a look at the Correspondence filings that have been updated by the records clerk.

How come this correspondence about the Japan issue has been added to the public Docket and my information has not?

Mr. Hoffman's email was sent on Saturday March 12<sup>th</sup>, 2011 10:20PM. My email was sent to the Prime Minister of Japan and Various Federal Agencies on Saturday, March 12, 2011 10:46 AM.

Why would there be any different treatment of the emails since both are dealing with the Japan Crisis which might have an impact on the potential questions that might have to be asked with these proceedings. All my emails regarding my correspondence that might have an impact in these proceedings should be made part of the public record. This includes all my email correspondence about Japan.

I have a full legal interest in these proceedings and this cannot be one sided type of due process.

This appears to be Arbitrary and Capricious as per Title 5 U.S.C. § 706(2)(A).

**§ 706. Scope of review**

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—

(1) compel agency action unlawfully withheld or unreasonably delayed; and

(2) hold unlawful and set aside agency action, findings, and conclusions found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;

(D) without observance of procedure required by law;

(E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute; or

(F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.

Please make every effort to respond today in order for me to protect my legal interests and to provide me the ability to the "full right to be heard according to law".

If my suggestion is a viable option then all of my information should definitely be made part of the record.

Please let me know if I have to file this as a motion since this is a Global issue therefore a proper response is fully warranted as to specifically why my emails are not being updated to the public record.

There should be no further delay to the processing of my email correspondence and making the information part of the public record.

I trust that everyone understands my position.

Thanks,

Robert H. Smith

From: RSmith [redacted] [mailto:[redacted]]

Sent: Saturday, March 12, 2011 10:46 AM

To: 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'

Cc: 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov';

'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'John Boehner  
<AsktheLeader@mail.house.gov>'

**Subject:** Japan's Nuclear Plant Cooling Issues

**Importance:** High

Dear Mr. President and Justices,

I am watching what is unfolding with the Nuclear Plants in Japan.

I have a couple of questions. Are the cooling pumps still functional? If so, and this was a power issue how come I did not see any large naval ships being brought in to potentially provide the power needed to run the pumps?

This might have been an option to tap into a moving power plant to supply the appropriate power to run the pumps if they were operational.

If they were damaged by the Earthquake then this might have not been an option. In the future what about having a backup pump plan in which they can use a military war ship or cruise ship that probably would have enough power to run the pumps at the plant.

---

Of course if the pumps are damaged you would have to look into have a backup pump setup (portable pump setup if possible) in order to move these into place and then tap into the war ship and/or cruise ship to supply the power to keep the nuclear reactors cool. The design of the plant maybe should have taken this into account.

If the other plants are in jeopardy then let's take a look at this pronto!

Would this be a good option? I am not sure, but this is not looking good.

This is just not cool!

Thanks,

Robert H. Smith

Work For A Purpose! ©

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Diamond Williams

100009-EI

From: Ann Cole  
 Sent: Monday, March 14, 2011 10:19 AM  
 To: Office of Commissioner Balbis  
 Cc: Commissioners Advisors; Administrative Assistants - Commission Suite; Diamond Williams  
 Subject: RE: FPL NUCLEAR UPDATE AND SITUATION SUMMARY

Thank you for this information, which will be placed in *Docket Correspondence - Parties and Interested Persons*, in Docket No. 100009-EI.

From: Office of Commissioner Balbis  
 Sent: Monday, March 14, 2011 9:41 AM  
 To: Ann Cole  
 Cc: Lisa Bennett  
 Subject: FW: FPL NUCLEAR UPDATE AND SITUATION SUMMARY

FPL CLK - CORRESPONDENCE		
<input type="checkbox"/> Administrative	<input checked="" type="checkbox"/> Parties	<input type="checkbox"/> Contractor
DOCUMENT NO. 00774-10		
DISTRIBUTION: _____		

Good morning Ann,

Please place the e-mail below in *Docket Correspondence-Parties and Interested Persons*, in Dockets 100009-EI

Thanks,  
Cristina

From: Hoffman, Kenneth (mailto:KENNETH.HOFFMAN@fpl.com)  
 Sent: Saturday, March 12, 2011 10:20 PM  
 To: Office Of Commissioner Graham; Office Of Commissioner Edgar; Office of Commissioner Brise; Office of Commissioner Balbis; Office of Commissioner Brown  
 Cc: KELLY, JR; Tim Devlin; Curt Kiser; Slagy, Eric  
 Subject: FW: FPL NUCLEAR UPDATE AND SITUATION SUMMARY

Commissioners:

Earlier today, we were asked to provide input to the Florida Division of Emergency Management regarding our nuclear facilities and a comparison to the current situation with Fukushima Daiichi in Japan. We provided the Situation Summary below this evening. I am providing it to you directly here as well. If you have any questions, please don't hesitate to contact me.  
 Ken Hoffman

**SITUATION SUMMARY**

**Florida Power & Light is closely monitoring the situation in Japan.**

- Since the earthquake and subsequent tsunami, FPL executives have been coordinating with the Nuclear Energy Institute, the Institute of Nuclear Power Operations and the World Association of Nuclear Operators with regard to the impact of these events on the operation of the Fukushima Daiichi nuclear plant in Japan.
- At this time, all of the facts are not fully known. This is

3/14/2011

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Thursday, March 24, 2011 4:29 PM

**To:** 'Mary Anne Helton'; 'Curt Kiser'; 'Records Clerk'

**Cc:** 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office of Commissioner Balbis'; 'Office of Commissioner Brown'; 'rick.scott@eog.myflorida.com';

'jennifer.carroll@eog.myflorida.com'; (b)(6); (b)(6)

'ken.hoffman@fpl.com'; 'vkaufman@kagmlaw.com'; 'mcglothlin.joseph@leg.state.fl.us'; 'John'; 'Ann Cole'; 'Dorothy Menasco'; 'Lisa Bennett'; 'John Slemkewicz'; 'Jennifer Crawford'; 'Marshall Willis'

**Subject:** FW: Correspondence from Mr. Robert H. Smith

To all,

I noticed a couple of typo(s).

I am waiting for a response from the Commission as to when my email correspondence will be made part of the record as per Federal/State Statutes.

Why has the Commission decided at this point in the proceedings to make a determination that they will no longer be making my information part of the public record on the web site?

The potential exclusion(s) of my email(s) off the public record might be construed as whited/redacted out information that might be pertinent questions that should be made available to all parties with a legal interest in order to prevent "Ex Parte" communications. Some of these emails might provide information for additional questioning that might have an impact with the outcome of any decision with these types of proceedings. If the Commission starts to make the determination of what information is pertinent to put on the web public record this by itself might be construed as "Ex Parte" Communications in that the Commission would be exercising judgment as to what constitutes proper information to be put onto the public web Docket or not. This would lead to one sided communication or "Ex Parte" communications.

It appears that the Commission should not reserve the right to decide what information should be made part of the public record or not. The Commission should afford every party with a legal interest in these proceedings an unbiased approach to afford "the full right to be heard according to law". This is supported by both Federal and State regulations that are very specific to these types of proceedings. See my email below regarding the Federal law with "Ex Parte" Communications as well as the Current State law.

Federal Preemption would provide the support of this position as follows for "Transparent and Open" Government. This memo (Eric Holder Memo March 19, 2009) would provide the proper backup to make sure that all my correspondence should be made available as part of the public record so that other parties with a legal interest would have the ability to have access to this information if they feel that it might be pertinent to any of these proceedings. Under the Freedom of Information Act all information should be made available so that it is "administered with clear presumption: In the case



of doubt, openness prevails". If my information is not made part of the public record on the web then other parties with a legal interest might not have the same ability to use this information just like the Commission would have the ability to review the information to see if it is pertinent to a position in a case. "Ex Parte" means one sided. If the information is only being made available to certain parties with a legal interest and is not being published just like any other correspondence that is being made part of the public record this might lead to "Ex Parte" Communications that would be prohibited by various Federal Acts.

As per Mr. Holder:

On March 19th, 2009, The Office of the Attorney General has issued a memorandum regarding the release of information under The Freedom of Information Act (FOIA), 5 U.S.C. § 552.

This indicates "The Freedom of Information Act should be administered with clear presumption: In the case of doubt, openness prevails".



Office of the Attorney General

Washington, D. C. 20530

March 19, 2009

MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES.

FROM: THE ATTORNEY GENERAL

SUBJECT: The Freedom of Information Act (FOIA)

The Freedom of Information Act (FOIA), 5 U.S.C. § 552, reflects our nation's fundamental commitment to open government. This memorandum is meant to underscore that commitment and to ensure that it is realized in practice.

A Presumption of Openness

As President Obama instructed in his January 21 FOIA Memorandum, "The Freedom of Information Act should be administered with a clear presumption: In the face of doubt, openness prevails." This presumption has two important implications.

First, an agency should not withhold information simply because it may do so legally. I strongly encourage agencies to make discretionary disclosures of information. An agency should not withhold records merely because it can demonstrate, as a technical matter, that the records fall within the scope of a FOIA exemption.

Second, whenever an agency determines that it cannot make full disclosure of a requested record, it must consider whether it can make partial disclosure. Agencies should always be mindful that the FOIA requires them to take reasonable steps to segregate and release nonexempt information. Even if some parts of a record must be withheld, other parts either may not be covered by a statutory exemption, or may be covered only in a technical sense unrelated to the actual impact of disclosure.

At the same time, the disclosure obligation under the FOIA is not absolute. The Act provides exemptions to protect, for example, national security, personal privacy, privileged records, and law enforcement interests. But as the President stated in his memorandum, "The Government should not keep information confidential merely because public officials might be embarrassed by disclosure, because errors and failures might be revealed, or because of speculative or abstract fears."

Pursuant to the President's directive that I issue new FOIA guidelines, I hereby rescind the Attorney General's FOIA Memorandum of October 12, 2001, which stated that the Department of Justice would defend decisions to withhold records "unless they lack a sound

The Commission should not reserve the right as to what is made part of the public Docket or not. Since I am communicating with multiple parties with regard to these proceedings I want to make sure that I am in full compliance as afforded by the Title 5 of the Administrative Procedure Act. This would require that all my communications be made part of the public Docket files for everyone to have access to this information. It does not matter whether or not I am an intervenor or an interested party. I am a party of record with a full legal interest (shareholder/ratepayer) in these proceedings, therefore I should be afforded the "full right to be heard according to law". As evidenced by my motion(s)

and motion(s) to strike I have provided the legal basis for a question and answer format for the appropriate parties to respond in a question and answer format.

As per Chapter 119 of the Florida Statutes it indicates appears that the Commission cannot "impose restrictions on requesting public records". This would mean that all public correspondence would have to be made available as part of the public web Docket as well so that a person can utilize this information if they choose to at "no cost" based upon §119.07(2)(a). The fact that my email correspondence is being provided electronically to be made part of the public record on the web would meet the requirements under Chapter 119 of the Florida Statutes.

If the Commission is deciding as to what information is going to be populated into the public web Docket or kept internally another party with a legal interest might not have right of access under Chapter 119.07 (2)(a) of the Florida Statutes. All efforts should be afforded to provide any information electronically so that any party with a legal interest would be able to obtain this information at no charge or at minimal cost.

This is another reason why the Commission should not be deciding what is being made part of the public web Docket or not.

STATE OF FLORIDA  
**Public Service Commission**



WHAT IS THE SUNSHINE LAW?

## ABOUT OPEN GOVERNMENT IN FLORIDA

Pursuant to the Florida Constitution and Chapter 119 of the Florida Statutes and Article I, Section 24 of the Florida Constitution, a public agency must provide access to its records. The definition of a public records is very broad. Section 119.011(11), F.S., defines "public records" to include:

*all documents, papers, letters, maps, books, tapes, photographs, films, sound recordings, data processing software, or other material, regardless of the physical form, characteristics, or means of transmission, made or received pursuant to law or ordinance or in connection with the transaction of official business by any agency.*

Upon request, access to public records must be promptly provided. An agency may only deny access to records or portions of records if a specific statutory exemption applies making such records confidential and exempt from public disclosure and only those portions of the record in which an exemption applies should be redacted (deleted).

### CAN AN AGENCY IMPOSE RESTRICTIONS ON REQUESTING PUBLIC RECORDS?

NO. Without specific statutory authority, an agency cannot require that a request for public records be made in writing or in person, but you may wish to make your request in writing to ensure there is an accurate record of what was requested. Unless the requested information is confidential and exempt, a custodian of public records must honor a request for records, whether it is made in person, over the telephone, or in writing. In general, a requestor can not be required to disclose the reason for the request. As a general rule, 1) you don't have to show identification, 2) you don't have to make your request in writing, and 3) you don't have to give a reason for your request.

Copies of Documents	<u>§ 119.07(2)(a), F.S.</u>	Records provided electronically	No charge
---------------------	-----------------------------	---------------------------------	-----------

I am waiting for a response from the Commission as to when the email correspondence will be made part of all three of the Public Dockets. Cost should not be an issue as I have provided the answer in the email below to provide the technology for the Commission to turnaround this email correspondence within a 24 hour timeframe at a nominal/minimal cost.

There is no reason why all my information should not be made part of the public record. This is no different than the Commission allowing other speakers to put their position on the record.

Since I am both a shareholder and a ratepayer, I should be afforded the same rights as the speakers who concerns were made part of the public record. There should be no filtering of information. All information should be treated equitably without bias as to what would be made part of public web correspondence or not.

This is supported by both Federal and State regulations.

I trust that everyone understands my position.

I am looking forward to a response and I will follow up tomorrow.

Hopefully there are no typo(s).

Thanks,

Robert H. Smith

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**From:** (b)(6) [mailto:(b)(6)]

**Sent:** Wednesday, March 23, 2011 7:29 PM

**To:** 'Mary Anne Helton'; 'Curt Kiser'; 'Records Clerk'

**Cc:** 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brise'; 'Office of Commissioner Balbis'; 'Office of Commissioner Brown'; rick.scott@eog.myflorida.com; jennifer.carroll@eog.myflorida.com; (b)(6); ken.hoffman@fpl.com; vkaufman@kagmlaw.com;

mcglothlin.joseph@leg.state.fl.us; 'John.'; 'Ann Cole'; 'Dorothy Menasco'; 'Lisa Bennett'; 'John Slemkewicz'; 'Jennifer Crawford'; 'Marshall Willis'

**Subject:** FW: Correspondence from Mr. Robert H. Smith

To all,

Here is a test that I have done with the time it took to download the updated file from the Docket and append the attached email. It only took 2 minutes to join the two files.

The download for document 00056-11 for Docket 110009 was completed at 7:13PM. I used a Join Utility for the attached file and it completed the file at 7:15PM.

This took two minutes to update therefore this did not take very long and cost too much.

If you have any questions please do not hesitate to ask.

I will follow up tomorrow.

Thanks,

Robert H. Smith

Name	Size	Type	Date Modified
00056-11robtestimony003232011Case110009RobUpdate	17,292 KB	PD...	3/23/2011 7:15 PM
00056-11robtestimony003232011Case110009	17,007 KB	PD...	3/23/2011 7:13 PM
NuclearCostRecoverAFDCrate05142010emailhardcopy10212010	192 KB	PD...	10/21/2010 9:00 AM

This is the combined file with Rob update at 7:15PM . This is a total of 141 pages. (131 pages original file + 10 pages Rob email file)

This is a total duration 2 minutes to update Docket file.

00056-11robtestimony003232011Case110009

**RSmith** (b)(6)

**From:** (b)(6)  
**Sent:** Friday, May 14, 2010 5:50 PM  
**To:** Lisa Bennett <LBENNETT@PSC.STATE.FL.US>  
**Cc:** 'Office Of Commissioner Edgar'; 'Office of Commissioner Argonziano'; 'Office of Commissioner Skop'  
**Subject:** FW: Docket No. 08D677, FPL Reconsideration Request  
**Attachments:** OrderSummarywithNCRCrévoq05142010.pdf

Dear Ms. Bennett,

0x 11:00 m

This is the downloaded file at 7:13PM This is a total of 131 pages.

00056-11robtestimony003232011Case110009

**Dorothy Mensaco** Page 1 of 3  
110009-E1

**From:** (b)(6)  
**Sent:** Tuesday, March 08, 2011 10:41 AM  
**To:** Ann Cole; Curt Kiser, Records Clerk; Lisa Bennett; John Stenkawitz; Jennifer Crawford; Marshall Willis  
**Cc:** Office Of Commissioner Edgar; Office Of Commissioner Graham; Office of Commissioner Brise; Office Of Commissioner Graham; Office of Commissioner Balbis; Office of Commissioner Brown; rick.scott@eog.myflorida.com; jennifer.carroll@eog.myflorida.com; (b)(6); ken.hoffman@fpl.com; vkautman@kagmlaw.com; mcglothlin.joseph@leg.state.fl.us; John.Butler@fpl.com  
**Subject:** Docket 100410 / 3/7/2011 Butler Response not available 3/8/2011  
**To:** All

0x 11:00 m

This is my email that is attached which is 10 pages.

00056:17061232011Case:1100098 | 00056:17061232011Case:1100098 | Nuclear Cost Recover AFDC rates 05142010 email

---

**RSmith** (b)(6)

---

**From:** (b)(6)  
**Sent:** Friday, May 14, 2010 5:50 PM  
**To:** 'Lisa Bennett <LBENNETT@PSC.STATE.FL.US>'  
**Cc:** 'Office Of Commissioner Edgar'; 'Office of Commissioner Argonziano'; 'Office of Commissioner Skop'  
**Subject:** FW: Docket No. 080677, FPL Reconsideration Request  
**Attachments:** OrderSummarywithNCRCrevreq05142010.pdf

Dear Ms. Bennett,

Attached, you will find an Summary that I have not transfer from the 08-05-10. It needed under the cover of...

11:00 AM

1 of 10

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**From:** (b)(6) [mailto:(b)(6)]  
**Sent:** Wednesday, March 23, 2011 5:59 PM  
**To:** 'Mary Anne Helton'; 'Curt Kiser'  
**Cc:** 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office of Commissioner Balbis'; 'Office of Commissioner Brown'; rick.scott@eog.myflorida.com; jennifer.carroll@eog.myflorida.com; (b)(6); ken.hoffman@fpl.com; vkaufman@kagmlaw.com; mcglothlin.joseph@reg.state.fl.us; John.; Ann Cole; Dorothy Menasco; 'Lisa Bennett'; 'John Slemkewicz'; 'Jennifer Crawford'; 'Marshall Willis'  
**Subject:** RE: Correspondence from Mr. Robert H. Smith

Dear Ms. Helton,

The updates to the files are to make part of the public record questions that might be pertinent to the all three Dockets. In order for me to protect my legal interests all of my email correspondence should be made part of the public record. This would be my right as indicated in both Federal/State Statutes. This is both from a ratepayer and shareholder perspective.

The letter dated June 2<sup>nd</sup>, 2009 from Patrick L. "Booter" Imhof General Counsel does not address the issue of making my email/correspondence part of the public record in order for me to protect both my legal interests as well as to be heard according to law. This letter discusses the intervenor process and does not discuss that as a person with a legal interest

I should be fully afforded my rights to be heard according to law. As a person with a legal interest from both a shareholder and ratepayer perspective I would be able to fully document and ask any pertinent questions in order to protect my legal interests in these proceedings. My rights as an interested party with a legal interest should be treated no differently than any other party with a legal interest.

Any rate case that the Florida Public Service Commission is hearing would be considered a formal rulemaking and formal adjudication therefore "ex parte communications would be prohibited based upon Title 5 of the Administrative Procedure Act.

Here are the rules that were file with my previous motion(s).

As per Title 5 of §557(d) (1), §557(a), §556, §553(c), §554(a) of the Administrative Procedure Act:

§557(d) (1) prohibits ex parte communication in any agency proceeding that is subject to the Administrative Procedure Act

§557(a). This section applies "when a hearing is required to be conducted in accordance with §556 of this title

§556 applies "to hearings required by §553 and §554 of the Administrative Procedure Act

§553(c) makes §556 and §557 applicable to a rulemaking proceeding "when rules are required by statute to be made on the record after opportunity for an agency hearing".

§554(a) makes §556 and §557 applicable "in every case of adjudication required by statute to be determined by an agency hearing

The Administrative Procedure prohibition of ex parte communications applies only when a statute requires an agency to issue a rule or to resolve an adjudicatory dispute "on the record after opportunity for agency hearing. The two cases of agency proceedings are often referred to as formal rulemaking and formal adjudication.

Any rate case that the Florida Public Service Commission is hearing would be considered a formal rulemaking and formal adjudication therefore "ex parte communications would be prohibited based upon Title 5 of the Administrative Procedure Act.

"Based upon Chapter 350.042 of the Florida Statutes it appears that I would reserve the right to be fully heard on the public record. This would include all email(s)/motion(s)/response(s). There should be no reason why I would not be able to practice before the commission in order to protect my legal interests in these proceedings. Why would I be treated differently than these public speakers?"



350.042

**Ex parte communications.**

- (1) A commissioner should accord to every person who is legally interested in a proceeding, or the person's lawyer, full right to be heard according to law, and, except as authorized by law, shall neither initiate nor consider ex parte communications concerning the merits, threat, or offer of reward in any proceeding other than a proceeding under s. 120.54 or s. 120.565, workshops, or internal affairs meetings. No individual shall discuss ex parte with a commissioner the merits of any issue that he or she knows will be filed with the commission within 90 days. The provisions of this subsection shall not apply to commission staff.

Why was there a sudden change? Since the Commission continued to process my documents as an interested party in these proceedings it is evident that all my correspondence should be made part of the public record or the Commission would have stopped this process back when the letter has been issued. Based upon that this was not the case and the public Dockets have been updated continuously from June 2009 to present date there is no reason why all my correspondence should not be made part of the public record.

All my information should also be made part of the public record due to eliminating any "Ex Parte" Communications since I have been in communications with all the various parties with a legal interest. In order for the Commission to comply it would be very important to make sure that all my information has been made part of the public record to meet both Federal/State regulations as well as to afford me the ability to protect my legal interests in these proceedings.

Not all parties with a legal interest have the means to travel to the proceedings as an intervenor. There is no reason why as a party with a legal interest I should not be afforded all avenues to protect my legal interest in these proceedings. I have filed motion(s) and motions to strike and none of these motion(s) have been answered in a question and answer format to protect my legal interests in these proceeding.

If this correspondence is not being made part of the public record then this might be construed that I am not being afforded the same due process rights as other parties with a legal interest. This might also lead to a partial review process with any decisions that is made with these proceedings. Florida Power & Light has filed legal action regarding a concern with partiality in these proceedings therefore I trust that the Commission would provide me the proper due process for the full right to be heard according to law.

I have attached my previous email in order for the Commission to make all my email correspondence part of the public Docket(s) as afforded in the past up to the present. In the previous email I have attached a hardcopy PDF of my emails that I have sent to the Commission in the past. If you utilized a PDF Join Utility you would be able to append this correspondence to the public record files with minimal time as well as minimal cost. The attached file is a PDF file of my old email that had to be made part of the public record. A PDF Join/Split Utility would be able to append the attached email with minimal time and cost.

Why is the Commission indicating that this is taking too much time and using too many resources when a PDF joiner tool would be able to append this email correspondence very quickly and inexpensively?

I have sent an email regarding this issue a while ago. I will resend the email tomorrow to show that making my information part of the public record should not take too much time and resources. This can be done at a nominal cost. It is evidenced that when the Commission provides electronic correspondence that there is no charge for this information. This is why you can use a PDF creator to print my email correspondence to a PDF file and use a PDF file joiner to append the new correspondence to the file. You can even parse the new information out by page.

The cost to append this correspondence to the web would be nominal at best with a PDF joiner tool. This would keep the cost to a minimum and I have provided a technical email showing how this can be done very inexpensively.

Please provide me with the Public Service Commission procedure and cost estimates to print my email to a PDF file and to join the PDF to an existing PDF file that has already been populated into the Docket(s).

Below is my email regarding the technical ability to append this information to the Dockets very inexpensively. You can even split the email for the new pages in order for the records clerk to be able to append this information to the Public Docket files(s).

Why has there been a change with making my information part of the public Dockets?

I trust that I will be afforded my full right to be heard according to law from both a shareholder and ratepayer perspective.

This email should be made part of the public Docket(s) as well since you have indicated that your email below will be updated to the public Dockets. This response should also be made part of the public Docket(s) in order for all parties with a legal interest to have the ability to view my email correspondence so that if they have the ability to ask any other pertinent questions that might have an impact with all three Dockets.

I hope to hear back from the Commission with a response.

Thanks,

Robert H. Smith

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**From:** [redacted] [mailto:[redacted]]

**Sent:** Friday, October 15, 2010 3:49 PM

**To:** 'Marguerite McLean <mmclean@psc.state.fl.us>'

**Cc:** 'Office Of Commissioner Edgar'; 'Office of Commissioner Skop'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Lisa Bennett'; 'Dorothy Menasco <DMenasco@PSC.STATE.FL.US>'

**Subject:** FW: Will high profit margin for FPL mean refund for customers? / Docket 100410 Review of Florida Power & Light Company's earnings.

Dear Ms. Mclean,

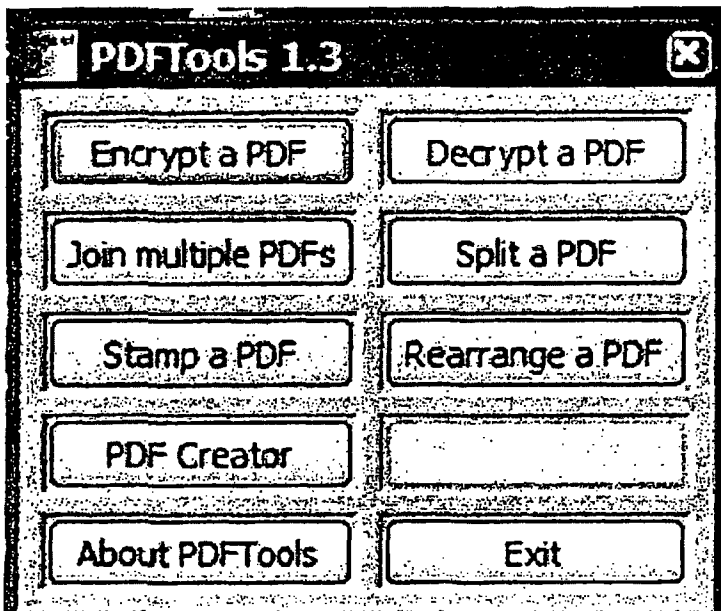
There is a free PDF file joiner that would allow you to append these emails directly to the PDF that is posted on line. This will help the Florida Public Service Commission with their process to expedite the appending of the information to the PDF file in the docket. If you receive a PDF file you will be able to append the file directly to the PDF file on the Docket.

Cost is free for personal use.

I am trying to keep the cost down and since all the interveners in the case are filing direct testimony by email and the information is being scanned and attached to other docket files I would like to keep my cost down as well. This would work very well since the attached files are very clear and readable. If a person wants to view the docket PDF they will have a clear copy to look at since it would not require a scan.

If you have any questions please do not hesitate to email me at (b)(6)

Here is a sample of the screen print.



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~~this telecopied information is strictly prohibited, and the documents should be returned. In this regard, if you received this telecopy in error, please contact the sender by reply E-mail and destroy all copies of the original.~~

**From:** Mary Anne Helton [mailto:MHelton@PSC.STATE.FL.US]

**Sent:** Wednesday, March 23, 2011 4:40 PM

**To:** (b)(6)

**Cc:** Office Of Commissioner Edgar; Office Of Commissioner Graham; Office of Commissioner Brisé; Office of Commissioner Balbis; Office of Commissioner Brown; rick.scott@eog.myflorida.com; jennifer.carroll@eog.myflorida.com;

(b)(6); ken.hoffman@fpl.com; vkaufman@kagmlaw.com; mcglothlin.joseph@leg.state.fl.us; John.; Ann Cole; Curt Kiser; Dorothy Menasco; Lisa Bennett; John Slemkewicz; Jennifer Crawford; Marshall Willis

**Subject:** Correspondence from Mr. Robert H. Smith

Dear Mr. Smith,

Due to the extraordinary volume and repetitious nature of information you send to the Commission, we are instituting a new process by which your correspondence will be maintained by the Commission Clerk. This change has become necessary due to the demands in staff time and resources that have been required to process your correspondence, in multiple dockets, as you've requested. This has a profound impact on the time and resources available for this office.

According to the Statement of Agency Organization and Operations, the Office of Commission Clerk, Documents Section, accepts official filings and maintains the official case files, including the correspondence files. The Clerk relies on the expertise of the Deputy Commission Clerk to ensure that filed documents and correspondence documents are processed correctly. Filings and documents placed in the correspondence files must have relevance to those dockets. The FPSC strives to make as many records, reports, and other documents filed with or produced by the Commission available at no charge on the Web site. Although the Commission finds it helpful to know what documents the public is interested in viewing, documents cannot be posted on the internet upon demand. Providing accessibility of documents on the Web site is an Agency decision.

The Clerk's Office does not have the resources, nor does it offer the service of responding to inquiries asking when scanned documents will be available on the Web site. Most filings are available on the Web site within four hours of filing, or the next business day, if filed after 1:00 p.m. Correspondence documents are not official filings; however, these document are also available on the Web site as soon as they can be processed by the Documents Section, and within a reasonable timeframe. Although the Clerk's Office is responsible for assisting the public, persons making inquiries should be mindful that unnecessary interruptions delay document processing and extend the reasonable timeframe that the Documents Section is able to display the official filings and correspondence documents.

On a going-forward basis, all future correspondence from you should be directed solely to Ann Cole, and will be placed in the Clerk's Office where it will be avialable for review and copying, consistent with Florida's Public Records Law. The clerk will no longer place your correspondence on the website. A copy of this e-mail will be placed in the correspondence files for Docket Nos. 080677-EI, 100410-EI, and 110009-EI, so that the record is clear that future correspondence will be maintained with the records of the Commission Clerk.

Should you intervene in a docket, your participation as a party will be processed in accordance with our standard procedures for parties for that docket.

I am attaching for your reference a letter that was sent to you on July 9, 2009, from then-General Counsel Patrick Imhof. The letter addresses many of the same concerns and difficulties that continue to be posed by the volume and nature of the correspondence and information requests that you send. I hope that the information discussed in the attached letter may be helpful.

Sincerely,

Mary Anne Helton, Deputy General Counsel

Mary Anne Helton  
Deputy General Counsel  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0862  
(850) 413-6096 (voice)  
(850) 413-6250 (fax)  
[mhelton@psc.state.fl.us](mailto:mhelton@psc.state.fl.us)

---

**From:** RSmith (b)(6) [mailto:(b)(6)]  
**Sent:** Friday, March 18, 2011 9:22 AM  
**To:** 'Records Clerk'; 'kyoung@psc.state.fl.us'  
**Cc:** 'Ann Cole'; 'Curt Kiser'; 'Records Clerk'; 'Lisa Bennett'; 'John Slemkewicz'; 'Jennifer Crawford'; 'Marshall Willis'; 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office Of Commissioner Graham'; 'Office of Commissioner Balbis'; 'Office of Commissioner Brown'; 'rick.scott@eog.myflorida.com'; 'jennifer.carroll@eog.myflorida.com'; 'vkaufman@kagmlaw.com'; 'mcglathlin.joseph@leg.state.fl.us'; 'Bryan.Anderson@fpl.com'; 'jbrew@bbrslaw.com'; 'bhulta@carltonfields.com'; (b)(6); 'Rehwinkel.Charles@leg.state.fl.us'; 'john.burnett@pgnmail.com'; 'RMiller@pcsphosphate.com'  
**Subject:** FW: Docket No. 110009-EI - Nuclear Cost Recovery Clause / Informal Meeting Today

Dear Records Clerk,

What is the ETA on updating all three public Dockets with all my correspondence? This should include all emails up to the email today.

To all,

As everyone is aware of the sad situation in Japan I am forwarding a fax that I had sent to the Federal Authorities as well as to the President of Japan.

This fax outlined a suggestion of a way to potentially provide power to the pumps at the Nuclear power plants if they were operational.

The reason why I am sending a copy of this fax/email is that this may be a potential avenue to help with these types of issues.

I have provided a suggestion and I have asked for an answer from the Department of Energy and the Nuclear Regulatory Commission to respond to let me know if this is a viable option to deal with an issue like this in the future.

The President of Japan has acknowledged the receipt of my email and I am waiting to hear back from the Federal Government to see if this might be a viable solution.

I am not sure that this is a possibility but I thought that this was good to ask. I am not an engineer but I thought that considering the situation in Japan I thought that if this was a viable option that maybe this would help.

I sent my first email on Saturday March 12<sup>th</sup>, 2011 at 10:46 AM. I followed up with my suggestion and hopefully I hear back from both the Department of Energy as well as the Nuclear Regulatory Commission.

If you are asking why I think that this is relevant to the proceedings you have to take a look at my questions I have asked about the rate of recovery periods with regard to moving the costs from a ratebase recovery mechanism to a recovery clause mechanism. With the ratebase recovery mechanism the costs are being recovered based upon their economic useful lives. With the recovery clause mechanism I have not received a response with regard to the period of recovery of these costs. My question is primarily concerned with the cash flow aspect of the recovery of these costs.

This is why I felt that my email below is important to the case. I want to make sure that any type of safety suggestions might be entertained to make sure that the redundancy is built into to provide the appropriate protection(s). If my suggestion is a viable option then I feel that my sending this email is warranted.

I trust that considering the situation in Japan that everybody understands why I think that any type of Safety suggestion should be considered to see if it is a viable option. If my suggestion is a valid suggestion and it potentially could help with providing safety for the lives of people then I think that the suggestion should be seriously considered.

If this is a viable option then I think that this is something that should be looked into.

What is happening in Japan is just not cool!

If you have any questions please do not hesitate to ask.

Hopefully there are no typo(s).

Thanks,

Robert H. Smith

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**From:** RSmith [REDACTED] [mailto:[REDACTED]]

**Sent:** Wednesday, March 16, 2011 10:57 AM

**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'

**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov';

'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'John Boehner  
<AsktheLeader@mail.house.gov>'

**Subject:** FW: Japan's Nuclear Plant Cooling Issues

**Importance:** High

Mr. President and Justices,

Here is the email from the Cabinet Secretariat, Government of Japan.

I would like to receive a response from the Department of Energy and/or the Nuclear Regulatory Commission to see if this can be a viable option for our Nuclear plants.

The following questions would have to be answered:

8. Would the setup in the email below (Navy Ship/Cruise Ship) provide adequate power to run the pumps at the Nuclear Plant to keep the plant operational as long as there was no damage to the pumps? Can a ship be built for these type(s) of situations? This can be a global effort so that there are multiple ships that are ready to go to an area in which there is an issue with a loss of the power/pumps at a Nuclear Power Plant. All these ships will be available to help any country that is having this type of problem. I am sure that this type of ship could have been deployed immediately after the tsunami subsided in order to pull these ships up to the port to provide the power and/or backup up pump system.
9. If the pumps are damaged can piping be installed to run from the Dock into the piping at the plant in order to provide either seawater and/or fresh water to keep the plant running? This way a portable pump setup can be used to provide the water needed to cool the plant.
10. What are the specifications of the pump at the plant and can a portable system movable and/or permanent mounted on a ship meet these specifications in order to provide a potential permanent solution to run these pumps until the backup generators could be repaired to run the plant as normal? I know that some of the Navy ships and/or cruise ships have water treatment plants on board in order to provide fresh water. The combined piping from the Dock to the reactor as well as the water source should be adequate to keep the plant cool until the plant can take over the operations on its own after the proper repairs have been made.
11. What is the cost to build a fleet of these ships in order to provide the safety needed to protect people from a similar issue that Japan is currently having? Life is priceless therefore there is no need for a discussion for this type of cost justification. Let's look at the economic analysis of the cost of this type of fleet versus the actual revenues that are being earned with these plants. If the total cost represents a fraction of the actual costs to build/maintain these plants then it appears that this would be very insignificant issue as well.
12. Some Navy/Military ships are nuclear therefore I am sure they should have adequate power to run for enough time to get the backup generators fixed and running to run the plant. This can be an option for the new fleet. Just think these ships can be stored in strategic places to be ready to go be able to travel to the Nuclear plant

that needs the backup solution in order to provide the protection to keep the Nuclear Plant running safely. Considering the previous cost estimates for the clean-up efforts related to former Nuclear disasters I am sure that should work very well. I sent my email on Saturday March 12<sup>th</sup>, 10:46 AM. I am sure that if this setup existed then this would be a very easy and quick solution to deploy. If it was just a power issue to the backup generators and or pumps I am sure that the existing distribution system at the Nuclear Plant would have provided the gateway to hookup a Navy/Military ship to the existing distribution (electrical) system at the plant to provide the proper power to pumps if they were operational. This way the plant could have operated as normal until the proper repairs have been made.

13. Provide a GPS system to activate the fleet when an issue like this occurs so that they are already set to go and sail to the Nuclear Plant that is in distress. I understand that there are multiple sites that are impacted in Japan. This is why I thought of the global effort to provide the funding and fleet of ships to meet the goal if there are multiple plants that are in need of backup power.

14. I understand that if there is a total failure at the plant with regard to a breach in the reactor core then additional safeguards would have to be put into place to seal the reactor as quickly to prevent and limit the exposure to radiation. ~~Maybe the ship could provide the capability to seal the reactor by pumping cement to fully seal the plant? If there is no power at the plant as a result of the natural disaster then all of this type(s) of safeguards might be able to be put into place in order to provide additional safety features in order to protect life which is the most important issue here.~~

Please have the Department of Energy and/or Nuclear Regulatory Commission answer the questions above to see if this is a viable option.

If I can think of anything else I will sent you another email.

I will fax a copy of this email as well.

Thanks,

Robert H. Smith

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

From: 首相官邸HP発信専用 [mailto:hentou@kantei.go.jp]  
Sent: Tuesday, March 15, 2011 7:24 PM  
To: (b)(6)  
Subject: [首相官邸より]

We acknowledge receipt of your message. Best regards, E-mail Team, Cabinet Secretariat, Government of Japan

**From:** RSmith [(b)(6)] [mailto:(b)(6)]  
**Sent:** Monday, March 14, 2011 10:36 AM  
**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'  
**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby; Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov'; 'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'John.Boehner<AsktheLeader@mail.house.gov>'  
**Subject:** FW: Japan's Nuclear Plant Cooling Issues  
**Importance:** High

Mr. President and Justices,

I sent my email to the Official Residence of the Prime Minister. I just heard that there was another explosion at a plant. This is not looking very good.

I would like to know if this issue is just related to supplying power to the pumps or if the pumps have failed. If so, then my suggestion below would be a very good suggestion to bring in a portable pump setup to take place of the damaged pumps.

How about creating a ship that contains the portable pump solution with the appropriate level of power to run the pumps? If the current pumps work then provide the distribution hookup from the Dock to provide power directly to the pumps.

If the existing pumps are not working then build a setup with multiple pumps that are stored on the ship to put into place when these situations occur. You can use the ship as the power source and if you have multiple pumps to use if tubing to the reactor can be run into the plant to also pump water from the ocean into the reactor you would have more redundancy to pump more water into the plant.

We have nuclear navy ships and I would think that Japan would also have this type of ship. I would think that there would have been enough power to supply to the pumps or a portable pump setup.

I think that we should take a look at this on our end. I would like to hear back from our Energy department to see if this is a feasible option.

I cannot believe what is going on.

Please make sure that Mr. Boehner receives a copy of this email. His email inbox is always full.

This is not good!

Thanks,

Robert H. Smith

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3/12/2011

Thank you for your comment.

# Thank you for your comment.

## Your comment is sent for the Official Residence of the Prime Minister.

[Home](#)

3/12/2011

Confirm Message

Please confirm your message:

For: (b)(6)

System:

Country: USA

Email address: (b)(6)

From: (b)(6)

Comments:

From: (b)(6)

To: (b)(6)

Cc: (b)(6)

Subject: Jordan's Nuclear Power Cooling System

Department: High

Dear Mr. President and Justice,

I am writing you as regarding with the Nuclear Plants in Japan.

I have a couple of questions. Are the cooling pumps still functioning? If not, are there any pumps from your country that can be brought in to potentially provide the power?

This might have been an option to get into a working pump plant to supply the appropriate power to run the pumps if they were operational.

If they were damaged by the earthquake then that would have not been an option. In the future what about having a backup pump plant in which they can use a military air ship or cruise ship that probably

of course if the pumps are damaged you would have to look into how a backup pump setup (portable pump setup) if possible to have them into place and then top into the sea ship and/or cruise

If the other plants are in jeopardy then let's take a look at this project.

Would this be a good option? I am not sure, but this is not looking good.

Thank you.

Robert H. Smith  
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Push "Confirm" button after confirmation

In the situation you want to change the message, push "Mail" button to go back to the former page and create a new message.

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**From:** RSmith (b)(6) (b)(6)  
**Sent:** Saturday, March 12, 2011 10:46 AM  
**To:** 'president@whitehouse.gov'; 'vice\_president@whitehouse.gov'; 'fellowsprogram@supremecourt.gov'  
**Cc:** 'Bill@billnelson.senate.gov'; 'Shelby, Senator (Shelby)'; 'senator\_bingaman@bingaman.senate.gov'; 'senator@dorgan.senate.gov'; 'senator\_leahy@leahy.senate.gov'; 'senator\_lugar@lugar.senate.gov'; 'John Boehner <AsktheLeader@mail.house.gov>'  
**Subject:** Japan's Nuclear Plant Cooling Issues  
**Importance:** High

---

Dear Mr. President and Justices,

I am watching what is unfolding with the Nuclear Plants in Japan.

I have a couple of questions. Are the cooling pumps still functional? If so, and this was a power issue how come I did not see any large naval ships being brought in to potentially provide the power needed to run the pumps?

This might have been an option to tap into a moving power plant to supply the appropriate power to run the pumps if they were operational.

If they were damaged by the Earthquake then this might have not been an option. In the future what about having a backup pump plan in which they can use a military war ship or cruise ship that probably would have enough power to run the pumps at the plant.

Of course if the pumps are damaged you would have to look into have a backup pump setup (portable pump setup if possible) in order to move these into place and then tap into the war ship and/or cruise ship to supply the power to keep the nuclear reactors cool. The design of the plant maybe should have taken this into account.

If the other plants are in jeopardy then let's take a look at this pronto!

Would this be a good option? I am not sure, but this is not looking good.

This is just not cool!

Thanks,

Robert H. Smith

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**From:** RSmith [REDACTED] (b)(6) [mailto:[REDACTED] (b)(6)]

**Sent:** Friday, March 11, 2011 11:59 AM

**To:** 'kyoung@psc.state.fl.us'; 'Records Clerk'

**Cc:** 'Ann Cole'; 'Curt Kiser'; 'Records Clerk'; 'Lisa Bennett'; 'John Slemkewicz'; 'Jennifer Crawford'; 'Marshall Willis'; 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brisé'; 'Office Of Commissioner Graham'; 'Office of Commissioner Balbis'; 'Office of Commissioner Brown'; 'rick.scott@eog.myflorida.com';

'jennifer.carroll@eog.myflorida.com'; 'vkaufman@kagmlaw.com'; 'mcglothlin.joseph@leg.state.fl.us';

'Bryan.Anderson@fpl.com'; 'jbrew@bbrslaw.com'; 'bhuhta@carltonfields.com'; [REDACTED] (b)(6)

'Rehwinkel.Charles@leg.state.fl.us'; 'john.burnett@pgnmail.com'; 'RMiller@pcsp phosphate.com'

**Subject:** FW: Docket No. 110009-EI - Nuclear Cost Recovery Clause / Informal Meeting Today

Dear Mr. Young,

I noticed that the agenda was made part of the public record on March 10<sup>th</sup>, 2011.

When I received the attached file it did not have page 2 with the agenda.

Please make sure that the agenda(s) are made part of the announcement of the meeting notice in order for all parties with a legal interest to have the appropriate information to review for the meeting. Did any of the parties in the meeting have this information prior to the population of page 2 on March 10<sup>th</sup>, 2011?

Anyway please let me know when I will be receiving a response to the rest of the question(s) in the email below.

Thanks,

Robert H. Smith

Dear record clerk,

How come page 2 was made immediately available on the record right after the meeting?

It appears that this took less than 24 hours to make the PDF file part of the record. How come my email correspondence is taking more than the 24 hour turnaround time?

Thanks,

Robert H. Smith

Here is the backup correspondence with regard to page 2 not being made available with the March 7<sup>th</sup>, 2011 notice of the meeting.

The email that I had received on March 7<sup>th</sup>, 2011 did not have the page 2 agenda attached to the file that I received. I did not see page 2 until after the meeting.

Document 01481-11 only had the one page with the notice of the meeting. This is why I asked for the information for the agenda. How come page 2 was not made available on March 7<sup>th</sup>, 2011 when we received notice of the meeting?

01481-11

State of Florida



**Public Service Commission**  
CAPITAL CIRCUIT OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850  
**-M-E-M-O-R-A-N-D-U-M-**

**DATE:** March 7, 2011  
**TO:** All Parties of Record & Interested Persons  
**FROM:** Keina Young, Senior Attorney, Office of the General Counsel  
**RE:** Docket No. 110009-EL - Nuclear cost recovery charge

Please note that an informal meeting between Commission staff, the parties, and interested persons to the above captioned docket has been scheduled for:

Thursday, March 10, 2011 at 2:00 p.m.  
Gerald L. Carter Building, Conference Room 154  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

The purpose of the meeting is to discuss Docket No. 110009-EL. Attendance is not required; however, all parties are encouraged to attend. Parties may participate telephonically in this meeting by dialing 1-888-808-6950, Conference Code 4176206. If you have any questions about the meeting, please call Keina Young at (850) 413-6226.

KY

6:47 AM 11/00

Options



**Order or Notice issued by the Public Service Commission (Email ID = 646398)**

Commission Clerk [CommissionClerk@psc.state.fl.us]

Sent: Mon 3/7/2011 3:11 PM

To:

---

  01481-11.pdf (44 KB)

---

The attached order or notice has been issued by the Public Service Commission.

If you have any problems opening this attachment, please contact the Office of Commission Clerk by reply email or at 850-413-6770.

When replying, please do not alter the subject line, as it is used to process your reply.

Thank you.

State of Florida



# Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

RECEIVED FPSC

MAR 10 AM 11:11

**-M-E-M-O-R-A-N-D-U-M-**

COMMISSION  
CLERK

---

**DATE:** March 10, 2011  
**TO:** Ann Cole, Commission Clerk, Office of Commission Clerk  
**FROM:** Keino Young, Senior Attorney, Office of the General Counsel *ky*  
**RE:** Docket No. 110009-EI - Nuclear cost recovery clause.

---

Please place the attached document in the above-referenced docket file. Thank you.

KY

DOCUMENT NUMBER-DATE

01568 MAR 10 =

FPSC-COMMISSION CLERK

State of Florida



**Public Service Commission**  
CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

---

**DATE:** March 7, 2011  
**TO:** All Parties of Record & Interested Persons  
**FROM:** Keino Young, Senior Attorney, Office of the General Counsel  
**RE:** Docket No. 110009-EI - Nuclear cost recovery clause.

---

Please note that an informal meeting between Commission staff, the parties, and interested persons to the above captioned docket has been scheduled for:

Thursday, March 10, 2011 at 2:00 p.m.  
Gerald L. Gunter Building, Conference Room 154  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

The purpose of the meeting is to discuss Docket No. 110009-EI. Attendance is not required; however, all parties are encouraged to attend. Parties may participate telephonically in this meeting by dialing 1-888-808-6959, Conference Code 4136206. If you have any questions about the meeting, please call Keino Young at (850) 413-6226.

KY



MEMORANDUM  
DOCKET NO. 110009-EI  
PAGE 2

Agenda

1. Discussion of Procedural matters
    - a. Timeline
    - b. Grouping issues by project
  2. Discussion of FPL Deferred Issues
    - a. Will there be issues with no testimony?
    - b. Are there issues that can be resolved prior to hearing?
- 
- 

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**From:** RSmith [redacted] [mailto:[redacted]]  
**Sent:** Thursday, March 10, 2011 4:06 PM  
**To:** 'kyoung@psc.state.fl.us'; 'Records Clerk'  
**Cc:** 'Ann Cole'; 'Curt Kiser'; 'Records Clerk'; 'Lisa Bennett'; 'John Slemkewicz'; 'Jennifer Crawford'; 'Marshall Willis'; 'Office Of Commissioner Edgar'; 'Office Of Commissioner Graham'; 'Office of Commissioner Brise'; 'Office Of Commissioner Graham'; 'Office of Commissioner Balbis'; 'Office of Commissioner Brown'; 'rick.scott@eog.myflorida.com'; 'jennifer.carroll@eog.myflorida.com'; 'vkaufman@kagmlaw.com'; 'mcglothlin.joseph@leg.state.fl.us'; 'Bryan.Anderson@fpl.com'; 'jbrew@bbrslaw.com'; 'bhuhta@carltonfields.com'; [redacted]; 'Rehwinkel.Charles@leg.state.fl.us'; 'john.burnett@pgnmail.com'; 'RMiller@pcsposphate.com'  
**Subject:** Docket No. 110009-EI - Nuclear Cost Recovery Clause / Informal Meeting Today

Dear Mr. Young,

I listened to the informal meeting today. I know that this was a preliminary hearing in which the timeline was discussed with regard to the hearings related to both Progress and FPL. I understand that there will be a follow up meeting in about 3 to 4 weeks. Please let me know when this meeting will be occurring and if there is an agenda available for the meeting.

Do we have a copy of the testimony of the items discussed at the meeting today? (i.e. Issues 16,17,18,20,22,23,25,26,27) Are these on the public Docket?

I did not receive a copy of the agenda therefore I would appreciate if the Commission could send me a copy of the agenda for today's meeting.

There was some discussion about prudence of costs, true ups and old deferred items.

I have sent previous email regarding my issues with the FPL Nuclear Uprates. Based upon my previous email questions I have provided a quick summary of my questions that I would like to have answered during this process. In order to protect my legal interests in these proceedings I would respectfully request that the questions below be answered in a question and answer format in order to support the normal due diligence with these proceedings.

These have been made part of the public record and I am primarily concerned with the following issues and the answers to my questions in all my emails regarding the Nuclear Recovery Clause:

1. The prudence of the costs being recovered and the status of the audit of these costs. When will these audits be published?
2. What will be the recovery period of the Nuclear Uprates costs now that they have been removed from base rates? Will the assets still be maintained in Ledger 3? If not, how is the identity of these assets going to be accounted for going forward? Below is the Ledger 3 breakout of the Nuclear Costs. What are the recovery lives

of the assets for book and tax purposes based upon the ledger 3 accounts below? Will the recovery period equal the Ledger 3 recovery periods?

3. What is the rate of return that will be calculated on carrying charges on these costs? Now that these have been removed from ratebase in which the earned return on these items would be at the overall cost of money as agreed upon or set by the Commission what will be the actual annual rate of return as compared to the overall cost of money that has been agreed upon?
4. How is the Commission going to deal with existing cash recovery of the Nuclear Uprates that is already being recovered in Base rates based upon the new Stipulation and Settlement agreement? See below for estimate based upon the old order. (\$18 million to \$20 million).

All of the schedules below have been filed with all three public Dockets since they are all related. There is Docket 080677, Docket 100009/Docket 110009 and Docket 100410. Each of these Dockets is interrelated based upon a cash perspective therefore it is very important to discuss these issues as it relates to the impacts of all three Dockets.

I am looking forward to a response to the answers to all my motion(s)/emails/questions regarding all three Dockets in order to provide for normal due diligence in order to protect my legal interests as a shareholder and a ratepayer.

This is a quick email but if something else comes up I will let you know. I know that I was very specific with my email correspondence that I have asked to be made part of the public record in Docket 100009 and Docket 110009. All Dockets are related therefore all of my email correspondence with all my questions should be made part of all of the Dockets.

I am looking forward to your response.

If you have any questions please do not hesitate to email me at [rpjrb@yahoo.com](mailto:rpjrb@yahoo.com).

Thanks,

Robert H. Smith

Surplus Asset	1,208.8
Less: Recov. Sch	(1,074.2)
	134.6
Less Credits	(150.0) Amortize at \$125 m over 4 yrs
	304.0 Amortize at \$17.8 m over 72 yrs

Sites to Recovery Sched.	Plant or Service	Recovery Balance	Recovery Plan
Cape Girardeau Site	187.3	(157.2)	30.1
Reactor Site	103.7	(84.1)	19.6
	291.0	(241.3)	49.7

**Recovery Schedule**

As per Above 314.7

14.8 Are these going to be added to the new repowered generating units? If so then, then how is the new cost going to be accounted for? Will the old book costs for ledger 3 purposes? Since they have been fully recovered by the surplus reserve to the new ledger 3 amounts only going to reflect the new costs only? How are the vintage year issues being addressed for the old costs? If it will reflect only the new costs then will all of the old ledger 3 amounts be removed? This might not follow GAAP since from a strict asset perspective those assets might still exist with the new repowered generating units. How will the going forward depreciation reflect the vintage year issue?

108.2 Removed from Base Rates Recovered through Nuclear Cost Recovery Clause. Removed from Ratebase? Calculated Carrying Charges? Will the cash recovery in Ratebase equal the new recovery in cash when issued upon the new Nuclear Cost Recovery Clause? Is this a break even for cash recovery or has the amount of time to recover these costs changed?

101.1 Are there any salvage money that can be recovered for the scrap value of the old meters? Will there be any cost of removal or are these being left in place? If they are being left in place then will they still be considered fully recovered and ledger 10 be adjusted to match ledger 3 to keep track of these assets? Ledger 3 plant should match ledger 10 accumulated depreciation reserves. These should be kept in the books until they are removed or scrapped. Any money should be credited to the ratepayer.

314.7

Based upon the above reduction of the Depreciation Bureau/Over Recovery it appears that the Recovery Schedule items are being reduced against surplus amounts immediately. What is going to be done with these plants? Are they being retired or sold? If they are going to be sold then it needs to be clear on the sale of the plants then this would have to be refunded to the ratepayer. If these plants are not sold, what would be the new recovery period for these plants since it appears that they are being moved out of the normal depreciation recovery? Are they going to remain in ledger 3 for book purposes since the normal depreciation recovery will be stopped?

**Nuclear Uprates**

In Order No. PSC-09-0783-FOF-EL issued on November 19, 2009, we approved FPL's Nuclear Cost Recovery Clause amounts for 2010.<sup>107</sup> All costs that FPL removed from its base rate revenue requirements were allowed in the NCRC for 2010. We approve FPL's proposal to transfer revenue, expenses and investments associated with nuclear uprates from base rates to the NCRC for the 2010 projected test year.

Florida Power & Light Company  
 Docket No. 08-0677-E1  
 December 2010 Projected Test Year  
 Operating Revenue Increase Calculation

Line No.	As Filed	Commission Adjusted	Nuclear Updates	Nuclear Updates	
1. Rate Base	17,063,586,000	16,787,429,918	168,234,989	168,234,989	
2. Overall Rate of Return	6.00%	6.85%	7.41%	6.85%	
3. Required Net Operating Income (1)(2)	1,384,748,000	1,116,369,090	12,489,404	11,187,827	(1,2)
4. Achieved Net Operating Income	725,883,000	1,070,179,348			
5. Net Operating Income Deficiency (3) - (4)	638,865,000	48,184,742	12,489,404	11,187,827	(1,2)
6. Net Operating Income Multiplier	1.63342	1.63411	1.63411	1.63411	1.
7. Operating Revenue Increase (5)(6)	1,043,535,000	75,470,948	20,378,377	18,281,813	(2,0)

7.41% as per January 1, 2009 Approved AFUDC rate. Matches the December, 2008 Rate of Return Report  
 6.85% as per calculated overall cost of money as per 08-0677-E1

Prepared by Robert H. Smith from 080677-E1 Order/Workpapers - Draft

3 of 5

Nuclear Updates

168.2 Removed from Base Rates. Recovered through Nuclear Cost Recovery Clause. Removed from RateB  
 Will the cash recovery in Base rates equal the new recovery in cash rates based upon the new Nuclear  
 for cash recovery or has the amount of time to recover these costs changed?

Table 1

	Estimated Investment 12/31/2009	Estimated Reserve 12/31/2009	Estimated Cost of Removal	Total Unrecovered costs
<b>Nuclear Upgrades</b>				
<b>St. Lucie Unit 1</b>				
322 Reactor Plant Equipment	3,089,857	1,285,383	2,171,874	3,976,348
323 Turbogenerator Units	46,415,739	23,026,980	11,780,444	35,169,203
324 Accessory Equipment	108,098	107,964	1,675,065	1,675,199
<b>Total St. Lucie Unit 1</b>	<b>49,613,694</b>	<b>24,420,327</b>	<b>15,627,383</b>	<b>40,820,750</b>
<b>St. Lucie Unit 2</b>				
322 Reactor Plant Equipment	8,170,947	5,445,563	788,236	3,513,620
323 Turbogenerator Units	68,116,907	47,503,584	12,173,427	32,786,750
324 Accessory Equipment	444,059	280,915	984,302	1,147,446
<b>Total St. Lucie Unit 2</b>	<b>76,731,913</b>	<b>53,230,062</b>	<b>13,945,965</b>	<b>37,447,816</b>
<b>Turkey Point Common</b>				
322 Reactor Plant Equipment	254,355	26,072		228,283
323 Turbogenerator Units	2,065,043	144,410		1,920,633
<b>Total Turkey Point Common</b>	<b>2,319,398</b>	<b>170,482</b>		<b>2,148,916</b>
<b>Turkey Point Unit 3</b>				
321 Structures & Improvements	541,965	440,388	289,308	390,885
322 Reactor Plant Equipment	13,326,530	12,658,412	15,309,927	15,978,045
323 Turbogenerator Units	37,480,833	22,160,888	12,054,706	27,374,651
324 Accessory Equipment	371,220	366,648	183,116	187,688
<b>Total Turkey Point Unit 3</b>	<b>51,720,548</b>	<b>35,626,336</b>	<b>27,837,057</b>	<b>43,931,269</b>
<b>Turkey Point Unit 4</b>				
321 Structures & Improvements	192,250	192,250	290,492	290,492
322 Reactor Plant Equipment	13,393,985	13,120,597	15,326,786	15,600,174
323 Turbogenerator Units	40,012,223	24,247,736	12,047,391	27,811,878
324 Accessory Equipment	314,044	314,044	183,694	183,694
<b>Total Turkey Point Unit 4</b>	<b>53,912,502</b>	<b>37,874,627</b>	<b>27,848,363</b>	<b>43,886,238</b>
<b>Total Nuclear Upgrades</b>	<b>234,298,055</b>	<b>151,321,834</b>	<b>85,258,768</b>	<b>168,234,989</b>

RSmith (b)(6)

**From:** (b)(6)  
**Sent:** Friday, May 14, 2010 5:50 PM  
**To:** 'Lisa Bennett <LBENNETT@PSC.STATE.FL.US>'  
**Cc:** 'Office Of Commissioner Edgar'; 'Office of Commissioner Argenciano'; 'Office of Commissioner Skop'  
**Subject:** FW: Docket No. 080677, FPL Reconsideration Request  
**Attachments:** OrderSummarywithNCRCrevreq05142010.pdf

Dear Ms. Bennett,

Attached you will find my Summary that I have put together from the 08-0677-EI standard order as the source of information. I have added the calculation of the revenue requirements for the Nuclear Uprates as if they were being transferred out of ledger 3 and into the Nuclear Cost Recovery accounts. Of course if all these costs are going to be offset against the surplus depreciation then the net assets (rate base) should be zero with no revenue impact. The only issue I have is if the assets still exist and new costs will be put into this clause. If there are new costs that have to be recovered in this clause then I would like to know if the carrying charges are going to be trued up for the new overall cost of money.

~~I was taking a look at the specifics of the Nuclear Cost Recovery Clause. I notice that it talks about the carrying charges that would be recorded. It indicates that the pretax AFUDC rate in effect at June 30, 2007 will be used for the carrying charges associated with the removal of these plant assets from rate base. Is the current rate 7.41 (effective 1/1/09 as per Docket No. 090009-EI)? Based upon the new case and the new approved ROE of 10.00% (12.50% Company as filed versus 10.00% as approved) the overall cost of money decreases from the as filed 8.0% to 6.65% respectively. If the carrying charges on the Nuclear Cost Recovery Clause is not reduced to the new overall cost of money or AFUDC rate then the customer would pay more in revenue requirements. Since this amount was offset by the depreciation surplus will this not be trued up since it will be considered fully recovered?~~

If these assets are still in existence then the customer might lose the benefit for the reduction in the overall cost of money.

Here is the revised calculation that I have put together based upon the Schedules from the order. Based upon this calculation it would yield an approximate \$2.1 million dollar additional revenue requirement to the customers if the carrying charges are not trued up for the reduction in the ROE or if these assets still exist.

How come this agreement is not being looked at? Can the terms of this agreement be changed for the reduced overall cost of money? It appears that the agreement as it stands would not provide for this true up. Is this correct? Unless these assets are going to be considered fully recovered since they were offset against the depreciation surplus.

It has been a while since I have put together cost of money calculations and revenue requirements. Please let me know if there will be a true up or if these assets are going to be considered fully recovered.

If these assets still exist then they should probably remain in ledger 3 and have an offset for the application of some of the reserve surplus to yield a net rate base of zero. This way this would cover the true up issue. What will be the impact going forward for any new costs that are put into the Nuclear Cost Recovery Clause? Will the carrying charges be accrued at the old rate or will they be trued up at the new overall cost of money/AFUDC rate?

Thanks,

Robert H. Smith

1 of 10

State of Florida



**Public Service Commission**  
CAPITAL CIRCLE OFFICE CENTER • 2340 SHIMMARD OAK BOULEVARD  
TALLAHASSEE, FLORIDA 32399-0850

**-M-E-M-O-R-A-N-D-U-M-**

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**DATE:** March 7, 2011  
**TO:** All Parties of Record & Interested Persons  
**FROM:** Keino Young, Senior Attorney, Office of the General Counsel  
**RE:** Docket No. 110009-EI - Nuclear cost recovery clause.

---

Please note that an informal meeting between Commission staff, the parties, and interested persons to the above captioned docket has been scheduled for:

Thursday, March 10, 2011 at 2:00 p.m.  
Gerald L. Gunter Building, Conference Room 154  
Florida Public Service Commission  
2340 Shimmard Oak Boulevard  
Tallahassee, Florida 32399-0850

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The purpose of the meeting is to discuss Docket No. 110009-EI. Attendance is not required; however, all parties are encouraged to attend. Parties may participate telephonically in this meeting by dialing 1-888-808-6959, Conference Code 4136206. If you have any questions about the meeting, please call Keino Young at (850) 413-6226.

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KY

DOCUMENT NUMBER - DATE  
01481 MAR-7-11  
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Confidentiality Statement



~~The documents accompanying this telecopy transmission contain information which is confidential and/or legally privileged. The information is intended only for the use of the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this telecopied information is strictly prohibited, and the documents should be returned. In this regard, if you received this telecopy in error, please contact the sender by reply E-mail and destroy all copies of the original.~~

EDO Principal Correspondence Control

FROM: DUE: / / EDO CONTROL: G20110641  
DOC DT: 08/20/11  
FINAL REPLY:

Lynn Howard Ehrle

TO:

Chairman Jaczko

FOR SIGNATURE OF : \*\* GRN \*\* CRC NO: 11-0501

DESC:

Chernobyl Studies (EDATS: SECY-2011-0488)

DATE: 08/31/11

ASSIGNED TO: CONTACT:  
RES Sheron

SPECIAL INSTRUCTIONS OR REMARKS:

For Appropriate Action.

ROUTING:

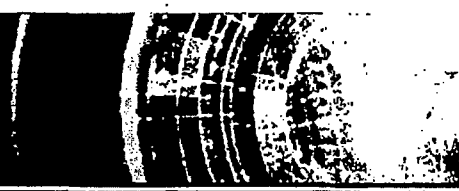
Borchardt  
Weber  
Virgilio  
Ash  
Mamish  
OGC/GC  
Leeds, NRR  
Carpenter, FSME  
Doane, OIP  
Abdel-Khalik,  
ACRS  
Erlanger, OEDO

Template: SECY-017

ERIDS: SECY-01  
FX 620 of 728

# EDATS

Electronic Document and Action Tracking System



**EDATS Number:** SECY-2011-0488

**Source:** SECY

## General Information

**Assigned To:** RES

**OEDO Due Date:** NONE

**Other Assignees:**

**SECY Due Date:** NONE

**Subject:** Chernobyl Studies

**Description:**

**CC Routing:** NRR; FSME; OIP; ACRS

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20110641, LTR-11-0501

**Staff Initiated:** NO

**Related Task:**

**Recurring Item:** NO

**File Routing:** EDATS

**Agency Lesson Learned:** NO

**OEDO Monthly Report Item:** NO

## Process Information

**Action Type:** Appropriate Action

**Priority:** Medium

**Sensitivity:** None

**Signature Level:** No Signature Required

**Urgency:** NO

**Approval Level:** No Approval Required

**OEDO Concurrence:** NO

**OCM Concurrence:** NO

**OCA Concurrence:** NO

**Special Instructions:** For Appropriate Action.

## Document Information

**Originator Name:** Lynn Howard Ehrle

**Date of Incoming:** 8/20/2011

**Originating Organization:** Citizens

**Document Received by SECY Date:** 8/30/2011

**Addressee:** Chairman Jaczko

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** E-mail

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Aug 25, 2011 14:19

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PAPER NUMBER: LTR-11-0501                      LOGGING DATE: 08/23/2011  
ACTION OFFICE: EDO

AUTHOR: Ehrle Lynn  
AFFILIATION:  
ADDRESSEE: Gregory Jaczko  
SUBJECT: Fukushima..NRC mission

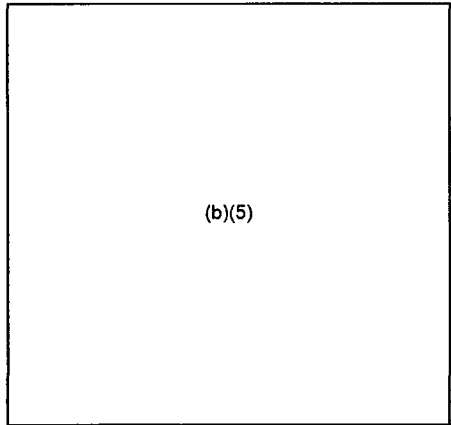
ACTION:  
DISTRIBUTION:

LETTER DATE:

ACKNOWLEDGED  
SPECIAL HANDLING:

NOTES:

FILE LOCATION:



DATE DUE:

DATE SIGNED:

EDO --G20110641

**Joosten, Sandy**

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**From:** ehrlebird32 [ (b)(6) ]  
**Sent:** Saturday, August 20, 2011 2:06 PM  
**To:** CHAIRMAN Resource  
**Cc:** ehrlebird@organicconsumers.org  
**Subject:** Re: Chernobyl studies (attachments)  
**Attachments:** Fukushima\_COVERUP.doc; NRC\_ETHICS.doc

**TO:** The Honorable Gregory Jaczko, Chairman  
U.S. Nuclear Regulatory Commission  
**FROM:** Lynn Howard Ehrle, M. Ed, Chair  
International Science Oversight Board (INSIGHT)

Dear Chairman Jaczko:

I am a consumer law, sociology, and economics teacher (retired after 37 years) who was vice president of the Consumer Alliance of Michigan during the 1970s. I presented numerous briefs before the Public Service Commission and was nominated by two legislators for a post. During this period I began to investigate health risks from low-dose radiation and became an early opponent of nuclear power. I soon became aware that the nuclear industry had enormous power over energy policy. At one of the hearings I made a statement indicating that the back end costs of closing reactors would far exceed the high front end costs. I also discovered that the NRC has strayed from its core mission, as mandated by the Atomic Energy Act of 1954. The act requires that *civilian uses of nuclear materials and facilities be licensed, and to establish by rule or order, and to enforce, such standards to govern these uses as the Commission may deem necessary or desirable in order to protect health and safety and minimize danger to life or property.* Several examples of Commission nonfeasance, misfeasance, and malfeasance are listed below, testament to the inability or unwillingness to fulfill its assigned mission.

1. In 1959, the World Health Association signed a Faustian pact with the International Atomic Energy Agency in which the WHO allowed the IAEA to take over radiation research. The IAEA remit is to promote atomic energy, a clear conflict of interest. Not a single word of protest from our NRC, nor for that matter any other government agency, despite ongoing protests from public interest NGOs.
2. The NRC has tightened its procedures for public participation. Instead of funding non-profit intervenors the Commission has made it more difficult to challenge its rulings.
3. Your office has violated the Federal Advisory Committee Act by appointing persons to the Advisory Committee on Reactor Safeguards who have major conflicts of interest and biases (see attachment).
4. The Commission's hasty approval of 20-year license extensions for at least 66 reactors, thus deviating from initial statements by company executives that they would close operations when 40-year licenses expire, is the ultimate example of your deviation from the NRC mission.  
NO environmental impact statements. NO public intervenors. No scientific justification. Just rubber stamp approvals!
5. Your Fukushima Reactor Safety Team is composed of all the nuclear insiders; no public interest representation. This quote from the April 6 NY Times article (see attachment): The engineers who prepared the document do not believe that a resumption of criticality is an immediate likelihood. Neil Wilmshurst, vice president of the nuclear sector at the Electric Power Research Institute, said when contacted about the document, "I have seen no data to suggest that there is criticality ongoing." The document was prepared for the commission's Reactor Safety Team, which is assisting the Japanese government and the Tokyo Electric Power Company. It says it is based on the "most recent available data" from numerous Japanese and American organizations, including the electric power company,

**the Japan Atomic Industrial Forum, the U.S. Department of Energy, General Electric and the Electric Power Research Institute, an independent nonprofit group.** The NY Times reporters description of EPRI as "an independent nonprofit group" is a gross distortion of fact. It is an industry surrogate. As you now know, Wilmshurst's conclusion is at best fraudulent; at worst a crime.

Is it within your power to make a course correction and pilot the NRC ship onto its primary path--to **protect the public health and safety?**

At a recent meeting you indicated that your office will review the evidence contained in the Chernobyl book by Yablokov et al. What is the status of your review? A good beginning would be to convene a conference with a panel of low-dose radiations experts (Your nuclear engineers are not trained in areas of risk analysis and dosimetry). I would suggest a Detroit venue, where there are at least 15 diverse colleges and universities in this area. I chair the INSIGHT board, with 16 of its 42 physicians and scientists who have long years of expertise in the radiation field. As a co-sponsor with NRC, the conference would have vigorous support from the public interest community, a welcome departure from previous conferences. Two books would be the focal point for this discussion: 1) the Yablokov book and 2) the **European Committee on Radiation Risk 2010 report--Health Effects of Ionising Radiation Exposure at Low Doses for Radiation Protection Purposes**. The out-of-print Chernobyl book by the NY Academy of Sciences is now available as a reprint, courtesy of a legal document signed by Dr. Yablokov and the Academy. I was asked to secure a printer. I trust you will order several copies for your staff. They are now available at a much-reduced cost (\$15 ea. for 6 or more books to government agencies), as compared to the NAS price of \$150! See flyer below.

Respectfully,  
Lynn Howard Ehrle

***Chernobyl: Consequences of the Catastrophe for People and the Environment*** by Alexey V. Yablokov (lead author), Vassily B. Nesterenko (dec.), Alexey V. Nesterenko, and Consulting Editor **Janette D. Sherman-Nevinger, 366 pp. (reprint)**  
ISBN 978-0-615-49133-2

## **RUSSIAN SCIENTISTS REFUTE NUCLEAR INDUSTRY PROPAGANDA**

This book is the definitive post-Chernobyl radiation history, the only publication to document nonmalignant diseases and morbidity in the Russian Federation, Ukraine, Belarus, Europe, and Scandinavia and is relevant to the Fukushima cover-up. The Yablokov book, ***Consequences of the Catastrophe for People and the Environment***, documents 985,000 deaths by 2005 in the Russian republics, Europe, and Scandinavia, whereas, the 2006 "official" WHO/IAEA Chernobyl Forum report estimates 9,300 deaths in 95 years. Only 350 mainly English language references are in the report; the Yablokov team reviewed 5,000 journal papers, and their meta-analyst has 1,482 references. First published by the prestigious New York Academy of Sciences, it is now out of print, causing lead author, eminent Russian biologist Alexey Yablokov, to request the right to reprint (granted). He contacted his Consulting Editor, Janette D. Sherman-Nevinger, MD, and Timothy Mousseau, Associate Vice President for Research & Graduate Education, University of South Carolina, and asked them to be his agents in the U.S. The book is now for sale directly from the printer in Plymouth, Michigan.

**In a March 25, 2011 Washington press conference** Professor Yablokov observed that the long-term health and environmental consequences of the Fukushima accident could surpass

those from Chernobyl. He stated, *"Because the area is far more densely populated [than the Chernobyl region], the human toll could be far worse...especially dangerous if plutonium is released."* (releases now confirmed by Japanese scientists)

**In her brief assessment Dr. Sherman-Nevinger ties Chernobyl to the current low-dose releases in Japan.** *"Radioactive nuclides are spreading around the entire northern hemisphere. Professor Yablokov and his colleagues assess some 5000 studies of wild and domestic animals, birds, fish, plants, trees, mushrooms, bacteria, viruses, and yes- humans - that were altered, some permanently as a result of the Chernobyl radioactive releases. Radioactive releases from Chernobyl continue today – 25 years later. This book documents the never-ending perils from nuclear power."*

**About the authors:** The lead author, Russian biologist Alexey V. Yablokov, has been an environmental activist throughout his distinguished career. He was State Councilor for Environment and Health under President Yeltsin and is a corresponding member of the Russian Academy of Science and honorary foreign member of the American Academy of Arts and Sciences. Dr. Vassily Nesterenko, head of the Ukrainian nuclear establishment at the time of the accident, flew over the burning reactor and took the only measurements on that fateful day. Shortly thereafter he resigned his industry post and, with the assistance of Andrei Sakharov (1975 Nobel Peace Prize), they established the Belarussian Institute of Radiation Safety (BELRAD) to help treat children in the high exposure region. In August 2008, he died as a result of radiation damage. Vassily's son, Dr. Alexey Nesterenko, is a biologist/ ecologist at BELRAD, based in Minsk, Belarus, and Dr. Sherman-Nevinger is a physician and toxicologist and a member of the New York Academy of Sciences.

**European Committee on Radiation Risk estimates Chernobyl's cancers will total 1,400,000 in 50 years (2036)**

On the 25th anniversary of the Chernobyl catastrophe the ECRR (composed of sixty low-dose radiation experts from 14 countries), published calculations of cancer incidence resulting from the fallout. The Committee has used two separate methods: the **"Tondel" Method**, based upon a conservative study by Swedish scientist Martin Tondel and the **"ECRR Absolute" method** that employs weighting factors developed by the ECRR to correct for the inadequacy of "absorbed dose" quantities on which the ICRP risk estimates are based (euradcom.org).

**AP IMPACT, 20 June 2011: US nuke regulators weaken safety rules**

**by JEFF DONN, Associated Press National Writer**

Federal regulators have been working closely with the nuclear power industry to keep the nation's aging reactors operating within safety standards by repeatedly weakening those standards, or simply failing to enforce them, an investigation by The Associated Press has found. **Time after time officials at the U.S. Nuclear Regulatory Commission have decided that original regulations were too strict, arguing that safety margins could be eased without peril, according to records and interviews.**

Guardian.co.uk, 30 June 2011

**Revealed: British government's plan to play down Fukushima**

**by Rob Edwards**

British government officials approached nuclear companies to draw up a coordinated public relations strategy to play down the Fukushima nuclear accident just two days after the earthquake and tsunami in Japan and before

the extent of the radiation leak was known. Internal emails seen by the Guardian show how the business and energy departments worked closely behind the scenes with the multinational companies EDF Energy, Areva and Westinghouse to try to ensure the accident did not derail their plans for a new generation of nuclear stations in the UK.

**SAN FRANCISCO BAY VIEW, 9 June 2011**

**Is the increase in baby deaths in the northwest U.S. due to Fukushima fallout? How can we find out?** by Janette D. Sherman, MD, Joseph Mangano, MPH, MBA

The recent **CDC Morbidity and Mortality Weekly Report** indicates that **eight cities in the northwest U.S.** – Boise, Idaho; Seattle, Wash.; Portland, Ore.; plus the northern California cities of Santa Cruz, Sacramento, San Francisco, San Jose and Berkeley – reported the following data on deaths among those younger than one year of age:

- **4 weeks ending March 19, 2011: 37 deaths (average 9.25 per week)**
- **10 weeks ending May 28, 2011: 125 deaths (average 12.50 per week)**

**This is an increase of 35 percent** – the total for the entire U.S. rose about 2.3 percent – and is statistically significant. Of further significance is that those dates include the four weeks before and 10 weeks after the Fukushima Nuclear Power Plant disaster.

***THE INDEPENDENT, 17 August 2011– The explosive truth behind Fukushima's meltdown***

*By David McNeill in Tokyo and Jake Adelstein*

Throughout the months of lies and misinformation, one story has stuck: it was the earthquake that knocked out the plant's electric power, halting cooling to its six reactors. The tsunami then washed out the plant's back-up generators 40 minutes later, shutting down all cooling and starting the chain of events that would cause the world's first triple meltdown. But what if recirculation pipes and cooling pipes burst after the earthquake – before the tidal wave reached the facilities; before the electricity went out? This would surprise few people familiar with the 40-year-old reactor one, the grandfather of the nuclear reactors still operating in Japan. Problems with the fractured, deteriorating, poorly repaired pipes and the cooling system had been pointed out for years. The Independent has spoken to several workers at the plant who recite the same story: **serious damage, to piping and at least one of the reactors, occurred before the tsunami hit.** All have requested anonymity because they are still working at or connected with the stricken plant.

**PRESS RELEASE! 19 August 2011-- Beyond Nuclear Petition to the NRC**

[Takoma Park, MD] The U.S. Nuclear Regulatory Commission (NRC) has **accepted several emergency actions** for further agency review that were requested in a petition filed by Beyond Nuclear on **April 13, 2011**.

The Beyond Nuclear petition seeks to suspend the operation of the dangerous and seriously flawed **General Electric Mark I Boiling Water Reactors**, 23 of which still operate around the U.S. and which are almost identical to the Fukushima reactors that melted down in Japan. The petition was co-signed by national and regional anti-nuclear groups as well as more than 5,000 individuals. The Beyond Nuclear petition to the NRC asks that the Mark I reactors cease operations until several emergency actions are taken. The actions accepted by the federal agency for the further review include; 1) the NRC revoke **the 1989 prior approval** for all GE Mark I operators to “voluntarily” install the same experimental hardened vent systems on flawed containment structures that the Fukushima catastrophe demonstrates to have a 100% failure rate and; 2) that the agency



immediately issue Orders requiring all U.S. Mark I operators to promptly install dedicated emergency back-up electrical power to ensure reliable cooling systems for the densely packed spent fuel pools. The GE BWR fuel pools are located at the top of the reactor building and currently do not have backup power if offsite and on-site electrical power were lost simultaneously.

**Hermann J. Muller, Nobel lecture, *The Production of Mutations*, 12 December 1946**

- 1) *There is no threshold dose (no safe dose) of radiation.*
- 2) *Individual mutations result from individual "hits," producing genetic effects in their immediate neighborhood.*
- 3) *The great majority of mutations being undesirable, their further random production in ourselves should so far as possible be rigorously avoided.*
- 4) *With the coming increasing use of atomic energy, even for peace-time purposes, the problem will become very important of insuring that the human germ plasm- the all-important material; of which we are the temporary custodians – is effectively protected from this additional potent source of permanent contamination.*

An excellent supplementary text and an invaluable resource for health practitioners, public interest NGOs, and professional medical organizations. With growing public concern about low-dose exposures from, reactors, cell phones, and CT scans, this book provides scientific evidence that low-dose exposures carry a significant health risk.

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**GOOGLE search:** “Presentation on a critical new book” (Lynn Howard Ehrle, at an International Conference on Nuclear Power, May 14, 2011);

“Japanese Nuclear Plant Crisis and Chernobyl Anniversary” (Dr. Yablokov, Natl. Press Club, March 26);

“You Tube-interview-Dr Alexey Yablokov” (March 25, 35 minutes)

## Fukushima Cover-up (comments by Lynn Howard Ehrle)

*NY Times*, 6 April 2011: U.S. Sees New Threats at Japan's Nuclear Plant  
By JAMES GLANZ and WILLIAM J. BROAD

United States government engineers sent to help with the crisis in Japan are warning that the troubled nuclear plant there is facing a wide array of fresh threats that could persist indefinitely, and that in some cases are expected to increase as a result of the very measures being taken to keep the plant stable, according to a **confidential assessment** prepared by the Nuclear Regulatory Commission. Among the new threats that were cited in the assessment, dated March 26, are the mounting stresses placed on the containment structures as they fill with radioactive cooling water, making them **more vulnerable to rupture** in one of the aftershocks rattling the site after the earthquake and tsunami of March 11. The document also found **more extremely radioactive pools than previously disclosed**.

*EHRLE: Why did the US send engineers? They are not trained in radiation dosimetry or low-dose risk. Why was this NRC document "a confidential assessment" and who leaked to the NY Times? The Grey Lady is NRC's favorite. More vulnerable to rupture? They had already spilled their contents.*

The document also recommends that engineers continue adding boron to cooling water to help prevent the cores from restarting the nuclear reaction, a process known as criticality...Even so, the engineers who prepared the document do not believe that a resumption of criticality is an immediate likelihood. Neil Wilmshurst, vice president of the nuclear sector at the Electric Power Research Institute, said when contacted about the document, "I have seen no data to suggest that there is criticality ongoing." The document was prepared for the commission's Reactor Safety Team, which is assisting the Japanese government and the Tokyo Electric Power Company. It says it is based on the "most recent available data" from numerous Japanese and American organizations, including the electric power company, the Japan Atomic Industrial Forum, the U.S. Department of Energy, General Electric and the Electric Power Research Institute, **an independent nonprofit group**.

*EHRLE: This is the group the NRC turns to for advice? Dick Cheney couldn't have assembled a better bunch of nuclear insiders. Reporters Glanz and Broad claim the Electric Power Research Institute is "an independent nonprofit group! It's industry supported, industry funded, and industry controlled, but The Grey Lady says it's independent. EPRI vice president Neil Wilmshurst hasn't seen any data on criticality. Of course, wearing blinders does seem to blur the vision. Nuclear experts say that radiation from the core of a reactor can split water molecules in two, releasing hydrogen. Mr. Wilmshurst said that since the March 26 document, engineers had calculated that the amount of hydrogen produced would be small. Wilmshurst again, downplaying the risk. He must have had a key role in the assessment since he was the only one quoted. But Jay A. LaVerne, a physicist at Notre Dame, said that at least near the fuel rods, some hydrogen would in fact be produced, and could react with oxygen. "If so," Mr. LaVerne said in an interview, "you have an explosive mixture being formed near the fuel rods." The N.R.C. report suggests that the fuel pool of the No. 4 reactor suffered a hydrogen explosion early in the Japanese crisis and could have shed much radioactive material into the environment, what it calls "a major source term release." It cites the possibility of explosions inside the containment structures due to the release of hydrogen and oxygen from seawater pumped into the reactors, and offers new details on how semi-molten fuel rods and salt buildup are impeding the flow of fresh water meant to cool the nuclear cores...Experts have said the Japanese need to continue to keep the fuel cool for many months until the plant can be stabilized, but there is growing awareness that the risks of pumping water on the fuel present a whole new category of challenges that the nuclear industry is only beginning to comprehend. The document also suggests that fragments or particles of nuclear fuel from spent fuel pools above the reactors were blown "up to one mile from the units," and that pieces of highly radioactive material fell between two units and had to be "bulldozed over," presumably to protect workers at the site. The ejection of nuclear material, which may have occurred during one of the earlier hydrogen explosions, may indicate more extensive damage to the reactors.*

*NYTimes*, 6 April: Japan Announces Its First Radiation Safety Standards For Fish  
The company that runs Japan's crippled nuclear power plant announced Wednesday that it had stopped the

leak of tons of highly radioactive water into the ocean discovered over the weekend. The news came a day after the company said the levels of radioactive material in the seawater near the plant were measured at several million times the legal limit. On Tuesday, the government said that a fish caught about 43 miles away was found to have high levels of radioactive iodine 131, prompting it to announce radiation safety levels for fish... The water being intentionally released contains about 100 times the legal limit of radiation, said the Tokyo Electric Power Company, the plant's operator. The more contaminated water that it hopes to contain has about 10,000 times the legal limit. The small fish caught Friday — before the intentional dumping began — had 4,080 becquerels of iodine 131 per kilogram. The new standards allow up to 2,000 becquerels of iodine 131 per kilogram, the standard used for vegetables in Japan, but it was unclear how the government would enforce the new rules. The fish also contained cesium 137, which decays much more slowly than iodine 131, at a level of 526 becquerels per kilogram... Fish and seaweed can concentrate radioactive elements as they grow, leading to levels that are higher, sometimes far higher, than in the surrounding water. Seaweed can concentrate iodine 131 10,000-fold over the surrounding water; fish concentrate cesium 137 modestly. The announced standards for fish came hours after Tokyo Electric said it had found iodine 131 in seawater samples at 200,000 becquerels per cubic centimeter, or five million times the legal limit. The samples were collected Monday near the water intake of the No. 2 reactor of the Fukushima Daiichi Nuclear Power Station.

### ***The Mainichi Daily News, 7 May 2011***

by Kensei Fukuoka, Kyushu News Department

### **Disastrous pattern of academic-government collusion must not be allowed to continue**

National policy founded on a thirst for economic growth that has put the interests of industry first, and actions taken by politicians who have only lent their ears to experts whose views support their goals, has caused much irreparable damage over the years. If this destructive chain of action is not stopped, we are bound to face further tragedy.

A group of 16 pro-nuclear scientists led by a former president of the Atomic Energy Society of Japan (AESJ) and former members of the Nuclear Safety Commission (NSC) of Japan held a press conference on April 1. In it, they said that the amount of radioactive material stored in the reactors at the Fukushima plant far exceeds that which was stored at Chernobyl, and that even if we are to avoid immediate dangers, the Fukushima plant would require close monitoring for many years to come. These remarks, which were coming not from anti-nuclear activists but from pro-nuclear experts, were evidence that nuclear energy proponents were finally acknowledging the seriousness of the current situation.

It was 14 years ago that Kobe University professor emeritus and seismologist Katsuhiko Ishibashi wrote a paper warning of the possibility of a nuclear accident, like the current one, triggered by a massive quake or tsunami. In the May issue of the monthly magazine *Sekai*, Ishibashi mentions how NSC Chair Haruki Madarame and Toshisho Kosako -- a radiation expert and professor at the University of Tokyo -- reacted to his paper at the time. According to Ishibashi, Madarame disputed the various concerns that were raised, and characterized Ishibashi as a nuclear layperson, saying, "We've never heard of Ishibashi at the AESJ." Kosako also lambasted Ishibashi's claims, saying, "There is absolutely no possibility of massive amounts of radiation being released... When publishing papers, it is common for academics to be cautious about covering subjects on which they lack expertise. In his paper, Ishibashi makes unfounded statements about a topic outside his specialty." (NOTE: It was Professor Kosako who became an advisor to the government but abruptly resigned last April 29, citing violations of law and refusal to follow the science- LHE) The crisis we currently face with the Fukushima power plant is the direct result of the collusive relationship between industry, government and academia. Mitsuhiko Tanaka, a science journalist and former nuclear engineer, points out in *Sekai* that based on data of the Fukushima plant's water levels and pressure, it is possible the No. 1 reactor lost its coolant due to quake damage to pipes in the pressure vessel. Tanaka also speculates that the reason for the explosion at the No. 2 reactor after hydrogen accumulated near the pressure suppression pool at the bottom of the reactor building --

despite the gas being lighter than oxygen -- is that hydrogen leaked into the pool through pressure-suppression pipes, and was released through cracks in the pool caused by the quake, eventually reacting with surrounding oxygen. In other words, **Tanaka believes the nuclear reactor had suffered major damage even before the tsunami hit.** While nothing has been done to verify or dispel such possibilities, there already have been murmurs within the industrial community that Japanese nuclear power plants will be safe as long as anti-tsunami measures are implemented. Are we going to maintain our dependence on nuclear energy? Are we going to stop the nuclear reactors beginning with the riskiest ones, or get rid of them all at once? It is time for every Japanese citizen to ask themselves these questions and take action. By now, we know all too well how dangerous it is to leave these questions to *governme*

*Asahi.com*, 5 June 2011

### **TEPCO eyes design flaw in hydrogen explosion**

BY HIROYOSHI ITABASHI, STAFF WRITER

A design flaw in the exhaust system within the reactors at the Fukushima No. 1 nuclear power plant may have caused a hydrogen explosion at the No. 1 reactor March 12 that blew the top off the structure. The same type of exhaust and venting system is installed at other nuclear plants in Japan, meaning a major review will likely be required at those plants. TEPCO officials now believe that venting the containment vessel at the No. 1 reactor to reduce pressure within the vessel and prevent damage may have led to hydrogen gas flowing back into the reactor building, rather than outside as originally designed. A valve in a separate exhaust system that is supposed to stop a reverse flow of hydrogen gas back into the building failed because all power to the reactor was lost in the hours after the March 11 Great East Japan Earthquake and tsunami. TEPCO executives admitted flaws in the design for the exhaust system could have been a factor leading to the hydrogen explosion.

*Asahi.com*, 7 June 2011

### **Radiation levels likely exceed safety standard outside evacuation zone**

A report released June 3 by the science ministry said annual accumulated radiation levels are estimated at 20.1, 20.8, 23.8 millisieverts in the Ishida and Kamioguni areas of the Ryozen-machi district in Date city, and the Ohara area of the Hara-machi district of Minami-Soma, respectively. **The government's safety standard is 20 millisieverts of annual accumulated radiation.** These areas lie beyond the planned evacuation zone, which is just outside the off-limits area within a 20-kilometer radius of the plant. The ministry's calculation assumes current radiation accumulation rates will remain static over one year.

*The Japan Times Online*, 7 June 2011

### **NISA doubles early fallout estimate**

**Kyodo**

The Nuclear and Industrial Safety Agency on Monday more than doubled its estimate of the radioactive material ejected into the air in the early days of the Fukushima nuclear crisis to 770,000 terabecquerels. The nuclear safety agency also issued its own assessment of the cores in reactors 1, 2 and 3 at the Fukushima No. 1 power plant, assuming that all of them melted, and said it was possible the meltdowns in units 1 and 2 happened faster than the time frame estimated by Tokyo Electric Power Co. Level 7 accidents correspond to the external release of material equal to tens of thousands of terabecquerels of radioactive iodine 131. One terabecquerel equals 1 trillion becquerels. NISA said the melted fuel in reactor 1 fell to the bottom of the pressure vessel and damaged it at about 8 p.m. on March 11, about five hours after the quake. In reactor 2, a similar event took place at about 10:50 p.m. March 14, it said.

*NHK.or.jp/daily/English*, 13 May 2011

### **No.1 reactor is in a "meltdown" state**

Tokyo Electric Power Company (TEPCO) says the No.1 reactor at the Fukushima Dai-ichi nuclear power plant is believed to be in a state of "meltdown." The utility company said on Thursday that most

of the fuel rods are likely to have melted and fallen to the bottom of the reactor. Earlier in the day, it found that the coolant water in the reactor is at a level which would completely expose nuclear fuel rods if they were in their normal position. The company believes the melted fuel has cooled down, judging from the reactor's surface temperature. But it suspects the meltdown created a hole or holes in the bottom of the reactor causing water to leak into the containment vessel. It also suspects the water is leaking into the reactor building. The company is planning to fully fill the containment vessel with water by increasing the amount injected. The company says, however, it must review the plan in light of the latest finding.

*Der Spiegel, 05/27/2011*

**Japan's Nuclear Cartel (excerpts)**

## **Atomic Industry Too Close to Government for Comfort**

**by Cordula Meyer**

The ties between the government and the nuclear industry have become so intertwined that public safety is at threat. Inspections are too lax, and anyone who criticizes the status quo can find themselves out of a job. Time and again, the new realities have revealed the nuclear lobby's safety slogans to be a farce. Apparently, the earthquake alone caused the first tubes to crack... For a full two months, TEPCO management tried to reassure the public and denied all responsibility... It wasn't until last Friday that TEPCO President Masataka Shimizu and Vice President Sakae Muto finally announced their resignations... TEPCO, the world's fourth-largest power company, employs more than 52,000 people. Before World War II, the government nationalized all electric utilities and merged them into regional monopolies. The resulting 10 companies are now private, but they have retained their regional dominance... According to TEPCO's calculations, the maximum possible height of a tsunami in Fukushima was 5.7 meters (The tsunami was at least 23 metres, or 76 feet high, according to a Japanese study, as reported in the Yomiuri daily, March 18). The company acted on the authority of a committee made up of members of Japan's engineering society. But a majority of the commission's 35 members had once worked for electric utilities or think tanks funded by the utilities... "Our country was literally brainwashed," says Taro Kono, a member of the lower house of the Japanese Diet for the conservative LDP. "Atomic energy is a cult in Japan." Kono, 48, comes from one of Japan's major political dynasties. He has been a member of the parliament for almost 15 years and is notorious for his independent views. He is one of the few members of his parliamentary group to have dared to question Japan's nuclear policy.

Takashi Uesugi, a television journalist, is one of those reporting on how sensitively the electricity giant reacts when unflattering information manages to get out... On March 15, at 1 p.m., Uesugi was conducting a live broadcast on the Tokyo Broadcasting System (TBS). He said that radioactivity was apparently escaping from Reactor 3 and that this was being reported abroad. "It was an obvious thing to report," he says. After the broadcast, however, his boss came to him and told him he was fired... Meanwhile, the Japanese government has begun asking Internet providers to remove "false reports" about Fukushima from the web, arguing that the population should not be troubled unnecessarily. "This is worse than in Egypt and China," says Uesugi. According to the government request, all reports that "harm the public order and morale" should be removed.

*Asahi.com, 27 May 2011*

## **Rengo calls for freeze in promoting nuclear energy**

**BY SHINICHI SEKINE, STAFF WRITER**

An important backer of the ruling Democratic Party of Japan froze its stance of promoting nuclear energy, making it easier for Prime Minister Naoto Kan to shift the nation's policy toward renewable energy sources. The decision by Rengo (Japanese Trade Union Confederation), the nation's largest labor organization, was made at a central executive committee meeting May 26. Rengo, in a document, said it would freeze its position in favor of nuclear energy "out of consideration for the current circumstances, which make it difficult to secure the understanding and consent of local residents that are preconditions." In light of the accident at the Fukushima No. 1 nuclear power plant, Rengo also said it would be tough to establish a more advanced system for maintaining safety at nuclear power plants. Based on its decision, Rengo will undertake a comprehensive review of its nuclear energy policy. The labor union

confederation will refrain from calling for the construction of new nuclear power plants and instead observe what the government plans to do with its basic energy policy.

*NHK World*, 30 May 2011

### **Internal exposure concerns**

Japan's Nuclear Safety Commission has expressed concerns about internal radiation exposure for workers at the crippled Fukushima Daiichi nuclear power plant. High levels of radioactive substances have been detected in the bodies of 2 workers at the plant. After a meeting on Monday, commission member Shizuyo Kusumi told reporters that the organization had concerns about whether protective masks can fully protect workers from internal exposure. She added that the commission would study the two cases based on data to be sent from the Nuclear and Industrial Safety Agency.

*SPIEGEL ONLINE INTERNATIONAL*, 30 May 2011

### **Germany to Phase Out Nuclear Power by 2022**

The German government has agreed to a roadmap for phasing out nuclear power. All of the country's 17 nuclear plants are to go offline by 2021, with a possible one-year extension for three reactors should there be the risk of an electricity shortfall.

*FOCUS News Agency*, 14 June 2011

### **Italian Voters Overwhelmingly Reject Nuclear Power**

Official results released Tuesday showed that nearly 95 percent of those who turned out rejected plans to return to nuclear power. The final results show a 57 percent voter turnout, which exceeds the 50 percent quorum needed to validate the vote.

*Asahi.com*, 10 June 2011 (excerpts, Part 3)

### **BEHIND THE MYTH: A town built on nuclear subsidies, emptied by nuclear disaster** BY SEIJI KANDA, senior staff writer

Futaba is now a ghost town. A large arch still stands holding a sign that reads, "Nuclear energy/development of our hometown/ an affluent future." Like other communities that host nuclear power facilities, Futaba ended up being overly dependent on subsidies from the central government while failing to develop other industries. "All regions at first want to develop their communities by using the nuclear plants as a catalyst," said Shuji Shimizu, vice president of Fukushima University and an expert in public finance. "However, the amount of nuclear plant money that flows toward an isolated region that has little industry to begin with was huge. As a result, those communities were forced to become a distorted economy that was heavily dependent on that money."

Futaba is part of an area that local residents dub the Ginza strip of nuclear plants. Instead of the bright lights and posh stores in the fashionable area of central Tokyo, the area around Futaba has 10 reactors operated by Tokyo Electric Power Co (TEPCO). The Fukushima No. 1 nuclear power plant is located in the towns of Futaba and Okuma. The Fukushima No. 2 plant is situated in the towns of Tomioka and Naraha. The No. 5 and No. 6 reactors in Futaba began operating from 1978 and 1979, respectively. Around that time, the town had a population of about 8,000, and the town treasury was flooded with "nuclear plant money" in the form of subsidies from three separate laws designed to promote the hosting of nuclear plants. In 1991, under Idogawa's predecessor, the Futaba town assembly passed a resolution requesting that additional reactors be constructed. That resolution was placed on hold after TEPCO was found to have covered up problems at its plants. But in June 2007, Idogawa told the town assembly that he was of the opinion that TEPCO's problems had been solved. The next day, the town assembly passed a resolution in favor of building more reactors.

**Asahi.com, 11 June 2011 (excerpts, Part 4)**

### **BEHIND THE MYTH: Japan turned deaf ear to warnings about quake risks**

**BY RINTARO SAKURAI, STAFF WRITER**

The moment seismologist Kojiro Irikura felt a massive shaking in Tokyo's Kasumigaseki district on March 11, he wondered whether a nuclear power plant somewhere might have been damaged. But deep down, he may have already known the answer... Irikura, who has chaired the Nuclear Safety Commission of Japan's Investigatory Advisory Board on Assessment of Seismic Safety since 2007, believes that warnings about earthquake risks to nuclear power plants were not taken seriously for many years... Irikura argued that hidden active faults near the facility should be taken into account. But his calls fell on deaf ears, and he was not invited to the screening process after several sessions.

Seismologist Kunihiko Shimazaki, 65, said he could have done more to prevent damage by the Great East Japan Earthquake. Professor emeritus at the University of Tokyo, he is president of the Coordinating Committee for Earthquake Prediction, Japan... Like Irikura, Shimazaki has run into the wall of the electric power industry. Every time his panel released the implications of an earthquake near a nuclear power plant, electric power industry officials maintained that the presumed magnitude was too large. Shimazaki said nuclear power plants, which would pose a serious danger in case of an accident, should be prepared for a worst-case earthquake... He said Japanese society at large is responsible for postponing concrete measures to deal with risks of a major earthquake on grounds that such an earthquake is rare and one cannot deal with every risk.

### **NKH World, 13 June: Excessive levels of strontium detected in seawater**

Radioactive strontium that exceeds the government-set safety level was detected for the first time in sea water in the inlet next to the Fukushima Daiichi nuclear plant. Tokyo Electric Power Company, or TEPCO, reported that strontium-90, at a level 53 times higher than the safety standard was detected in samples taken from inside an inlet used exclusively by the nuclear plant, on May 16. TEPCO also said that strontium-90 was detected at a level 170 times higher than the standard in samples also taken on May 16, near the water intakes outside reactor number 2. At the reactor number 3 water intakes, the level was 240 times higher than the legal safety limit. TEPCO announced that strontium-90 was also detected for the first time in ground water near the reactors' buildings. With a comparatively long half-life of 29 years, radioactive strontium can accumulate in the bones if inhaled, and poses a risk of cancer.

**Al-Jazeera-English, 16 June 2011**

### **Fukushima: It's Much Worse Than You Think**

**Scientific experts believe Japan's nuclear disaster to be far worse than governments are revealing to the public.**

*"Fukushima is the biggest industrial catastrophe in the history of mankind," Arnold Gundersen, a former nuclear industry senior vice president, told Al Jazeera. Gundersen, a licensed reactor operator with 39 years of nuclear power engineering experience, managing and coordinating projects at 70 nuclear power plants around the US, says the Fukushima nuclear plant likely has more exposed reactor cores than commonly believed. Gundersen provided this analysis. "Fukushima has three nuclear reactors exposed and four fuel cores exposed. You probably have the equivalent of 20 nuclear reactor cores because of the fuel cores, and they are all in desperate need of being cooled, and there is no means to cool them effectively. The problem is how to keep it cool. They are pouring in water and the question is what are they going to do with the waste that comes out of that system, because it is going to contain plutonium and uranium. Where do you put the water? The fuels are now a molten blob at the bottom of the reactor. TEPCO announced they had a melt through. A melt down is when the fuel collapses to the bottom of the reactor, and a melt through means it has melted through some layers. That blob is incredibly radioactive, and now you have water on top of it. The water picks up enormous amounts of radiation, so you add more water and you are generating hundreds of thousands of tons of highly radioactive water. We have 20 nuclear cores exposed, the fuel pools have several cores each, that is 20 times the potential to be released than Chernobyl," said Gundersen. The data I'm seeing shows that we are finding hot spots further away than we had from*

*Chernobyl, and the amount of radiation in many of them was the amount that caused areas to be declared no-man's-land for Chernobyl. We are seeing square kilometres being found 60 to 70 kilometres away from the reactor. You can't clean all this up. We still have radioactive wild boar in Germany, 30 years after Chernobyl."*

TEPCO has been spraying water on several of the reactors and fuel cores, but this has led to even greater problems, such as radiation being emitted into the air in steam and evaporated sea water - as well as generating hundreds of thousands of tons of highly radioactive sea water that has to be disposed of.

Japan's Nuclear Emergency Response Headquarters finally admitted earlier this month that reactors 1, 2, and 3 at the Fukushima plant experienced full meltdowns. TEPCO announced that the accident probably released more radioactive material into the environment than Chernobyl, making it the worst nuclear accident on record. Meanwhile, a nuclear waste advisor to the Japanese government reported that about 966 square kilometres near the power station - an area roughly 17 times the size of Manhattan - is now likely uninhabitable.

**In the US, physician Janette Sherman MD and epidemiologist Joseph Mangano, using CDC weekly mortality reports, published a commentary shedding light on a 35 per cent spike in infant mortality in northwest cities that occurred after the Fukushima meltdown, and may well be the result of fallout from the stricken nuclear plant. The eight cities included in the report are San Jose, Berkeley, San Francisco, Sacramento, Santa Cruz, Portland, Seattle, and Boise, and the time frame of the report included ten weeks immediately following the disaster as compared to four weeks prior to the accident.**

#### **HOT PARTICLES**

Gundersen points out that far more radiation has been released than has been reported. "They recalculated the amount of radiation released, but the news is really not talking about this," he said. "The new calculations show that within the first week of the accident, they released 2.3 times as much radiation as they thought they released in the first 80 days." According to Gundersen, **the exposed reactors and fuel cores are continuing to release microns of caesium, strontium, and plutonium isotopes. These are referred to as "hot particles".** *"We are discovering hot particles everywhere in Japan, even in Tokyo," he said. "Scientists are finding these everywhere. Over the last 90 days these hot particles have continued to fall and are being deposited in high concentrations. A lot of people are picking these up in car engine air filters."* Radioactive air filters from cars in Fukushima prefecture and Tokyo are now common, and Gundersen says his sources are finding radioactive air filters in the greater Seattle area of the US as well. The hot particles on them can eventually lead to cancer. "These get stuck in your lungs or GI tract, and they are a constant irritant," he explained, *"One cigarette doesn't get you, but over time they do. These [hot particles] can cause cancer, but you can't measure them with a Geiger counter. Clearly people in Fukushima prefecture have breathed in a large amount of these particles. Clearly the upper West Coast of the US has people being affected. That area got hit pretty heavy in April."*

In reaction to the Fukushima catastrophe, Germany is phasing out all of its nuclear reactors over the next decade. In a referendum vote this Monday, 95 per cent of Italians voted in favour of blocking a nuclear power revival in their country. A recent newspaper poll in Japan shows nearly three-quarters of respondents favour a phase-out of nuclear power in Japan. **Why have alarms not been sounded about radiation exposure in the US?** Nuclear operator Exelon Corporation has been among Barack Obama's biggest campaign donors, and is one of the largest employers in Illinois where Obama was senator. Exelon has donated more than \$269,000 to his political campaigns, thus far. Obama also appointed Exelon CEO John Rowe to his-Blue Ribbon Commission on America's Nuclear Future.

**Dr Shoji Sawada is a theoretical particle physicist and Professor Emeritus at Nagoya University in Japan. He is concerned about the types of nuclear plants in his country, and the fact that most of them are of US design.** Most of the reactors in Japan were designed by US companies who did not care for the effects of earthquakes," Dr Sawada told Al Jazeera. "I think this problem applies to all nuclear power stations across Japan." Using nuclear power to produce electricity in Japan is a product of the nuclear policy of the US, something Dr Sawada feels is also a large component of the problem. "Most of



the Japanese scientists at that time, the mid-1950s, considered that the technology of nuclear energy was under development or not established enough, and that it was too early to be put to practical use," he explained. *"The Japan Scientists Council recommended the Japanese government not use this technology yet, but the government accepted to use enriched uranium to fuel nuclear power stations, and was thus subjected to US government policy."* As a 13-year-old, Dr Sawada experienced the US nuclear attack against Japan from his home, situated just 1400 metres from the hypocentre of the Hiroshima bomb.

Gundersen pointed out that the units are still leaking radiation. *"They are still emitting radioactive gases and an enormous amount of radioactive liquid. It will be at least a year before it stops boiling, and until it stops boiling, it's going to be cranking out radioactive steam and liquids."* Gundersen worries about more earthquake aftershocks, as well as how to cool two of the units. *"Unit four is the most dangerous, it could topple. After the earthquake in Sumatra there was an 8.6 [aftershock] about 90 days later, so we are not out of the woods yet. And you're at a point where, if that happens, there is no science for this. No one has ever imagined having hot nuclear fuel lying outside the fuel pool. They've not figured out how to cool units three and four."* Gundersen's assessment of solving this crisis is grim. *"Units one through three have nuclear waste on the floor, the melted core, that has plutonium in it, and that has to be removed from the environment for hundreds of thousands of years. Somehow, robotically, they will have to go in there and manage to put it in a container and store it for infinity, and that technology doesn't exist. Nobody knows how to pick up the molten core from the floor; there is no solution available now for picking that up from the floor."*

Dr Sawada says that the creation of nuclear fission generates radioactive materials for which there is simply no knowledge informing us how to dispose of the radioactive waste safely. *"Until we know how to safely dispose of the radioactive materials generated by nuclear plants, we should postpone these activities so as not to cause further harm to future generations. To do otherwise is simply an immoral act, and that is my belief, both as a scientist and as a survivor of the Hiroshima atomic bombing,"* he explained. Gundersen believes it will take experts at least ten years to design and implement the plan. *"So ten to 15 years from now maybe we can say the reactors have been dismantled, and in the meantime you wind up contaminating the water. We are already seeing Strontium [at] 250 times the allowable limits in the water table at Fukushima. Contaminated water tables are incredibly difficult to clean. So I think we will have a contaminated aquifer in the area of the Fukushima site for a long, long time to come."* Unfortunately, the history of nuclear disasters appears to back Gundersen's assessment. *"With Three Mile Island and Chernobyl, and now with Fukushima, you can pinpoint the exact day and time they started, but they never end."*

#### **NHK World, 18 June 2011, 03:55 +0900 (JST): TEPCO begins new water decontamination system**

The Tokyo Electric Power Company has begun decontaminating radioactive water at the Fukushima Dai-ichi nuclear power plant. The purified water will be cycled back into the plant's reactors to help cooling efforts. But officials still do not know where to finally dispose of the huge volume of condensed nuclear waste that will result from the decontamination. The system -- the first of its kind in the world -- is largely untested. Developers do not know if they will be able to meet the daily decontamination target of 1,200 tons of water. That includes seawater from the tsunami and water laced with oil.

#### **NHK World, 18 June, 13:00 +0900 (JST): TEPCO suspends water decontamination system**

Tokyo Electric Power Company has halted operation of a system to decontaminate highly radioactive water at the Fukushima Daiichi nuclear plant as one of the parts reached its radiation exposure limit in less than 5 hours. The system went into service on Friday night. One component of the system uses the mineral zeolite to absorb radioactive cesium. A replacement part of the US-made device had been expected to last one month, but radiation exceeding the maximum 4 millisieverts per hour led to the dramatically shortened lifespan. TEPCO suspended operation of the device early on Saturday to determine the cause.

**NOTE: Only 19 of 54 reactors are currently functioning- LHE)**

*Asia-Pacific Journal Vol 9, Issue 29 No 1, July 18, 2011*

## **Fukushima is Worse than Chernobyl – on Global Contamination**

**Chris Busby Interview by Norimatsu Satoko and Narusawa Muneo**

Chemical physicist Chris Busby is at the forefront of scientists who are challenging the radiation risk model propounded by ICRP, the International Commission on Radiological Protection, whose standards for allowable radiation doses the Japanese government has adopted for its citizens affected by the Fukushima Daiichi nuclear plant accident. Busby, Scientific Secretary of the European Committee on Radiation Risk (ECRR), points out that the ICRP model "deals with radiation exposure from all sources in the same way, as if it were external to the body," and then takes this dose and multiplies it by a risk factor based on the high acute external doses of the atomic-bomb survivors of Hiroshima and Nagasaki. The ICRP method thus fails to take into account a number of ways in which certain internal radionuclides can deliver very high doses to critical targets in cells, particularly the cell DNA. One of these is from "inhaled or ingested hot particles, which are solid but microscopic and can lodge in tissue delivering high doses to local cells." As a result, internal radiation exposure can be "up to 1,000 times more harmful than the ICRP model concludes." In his calculation based on the ECRR model that considers such internal radiation risks, Busby has estimated that within 100 km of Fukushima Daiichi, approximately 200,000 excess cancers will occur within the next 50 years with about half of them diagnosed in the next 10 years, if the 3.3 million people in the area remain there for one year. He estimates over 220,000 excess cancers in the 7.9 million people from 100 to 200 km in the next 50 years, also with about half of them to be diagnosed in the next 10 years. By contrast, the ICRP model predicts 2,838 extra cancers in the 100 km population.

### **NY Times, 9 August 2011: Japan Hid Radiation Path, Leaving Evacuees in Peril**

The reference to Tamotsu Baba, the mayor of Namie, five miles from Fukushima, is most instructive. He stated, "We are extremely worried about internal exposure to radiation." **The withholding of information is akin to "murder."**

**DOHA, Aug 11, 2011 (IPS/Al-Jazeera)**

### **Citizen Group Tracks Down Japan's Radiation**

**By Dahr Jamail**

Fed up with indefinite data, a group of 50 volunteers decided to take matters, and Geiger counters, into their own hands. In April, an independent network of like-minded individuals in the Japan and United States banded together to form Safecast and began an ongoing crusade to record and publish accurate radiation levels around Japan. Sean Bonner, director of Safecast, told Al Jazeera that volunteers have so far logged more than 500,000 radiation data points across Japan. He said the group is the only organisation he knows that is tracking radiation on a local level. The findings, Bonner added, have been shocking.

Dr Yuko Yanagisawa, a 51-year-old physician at Funabashi Futawa Hospital in Chiba Prefecture, feels the government's response to health concerns has been grossly inadequate. In the area where Yanagisawa lives and works, approximately 200 km from Fukushima, unhealthy radiation levels have been recorded. Even so, she said the only information the government has released was to raise the acceptable radiation exposure limit for children from one millisieverts (mSv) of radioactivity a year to 20. *This has caused controversy, from the medical point of view. This is certainly an issue that involves both personal internal exposures as well as low-dose exposures.* As early radiation readings from the disaster site emerged, Japan's then-minister for internal affairs, Haraguchi Kazuhiro, alleged that monitoring station data was actually three decimal places greater than the numbers released to the public. Earlier this month, TEPCO said it detected 10,000 mSv of radioactivity at the heavily damaged plant. A dose this high would be fatal to humans, and was 250 per cent more than the previous high levels at the plant in March soon after the disaster. Authorities have also been vague about the extent of the radiation, and how the potential spread may be affecting vital food crops and livestock. "Sunday [Aug. 7], we found ground contamination of 20,000 cpm," said Bonner, referring to counts per minute, a method he believes is more accurate in analysing radiation than measuring mSv.

**Research by Lynn Howard Ehrle, M. Ed; current positions--** freelance medical writer, National Writers Union, UAW Local 1981; Chair- International Science Oversight Board (42 physicians and scientists from 11 countries); president AFT local (1963-64); vice president and energy committee chair, Consumer Alliance of Michigan (1970s); author- first consumer textbook, *Consumer Rights: Battle in the Marketplace* (1970); presented numerous briefs in utility rate cases before the Public Service Commission and twice-nominated to the commission by two legislators; co-author, "Pediatric CT research elevates public health concerns: low-dose radiation issues are highly politicized," *Int J Health Services* 2007;37:419-437.

**Member:** Radiation Research Society; American Federation of Teachers and National Education Association (ret); American Association for the History of Medicine.

E-mail: ehrlebird32@att.net

## CHERNOBYL, FUKUSHIMA, AND NRC LOW-DOSE RADIATION COVERUPS: AN ETHICAL QUAGMIRE

by Lynn Howard Ehrle, M. Ed

*If you pollute when you DO NOT KNOW if there is any safe dose (threshold), you are performing improper experimentation on people without their informed consent. If you pollute when you DO KNOW there is NO safe dose with respect to causing extra cases of deadly cancers or heritable effects, you are committing premeditated random murder. If you pollute when you CLAIM the agent is safe at "permissible levels," then you should be required to DEMONSTRATE your confidence in such safety by exposing yourself and your children and grandchildren to the full "permissible levels" which you wish to impose on other members of the public.*

**John W. Gofman, PhD, MD (1918-2007), nuclear physicist and cardiologist; associate director and founder- Biomedical Research Division, Lawrence Livermore National Laboratory (1963); Comments on a Petition for Rulemaking, to the U.S. Nuclear Regulatory Commission, 21 May 1994**

NOTE: I shall forever be indebted to John Gofman and his brilliant editor, Egan O'Connor, for their tireless efforts to advance the knowledge of health risks from low-dose ionizing radiation. Also, their years of counsel and five books on radiation have provided me with an education that never could be found in the classroom or through my own investigations—LHE.

### THE U.S. NUCLEAR REGULATORY COMMISSION

**CLEAR BIAS, CONFLICTS OF INTEREST, AND VIOLATIONS OF CONGRESSIONAL MANDATES**  
*The NRC inherited the regulatory staff and adopted the rules and regulations of the Atomic Energy Commission intact—Peter Bradford, former NRC Commissioner*

### FACA Rules

The Federal Advisory Committee Act became law in 1972 and is the legal foundation defining how federal advisory committees operate. This version is from the NRC and U.S. House of Representatives web sites.  
**5 USC TITLE 5 - APPENDIX 01/02/01-- Sec. 5. (a) Responsibilities of Congressional committees: Any such legislation shall--** (1) contain a clearly defined purpose for the advisory committee;  
(2) require the membership of the advisory committee to be fairly balanced in terms of the points of view represented and the functions to be performed by the advisory committee;  
(3) contain appropriate provisions to assure that the advice and recommendations of the advisory committee will not be inappropriately influenced by the appointing authority or by any special interest, but will instead be the result of the advisory committee's independent judgment.

**The Advisory Committee on Reactor Safeguards (ACRS) is statutorily mandated by the Atomic Energy Act of 1954, as amended. The Committee has three primary purposes: 1. to review and report on safety studies and reactor facility license and license renewal applications; 2. to advise the Commission on the hazards of proposed and existing reactor facilities and the adequacy of proposed reactor safety standards; 3. and to initiate reviews of specific generic matters or nuclear facility safety-related items.** The ACRS is independent of the NRC staff and reports directly to the Commission, which appoints its members. **The operational practices of the ACRS are governed by the provisions of the Federal Advisory Committee Act (FACA).**

The Atomic Energy Act of 1954 requires that civilian uses of nuclear materials and facilities be licensed, and it empowers the NRC to establish by rule or order, and to enforce, such standards to govern these uses as **"the Commission may deem necessary or desirable in order to protect health and safety and minimize danger to life or property."**

## The Commissioners

1. **Gregory B. Jaczko, PhD, physics; designated Chairman of the U.S. Nuclear Regulatory Commission by President Barack Obama on May 13, 2009. He was first sworn in as a Commissioner on Jan. 21, 2005, and his term runs through June 2013; served as appropriations director and science advisor for U.S. Sen. Harry Reid.**

2. **Kristine L. Svinicki, BS, nuclear engineering; spent over a decade as a staff member in the United States Senate; served as a professional staff member on the Senate Armed Services Committee for the Committee's former Chairman, Sen. John Warner, R-Va., and, subsequently, for the Committee's ranking Republican member, Sen. John McCain, R-Ariz. Previously, Ms. Svinicki worked as a nuclear engineer in the U.S. Department of Energy's Washington, D.C. Offices of Nuclear Energy, Science and Technology, and of Civilian Radioactive Waste Management, as well as its Idaho Operations Office, in Idaho Falls, Idaho; longstanding member of the American Nuclear Society.**

3. **George Apostolakis, PhD, engineering science and applied mathematics was sworn in as a Commissioner of the U.S. Nuclear Regulatory Commission (NRC) on April 23, 2010, to a term ending on June 30, 2014. Dr. Apostolakis has had a distinguished career as an engineer, professor and risk analyst. Before joining the NRC, he was the Korea Electric Power Corporation; member and former chairman of the statutory Advisory Committee on Reactor Safeguards of the NRC.**

4. **William D. Magwood, IV, BS in physics and B.A. in English; reappointment term ending June 30, 2015; served seven years as the Director of Nuclear Energy with the U.S. Department of Energy (DOE); senior nuclear technology policy advisor to the Secretary of Energy; founded and headed Advanced Energy Strategies, a company that provided strategic advice to domestic and international organizations; managed electric utility research and nuclear policy programs at the Edison Electric Institute; also a scientist at Westinghouse Electric Corporation.**

5. **William C. Ostendorff, BS, systems engineering; also law degree; was sworn in as a Commissioner of the U.S. Nuclear Regulatory Commission (NRC) on April 1, 2010, to a term ending on June 30, 2011. Mr. Ostendorff has a distinguished career as an engineer, legal counsel, policy advisor, and naval officer. Before joining the NRC, Mr. Ostendorff served as the Director of the Committee on Science, Engineering and Public Policy and as Director of the Board on Global Science and Technology at the National Academies. Principal Deputy Administrator at the National Nuclear Security Administration from April 2007 until April 2009. From 2003 to 2007, he was a member of the staff of the House Armed Services Committee. There, he served as counsel and staff director for the Strategic Forces Subcommittee with oversight responsibilities for the Department of Energy's Atomic Energy Defense Activities as well as the Department of Defense's space, missile defense and intelligence programs.**

***BIAS AND CONFLICTS OF INTEREST: Not a single commissioner has academic credentials in the field of low-dose radiation dosimetry, safety and health risks. ALL have background experience in politics and NRC and nuclear industry positions that demonstrate bias and conflicts of interest. Low-dose radiation issues have been covered up for years by government agencies and the radiology establishment. The NRC is one of the prime movers in an international cover-up. (Lynn Howard Ehrle).***

## NRC Advisory Committee on Reactor Safeguards (ACRS)

1. **Said Abdel-Khalik, PhD, mechanical engineering; Committee Chair; Fellow- American Nuclear Society.**
2. **Dr. Sam Armijo, PhD, materials science, BS and MS degrees in metallurgical engineering; worked for General Electric Nuclear Energy as general manager of the nuclear fuel business and was president, GE-ENUSA Nuclear Fuels; also director, Japan Nuclear Fuel Co., Ltd.**
3. **Sanjoy Banerjee, PhD and BS, chemical engineering; Professor in the Department of Chemical Engineering, with a joint appointment in Mechanical Engineering at UC Santa Barbara; acting director, Applied Science Division, Atomic Energy Canada.**

4. Dennis C. Bley, PhD, nuclear reactor engineering; president of Buttonwood Consulting, Inc., with more than 30 years of experience in nuclear and electrical engineering, reliability and availability analysis; technical review panels for NRC and DOE.
5. Charles H. Brown, Jr., MS, engineering and BS, electrical engineering; 22 years as director of Instrumentation and Control Division of the Naval Nuclear Propulsion Program. Currently, Senior Advisor for Electrical Systems, BMT Syntek Technologies, Inc.
6. Michael Corradini, PhD, nuclear engineering; BS, mechanical engineering; chair of the Nuclear Engineering and Engineering Physics program at the University of Wisconsin; Fellow-American Nuclear Society; consultant to the NRC Advisory Committee on Reactor Safeguards (1982-1997).
7. Dana A. Powers, PhD, chemistry, chemical engineering and economics; began his career with Sandia National Laboratories in 1974 as a Staff Member in the Chemistry and Metallurgy Division. Presently, Senior Scientist, Nuclear Technology Center. He is responsible for the development of safety research programs for Department of Energy nuclear facilities.
8. Harold Ray, BS, mechanical engineering, MS, Cal Tech: reactor engineer in the Naval Reactors Division, U.S. Atomic Energy Commission, during 1964-1969, during which time he completed the reactor engineering certification at the Bettis Atomic Power Laboratory; Chief Nuclear Officer at Southern California Edison (SCE) from 1990 until his retirement in 2006; past President, American Nuclear Society and served in industry leadership positions as part of the Nuclear Energy Institute and at the Institute of Nuclear Power Operations.
9. Joy L. Remke, PhD, nuclear engineering; directorate fellow and group leader, Idaho National Laboratory; member of several advisory groups reviewing the US Department of Energy's Office of Nuclear Energy Research and Development programs; board of directors, American Nuclear Society.
10. Michael T. Ryan, Ph.D; Editor-in-Chief of the Journal, *Health Physics* since 2000; Chairman of the External Advisory Board for Radiation Protection at Sandia National Laboratories from 1999-2007; previously worked for Chem-Nuclear Systems, Inc., as Vice President and General Manager for operations and previously as Vice President for Regulatory Affairs for the low-level radioactive waste disposal and service facilities in Barnwell, South Carolina; 7 years in operational and environmental health physics at Oak Ridge National Laboratory.
11. William J. Shack, PhD, applied mechanics; in 1968 joined the Mechanical-Engineering Department at the Massachusetts Institute of Technology as an Assistant Professor. He taught there until 1975; In 1975, he joined the Argonne National Laboratory, retiring in 2007.
12. John Sieber, B.S. M.E.; attended Purdue University to study reactor core physics in 1973, and in MIT to study reactor safety; 45-year career involved numerous positions in management at Duquesne Light Company, including core engineering, fuel manager, licensing manager, station manager, vice president – nuclear power division and senior vice president – chief nuclear officer.
13. John W. Stetkar, BS, electrical engineering, MS, nuclear and environmental engineering; a principal of Stetkar & Associates and has more than 27 years of experience as an engineering consultant. He is an internationally recognized expert in the fields of risk assessment and reliability analysis; technical expert for the International Atomic Energy Agency. Prior to his career as a consultant, he was a licensed senior reactor operator at the Zion nuclear station.

#### **EVIDENCE OF BIAS AND CONFLICTS OF INTEREST IN THE ACRS**

**COMMENTS** by Lynn Howard Ehrle: *11 of 13 members of the Advisory Committee on Reactor Safeguards have advanced degrees in engineering or lengthy engineering work in industry, a clear violation by the appointing authority (NRC) of the Federal Advisory Committee Act requiring fair balance. Furthermore, 7 members had careers in nuclear industries and 9 had posts in government nuclear agencies. 4 hold memberships in the American Nuclear Society, the top cheerleader for the nuclear power industry. In addition to this gross imbalance and lack of independence the engineering course of study does not include radiation dosimetry, low-dose health risks, medical physics, or radiation environmental impacts. This deficiency is prima facie evidence of an inability and/or unwillingness of the Commission to carry out its Congressional statute "to advise the Commission on the hazards of proposed and existing reactor facilities and the adequacy of proposed reactor safety standards." Furthermore, "The Atomic Energy Act of 1954 requires that civilian uses of nuclear materials and facilities be licensed, and to establish by rule or order, and to enforce, such standards to govern these uses as "the Commission may*

deem necessary or desirable in order to protect health and safety and minimize danger to life or property."

*For most of its existence the NRC has been dominated by the nuclear industry and has operated in the private interest. No representatives of public interest nongovernmental organizations (NGOs) have ever been seated on the commission or its advisory boards nor are its radiation experts ever asked to serve as outside consultants. With publication of its blockbuster report (JUNE 20, below) the Associated Press investigative team confirms everything the critics have been saying. The regulatory process is in disarray, fueled by the numerous conflicts of interest within the NRC and its advisory board. Their members and staff are ill-equipped to investigate the risks of low-dose ionizing radiation, content to rely upon the views of acknowledged "experts" who always understate radiation dose and the predictable outcomes. The major health effect from the Chernobyl accident is 'psychosocial,' according to UNSCEAR 2000 and other reports (radiophobia- it's all in your head). The AP revelations come as no surprise and support this writer's contention that its conclusions are an inevitable outcome of regulators who operate as surrogates for the nuclear industry and whose tentacles stretch around the world. The continuous emissions of radionuclides from atomic power plants and major accidents at Mayak, Chernobyl, and Fukushima Dai-ichi, are impacting the human gene pool and placing at risk the public health and safety. It's profits over people; money is fungible but people are expendable.*

## A FUKUSHIMA REVIEW

**NY Times, 8 May 2011: NUCLEAR AGENCY BESET BY LAPSES (excerpts- LHE)**  
by Tom Zeller Jr.

In the fall of 2007, workers at the Byron nuclear power plant in Illinois were using a wire brush to clean a badly corroded steel pipe — one in a series that circulate cooling water to essential emergency equipment — when something unexpected happened: the brush poked through. The resulting leak caused a 12-day shutdown of the two reactors for repairs... The plant's owner, the Exelon Corporation, had long known that corrosion was thinning most of these pipes. But rather than fix them, it repeatedly lowered the minimum thickness it deemed safe. By the time the pipe broke, Exelon had declared that pipe walls just three-hundredths of an inch thick — less than one-tenth the original minimum thickness — would be good enough. The agency's shortcomings are especially vexing because Congress created it in the mid-1970s to separate the government's roles as safety regulator and promoter of nuclear energy— an inherent conflict that dogged its predecessor, the Atomic Energy Commission. "It wasn't much of a change," said Peter A. Bradford, a former Nuclear Regulatory Commission member, who now teaches at Vermont Law School. "The NRC inherited the regulatory staff and adopted the rules and regulations of the A.E.C. intact."

David Lochbaum, a frequent critic of the NRC who recently worked as a reactor technology instructor there, said the agency too often rolled the dice on safety. "The only difference between Byron and Fukushima is luck." In January 2010, at Vermont Yankee, the plant's operator, Entergy, discovered that nearby soil and groundwater had been contaminated by radioactive tritium, which had apparently leaked from underground piping. Just months before, the company assured state lawmakers that no such piping existed at the plant... One day before the quake and tsunami that set Japan's crisis in motion, the NRC approved Vermont Yankee's bid for license renewal — just as it has for 62 other plants so far. Its fate is now the subject of a federal lawsuit. "How does a place like that get a license renewal?" Mr. Lochbaum said, "Because they asked for one. Absent dead bodies, nothing seems to deter the N.R.C. from sustaining reactor operation."

With billions of dollars of revenue and investment at stake for each plant, the NRC changed the rules in 1995, scrapping the requirement that operators prove they were complying with their current license. Instead, the renewal process would focus only on the aging management plan. The agency described the change as providing a "more stable and predictable regulatory process for license renewal." But James Riccio, a nuclear policy analyst with Greenpeace said, "The NRC rule change gutted a substantive process and replaced it with a rubber stamp. They placed industry profits ahead of public safety."

**NOTE: On March 14th, the Ministry of Health and Labor raised the maximum dose for workers to 250 mSv a year, where previously it was set at 100 mSv over 5 years, either 20 mSv a year for five years or 50 mSv for 2 years, a deviation from the International Commission on Radiological Protection's guideline stipulating a maximum of 20 mSv a year. The same strategem has been carried on in the United States by the Nuclear Regulatory Commission, the Department of Energy, and the Environmental Protection Agency. Just change the rules as conditions dictate!—LHE)**

**NHK.or.jp/daily/English, 13 May 2011**

### **No.1 reactor is in a "meltdown" state**

Tokyo Electric Power Company (TEPCO) says the No.1 reactor at the Fukushima Dai-ichi nuclear power plant is believed to be in a state of "meltdown." The utility company said on Thursday that most of the fuel rods are likely to have melted and fallen to the bottom of the reactor. Earlier in the day, it found that the coolant water in the reactor is at a level which would completely expose nuclear fuel rods if they were in their normal position. The company believes the melted fuel has cooled down, judging from the reactor's surface temperature. But it suspects the meltdown created a hole or holes in the bottom of the reactor causing water to leak into the containment vessel. It also suspects the water is leaking into the reactor building. The company is planning to fully fill the containment vessel with water by increasing the amount injected. The company says, however, it must review the plan in light of the latest finding.

**NOTE: How is it that in a state of complete meltdown the fuel has cooled down? Independent scientists have predicted that water injected into the containment vessel will become radioactive and continue to leak into the groundwater and ocean. Why do we not see the words "blomagnification" and "bloaccumulation" in press releases? (LHE)**

**Der Spiegel, 05/27/2011: Japan's Nuclear Cartel (excerpts)**

### **Atomic Industry Too Close to Government for Comfort**

by Cordula Meyer

The ties between the government and the nuclear industry have become so intertwined that public safety is at threat. Inspections are too lax, and anyone who criticizes the status quo can find themselves out of a job...Apparently, the earthquake alone caused the first tubes to crack...For a full two months, TEPCO management tried to reassure the public and denied all responsibility...It wasn't until last Friday that TEPCO President Masataka Shimizu and Vice President Sakae Muto finally announced their resignations...TEPCO, the world's fourth-largest power company, employs more than 52,000 people. According to TEPCO's calculations, the maximum possible height of a tsunami in Fukushima was 5.7 meters (The tsunami was at least 23 metres, or 76 feet high, according to a Japanese study, as reported in the Yomiuri daily, March 18). "Our country was literally brainwashed," says Taro Kono, a member of the lower house of the Japanese Diet for the conservative LDP. "Atomic energy is a cult in Japan." Kono, 48, comes from one of Japan's major political dynasties. He has been a member of the parliament for almost 15 years and is notorious for his independent views. He is one of the few members of his parliamentary group to have dared to question Japan's nuclear policy.

On March 15, at 1 p.m., Takashi Uesugi was conducting a live broadcast on the Tokyo Broadcasting System (TBS). He said that radioactivity was apparently escaping from Reactor 3 and that this was being reported abroad. "It was an obvious thing to report," he says. After the broadcast, however, his boss came to him and told him he was fired...Meanwhile, the Japanese government has begun asking Internet providers to remove "false reports" about Fukushima from the web, arguing that the population should not be troubled unnecessarily. "This is worse than in Egypt and China," says Uesugi. According to the government request, all reports that "harm the public order and morale" should be removed.

**Asahi.com, 27 May 2011: Rengo calls for freeze in promoting nuclear energy**

BY SHINICHI SEKINE, STAFF WRITER

An important backer of the ruling Democratic Party of Japan froze its stance of promoting nuclear energy, making it easier for Prime Minister Naoto Kan to shift the nation's policy toward renewable



energy sources. The decision by Rengo (Japanese Trade Union Confederation), the nation's largest labor organization, was made at a central executive committee meeting May 26.

*SPIEGEL ONLINE INTERNATIONAL* 05/30/2011

### **Germany to Phase Out Nuclear Power by 2022**

The German government has agreed on a roadmap for phasing out nuclear power. All of the country's 17 nuclear plants are to go offline by 2021, with a possible one-year extension for three reactors should there be the risk of an electricity shortfall.

*THE JAPAN TIMES ONLINE*, 5 June 2011

### **Lethal four-sievert reading taken by robot; suppression chamber suspect Radiation in No. 1 reactor building at highest level yet**

**Kyodo, AP**

Tokyo Electric Power Co. said Saturday it has detected radiation of up to 4,000 millisieverts (4 Sv) per hour in the building housing the No. 1 reactor at the Fukushima No. 1 nuclear plant... The radiation is so high now that any worker exposed to it would absorb the maximum permissible dose of 250 millisieverts in only about four minutes (it was 50 mSv in two years--LHE). Tepco said there is no plan to place workers in that area of the plant and said it will carefully monitor any developments.

### **Asahi.com, 26 June 2011: Fukushima gives radiation meters to pregnant women and children**

About 300,000 children and pregnant women in Fukushima Prefecture will get dosimeters to monitor their exposure to radiation spewed from the hobbled Fukushima No. 1 nuclear power plant. The Fukushima prefectural government will give each municipality up to 15,000 yen (\$186) per dosimeter for those eligible, according to an extra budget proposal released June 24. The fluoroglass dosimeters will be given to all 280,000 children in the prefecture aged 14 or younger, including children who have been evacuated out of the prefecture. About 20,000 pregnant women will also get the meters, the prefectural government said. It will install 10 dosimeters in each of the 500 elementary school zones in the prefecture to gauge radiation levels inside school buildings, on pupils' routes to schools, in local parks and other locations. Five "whole-body counters," to measure children's internal exposure to radiation, will also be set up.

### **AP IMPACT, 27 June 2011: Populations around US nuke plants soar**

**By JEFF DONN**

**AP National Writer**

BUCHANAN, N.Y. (AP) -- As America's nuclear power plants have aged, the once-rural areas around them have become far more crowded and much more difficult to evacuate. Yet government and industry have paid little heed, even as plants are running at higher power and posing more danger in the event of an accident, an Associated Press investigation has found. Populations around the facilities have swelled as much as 4 1/2 times since 1980, a computer-assisted population analysis shows. But some estimates of evacuation times have not been updated in decades, even as the population has increased more than ever imagined. Emergency plans would direct residents to flee on antiquated, two-lane roads that clog hopelessly at rush hour. And evacuation zones have remained frozen at a 10-mile radius from each plant since they were set in 1978 - despite all that has happened since, including the accidents at Three Mile Island, Chernobyl and Fukushima Dai-ichi in Japan.

### **HeraldSun.com.au, 1 August 2011: Record high radiation at Japan nuke plant**

TOKYO Electric Power Co (TEPCO) said it had monitored record high radiation at the Fukushima Daiichi nuclear power plant crippled by the March 11 quake and tsunami. TEPCO said radiation levels reached at least 10 sieverts (10,000 mSv) per hour near the debris left between the number one and number two reactors of the plant at the centre of the ongoing nuclear clear crisis.

NOTE: These brief historical anecdotes are suggestive of a much larger threat to the public health and safety from an industry beset by conflicts of interest and regulators who are trapped in an ethical quagmire. This is no overstatement as demonstrated below by the consequential AP investigation (LHE).

## **WITHOUT INFORMED CONSENT: CRIMES AGAINST HUMANITY**

### **AP IMPACT, 20 June 2011: A ONE YEAR INVESTIGATION**

#### **US nuke regulators weaken safety rules (excerpts)**

by JEFF DONN, AP National Writer

**Federal regulators have been working closely with the nuclear power industry to keep the nation's aging reactors operating within safety standards by repeatedly weakening those standards, or simply failing to enforce them, an investigation by The Associated Press has found.** Time after time, officials at the U.S. Nuclear Regulatory Commission have decided that original regulations were too strict, arguing that safety margins could be eased without peril, according to records and interviews. The result? Rising fears that these accommodations by the NRC are significantly undermining safety. State department of public health officials and professors in our schools of public health should read the full report.

**When valves leaked, more leakage was allowed — up to 20 times the original limit.** When rampant cracking caused radioactive leaks from steam generator tubing, an easier test of the tubes was devised, so plants could meet standards. Failed cables. Busted seals. Broken nozzles, clogged screens, cracked concrete, dented containers, corroded metals and rusty underground pipes — all of these and thousands of other problems linked to aging were uncovered in the AP's yearlong investigation. And all of them could escalate dangers in the event of an accident. Yet despite the many problems linked to aging, **not a single official body in government or industry has studied the overall frequency and potential impact on safety of such breakdowns in recent years, even as the NRC has extended the licenses of dozens of reactors.**

**With billions of dollars and 19 percent of America's electricity supply at stake, a cozy relationship prevails between the industry and its regulator, the NRC.** Records show a recurring pattern: Reactor parts or systems fall out of compliance with the rules. Studies are conducted by the industry and government, and all agree that existing standards are "unnecessarily conservative." Regulations are loosened, and the reactors are back in compliance. "That's what they say for everything, whether that's the case or not," said Demetrios Basdekas, an engineer retired from the NRC. "Every time you turn around, they say 'We have all this built-in conservatism.'"

**The ongoing crisis at the stricken, decades-old Fukushima Dai-ichi nuclear facility in Japan has focused attention on the safety of plants elsewhere in the world;** it prompted the NRC to look at U.S. reactors, and a report is due in July. But the factor of aging goes far beyond the issues posed by the disaster at Fukushima. 66 of the 104 operating units have been relicensed for 20 more years, mostly with scant public attention. Renewal applications are under review for 16 other reactors. By the standards in place when they were built, these reactors are old and getting older. As of today, 82 reactors are more than 25 years old. **The AP found proof that aging reactors have been allowed to run less safely to prolong operations.** As equipment has approached or violated safety limits, regulators and reactor operators have loosened or bent the rules.

**Last year, the NRC weakened the safety margin for acceptable radiation damage to reactor vessels — for a second time.** The standard is based on a measurement known as a reactor vessel's "reference temperature," which predicts when it will become dangerously brittle and vulnerable to failure. Over the years, many plants have violated or come close to violating the standard. As a result, the minimum standard was relaxed first by raising the reference temperature 50 percent, and then 78 percent above the original — even though a broken vessel could spill its radioactive contents into the environment.

Unprompted, several nuclear engineers and former regulators used nearly identical terminology to describe how industry and government research has frequently justified loosening safety standards to keep aging reactors within operating rules. They call the approach "sharpening the pencil" or "pencil engineering" — the fudging of calculations and assumptions to yield answers that enable plants with deteriorating conditions to remain in compliance...The AP reviewed 226 preliminary notifications — alerts on emerging safety problems — issued by the NRC since 2005. Wear and tear in the form of clogged lines, cracked parts, leaky seals, rust and other deterioration contributed to at least 26 alerts over the past six years. Other notifications lack detail, but aging also was a probable factor in 113 additional alerts. That would constitute up to 62 percent in all.

One 2008 NRC report blamed 70 percent of potentially serious safety problems on "degraded conditions." Some involve human factors, but many stem from equipment wear, including cracked nozzles, loose paint, electrical problems, or offline cooling components. Confronted with worn parts that need maintenance, the industry has repeatedly requested — and regulators have often allowed — inspections and repairs to be delayed for months until scheduled refueling outages. Again and again, problems worsened before they were fixed.

Nuclear plants are fundamentally no more immune to the incremental abuses of time than our cars or homes: Metals grow weak and rusty, concrete crumbles, paint peels, crud accumulates. Big components like 17-story-tall concrete containment buildings or 800-ton reactor vessels are all but impossible to replace. Smaller parts and systems can be swapped, but still pose risks as a result of weak maintenance and lax regulation or hard-to-predict failures. Even when things are fixed or replaced, the same parts or others nearby often fail later. Even mundane deterioration at a reactor can carry harsh consequences. For example, peeling paint and debris can be swept toward pumps that circulate cooling water in a reactor accident. A properly functioning containment building is needed to create air pressure that helps clear those pumps. The fact is, a containment building could fail in a severe accident. Yet the NRC has allowed operators to make safety calculations that assume containment buildings will hold.

**BRITTLE VESSELS:** For years, operators have rearranged fuel rods to limit gradual radiation damage to the steel vessels protecting the core and to keep them strong enough to meet safety standards. It hasn't worked well enough. Even with last year's weakening of the safety margins, engineers and metal scientists say some plants may be forced to close over these concerns before their licenses run out — unless, of course, new compromises with regulations are made.

**LEAKY VALVES:** Operators have repeatedly violated leakage standards for valves designed to bottle up radioactive steam in the event of earthquakes and other accidents at boiling water reactors. Many plants have found they could not adhere to the general standard allowing each of these parts — known as main steam isolation valves — to leak at a rate of no more than 11.5 cubic feet per hour. In 1999, the NRC decided to permit individual plants to seek amendments of up to 200 cubic feet per hour for all four steam valves combined. But plants keep violating even those higher limits.

**CRACKED TUBING:** The industry has long known of cracking in steel alloy tubing originally used in the steam generators of pressurized water reactors. Ruptures were rampant in these tubes containing radioactive coolant; in 1993 alone, there were seven. Even today, as many as 18 reactors are still running on old generators. Problems can arise even in a newer metal alloy, according to a report of a 2008 industry-government workshop.

**CORRODED PIPING:** Nuclear operators have failed to stop an epidemic of leaks in pipes and other underground equipment in damp settings. The country's nuclear sites have suffered more than 400 accidental radioactive leaks during their history, the activist Union of Concerned Scientists reported in September. Plant operators have been drilling monitoring wells and patching hidden or buried piping and other equipment for several years to control an escalating outbreak. Here, too, they have failed. Between 2000 and 2009, the annual number of leaks from underground piping shot up fivefold, according to an internal industry document obtained and analyzed by the AP.

Even as they reassured the public, regulators have been worrying about aging reactors since at least the 1980s, when the first ones were entering only their second decade of operation. A 1984 report for the NRC blamed wear, corrosion, crud and fatigue for more than a third of 3,098 failures of parts or systems within the first 12 years of industry operations; the authors believed the number was actually much higher.

A decade later, in 1994, the NRC reported to Congress that the critical shrouds lining reactor cores were cracked at a minimum of 11 units, including five with extensive damage. The NRC ordered more aggressive maintenance, but an agency report last year said cracking of internal core components — spurred by radiation — remains "a major concern" in boiling water reactors. A 1995 study by Oak Ridge National Laboratory covering a seven-year period found that aging contributed to 19 percent of scenarios that could have ended in severe accidents. In 2001, the Union of Concerned Scientists, which does not oppose nuclear power, told Congress that aging problems had shut reactors eight times within 13 months.

Long-standing, unresolved problems persist with electrical cables, too. In a 1993 report labeled "official use only," an NRC staffer warned that electrical parts throughout plants were subject to dangerous age-related breakdowns unforeseen by the agency. Almost a fifth of cables failed in testing that simulated the effects of 40 years of wear. The report warned that as a result, reactor core damage could occur much more often than expected. Fifteen years later, the problem appeared to have worsened. An NRC report warned in 2008 that rising numbers of electrical cables are failing with age, prompting temporary shutdowns and degrading safety. Agency staff tallied 269 known failures over the life of the industry. Two industry-funded reports obtained by the AP said that managers and regulators have worried increasingly about the reliability of sometimes wet, hard-to-reach underground cables over the past five-to-10 years. One of the reports last year acknowledged many electrical-related aging failures at plants around the country.

Few aging problems have been more challenging than chemical corrosion from within. In one of the industry's worst accidents, a corroded pipe burst at Virginia's Surry 2 reactor in 1986 and showered workers with scalding steam, killing four. In summer 2001, the NRC was confronted with a new problem: Corrosive chemicals were cracking nozzles on reactors. But the NRC let operators delay inspections to coincide with scheduled outages. Inspection finally took place in February 2002 at the Davis-Besse unit in Ohio. What workers found shocked the industry. They discovered extensive cracking and a place where acidic boron had spurted from the reactor and eaten a gouge as big as a football. When the problem was found, just a fraction of an inch of inner lining remained. An NRC analysis determined that the vessel head could have burst within two months — what former NRC Commissioner Peter Bradford has called a "near rupture" which could have released large amounts of radiation into the environment.

In 2001-3 alone, at least 10 plants developed these cracks, according to an NRC analysis. Industry defenders blame human failings at Davis-Besse. Owner First Energy Corp. paid a \$28 million fine, and courts convicted two plant employees of hiding the deterioration. NRC spokesman Scott Burnell declared that the agency "learned from the incident and improved resident inspector training and knowledge-sharing to ensure that such a situation is never repeated." Yet on the same March day last year that Burnell's comments were released, Davis-Besse workers again found dried boron on the nozzles of a replacement vessel head, indicating more leaks. Inspecting further, they again found cracks in 24 of 69 nozzles. "We were not expecting this issue," said plant spokesman Todd Schneider. In August, the operator applied for a 20-year license extension. Under pressure from the NRC, the company has agreed to replace the replacement head in October.

As far back as the 1990s, the industry and NRC also were well aware that the steel-alloy tubing in many steam generators was subject to chemical corrosion. It could crack over time, releasing radioactive gases that can bypass the containment building. If too much spurts out, there may be too little water to cool the reactor, prompting a core melt. In 1993, NRC personnel reported seven outright ruptures inside the generators, several forced outages per year, and some complete replacements. Personnel at the Catawba plant near Charlotte, N.C., found more than 8,000 corroded tubes — more than half its total. For plants with their original generators, "there is no end in sight to the steam generator tube degradation problems," a top agency manager declared. NRC staffers warned: "Crack depth is difficult to measure

reliably and the crack growth rate is difficult to determine." Yet no broad order was issued for shutdowns to inspect generators. Instead, the staff began to talk to operators about how to deal with the standard that no cracks could go deeper than 40 percent through the tube wall. In 1995, the NRC staff put out alternative criteria that let reactors keep running if they could reach positive results with remote checks known as "eddy-currents tests." The new test standard gave more breathing room to reactors.

**NRC engineer Joe Hopenfeld, who had worked previously in the industry, challenged this approach at the time from within the agency. He warned that multiple ruptures in corroded tubing could release radiation.** The NRC said radiation would be confined. Hopenfeld now says this conclusion wasn't based on solid analysis but "wishful thinking" and research meant to reach a certain conclusion — another instance of "sharpening the pencil." "It was a hard problem to solve, and they did not want to say it was a problem, because if they really said it was a problem, they would have to shut down a lot of reactors."

**With financial pressures mounting in the 1990s to extend the life of aging reactors, new NRC calculations using something called the "Master Curve" put questionable reactor vessels back into the safe zone.** A 1999 NRC review of the Master Curve, used to analyze metal toughness, noted that energy deregulation had put financial pressure on nuclear plants. It went on: "So utility executives are considering new operational scenarios, some of which were unheard of as little as five years ago: extending the licensed life of the plant beyond 40 years." As a result, it said, the industry and the NRC were considering "refinements" of embrittlement calculations "with an eye to reducing known over-conservatisms." In an effort to meet safety standards, aging reactors have been forced to come up with backfit on top of backfit. As Ivan Selin, a retired NRC chairman, put it: "It's as if we were all driving Model T's today and trying to bring them up to current mileage standards."

Many of the safety changes have been justified by something called "risk-informed" analysis, which the industry has employed widely since the 1990s: Regulators set aside a strict check list applied to all systems and focus instead on features deemed to carry the highest risk. But one flaw of risk-informed analysis is that it doesn't explicitly account for age. An older reactor is not viewed as inherently more unpredictable than a younger one. Ed Lyman, a physicist with the Union of Concerned Scientists, says risk-informed analysis has usually served "to weaken regulations, rather than strengthen them." Even without the right research, the NRC has long reserved legal wiggle room to enforce procedures, rules and standards as it sees fit. A 2008 position paper by the industry group EPRI said the approach has brought "a more tractable enforcement process and a significant reduction in the number of cited violations." But some safety experts call it "tombstone regulation," implying that problems fester until something goes very wrong. "Until there are tombstones, they don't regulate," said Paul Blanch, the longtime industry engineer who became a whistleblower.

**NOTE:** The report also found that 66 of 104 reactors have been granted license renewals. Most of the 20-year extensions have been granted with no independent scientific review or public input. And the NRC has yet to reject a single application to extend an original license. Regulators and industry now contend that the 40-year limit was chosen for economic reasons and to satisfy antitrust concerns, not for safety issues. They contend that a nuclear plant has no technical limit on its life. But an AP review of historical records and interviews with engineers who helped develop nuclear power concluded reactors were designed to last only 40 years, a limit widely accepted by industry in the early years of construction.

## **AP, 21 June 2011: Tritium Leaks Found at Many Nuke Sites** by Jeff Donn

**Radioactive tritium has leaked from three-quarters of U.S. commercial nuclear power sites, often into groundwater from corroded, buried piping, an Associated Press investigation shows.** Tritium, which is a radioactive form of hydrogen, has leaked from at least 48 of 65 sites, according to U.S. Nuclear Regulatory Commission records reviewed as part of the AP's yearlong examination of safety issues at aging nuclear power plants. Leaks from at least 37 of those facilities contained concentrations exceeding the federal drinking water standard — sometimes at hundreds of times the limit... Tritium moves through soil quickly, and when it is detected it often indicates the presence of more powerful radioactive isotopes that

are often spilled at the same time. For example, cesium-137 turned up with tritium at the Fort Calhoun nuclear unit near Omaha, Neb., in 2007. Strontium-90 was discovered with tritium two years earlier at the Indian Point nuclear power complex, where two reactors operate 25 miles north of New York City.

**WALL STREET JOURNAL, 1 July 2011: Design Flaw Fueled Nuclear Disaster**  
BY NORIHIKO SHIROUZU AND CHESTER DAWSON

**TOKYO**—Some senior engineers at Tokyo Electric Power Co. knew for years that five of its nuclear reactors in Fukushima prefecture had a potentially dangerous design flaw, but the company didn't fully upgrade them, dooming them to failure when the earthquake hit, a Wall Street Journal examination of the disaster shows.

**Guardian.co.uk, 30 June 2011: Fukushima children test positive for internal radiation exposure**

by Justin McCurry

Trace amounts of radioactive substances have been found in urine samples taken from children from Fukushima city, raising concerns that residents have been exposed internally to radiation from the stricken nuclear power plant 37 miles (60km) away. Tests were conducted in May on 10 children, aged between 6 and 16, by a Japanese civic group and Acro, a French body that measures radioactivity. All 10 tested positive for tiny amounts of caesium-134 and caesium-137... Richard Wakeford, an expert in radiation exposure at the Dalton Institute in Manchester, said he was not surprised that caesium had been found in Fukushima city residents, given the distance and direction the radiation plume had travelled. "What we're seeing here is residual caesium that will be around for quite a while. But, given the circumstances, the levels quoted in the survey are not particularly alarming."

**A MOLECULAR AUSCHWITZ**

*Only in the recent past, concurrently with the emergence of the new profession of ethicist, have certain direct applications of scientific research begun to be classified as ethical or unethical—qualifications indicating inadequacies of the criminal code... Science was the never-ending search for truth about nature, a quest that would help us understand the workings of the world. That era has ended with the splitting of the atomic nucleus; with the ability to modify the hereditary apparatus... science is now the craft of the manipulation, modification, substitution and deflection of the forces of nature... a molecular Auschwitz, in which valuable enzymes, hormones and so on, will be extracted instead of gold teeth.*

Eminent biochemist Erwin Chargaff (1905-2002), "Engineering a molecular nightmare." *Nature* 1987; 327: 199-200; Chargaff's Rules; National Medal of Science- 1975

**2010 Recommendations of the ECRR: The Health Effects of Exposure to Low Doses of Ionising Radiation**, edited by Chris Busby, with Rosalie Bertell, Inge Schmitz Feuerhake, Molly Scott Cato, and Alexey Yablokov (euradcom.org, 60 signatories)

*With regard to internal radiation doses, the Committee identifies a serious misuse of scientific method in the extension and application of the ICRP external model. Such a process involves deductive reasoning. It falsely uses data from one set of conditions— high-level, acute, external exposure—to model low-level, chronic, internal exposure. The procedure is scientifically bankrupt, and were it not for political considerations, would have been rejected long ago.*

**PRESS RELEASE! 26 April 2011: European Committee on Radiation Risk estimates Chernobyl's cancers will total 1,400,000 in 50 years (2036)**

On the 25th anniversary of the Chernobyl catastrophe the ECRR published calculations of cancer incidence resulting from the fallout. The Committee has used two separate methods: the "Tondel" Method, based

upon a conservative study by Swedish scientist Martin Tondel. It forecasts approximately 492,000 incident cancers in the 10 years following exposure over and above the numbers expected in the absence of radioactive fallout. Tondel differentiated the varying levels of land contamination and found that the disease increased by 11% for each 100 kiloBecquerels of fallout per square metre of land surface. The "ECRR Absolute" method employs weighting factors developed by the ECRR to correct for the inadequacy of "absorbed dose" quantities on which the ICRP risk estimates are based (euradcom.org). ECRR has applied these methods to UNSCEAR and UNESCO data for fallout in 39 countries with a combined population of 2,342 million people. The "ECRR Absolute" Method forecasts 1.4 million additional cancer cases in the 50 years to 2036, similar to the calculations of John Gofman, Rosalie Bertell, and Alexey Yablokov.

*Comment: The Yablokov et al book, Consequences of the Catastrophe for People and the Environment, Documents 985,000 deaths by 2005 in the Russian republics, Europe, and Scandinavia, whereas, the 2006 "official" WHO/IAEA Chernobyl Forum report estimates 9,300 deaths in 95 years; only 350 mainly English language references are in the report. The Chernobyl book reviewed 5,000 journal papers and other documents and has 1,482 references.*

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**SAN FRANCISCO BAY VIEW, 9 June 2011**

**Is the increase in baby deaths in the northwest U.S. due to Fukushima**

**fallout? How can we find out?** by Janette D. Sherman, MD, Joseph Mangano, MPH

The recent CDC Morbidity and Mortality Weekly Report indicates that eight cities in the northwest U.S. – Boise, Idaho; Seattle, Wash.; Portland, Ore.; plus the northern California cities of Santa Cruz, Sacramento, San Francisco, San Jose and Berkeley – reported the following data on deaths among those younger than one year of age:

- 4 weeks ending March 19, 2011: 37 deaths (average 9.25 per week)
- 10 weeks ending May 28, 2011: 125 deaths (average 12.50 per week)

This amounts to an increase of 35 percent – the total for the entire U.S. rose about 2.3 percent – and is statistically significant. Of further significance is that those dates include the four weeks before and the 10 weeks after the Fukushima Nuclear Power Plant disaster. In 2001 U.S. infant mortality was 6.834 per 1,000 live births, increasing to 6.845 in 2007. We have learned that there was a delay and false statements in releasing data about the amount of radiation coming from the Fukushima reactors. We know that huge amounts of radioactivity continue to pour into the Pacific Ocean, that winds and ocean currents flow from west to east, and that multiple news sources report radioactive cesium and iodine in milk, fruit and vegetables in the U.S. Adding to the problem of knowing the level of radioactive releases is that often amounts have been calculated, rather than actually measured. Spewing from the Fukushima reactor are radioactive isotopes including those of iodine (I-131), strontium (Sr-90) and cesium (Cs-134 and Cs-137), all of which are taken up in food and water. Iodine is concentrated in the thyroid, Sr-90 in bones and teeth, and Cs-134 and Cs-137 in soft tissues, including the heart. The unborn and babies are more vulnerable because the cells are rapidly dividing and the delivered dose is proportionally larger than that delivered to an adult.

Guardian.co.uk, 30 June 2011

by Rob Edwards

### **Revealed: British government's plan to play down Fukushima**

British government officials approached nuclear companies to draw up a coordinated public relations strategy to play down the Fukushima nuclear accident just two days after the earthquake and tsunami in Japan and before the extent of the radiation leak was known. Internal emails seen by the Guardian show how the business and energy departments worked closely behind the scenes with the multinational companies EDF Energy, Areva and Westinghouse to try to ensure the accident did not derail their plans for a new generation of nuclear stations in the UK. "This has the potential to set the nuclear industry back globally," wrote one official at the Department for Business, Innovation and Skills (BIS), whose name has been redacted. "We need to ensure the anti-nuclear chaps and chapesses do not gain ground on this. We need to occupy the territory and hold it. We really need to show the safety of nuclear."

#### **RICHARD MESERVE: THE ULTIMATE CONFLICT OF INTEREST**

The following letter from Beyond Nuclear documents the numerous conflicts of interest in the person of former chairman of the Nuclear Regulatory Commission (NRC), Dr. Richard Meserve, who was chairman of the National Research Council Nuclear and Radiation Studies Board that was in the process of petitioning the NRC to fund a Research Council advisory committee to investigate cancer risks around nuclear power plants. I filed a similar complaint with the National Academy of Sciences president. Meserve's central role in the member selection process and in establishing the committee's mission are prima facie evidence of a direct conflict of interest, but his other associations are indicative of more serious ethical problems. Although no longer on the Nuclear and Radiation Studies Board, Dr. Meserve now finds himself Chair of the International Atomic Energy Agency (IAEA) International Nuclear Safety Group. This is the same agency that, in 1959, inked a Faustian pact with the World Health Organization (WHO) whereby it gained the right to investigate nuclear accidents (Chernobyl and Fukushima) and reactor leaks and emissions, a clear conflict of interest since the IAEA remit is to promote atomic power. Because of its *volte-face* the WHO has relinquished its mandate to protect the public health and safety, not to mention its lethal act of ethical and moral turpitude. Dr. Meserve could not have found a more agreeable sanctum sanctorum in which to display his corporate credentials (LHE).

#### **BEYOND NUCLEAR REQUESTS REVIEW OF RICHARD MESERVE'S CONFLICTS OF INTEREST *April 29, 2010 Letter to Kevin Crowley, Director, National Research Council Nuclear & Radiation Studies Board from Paul Gunter, Director—Reactor Oversight Project, Beyond Nuclear (excerpts)***

Since 2006, Dr. Meserve has served on the Board of Directors of Pacific Gas & Electric Company (PG&E) and PG&E Corporation. PG&E owns and operates the Diablo Canyon Nuclear Power Plant Units 1 and 2 in San Luis Obispo, California which could in principle be one of the nuclear facilities subject to the NAS cancer study. Since 2006, Dr. Meserve also serves on the Advisory Board of UniStar Nuclear Energy LLC (Constellation Energy and the French government-owned nuclear utility EdF). UniStar is actively pursuing the construction of new nuclear power plants in the United States. The Calvert Cliffs Unit 3 nuclear power plant in Lusby, Maryland is the UniStar reference application currently under licensing review by the US Nuclear Regulatory Commission Atomic Safety and Licensing Board for a Combined Operating License Application. Since 2008, Dr. Meserve has served on the Board of Directors of Luminant Holding Company LLC which is the parent company of the Comanche Peak nuclear power plant in Texas which in principle could be one of the nuclear power plants subject to the cancer study. Dr. Meserve has most recently participated in and contributed to a paid advertising campaign on behalf of the nuclear industry aimed at lobbying Congress for more federal loans for the construction of new nuclear power plants.

On April 21, 2010 in "An Advertising Supplement to the Washington Post," at page 6H, Dr. Meserve is the author of "U.S. Cannot Dismiss Nuclear Energy in Quest to Control Global Warming."



The Washington Post eight-page advertisement insert (Section H) identifies "The production of this supplement did not involve the Washington Post news or editorial staff." Dr. Meserve's efforts were therefore not solicited by the Washington Post... The special advertising supplement features a front page advertisement by the Nuclear Energy Institute promoting nuclear power as "a zero greenhouse gas emitter while producing electricity." Dr. Meserve, as a former US Nuclear Regulatory Commission Chairman and current President for the Carnegie Institute of Science, provides the only additional contribution and commentary encouraging Congress to provide substantially more federal loans for the construction of new nuclear power plants. His remarks in the advertisement which effectively lobby Congress for more federal loans to the nuclear industry include the following statements:

*"Given the societal importance of demonstrating that new nuclear power plants can be built on budget and on schedule and that they can perform economically, there is a clear federal role in supporting the first several plants. This can be accomplished by providing loan guarantees in which the utilities pay a premium (known as a "subsidy cost") that reflects the financial risk assumed by the government. The Department of Energy has issued the first such guarantee for the construction of two nuclear reactors at a site in Georgia and at least one more guarantee is imminent. The department is seeking money for further guarantees as part of its fiscal 2011 budget proposal. This funding should be a high priority if we are to facilitate the significant new construction that will be necessary if nuclear power is to contribute meaningfully toward halting the growth of greenhouse gas emissions. "Nuclear power is an essential component of our energy future. We should encourage the construction of nuclear plants so that reductions in greenhouse gas emissions can be achieved."*

**COMMENT:** These conflicts of interest demonstrate Dr. Meserve's allegiance to the nuclear industry. As Chairman of the Nuclear Regulatory Commission he always supported industry policy and ignored mounting reactor problems. In the face of the Associated Press investigation the industry is spending millions to convince a skeptical public that all is well—nothing to worry about; nuclear is safe and clean! The OKO Institut (Darmstadt) life-cycle study shows that reactors are not carbon-free (LHE).

**Research and analysis by Lynn Howard Ehrle, M. Ed, Senior Biomedical Policy Analyst, Organic Consumers Association and Chair, International Science Oversight Board (pro bono).  
Freelance medical writer, National Writers Union, UAW Local 1981; Vice Pres., Consumer Alliance of Michigan (1970s); presented numerous briefs before the Public Service Commission and was twice-nominated for a post by two legislators; consumer law / economics / sociology / history teacher, 37 years (ret); author—Consumer Rights: Battle in the Marketplace (first consumer rights textbook- 1970).  
Memberships: Radiation Research Society; American Federation Teachers, local president (ret); National Education Assoc (ret); American Association for the History of Medicine  
E-mail: [ehrlbird@organicconsumers.org](mailto:ehrlbird@organicconsumers.org) / based in Plymouth, Michigan**

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AFFILIATION: CONG  
ADDRESSEE: Gregory Jaczko

SUBJECT: Request for documents initially requested on May 26, 2011 in response to the earthquake and tsunami events that damaged the Fukushima Daiichi plant

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# Congress of the United States House of Representatives

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PHONE: 202-225-5774  
FAX: 202-225-5774  
WWW: 202-225-5774  
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September 27, 2011

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

Dear Chairman Jaczko:

On May 26, 2011, I wrote to request documents and information about the Nuclear Regulatory Commission's (NRC) response to the earthquake and tsunami that damaged Japan's Fukushima Daiichi nuclear power facility. Request #3 of this letter specifically sought "Recordings, logs, and chronologies -- including but not limited to, WebEOC and any recorded phone calls -- created in the NRC Operations Center since March 11, 2011."

Despite numerous accommodations and considerable patience on the part of the Committee, almost four months later the NRC has not produced any material responsive to this request. Delays caused by the Executive Branch do not excuse the NRC from the obligation to comply. Committee staff has had more than thirty phone and e-mail conversations with NRC's Office of Congressional Affairs (OCA) regarding NRC's response to Request #3. Many of those conversations consist of representations by OCA staff that an initial production of documents was imminent. Since the Committee has received nothing to date with respect to Request #3, we are left with the impression that the delay is a deliberate effort to obstruct our investigation.

The Committee is mindful of the challenges associated with this request. Nonetheless, the failure to produce this initial, limited response is unacceptable. Therefore, if the NRC fails to produce documents responsive to the following requests, we will be forced to use the compulsory process:

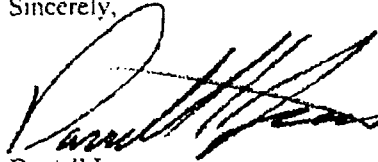
1. All documents and materials responsive to Request #3 for the first three days (March 11-13, 2011) including, but not limited to, the logs, chronologies, and the transcriptions of the Executive Team bridge no later than noon on September 29, 2011.
2. All documents and materials responsive to Request #3 for the remaining seven days (March 14-20, 2011) including, but not limited to, the logs, chronologies, and the transcriptions of the Executive Team bridge no later than noon on October 7, 2011.

The Honorable Gregory B. Jaczko  
September 27, 2011  
Page 2

3. All outstanding documents and materials responsive to the Committee's request of August 5, 2011 in unredacted form, or an appropriate privilege log, no later than noon on September 29, 2011.

If you have any further questions about this request, please contact John Ohly or Jonathan Skladany of the Committee staff at (202) 225-5074. Thank you for your attention to this matter.

Sincerely,



Darrell Issa  
Chairman

Enclosure

cc: The Honorable Elijah E. Cummings, Ranking Minority Member  
The Honorable William Ostendorff, Commissioner  
U.S. Nuclear Regulatory Commission  
  
The Honorable Kristine Svinicki, Commissioner  
U.S. Nuclear Regulatory Commission  
  
The Honorable William Magwood, Commissioner  
U.S. Nuclear Regulatory Commission  
  
The Honorable George Apostolakis, Commissioner  
U.S. Nuclear Regulatory Commission

**Sexton, Kimberly**

---

**From:** Nieh, Ho  
**Sent:** Friday, December 09, 2011 8:35 PM  
**To:** Sexton, Kimberly  
**Subject:** FW: Rebuttal  
**Attachments:** jaczko rebuttal to daley.pdf

letter attached.

Ho Nieh  
Chief of Staff  
Office of Commissioner William C. Ostendorff U.S. Nuclear Regulatory Commission  
(301) 415-1811 (office)  
(b)(6) (mobile)  
(301) 415-1757 (fax)  
[ho.nieh@nrc.gov](mailto:ho.nieh@nrc.gov)

---

**From:** Nieh, Ho  
**Sent:** Friday, December 09, 2011 8:33 PM  
**To:** Spencer, Peter  
**Subject:** Rebuttal

Letter attached.

Ho Nieh  
Chief of Staff  
Office of Commissioner William C. Ostendorff U.S. Nuclear Regulatory Commission  
(301) 415-1811 (office)  
(b)(6) (mobile)  
(301) 415-1757 (fax)  
[ho.nieh@nrc.gov](mailto:ho.nieh@nrc.gov)

---

**From:** Spencer, Peter [[Peter.Spencer@mail.house.gov](mailto:Peter.Spencer@mail.house.gov)]  
**Sent:** Friday, December 09, 2011 8:30 PM  
**To:** Nieh, Ho  
**Subject:** Re: Hello

You're welcome to call me at home; my cell is (b)(6)

-----  
Sent from BlackBerry

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

**From:** Nieh, Ho [<mailto:Ho.Nieh@nrc.gov>]  
**Sent:** Friday, December 09, 2011 08:07 PM  
**To:** Spencer, Peter  
**Subject:** Re: Hello

Cell (b)(6)

Sent via BlackBerry

Ho Nieh  
Chief of Staff  
Office of Commissioner William C. Ostendorff U.S. Nuclear Regulatory Commission  
(301) 415-1811 (office)  
(b)(6) (mobile)  
(301) 415-1757 (fax)  
[ho.nieh@nrc.gov](mailto:ho.nieh@nrc.gov)

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

From: Spencer, Peter <[Peter.Spencer@mail.house.gov](mailto:Peter.Spencer@mail.house.gov)>  
To: Nieh, Ho  
Sent: Fri Dec 09 20:04:03 2011  
Subject: Re: Hello

Yes. You around now?

-----  
Sent from BlackBerry

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

From: Nieh, Ho [<mailto:Ho.Nieh@nrc.gov>]  
Sent: Friday, December 09, 2011 08:02 PM  
To: Spencer, Peter  
Subject: Hello

Dear Peter,

I hope all is well with you.

You may already know that some news has come out from HOGRA. I would be glad to discuss with you further.

Feel free to call my cell.

Best wishes,

Ho

Sent via BlackBerry

Ho Nieh  
Chief of Staff  
Office of Commissioner William C. Ostendorff U.S. Nuclear Regulatory Commission  
(301) 415-1811 (office)  
(b)(6) (mobile)  
(301) 415-1757 (fax)  
[ho.nieh@nrc.gov](mailto:ho.nieh@nrc.gov)

(b)(5)

(b)(5)



(b)(5)

(b)(5)



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

COMMISSIONER

December 8, 2011

The Honorable Barbara Boxer  
Chairman, Committee on Environment  
and Public Works  
United States Senate  
Washington, DC 20510

The Honorable James M. Inhofe  
Ranking Member, Committee on  
Environment and Public Works  
United States Senate  
Washington, DC 20510

Dear Chairman Boxer and Ranking Member Inhofe:

In response to a request from a House of Representatives oversight committee, the undersigned provided the attached memo and letter. In recognition of your Committee's oversight role and in light of the December 15, 2011 NRC oversight hearing, we are forwarding the same documents to you.

The attached documents are sensitive in nature. Therefore, they have been labeled as "NOT FOR PUBLIC DISCLOSURE" and we respectfully request that these documents be held in confidence with access limited to Members and committee staff.

Sincerely,

  
Commissioner Kristine L. S. Jacki

  
Commissioner George Apostolakis

  
Commissioner William D. Magwood, IV

  
Commissioner William C. Ostendorff

Attachments:  
As stated

NOT FOR PUBLIC DISCLOSURE

(b)(5)

(b)(5)

(b)(5)



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

COMMISSIONER

November 18, 2011

The Honorable Edward J. Markey  
United States House of Representatives  
Washington, D.C. 20510

Dear Congressman Markey:

In response to your letter of October 25, 2011, enclosed please find documents prepared or obtained by my office that are related to the voting records for actions taken or considered in response to the issues raised by the events at Fukushima Dai-ichi, as well as other documents related to those events or the NRC's response thereto. I am advised by the NRC's Office of Congressional Affairs and Office of the General Counsel that relevant documents related to voting matters, correspondence, and Commission meetings that are maintained in the official files of the Office of the Secretary will be provided to you by the Office of Congressional Affairs. I have also been advised that requests for documents originating in Executive Branch agencies that were forwarded to my office through the NRC Staff are appropriately directed to those agencies; therefore, those documents or documents describing Executive Branch documents or communications are not included in this transmittal. Lastly, I am also enclosing an index listing other documents that are not being provided due to the nature of the documents: pre-decisional adjudicatory and attorney-client information.

Please note that many of the enclosed documents are also the subject of multiple Freedom of Information Act (FOIA) requests, which have been received by the NRC. I am providing relevant documents in the form in which they were prepared or received by my office. The same documents may have been fully or partially released in response to a FOIA request. The NRC posts its responses to these Japan-related FOIA requests as they become available at <http://www.nrc.gov/reading-rm/foia/japan-foia-info.html>.

Many of the enclosed documents are not publicly available and are marked as such. I respectfully request that you hold them in confidence. Should you have any questions, your staff may contact Darani Reddick of my staff at (301) 415-1850.

Respectfully,

A handwritten signature in black ink, appearing to read "Kristine L. Svinicki".

Kristine L. Svinicki

Enclosures: As stated

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NOT FOR PUBLIC DISCLOSURE

OFFICE OF COMMISSIONER KRISTINE L. SVINICKI  
PRIVILEGE LOG

Doc. No.	Date	Document Type	Subject Matter	Author	Addressee	Relationship between Author & Addressee	Privilege Asserted
1	3/21/11	Email	Draft COM and items for Agenda Planning	D. Reddick	Commissioner Svinicki	Legal Counsel - Commissioner	pre-decisional adjudicatory
2	3/22/11	Email	Oyster Creek lawsuit – Japan events	P. Castleman	D. Reddick, et al	Technical Advisor – Legal Counsel	pre-decisional adjudicatory
3	3/31/11	Note	Commission Meeting on Adjudicatory Issues	D. Reddick	Commissioner Svinicki	Legal Counsel - Commissioner	pre-decisional adjudicatory
4	4/1/11	Email	Draft Third Circuit Brief	P. Castleman	D. Reddick, et al	Technical Advisor – Legal Counsel	pre-decisional adjudicatory
5	4/13/11	Note	Legal Talking Points on Reasonable Assurance of Adequate Protection	E. Williamson	File	Assistant General Counsel for Operating Reactors	attorney-client
6	4/14/11	Email	Emergency Petition to Suspend	B. Poole	L. Clark, et al	Director, OCAA – Legal Counsel	pre-decisional adjudicatory
7	4/14/11	Email	Emergency Petition to Suspend	D. Reddick	Commissioner Svinicki	Legal Counsel – Commissioner	pre-decisional adjudicatory
8	4/18/11	Email	Japan Nuclear Assistance Meeting (04/15)	S. Burns	L. Clark, et al	General Counsel – Legal Counsel	attorney-client
9	4/18/11	Email	Japan Nuclear Assistance Meeting (04/15)	D. Reddick	Commissioner Svinicki	Legal Counsel – Commissioner	pre-decisional adjudicatory
10	6/30/11	Draft Order	Emergency Petition to Suspend	Unspecified	Unspecified	n/a	pre-decisional adjudicatory
11	6/30/11	Note	Emergency Petitions to Suspend	D. Reddick	Commissioner Svinicki	Legal Counsel - Commissioner	pre-decisional adjudicatory
12	7/29/11	Draft Order	Emergency Petition to Suspend	Unspecified	Unspecified	n/a	pre-decisional adjudicatory
13	8/1/11	Draft Order	KLS edits on Emergency Petition to Suspend	Unspecified	Unspecified	n/a	pre-decisional adjudicatory
14	8/9/11	Email	Status of Affirmation of SECY-11-0082 – Japan Petitions	A. Bates	H. Nieh	Office of the Secretary – Chief of Staff	pre-decisional adjudicatory

NOT FOR PUBLIC DISCLOSURE



~~NOT FOR PUBLIC DISCLOSURE~~

15	8/19/11	Draft Order	Emergency Petition to Suspend	Unspecified	Unspecified	n/a	pre-decisional adjudicatory
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~~NOT FOR PUBLIC DISCLOSURE~~



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

COMMISSIONER

August 24, 2011

The Honorable Darrell E. Issa  
Chairman, Committee on Oversight  
and Government Reform  
United States House of Representatives  
Washington, D.C. 20515

Dear Chairman Issa:

I am writing in response to your letter of August 5, 2011, concerning the Committee's request for documents and information related to the Nuclear Regulatory Commission's response following the earthquake and tsunami that damaged Japan's Fukushima Daiichi nuclear power facility. On August 16, 2011, my staff sought clarifying guidance from Committee staff regarding the Committee's specific requests, which I understand are also directed to Commissioners and their offices. I am enclosing documents that I believe are responsive to items 1, 3, and 4 of your request. My office has no documents that are responsive to item 2. Regarding item 1, I am enclosing documents that I believe are pertinent to the request set forth in item 5 of the Committee's May 26, 2011 letter; that is, documents related to concerns, dissenting opinions, or objections to the March 16, 2011 recommendation (to extend the evacuation zone to 50 miles) or associated calculations. Most of the enclosed documents are not publicly available, and I respectfully request that the Committee hold them in confidence.

Respectfully,

A handwritten signature in black ink, appearing to read "Kristine L. Svinicki".

Kristine L. Svinicki

Enclosures:

1. Documents responsive to item 1
2. Documents responsive to item 3
3. Documents responsive to item 4

cc: The Honorable Elijah E. Cummings, Ranking Minority Member

~~NOT FOR PUBLIC DISCLOSURE~~

OFFICE OF COMMISSIONER KRISTINE L. SVINICKI  
INDEX OF DOCUMENTS RELATED TO ITEM 1 (CONCERNS, DISSENTING OPINIONS, OR OBJECTIONS TO THE MARCH 16,  
2011 RECOMMENDATION OR ASSOCIATED CALCULATIONS)

Doc. No.	Date	Document Type	Subject Matter	Author	Addressee	No. of Pages
1	Undated	Discussion paper	Discussion of March 16, 2011 press release dose assessment assumptions	Unspecified	Unspecified	1
2	3/17/11	Email	NRC Press release on protective action recommendation	Patrick Castleman	Jeffry Sharkey	2
3	3/15/11	Summary report	RASCAL run for Fukushima unit 2 mid day release	Unspecified	Unspecified	4
4	3/15/11	Summary report	RASCAL run for Fukushima unit 2 midnight release	Unspecified	Unspecified	4
5	3/17/11	Summary report	RASCAL run for Fukushima U2, U3 and U4 SFP approximate site release	Unspecified	Unspecified	5
6	3/18/11	Email	eWash message	Annette Vietti-Cook	Jeffry Sharkey	1
7	3/21/11	Email	Commission request for Staff's 1 page assumptions for 3/16 press release	Patrick Castleman	Commissioner Svinicki	2
8	3/23/11	Email	Draft speech	Cynthia Jones	Jeffry Sharkey	6
9	3/28/11	Email	50 Mile EPZ justification response	Patrick Castleman	Commissioner Svinicki	3
10	5/23/11	Email	Draft speech	Patrice Bubar	David Montes	4
11	5/26/11	Email	Draft speech	Patrice Bubar	Ho Nieh, et al	2
12	5/27/11	Email	Draft speech	David Montes	Jeffry Sharkey	2

~~NOT FOR PUBLIC DISCLOSURE~~

ENCLOSURE 1

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~~NOT FOR PUBLIC DISCLOSURE~~

OFFICE OF COMMISSIONER KRISTINE L. SVINICKI  
INDEX OF DOCUMENTS PROVIDED IN RESPONSE TO ITEM 3

Doc. No.	Date	Document Type	Subject Matter	Author	Addressee	No. of Pages
1	6/13/11	Email	May 26, 2011 Issa CORR	Annette Vietti-Cook	Jeffry Sharkey, et al	1
2	6/14/11	Email	May 26, 2011 Issa CORR	Patrice Bubar	Jeffry Sharkey	1
3	6/15/11	Email	Letter to Issa on ACRS	Darani Reddick	Commissioner Svinicki	2
4	6/17/11	Email	Issa response	Ho Nieh	Joshua Batkin, et al	2
5	6/17/11	Email	Issa response	Patrice Bubar	Joshua Batkin, et al	2
6	6/21/11	Email	Issa corr	Darani Reddick	Jeffry Sharkey	1
7	6/21/11	Email	Letter from Cmr Apostolakis to Chairman Issa	Roger Davis	Joshua Batkin, et al	2
8	6/22/11	Email	Issa letter from May 26 <sup>th</sup>	Patrice Bubar	Ho Nieh, et al	1
9	6/24/11	Email	May 26 <sup>th</sup> letter from Congressman Issa	Patrice Bubar	Ken Hart, et al	1
10	6/28/11	Email	Comments on response to Issa May 26 <sup>th</sup> letter	Patrice Bubar	Joshua Batkin, et al	1
11	6/28/11	Email	Comments on response to Issa May 26 <sup>th</sup> letter	Commissioner Svinicki	Jeffry Sharkey	1

~~NOT FOR PUBLIC DISCLOSURE~~

ENCLOSURE 2

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NOT FOR PUBLIC DISCLOSURE

OFFICE OF COMMISSIONER KRISTINE L. SVINICKI  
INDEX OF DOCUMENTS PROVIDED IN RESPONSE TO ITEM 4\*

Doc. No.	Date	Document Type	Subject Matter	Author	Addressee	No. of Pages
1	3/23/11	Email	House Oversight request	Trip Rothschild	Annette Vietti-Cook, et al	1
2	3/24/11	Email	Issa response	Darani Reddick	Jason Zorn, et al	1
3	3/25/11	Email	Instructions on responding to Rep. Issa's March 11, 2011 request for documents	Steven Crockett	Lisa Clark, et al	11
4	3/25/11	Vote	Commissioner Svinicki vote on CORR-11-0028, response to Rep. Issa	Commissioner Svinicki	Unspecified	2
5	3/25/11	Email	Electronic file of Issa letter	Annette Vietti-Cook	Commissioner Svinicki, et al	2
6	3/28/11	Email	Questions about instructions for responding to Issa	Steven Crockett	Trip Rothschild, et al	1
7	3/29/11	Email	Letter to Darrell Issa re. Yucca Mountain SER	Joshua Batkin	Belkys Sosa, et al	3
8	3/30/11	Email	Issa	Darani Reddick	Jeffry Sharkey	1
9	3/30/11	Email	Issa letter	Ho Nieh	Joshua Batkin, et al	1
10	3/30/11	Email	Issa letter CORR-11-0028	Steven Baggett	Joshua Batkin	1
11	3/30/11	Email	Issa letter	Joshua Batkin	Patrice Bubar, et al	2
12	3/30/11	Email	Issa letter	Darani Reddick	Patrice Bubar, et al	2
13	3/30/11	Email	Issa letter	Darani Reddick	Ho Nieh, et al	3
14	3/30/11	Email	Issa letter	Patrice Bubar	Darani Reddick, et al	4
15	3/30/11	Email	Letter to Issa	Andrew Bates	Ho Nieh, et al	1
16	3/31/11	Email	Letter to Issa	Andrew Bates	Ho Nieh, et al	1
17	3/31/11	Email	Proposed change to Issa response – WDM suggestions	Patrice Bubar	Darani Reddick, et al	4
18	3/31/11	Email	Proposed change to Issa response – WDM suggestions	Ho Nieh	Patrice Bubar, et al	4
19	3/31/11	Email	Final version of Issa letter	Patrice Bubar	Belkys Sosa, et al	1
20	4/4/11	Email	Majority response to Issa letter	Patrice Bubar	Jeffry Sharkey, et al	2
21	4/7/11	Email	Question on 3-31-11 letter from Rep. Issa	Ho Nieh	Linda Mike, et al	2

NOT FOR PUBLIC DISCLOSURE

ENCLOSURE 3

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~~NOT FOR PUBLIC DISCLOSURE~~

22	4/8/11	Email	Message from Mr. Issa's staff	Patrice Bubar	Jeffry Sharkey	3
23	4/8/11	Email	Message from Mr. Issa's staff	Patrice Bubar	Jeffry Sharkey	3
24	4/8/11	Email	Issa letter document production	Jason Zom	Stephen Burns	1
25	4/8/11	Email	Issa letter document production	Darani Reddick	Commissioner Svinicki	1
26	4/13/11	Email	Documents for transmission to Rep. Issa	Darani Reddick	Jeffry Sharkey	1
27	5/5/11	Email	Final steps in responding to Issa	Steven Crockett	Lisa Clark, et al	1
28	5/6/11	Email	Final steps in responding to Issa	Darani Reddick	Commissioner Svinicki	2
29	5/8/11	Email	Letter from Issa	Patrice Bubar	Jeffry Sharkey	1
30	5/16/11	Email (attachment is outside scope)	Issa CORR	Darani Reddick	Jeffry Sharkey	2
31	5/25/11	Email	2-page A-11 Issa privilege log	Darani Reddick	Commissioner Svinicki	3
32	5/25/11	Email	2-page A-11 Issa privilege log	Darani Reddick	Jeffry Sharkey	4
33	5/25/11	Email	2-page A-11 Issa privilege log	Darani Reddick	Commissioner Svinicki	2
34	6/15/11	Email	ACRS response to May 26, 2011 letter from Chairman Issa	Annette Vietti-Cook	Joshua Batkin, et al	1
35	6/21/11	Email	Issa response	Patrice Bubar	Jeffry Sharkey	1
36	6/27/11	Email	Issa letter – Congressional correspondence	Linda Mike	Joshua Batkin, et al	3
37	7/20/11	Email	Issa document production	Darani Reddick	Commissioner Svinicki, et al	1
38	7/23/11	Email	CORR-11-0045 – from Issa on Task Force Report	Jeffry Sharkey	Patrice Bubar, et al	1
39	7/23/11	Email	CORR-11-0045 – from Issa on Task Force Report	Jeffry Sharkey	Patrice Bubar	2
40	7/24/11	Email	CORR-11-0045 – from Issa on Task Force Report	Patrice Bubar	Darani Reddick, et al	2
41	7/25/11	Email	Issa letter	Darani Reddick	Patrice Bubar	1
42	7/25/11	Email	Issa letter	Darani Reddick	Ho Nieh	1
43	7/25/11	Email	EA meeting	Darani Reddick	Commissioner Svinicki, et al	1
44	7/25/11	Email	Change in Assignment on LTR-11-0415 (Issa)	Linda Mike	Joshua Batkin, et al	8
45	7/27/11	Email	Instructions for Issa package	Darani Reddick	Janet Lepre	1
46	7/29/11	Email	Issa Response	Kimberly Sexton	Darani Reddick	1
47	7/29/11	Email	Issa Response	Angela Coggins	Jeffry Sharkey, et al	3

\* Documents contained in the official files of the Office of the Secretary that are not under Commissioner Svinicki's sole control (e.g., Commissioner votes on Correspondence) are not included in this privilege log.

~~NOT FOR PUBLIC DISCLOSURE~~

**Lepre, Janet**

---

**From:** CMRSVINICKI Resource  
**Sent:** Monday, December 12, 2011 9:04 AM  
**To:** Lepre, Janet; Riddick, Nicole  
**Subject:** FW: request for comment from Bloomberg News

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

**From:** BRIAN WINGFIELD, BLOOMBERG/ NEWSROOM: [mailto:[bwingfield3@bloomberg.net](mailto:bwingfield3@bloomberg.net)]  
**Sent:** Sunday, December 11, 2011 1:31 PM  
**To:** CMRSVINICKI Resource  
**Subject:** request for comment from Bloomberg News

Dear Commissioner Svinicki:

I'm a reporter with Bloomberg News, seeking comment on the letter that you and Commissioners Ostendorff, Magwood and Apostolakis sent to White House Chief of Staff William Daley on Oct. 13. Specifically, I'd like to know more about how the differences with Chairman Jaczko may affect safety at U.S. reactors.

Are you free for an interview this afternoon?

Best regards,  
Brian Wingfield

(b)(6) cell

---

Brian Wingfield  
Bloomberg News  
1399 New York Ave., NW  
Washington, D.C. 20005  
202-654-7318 office  
202-664-6804 cell

Release

**Lepre, Janet**

---

**From:** Lepre, Janet  
**Sent:** Monday, December 12, 2011 9:05 AM  
**To:** Sharkey, Jeffry; Reddick, Darani  
**Cc:** Riddick, Nicole  
**Subject:** Phone Call from Reporter - Bloomberg News

Brian Winfield left a voice mail on 415-1855 on Sunday, December 11 at 1:30 pm.

He would like the Commissioner's comments on the letter to Bill Daley that was made public yesterday.

Brian's phone: (b)(6)

Jan



#2788

1. Cmr. Svinicki
  2. Nicole (File -
- (Copy being ret

December 10, 2011

Chairman Jaczko  
Commissioner Svinicki  
Commissioner Apostolakis  
Commissioner Magwood  
Commissioner Ostendorff  
Nuclear Regulatory Commission  
Washington, DC 20555

Subject: The "broken covenant" of Civil Service Reform Act of 1978; significant and persistent deficiencies in scope and implementation of engineering ethics; and your mission and your disputes about your various authority in executing it

Dear NRC Commissioners,

I am writing because of a NY Times story, "New Discord at NRC," today about your dispute, which links to your respective letters to the White House.<sup>1</sup>

I have already established that you cannot demonstrate objective compliance with your fundamental duty to NRC employees - to ensure they are adequately protected from reprisal, discrimination, personal favoritism, or other types of "prohibited personnel practices (PPPs)," so they can perform their duties in a trustworthy fashion, per the merit system principles. How else can you possibly claim to be complying with your duty to "prevent PPPs" at 5 U.S.C. section 2302(c), if you cannot do this?

But I do not blame you, because you cannot do this by yourself. Congress, per the Civil Service Reform Act of 1978, assigned the duty to "protect (NRC) employees from PPPs" to the Office of Special Counsel (OSC), per (what is now) 5 U.S.C. section 1214, and assigned the Merit Systems Protection Board (MSPB) the duty to conduct oversight of OSC and NRC in interpreting and applying their respective duties to determine whether NRC employees are adequately protected from PPPs, per 5 U.S.C. section 1204(a)(3). But OSC interpreted away, at its creation, its essential duty to "protect" by claiming it never has to tell anyone when it determines a PPP has occurred, and MSPB enabled OSC by claiming it never has to conduct oversight of OSC or NRC to determine whether NRC employees are adequately protected from PPPs. This is detailed, in boring, nuclear safety grade, detail at [www.broken-covenant.org](http://www.broken-covenant.org) and <http://mspbwatch.wordpress.com/>.

So, maybe Chairman Jaczko took a page from OSC's and MSPB's playbooks in claiming he does not have to tell other NRC Commissioners what they believe they need to know to comply with their statutory duties for nuclear and public health and safety.

The NRC Inspector General report about Chairman Jaczko's actions about terminating the

NRC's review of DOE's license application for Yucca Mountain determined he did not break any laws.<sup>2</sup> But it was silent to the most relevant question - did he abuse his authority? "Abuse of authority" is a legal phrase with defined meaning in federal civil service law - it is not just a subjective "eye of beholder" combination of sounds.<sup>3</sup> Perhaps the NRC IG feared retribution to make such a finding, so he was silent to it.

As I understand rule of law in USA, the Office of Legal Counsel (OLC) of the Department of Justice should be the final referee in Executive Branch about your respective authorities. I also understand you have the authority to task OLC to issue its opinion on your concerns.<sup>4</sup>

I played a significant role in the American Nuclear Society (ANS) issuing a new code of ethics about 7 years ago.<sup>5</sup> I regret it, it is nothing but worthless eyewash in practice - ANS has yet to ever investigate a member for violating it or taking any action to uphold it when an ANS member claims to have been so foolhardy to put it ahead of their economic self-interest and to be suffering employer retribution for it, even when legally established.

The NRC Inspector General found former NRC Commissioner Merrifield violated some conflict of interest requirements of the federal civil service. This was publicized in the Washington Post.<sup>6</sup> In doing so, he also violated aspects of the ANS Code of Ethics. I brought this to the appropriate attention of ANS leadership, the 10 or so former NRC Commissioners who belong to ANS, and others. Everyone stuck their head in the sand and pointed me to someone else, demonstrating the "broken honor code" implementation basis of engineering ethics.<sup>7</sup>

Commissioner Ostendorff - you knew me in Navy Nuclear Power School. When Admiral Rickover interviewed me, he asked me why I wanted to be in his program and I told him I wanted to be a better engineer. Be careful what you ask for, I suppose, because my being a "better engineer" includes the unpopular assignment to call out my profession about the significant and persistent deficiencies in its code of ethics - which forms an essential part of the engineering, as any other, profession.

Commissioner Magwood - you have known me a bit via our common membership in ANS and common employment in DOE.

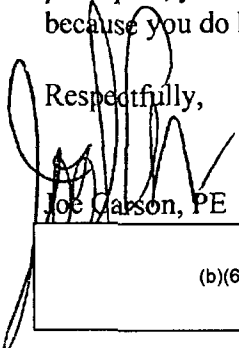
Chairman Jaczko - we met about my concerns as a Department of Energy whistleblower when you were on Senator Reid's staff.

Everyone in nuclear profession would be better served by clarity about your respective roles - as applied in specific instances - not just in theory. Everyone in federal civil service would be better served by clarity about the respective responsibilities of agency heads, the Special Counsel of the Office of Special Counsel, and Members of the Merit Systems Protection Board for ensuring members of federal civil service are adequately protected from PPPs. Everyone on planet earth in 2011 would be better served if the members and leaders of engineering profession would find the moral courage to acknowledge and address the significant and persistent deficiencies in the

scope and implementation of engineering ethics.

You have sworn duties for a reason - and not just to burnish your resumes for your next career move - and I am bringing serious, well-evidenced, far-reaching concerns to your attention and they are certainly relevant to nuclear safety. Please act in accordance with the merit system principles, your oaths of allegiance, and standing as nuclear professionals, in considering them, because you do have the influence and/or authority to substantiate or dispel them.

Respectfully,

  
Joe Carson, PE

(b)(6)

Copy: Relevant Stakeholders in Government, media, and elsewhere

1.  
[www.nytimes.com/2011/12/10/us/new-discord-at-nuclear-regulatory-commission.html?scp=1&sq=nrc&st=cse](http://www.nytimes.com/2011/12/10/us/new-discord-at-nuclear-regulatory-commission.html?scp=1&sq=nrc&st=cse)
2. See  
<http://republicans.energycommerce.house.gov/Media/file/Hearings/Environment/061411/IGREP.ORT.PDF>
3. See 5 U.S.C. sections 1213(a)(1)(B), 2301(b)(9), and 2302(b)(8)
4. See 28 U.S.C. sections 510-512, 28 C.F.R. section 0.25, and [www.justice.gov/olc/](http://www.justice.gov/olc/)
5. See [www.new.ans.org/about/coe/](http://www.new.ans.org/about/coe/)
6. See [www.pogo.org](http://www.pogo.org) and perform a search on "merrifield" to locate the NRC IG report
7. See <http://srhrl.aaas.org/newsletter/per/archives/per43.pdf> for a short article on the broken state of engineering ethics

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ONE HUNDRED TWELFTH CONGRESS

# Congress of the United States

## House of Representatives

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December 5, 2011

The Honorable Kristine Svinicki  
Commissioner  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Commissioner Svinicki:

At the recent all-hands meeting of the Nuclear Regulatory Commission (NRC), NRC staff asked the Commissioners how they should react to “allegations of abusive behavior and harassment of staff by senior level management.”<sup>1</sup> It is encouraging that responding Commissioners urged NRC employees not to ignore it and to take a stand to prevent such behavior. Left unchecked, abuse and harassment undermine the NRC’s mission and long standing commitment to fostering a culture that encourages employee participation at all levels of the organization.

The NRC’s organizational values of “integrity, service, openness, commitment, cooperation, excellence, and respect” have historically guided Commissioners and staff alike. They are a part of the NRC’s identity, influencing everything from how the Commission conducts itself as a regulator to daily interactions among employees. Commitment to these values is a source of pride for NRC employees, and one of the principle reasons the NRC was voted the best place to work in the federal government for three straight years prior to 2011.

The American people benefit when the NRC, like the industry it regulates, maintains an open, collaborative work environment – one in which all employees have a voice, without fear of reprisal or negative consequences. If any individual at the NRC, and especially one in a leadership position, are undermining this open, collaborative work environment, he or she should be held accountable. An environment in which openness and collaboration have been chilled at any federal regulator is damaging. Allowing such an environment to persist at the nation’s nuclear regulator is wholly unacceptable and undermines the NRC staff’s ability to carry out their important mission.

So that I may better understand the current environment at the NRC, please provide written responses to the following questions no later than December 9, 2011:

<sup>1</sup> Transcript, All Employees Meeting, U.S. Nuclear Regulatory Commission (Oct. 20, 2011) at 57, available at <http://www.nrc.gov/reading-rm/doc-collections/commission/tr/2011/20111020.pdf>.

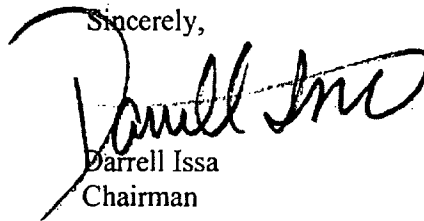
FX 678 of 728

The Honorable Gregory B. Jaczko  
December 5, 2011  
Page 2

1. Do you believe the current work environment at the NRC is consistent with the Commission's values and culture? Please provide the basis for, and any examples necessary to inform, your response.
2. During your tenure on the Commission, have you observed a change in the NRC management's commitment to its values and culture? Please specifically address any changes to the work environment in terms of openness and collaboration.

I appreciate your prompt attention to this request and look forward to discussing this and other matters related to the NRC's management and operations at the December 14, 2011, Committee hearing. If there is any additional information you feel would be helpful to the Committee, I encourage you to provide it in advance of the scheduled hearing date. Please contact John Ohly of the Committee staff at (202) 225-5074 with any questions about this request.

Sincerely,

A handwritten signature in black ink, appearing to read "Darrell Issa". The signature is written in a cursive, flowing style with a large initial "D".

Darrell Issa  
Chairman

cc: The Honorable Elijah E. Cummings, Ranking Member



COMMISSIONER

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

November 8, 2011

The Honorable Barbara Boxer  
Chairman, Committee on  
Environment and Public Works  
United States Senate  
Washington, D.C. 20510

The Honorable James M. Inhofe  
Ranking Member, Committee on  
Environment and Public Works  
United States Senate  
Washington, D.C. 20510

Dear Chairman Boxer and Ranking Member Inhofe:

I appeared before the Committee on Environment and Public Works on August 2, 2011, along with my colleagues on the Commission. In response to your letter of October 20, 2011, enclosed please find my response to questions for the record from that hearing. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristine L. Svinicki".

Kristine L. Svinicki

Enclosure: As stated

**Commissioner Kristine L. Svinicki's Responses to Questions for the Record  
Environment and Public Works Committee Hearing  
August 2, 2011**

**Senator Barbara Boxer**

- 1. The Task Force concluded that a sequence of events like what occurred in Japan is unlikely to occur in the United States. Yet, the Task Force still recommended numerous safety improvements for nuclear power facilities around the country. In your view, what is the primary lesson learned from the accident in Japan thus far?**

In my view, the primary lesson learned from the accident in Japan is the need to ensure that we maintain a willingness to question and examine the bases of our regulatory action in light of any new information. We must also use this tragic event to advance the goals of nuclear safety – both domestically and within the international cooperative framework. Fukushima reminds us to challenge our current assumptions regarding fundamental preparedness to respond to the unlikely or unexpected.

- 2. The Union of Concerned Scientists (UCS) issued a response to the NRC Task Force's report, in which it urged the NRC to modify current emergency planning requirements. UCS urged the NRC to require plants to develop such plans based on a scientific assessment of the populations at risk for each site, rather than artificially limiting plans to areas within the current 10-mile planning zone. Do you agree that the NRC should re-evaluate current requirements for emergency preparedness and evacuation plans in light of what happened in Japan?**

The NRC's Near-Term Task Force provided several recommendations that are intended to clarify and strengthen the current emergency preparedness regulatory framework. These recommendations may lead to the identification of additional issues that will warrant further study and longer term actions. As such, the NRC will continue to evaluate all of its current regulatory requirements to ensure that adequate protection of public health and safety will be maintained. In my view, this evaluation should also assess the facts as we are able to gather them regarding the Japanese experience with evacuation and relocation of the affected population, as well as any differences between the Japanese and U.S. regulatory systems.

- 3. California's two nuclear power plants are located in areas of high seismic activity and I am concerned about their ability to withstand earthquakes. The Task Force has recommended requiring nuclear plants to confirm their seismic flooding hazards every 10 years and to address any new and significant information with safety upgrades. Do you agree that nuclear power plants in the United States should periodically re-evaluate seismic and flooding hazards in light of what has occurred in Japan?**

Yes. The NRC staff is in the process of developing additional information regarding an approach and schedule for addressing this issue. Licensees will be requested to: (1) re-evaluate site-specific seismic and flooding hazards, (2) perform seismic and flood protection plant walk-downs, and (3) identify actions that have been taken or planned to address plant-specific issues associated with the updated hazards or identified during the plant walk-downs. Information received from these near-term actions will be used to further inform potential regulatory actions going forward.

Enclosure

Senator Thomas R. Carper

1. **Can you explain how the NRC uses a mix of voluntary and mandatory regulations to ensure safety? How does the NRC ensure voluntary regulations are being enacted?**

The NRC does not rely on voluntary measures to ensure adequate protection of public health and safety. The agency ensures adequate protection through the use of mandatory measures such as regulations, license conditions, and orders. These measures are supported by regulatory guides, standard review plans, and other similar tools.

For issues that are above and beyond what is needed to provide reasonable assurance of public health and safety, voluntary initiatives can be an optimal vehicle to achieve desired outcomes. The manner in which a regulatory commitment or voluntary program is treated by the licensee and by the NRC staff can vary, depending on the nature of the regulatory commitment or voluntary program and its relation to a regulatory requirement. For example, the NRC may use a licensee's regulatory commitments to help decide if further regulatory actions need to be taken. Under such circumstances, the NRC would typically perform an inspection to determine if the licensee is implementing the regulatory commitment, if the regulatory commitment is being managed through the licensee's commitment tracking system, and whether the regulatory commitment should be placed into a controlled document such as the final safety analysis report. Alternatively, the licensee's implementation of a voluntary program may stem from the NRC encouraging the licensee to take additional actions that may not be necessary to ensure adequate protection, but which provide added margin with respect to the overall safety of the facility. Inspection of the implementation of voluntary industry initiatives is done on a case-by-case basis.

2. **I can see a role for voluntary regulations - they can be quickly implemented without waiting on the federal government. However, they are meaningless if they are never enacted or not sustained over time. I was disappointed to see that when the NRC did a review of the voluntary severe accident management guidelines - very few plants were implementing all of the guidelines. Some plants were implementing very few of the guidelines at all. Can the NRC enforce voluntary programs without codifying them into law? What are the advantages and disadvantages of codifying voluntary programs? Should there be a time period after which all voluntary programs should become regulatory statute?**

By statute, NRC is required to put in place those regulations needed to ensure adequate protection of public health and safety. For safety, technical, or operational issues that do not rise to the level of adequate protection, the NRC may pursue regulations in those areas if they provide a substantial increase in the overall protection of public health and safety and are cost-justified. Alternatively, for those issues that do not rise to the level of adequate protection, the nuclear industry could voluntarily develop and adopt an initiative to address a particular issue. The NRC does not enforce voluntary industry programs because they are not regulatory requirements necessary to ensure adequate protection of public health and safety.

Voluntary programs are advantageous when they allow the NRC to focus resources on those issues of the highest safety importance, while allowing issues of low safety or risk importance to be addressed voluntarily by licensees. There is no time period associated with putting in place regulations for an issue that is being addressed through a voluntary industry initiative.



**What we do know about Fukushima is that the Japanese underestimated the risk of that great of a tsunami and earthquake for that facility. I want to be sure that we are not underestimating our risks here at home. Please list the last time the NRC evaluated the seismic and flooding hazards for each of the 104 nuclear power plants.**

The NRC requires that safety-significant structures, systems, and components at U.S. nuclear power plants be designed to take into account even rare and extreme seismic and tsunami events. All 104 U.S. nuclear power plants are built to withstand external hazards, including earthquakes, flooding, and tsunamis, as appropriate. Each plant's capability to withstand external hazards relevant to its site is reviewed by the NRC during its initial licensing.

The NRC has also made substantial effort over time to ensure that vulnerabilities to both internal and external hazards are considered and mitigated in the current design and licensing basis of its regulated facilities. The NRC routinely inspects the licensee's policies and procedures associated with responding to seismic and flooding hazards; as well as inspecting the licensee's structures, systems, and components used to mitigate the hazards. The NRC has also conducted two reviews of its regulated facilities over the last 25 years to ensure that they have included both internal and external hazards in their current plant design and licensing basis. These reviews are as follows:

- (1) In 1988, the NRC's Generic Letter No. 88-20, "Individual Plant Examination for Severe Accident Vulnerabilities," requested plant owners to perform a systematic evaluation of plant-specific vulnerabilities and report the results to the Commission.
- (2) In the mid to late 1990s, the NRC staff reviewed the potential for ground motions beyond the design basis as part of the Individual Plant Examination of External Events. From this review, the NRC staff determined that seismic designs of operating nuclear plants in the U.S. have adequate safety margins for withstanding earthquakes.

In addition, the NRC was in the process of performing a generic review of seismic hazards for existing plants before the Fukushima event occurred. This effort, known as Generic Issue-199, "Implications of Updated Probabilistic Seismic Estimates in Central and Eastern United States on Existing Plants," will be incorporated into the NRC effort to re-evaluate the seismic hazards at U.S. nuclear plants in light of the Fukushima event, as outlined in SECY-11-0137, "Prioritization of Recommended Actions to be Taken in Response to Fukushima Lessons Learned."

Through these substantial efforts, the NRC has ensured that the risk associated with seismic and flooding hazards is not underestimated at nuclear power plants in the U.S. The NRC remains convinced that U.S. nuclear power plants are designed and operated in a manner that protects public health and safety.

**Senator James M. Inhofe**

- 1. Why do you think a more rigorous process is important to the objective of nuclear safety?**

The NRC's Near-Term Task Force found that a sequence of events like the Fukushima Dai-ichi accident is unlikely to occur in the United States, and that continued operation and continued licensing activities do not pose an imminent risk to public health and safety. Therefore, we are in a position to take deliberate, yet expeditious, action commensurate with our level of understanding of the events in Japan. We expect that the set of facts regarding the sequence of events and accident progression at Fukushima Dai-ichi will continue to grow, and our level of understanding will continue to evolve over the next several years. A comprehensive set of facts regarding what transpired in Japan is crucial to ensuring that we correctly identify and diagnose issues that may require NRC action for continued assurance of adequate protection of public health and safety.

- 2. You urge scrutiny of the task force proposal by the ACRS. How will their expert testimony serve the objective of ensuring public health and safety? Do you believe that Chairman Jaczko's March 23 tasking memorandum adequately harnessed their expertise?**

Statutorily mandated by the Atomic Energy Act of 1954, as amended, the Advisory Committee on Reactor Safeguards (ACRS) reviews and reports on safety studies and reactor facility license and license renewal applications; advises the Commission on the hazards of proposed and existing production and utilization facilities and the adequacy of proposed safety standards; initiates reviews of specific generic matters or nuclear facility safety-related items; and provides advice in the areas of health physics and radiation protection. Throughout my tenure on the Commission, I have found that the ACRS provides valuable insights and advice to the Commission. The Committee's advice reflects the breadth and depth of the collective knowledge and experience of the Committee's members, as well as the diversity of their views. The Task Force's recommendations span a wide variety of complex issues with varying safety implications and potentially significant regulatory impacts. This calls for regular ACRS engagement on the longer term review. The March 23 tasking memorandum's direction to have the ACRS review the Near-Term Task Force report was an appropriate first step. The ACRS's continued engagement will be essential as the agency moves forward.

- 3. The Chairman has repeatedly commented that failure to implement the task force recommendations may delay new plant applications. Do you agree with that assessment?**

No, I do not. The NRC has the regulatory mechanisms to apply any new requirements the Commission may adopt in response to the lessons-learned arising from the events at Fukushima to licensees of both currently operating and future plants.

4. **How will you, as a Commissioner, work to ensure that the agency does not slip into a malaise and that regulatory decisions and actions, whether connected to issues stemming from Fukushima or not, take longer and longer to resolve?**

During my service as a Commissioner, I have found the NRC to be an organization of dedicated safety professionals who are mindful of the importance of their work to the Nation. Their dedication, coupled with disciplined adherence to NRC's Principles of Good Regulation by both the agency's staff and the Commission itself, will keep our efforts focused.



COMMISSIONER

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

August 18, 2011

The Honorable Barbara Boxer  
Chairman, Committee on  
Environment and Public Works  
United States Senate  
Washington, D.C. 20510

The Honorable James M. Inhofe  
Ranking Member, Committee on  
Environment and Public Works  
United States Senate  
Washington, D.C. 20510

Dear Chairman Boxer and Ranking Member Inhofe:

Thank you for the opportunity to appear before the Committee on Environment and Public Works on June 16, 2011. In response to your letter of August 3, 2011, enclosed please find my response to questions for the record from that hearing submitted by Senator Inhofe.

Please have your staff contact Jeffry Sharkey of my staff at (301) 415-1855, should you have any questions.

Respectfully,

A handwritten signature in black ink, appearing to read "Kristine L. Svinicki".

Kristine L. Svinicki

Enclosure: As stated

**Commissioner Kristine L. Svinicki's Responses to Questions for the Record  
Environment and Public Works Committee Hearing  
June 16, 2011**

Senator James M. Inhofe

**Question 1:**

Do you believe the Commission would benefit from greater involvement of the ACRS on the NRC's longer term review rather than merely reviewing the staff's final product? If not, why not?

**Answer 1:**

Yes. Part of the ACRS's statutory mandate is to advise the Commission independent of the NRC staff with regard to the hazards of proposed or existing reactor facilities and the adequacy of proposed reactor safety standards. Therefore, I believe that this mandate applies to the recommendations of the NRC's near-term Fukushima task force. Throughout my tenure on the Commission, I have found that the ACRS provides valuable insights and advice on matters pertaining to safety. Their advice reflects the breadth and depth of the collective knowledge and experience of the Committee's members, as well as the diversity of their views. The task force's recommendations span a wide variety of complex issues with varying safety implications and potentially significant regulatory impacts, which calls for regular ACRS engagement on the longer term review.

**Question 2:** Please describe the process the NRC uses to revise its regulatory requirements following new information or world events. Notwithstanding the seriousness of the events in Japan, there doesn't seem to be a reason to alter the Commission's normal processes to take account of any lessons learned from events in Japan given the repeated assurances that U.S. plants are operating safely. Do you agree? If not, why not?

**Answer 2:**

The NRC has many processes for gathering and assessing operating experience information that range across all areas that it regulates, including information reported domestically by NRC and State licensees, as well as event reports provided by international organizations, such as the International Atomic Energy Agency. Other sources of information include NRC and Agreement State inspection reports.

In all cases, the safety significance of this information is assessed to determine if immediate action is needed to restore adequate protection of public health and safety or common defense and security. After the NRC has determined that adequate protection is being maintained, the need for longer term action is assessed on the basis of the safety significance of each issue. In general, events whose potential safety ramifications and operational and design data are well understood are amenable to expeditious resolution.

Enclosure

On the other hand, events that involve complex interactions among multiple systems, structures, components, or environmental effects typically require a significant amount of information to be gathered and assessed to develop a path forward to long-term resolution. The NRC's response to the events in Japan fits in this category and, given that U.S. plants are operating safely, I agree that there is no reason for the NRC to deviate from its normal processes to take account of the lessons learned from these events.

**Question 3:** Do the Commission's regulations provide a mechanism for applying lessons learned from Japan to COLs or certified designs already issued? Is there any material difference in NRC's ability to apply those lessons to COLs or certified designs as opposed to plants that are currently licensed and operating?

**Answer 3:**

The Commission has several options for applying lessons learned from Japan to COL applications and previously-issued certified designs. These options apply not only to lessons learned from significant events such as those in Japan, but also to regulatory changes that occur, regardless of the reasons for the changes. The NRC's fundamental concern is that nuclear power plants must be safe to be allowed to operate. This precept applies to currently licensed and operating plants, and to those that may begin operations in the future, after they have been licensed and built. The NRC's regulatory tools apply to both of these categories of plants, providing the NRC with the ability to apply lessons learned from the events in Japan to both currently operating and future U.S. nuclear power plants.

**Question 4:**

Given the NRC's authority to apply lessons learned from Japan to the operating fleet, and the state of the art review the COL and design certification applications have undergone, it doesn't make any sense to delay the licensing process on these applications during the review of the Japan situation. Do you agree? If not, why not?

**Answer 4:**

Currently before the Commission is an "Emergency Petition to Suspend All Pending Reactor Licensing Decisions and Related Rulemaking Decisions." This Emergency Petition to Suspend includes design certification rulemakings and COL licensing reviews, along with the associated adjudicatory proceedings. Because the question you raise is currently under consideration by the Commission in its adjudicatory capacity, it would not be appropriate for me to comment further, at this time.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

August 1, 2011

COMMISSIONER

The Honorable James M. Inhofe  
Ranking Member  
Committee on Environment and Public Works  
United States Senate  
Washington, DC 20510

Dear Senator Inhofe:

Thank you for your letter of July 8, 2011, concerning the NRC's review of and response to the events at the Fukushima Daiichi nuclear power station. I agree that these events will take some time to be thoroughly examined and that our understanding of the chronology of events and actions taken in response will continue to grow as the Japanese operator moves beyond the stabilization of the site and more deeply into post-accident evaluations.

Your letter states that a comparison of U.S. regulatory requirements with those in place in Japan at the time of the Fukushima event is essential. I agree. While the NRC's response to these events cannot, and has not, awaited such a comparison, I believe our review, going forward, should be informed by such a comparison. Your letter makes reference to my inquiry at the Commission's meeting on April 28, 2011, regarding the NRC staff's effort to produce a comparison between U.S. and Japanese regulatory requirements, more narrowly on the topic of station blackout. I continue to believe that on this topic, and others, a comparison of regulatory requirements, coupled with a deeper understanding of the accident sequence and the response of vital safety systems, could provide a strong foundation for the NRC's regulatory response to these events, here in the United States.

The Commission is now establishing the actions of its longer-term review. My vote on this matter (which was previously made public on July 20) is enclosed. In it, I state, "the Commission's review of any proposed regulatory changes must, in my view, be informed by a comparison of U.S. and Japanese regulatory requirements, focused on those areas most relevant to the initiating sequence of events at Fukushima, but also comparing regulatory requirements regarding mitigation capability. Without this comparison, NRC's post-Fukushima response will lack a strong basis for determining the adequacy of, or strengthening, where necessary, the U.S. nuclear regulatory framework." I will work with my Commission colleagues to advance this view.

Again, I appreciate your inquiry and continued support for the NRC's development of lessons-learned from the events at Fukushima Daiichi.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristine L. Svinicki".

Kristine L. Svinicki

Enclosure: As stated

FX 689 of 728

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER SVINICKI  
SUBJECT: SECY-11-0093 – NEAR-TERM REPORT AND  
RECOMMENDATIONS FOR AGENCY ACTIONS  
FOLLOWING THE EVENTS IN JAPAN

Approved XX Disapproved XX Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS: Below \_\_\_\_\_ Attached XX None \_\_\_\_\_

  
\_\_\_\_\_  
SIGNATURE

07/19/11  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes  No \_\_\_\_\_



**Commissioner Svinicki's Comments on SECY-11-0093  
"Near-Term Report and Recommendations for Agency Actions  
Following the Events in Japan"**

I have studied carefully the recommendations of the Near-Term Task Force review of insights from the Fukushima Dai-ichi accident (the enclosure to SECY-11-0093). The members of the Near-Term Task Force have covered tremendous ground in the short, three months provided to them. After a more extensive examination than earlier, NRC post-Fukushima efforts were able to undertake, the Task Force has concluded that a sequence of events like the Fukushima accident is unlikely to occur in the United States and that continued operation and continued licensing activities do not pose an imminent risk to public health and safety. In addition to providing this safety re-assurance to the Commission and the public, the Task Force's work – conducted with some urgency, given their mission of finding any near-term deficiencies or re-confirming the safety of continued operations – now allows the agency the opportunity to proceed with the systematic and methodical review of lessons-learned that the Commission directed at the outset. Moreover, the agency is now in a position to conduct the fulsome stakeholder engagement and review by the Advisory Committee on Reactor Safeguards, which the Commission, in my view, reluctantly excused the Near-Term Task Force from undertaking, given the urgency of the Task Force's work to evaluate any near-term risks.

The SECY paper itself provides no NRC staff view of the Task Force Report. Lacking the NRC technical and programmatic staff's evaluation (beyond that of the six NRC staff members who produced the Task Force Report), I do not have a sufficient basis to accept or reject the recommendations of the Near-Term Task Force. I will cast my vote, therefore, in terms of both approving and disapproving, and will lay out the path forward that I approve pursuing in carrying forward with this important work. Having before us now the Near-Term Task Force recommendations, and understanding how far the team was able to progress in its analysis in 90 days, I believe it is necessary for the Commission to revise the path it set in SRM-COMGBJ-11-0002 and to modify the structure of the agency's longer term review of Fukushima lessons learned. In my view, the NRC finds itself at the appropriate point now to move away from small group taskings – including the Commission itself attempting to labor in isolation – towards integrating more fully the regulatory response arising from the events at Fukushima into the activities of NRC's line organizations.

Because this SECY notation vote paper contains no recommendation from the NRC's Executive Director for Operations (EDO), I consulted with the EDO and Deputy Executive Director for Reactor and Preparedness Programs directly, to understand their expert views on the Task Force Report. I also solicited from the EDO a recommendation of a path forward for NRC action regarding the Task Force Report. The EDO has recommended to me that, while some of the Task Force's recommendations, or sub-recommendations, could be treated separately, he has reviewed the recommendations in his capacity as EDO and believes there is value in evaluating the entire body of recommendations in a holistic manner. In addition, many external stakeholders have devoted considerable effort to similar lessons learned initiatives, and there would be a benefit to developing alignment on the objectives, approaches, and schedules for implementing safety improvements. Therefore, the EDO believes that directing the staff to provide the Commission with a proposed plan of its approach for (1) obtaining stakeholder input on the Task Force's recommendations, (2) analyzing stakeholder input, and (3) providing the Commission feedback on each of the recommendations would accomplish the objective of obtaining meaningful stakeholder input. As part of this plan, the staff would solicit input in a manner that will ensure broad stakeholder feedback is received and evaluated, and would

report back to the Commission on each of the near term Task Force recommendations once this has occurred. I understand that the Deputy Executive Director for Reactor and Preparedness Programs concurs in this recommendation.

I agree with this view and approve this path forward as the one the NRC should adopt, to move into the next phase of its Fukushima lessons-learned review. The staff's plan should be provided within 45 days of the date of the SRM on SECY-11-0093, in the form of a notation vote paper, to be delivered to each Commissioner office concurrently and containing the NRC staff recommendation of how to proceed with the evaluation of each Task Force Report recommendation, as further described above. This plan should also include a plan for stakeholder engagement on each recommendation, or set of related recommendations, and should include a schedule, with milestones, including any meetings that the staff would recommend the Commission itself conduct.

Additionally, the Commission's review of any proposed regulatory changes must, in my view, be informed by a comparison of U.S. and Japanese regulatory requirements, focused on those areas most relevant to the initiating sequence of events at Fukushima, but also comparing regulatory requirements regarding mitigation capability. Without this comparison, NRC's post-Fukushima response will lack a strong basis for determining the adequacy of, or strengthening, where necessary, the U.S. nuclear regulatory framework. The staff's plan should, therefore, also include a proposal for how NRC will undertake such a comparison.

The draft charter for the second phase of the review should also be provided to the Commission for its review and approval, as a notation vote paper (separate from the broader plan), as soon as possible, but in any event, no later than two weeks from the date of the SRM on SECY-11-0093. I personally support the general structure described to me by the NRC staff – that of a Steering Group, reporting to the EDO – but I believe the Commission must endorse or modify the charter itself, in a notation voting paper, in order to express its expectations and set the course for the agency's follow-on work.

Executive Order 13579, on the topic of "Regulation and Independent Regulatory Agencies," states that wise regulatory decisions depend on public participation and on careful analysis of the likely consequences of regulation. In that vein, the delivery of the Near-Term Task Force report is not the final step in the process of learning from the events at Fukushima. It is an important, but early step. Now, the conclusions drawn by the six individual members of the Near-Term Task Force must be open to challenge by our many stakeholders and tested by the scrutiny of a wider body of experts, including the ACRS, prior to final Commission action. The proposed path outlined here is intended to get us there with appropriate dispatch but without shortchanging the thoroughness and deliberation of our response.

  
\_\_\_\_\_  
Kristine L. Svinicki 07/19/11



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

July 29, 2011

COMMISSIONER

The Honorable Darrell E. Issa  
Chairman, Committee on Oversight  
and Government Reform  
United States House of Representatives  
Washington, D.C. 20515

Dear Chairman Issa:

I am writing in response to your letter of July 15, 2011, concerning the Committee's investigation into the management and operations of the Nuclear Regulatory Commission. I am enclosing documents that I believe are responsive to items 2 and 3 of your request. Most of the enclosed documents are not publicly available, and I respectfully request that the Committee hold them in confidence.

Respectfully,

A handwritten signature in black ink, appearing to read "Kristine L. Svinicki".

Kristine L. Svinicki

Enclosures:

1. Documents responsive to item 2
2. Documents responsive to item 3
3. Certification of document production

cc: The Honorable Elijah E. Cummings, Ranking Minority Member

OFFICE OF COMMISSIONER KRISTINE L. SVINICKI  
INDEX OF DOCUMENTS PROVIDED IN RESPONSE TO ITEM 2<sup>1</sup>

Doc. No.	Date	Document Type	Subject Matter	Author	Addressee	No. of Pages
1*	3/22/11	Vote	Commissioner Svinicki vote on COMGBJ-11-0002 – NRC Actions Following the Events in Japan	Commissioner Svinicki	Unspecified	4
2*	3/23/11	Email	Commissioner Svinicki response to draft SRM – COMGBJ-11-0002	Jeffry Sharkey	Darlene Wright, et al	2
3*	3/23/11	Email	Commissioner Svinicki amended response to draft SRM – COMGBJ-11-0002	Jeffry Sharkey	Darlene Wright, et al	2
4*	3/23/11	Memorandum	Tasking Memorandum – COMGBJ-11-0002 – NRC Actions Following the Events in Japan	Chairman Jaczko	R.W. Borchardt	2
5*	4/22/11	Note to Commissioners' Assistants	Actions Following the Events in Japan: Near-Term Task Force Activities	Mary Muesle	Angela Coggins, et al	3
6	7/12/11	SECY Paper	(Advance Copy) SECY-11-0093: Near-Term Report and Recommendations for Agency Actions Following the Events in Japan	R.W. Borchardt	The Commissioners	5
7	7/12/11	SECY Paper	(Advance Copy) Resubmitted SECY-11-0093: Near-Term Report and Recommendations for Agency Actions Following the Events in Japan	R.W. Borchardt	The Commissioners	1
8	7/12/11	Email	Withdrawal of SECY-11-0093	Annette Vietti-Cook	Jeffry Sharkey, et al	1
9	7/12/11	Email	Withdrawal of SECY-11-0093	Jeffry Sharkey	Commissioner Svinicki	1
10	7/12/11	Email	Withdrawal of SECY-11-0093	Commissioner Svinicki	Jeffry Sharkey	1
11	7/13/11	Email	Withdrawal of SECY-11-0093	Jeffry Sharkey	Commissioner Svinicki	1
12	7/13/11	Email	Withdrawal of SECY-11-0093	Bill Borchardt	Jeffry Sharkey	1
13	7/13/11	Email	Withdrawal of SECY-11-0093	Jeffry Sharkey	Commissioner Svinicki	2
14	7/13/11	Email	Withdrawal of SECY-11-0093	Martin Virgilio	Jeffry Sharkey	2

<sup>1</sup> Documents contained in the official files of the Office of the Secretary that are not under Commissioner Svinicki's sole control (e.g., other Commissioner's votes on SECY papers or Staff Requirements Memoranda) are not included in this index.

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15	7/13/11	Email	Vote Sheet for SECY-11-0093	Darlene Wright	Steven Baggett, et al	2
16	7/13/11	Email	Withdrawal of SECY-11-0093	Bill Borchardt	Jeffry Sharkey	2
17	7/13/11	Email	Withdrawal of SECY-11-0093	Jeffry Sharkey	Commissioner Svinicki	2
18	7/13/11	Email	Withdrawal of SECY-11-0093	Patrice Bubar	Jeffry Sharkey	1
19	7/13/11	Email	Withdrawal of SECY-11-0093	Patrice Bubar	Annette Vietti-Cook, et al	1
20	7/13/11	Email	Withdrawal of SECY-11-0093	Jeffry Sharkey	Commissioner Svinicki	1
21	7/13/11	Email	Memorandum of resource implications associated with SECY-11-0093	Richard Laufer	Nanette Gilles	1
22	7/15/11	Email	Path Forward on Task Force Recommendations	Commissioner Svinicki	Bill Borchardt, et al	1
23	7/15/11	Email	Path Forward on Task Force Recommendations	Commissioner Svinicki	Jeffry Sharkey, et al	1
24	7/15/11	Email	Path Forward on Task Force Recommendations	Bill Borchardt	Commissioner Svinicki, et al	2
25	7/15/11	Email	Path Forward on Task Force Recommendations	Commissioner Svinicki	Jeffry Sharkey, et al	2
26	7/15/11	Email	Path Forward on Task Force Recommendations	Commissioner Svinicki	Bill Borchardt, et al	1
27	7/15/11	Email	Path Forward on Task Force Recommendations	Commissioner Ostendorff	Commissioner Svinicki	2
28	7/15/11	Email	Path Forward on Task Force Recommendations	Commissioner Magwood	Commissioner Svinicki	2

\*Document is also response to Item 3.

~~NOT FOR PUBLIC DISCLOSURE~~

~~NOT FOR PUBLIC DISCLOSURE~~

OFFICE OF COMMISSIONER KRISTINE L. SVINICKI  
INDEX OF DOCUMENTS PROVIDED IN RESPONSE TO ITEM 3<sup>2</sup>

Doc. No.	Date	Document Type	Subject Matter	Author	Addressee	No. of Pages
1	7/5/11	Email	Charter and Timeline for Long Term Task Force	Jeffry Sharkey	Commissioner Svinicki	1
2	7/5/11	Email	Charter and Timeline for Long Term Task Force	Jeffry Sharkey	Patrice Bubar	1
3	7/5/11	Email	Charter and Timeline for Long Term Task Force	Patrice Bubar	Jeffry Sharkey, et al	6
4	7/5/11	Email	Charter and Timeline for Long Term Task Force	Patrice Bubar	Jeffry Sharkey	2
5	7/8/11	Email	Request for Early Public Release of Japan Task Force Report	Richard Laufer	Steven Baggett, et al	1
6	7/8/11	Email	Request for Early Public Release of Japan Task Force Report	Jeffry Sharkey	Commissioner Svinicki	1
7	7/10/11	Email	Request for Early Public Release of Japan Task Force Report	Patrice Bubar	Belkys Sosa, et al	2
8	7/10/11	Email	Request for Early Public Release of Japan Task Force Report	Jeffry Sharkey	Patrice Bubar, et al	2
9	7/10/11	Email	Request for Early Public Release of Japan Task Force Report	Patrice Bubar	Jeffry Sharkey, et al	2
10	7/11/11	Email	Request for Early Public Release of Japan Task Force Report	Ho Nieh	Patrice Bubar, et al	2
11	7/12/11	Email	Final Communication Plan for Japan Task Force Report	Mindy Landau	Darren Ash, et al	14
12	7/12/11	Email	Request for Early Public Release of Japan Task Force Report	Jeffry Sharkey	Patrice Bubar, et al	2
13	7/12/11	Email	Request for Early Public Release of Japan Task Force Report	Ho Nieh	Jeffry Sharkey, et al	2

<sup>2</sup> Documents contained in the official files of the Office of the Secretary that are not under Commissioner Svinicki's sole control (e.g., other Commissioner's votes on SECY papers or Staff Requirements Memoranda) are not included in this index. Also, this index does not capture documents related to Commissioners' substantive deliberations on the Near-Term Task Force's recommendations, which are currently ongoing – we understand those documents to be outside the scope of the request.

~~NOT FOR PUBLIC DISCLOSURE~~

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14	7/12/11	Email	Request for Early Public Release of Japan Task Force Report	Patrice Bubar	Jeffry Sharkey	2
15	7/12/11	Email	Request for Early Public Release of Japan Task Force Report	Jeffry Sharkey	Richard Laufer, et al	1
16	7/12/11	Email	Request for Early Public Release of Japan Task Force Report	Patrice Bubar	Richard Laufer, et al	1
17	7/12/11	Email	Draft press release regarding Task Force Report	Eliot Brenner	Joshua Batkin, et al	4
18	7/12/11	Email	Draft press release regarding Task Force Report	Jeffry Sharkey	Commissioner Svinicki	1
19	7/12/11	Email	Draft press release regarding Task Force Report	Patrice Bubar	Jeffry Sharkey, et al	1
20	7/12/11	Email	Draft press release regarding Task Force Report	Jeffry Sharkey	Patrice Bubar, et al	2
21	7/12/11	Email	Draft press release regarding Task Force Report	Ho Nieh	Jeffry Sharkey, et al	1
22	7/13/11	Email	Draft press release regarding Task Force Report	Commissioner Magwood	Chairman Jaczko	1
23	7/13/11	Email	Draft press release regarding Task Force Report	Commissioner Svinicki	Commissioner Magwood, et al	1
24	7/13/11	Email	Draft press release regarding Task Force Report	Patrice Bubar	Jeffry Sharkey	1
25	7/13/11	Email	Draft press release regarding Task Force Report	Patrice Bubar	Jeffry Sharkey, et al	1
26	7/13/11	Email	Draft press release regarding Task Force Report	Jeffry Sharkey	Patrice Bubar, et al	1
27	7/13/11	Email	Press Release: NRC's Japan Task Force Recommends Changes to Defense in Depth Measures at Nuclear Plants	NRC Office of Public Affairs	Coleman Abbott, et al	4
28	7/13/11	Email	Draft press release regarding Task Force Report	Commissioner Ostendorff	Chairman Jaczko	4
29	7/13/11	Email	Draft press release regarding Task Force Report	Commissioner Svinicki	Jeffry Sharkey	4
30	7/13/11	Email	Press Release: NRC's Japan Task Force Recommends Changes to Defense in Depth Measures at Nuclear Plants	Glenn Ellmers	Mindy Landau, et al	4

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~~NOT FOR PUBLIC DISCLOSURE~~

31	7/15/11	Email	Roadmap [for Long Term Task Force] & Agenda Planning	Commissioner Ostendoff	Commissioner Svinicki	2
32	7/20/11	Email	Early Public Release of SECY-11-0093	Ken Hart	Steven Baggett, et al	1
33	7/20/11	Email	Early Public Release of SECY-11-0093	Ho Nieh	Ken Hart, et al	1
34	7/20/11	Email	Early Public Release of SECY-11-0093	Jeffry Sharkey	Ho Nieh	1

~~NOT FOR PUBLIC DISCLOSURE~~




MEMORANDUM TO: House of Representatives Committee on Oversight  
and Government Reform

FROM: Darani M. Reddick  
Legal Counsel  
Office of Commissioner Kristine L. Svinicki  
U.S. Nuclear Regulatory Commission

SUBJECT: CERTIFICATION OF DOCUMENT PRODUCTION IN RESPONSE  
TO JULY 15, 2011 LETTER

I, Darani Reddick, Legal Counsel to U.S. Nuclear Regulatory Commissioner Kristine L. Svinicki, certify that a diligent search has been completed of all documents in the possession, custody, or control of the Office of Commissioner Kristine L. Svinicki that could reasonably contain documents that are responsive to the Committee's request. I further certify that all documents located during the search that are responsive have been produced to the Committee.

  
\_\_\_\_\_  
Darani M. Reddick 07/29/11

COMMITTEES  
NATURAL RESOURCES  
RANKING DEMOCRAT  
ENERGY AND COMMERCE

EDWARD J. MARKEY  
7TH DISTRICT, MASSACHUSETTS

2108 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-2107  
(202) 225-2836

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-2107**

DISTRICT OFFICES:  
5 HIGH STREET, SUITE 101  
MEDFORD, MA 02155  
(781) 396-2500

188 CONCORD STREET, SUITE 102  
FRAMINGHAM, MA 01702  
(508) 875-2900

<http://markey.house.gov>

July 21, 2011

The Honorable Kristine L. Svinicki  
The Honorable William D. Magwood, IV  
Commissioners  
Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Dear Commissioners Svinicki and Magwood:

I write to convey my disappointment in your recent votes<sup>1</sup> to delay even the consideration of the adoption of the recommendations of the Nuclear Regulatory Commission's (NRC's) Near Term Task Force reviewing NRC processes and regulations in the wake of the Fukushima nuclear meltdowns. I believe your stance is unsupportable, irresponsible, and unacceptable, and I urge you to reverse it.

The Near-Term Task Force was comprised of 6 senior NRC officials<sup>2</sup>, who together have more than 135 years of nuclear regulatory expertise. These distinguished NRC officials included the Director of the Office of Federal and State Materials and Environmental Management Program, the Director of the Office of Nuclear Material and Safeguards, the Deputy Director of the Office of Nuclear Reactor Regulation, the Deputy Director of the Office of Nuclear Reactor Regulation, the Deputy Director of the Office of New Reactors, the Executive Technical Assistant of the Office of the Executive Director for Operations, and the Team Leader of the Office of New Reactors.

According to its report<sup>3</sup>, the Task Force had "full access to the NRC staff to obtain information on existing programs, received briefings from staff experts in the Headquarters offices, and solicited inputs from all four NRC regional offices. The Task Force also obtained valuable insights from the members of the NRC site team in Japan." The Task Force additionally obtained information from nuclear reactor licensees, accompanied NRC inspectors at two nuclear power plant sites, met with representatives of the Institute of Nuclear Power Operations, the Federal Emergency Management Agency (FEMA) and "appropriately screened and considered information and suggestions received from internal and external stakeholders. The Task Force monitored,

<sup>1</sup> <http://www.nrc.gov/reading-rm/doc-collections/commission/cvr/2011/2011-0093vtr-cls.pdf>  
<http://www.nrc.gov/reading-rm/doc-collections/commission/cvr/2011/2011-0093vtr-wdm.pdf>

<sup>2</sup> <http://pbadupws.nrc.gov/docs/ML1109/ML110910479.pdf>

<sup>3</sup> <http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2011/2011-0093scy.pdf>

directly or indirectly, related international activities of the International Atomic Energy Agency (IAEA), Nuclear Energy Agency (NEA), and other organizations.”

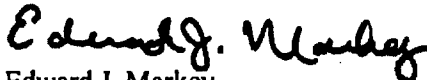
Last week, the Task Force transmitted its report to the Commission, and presented a specific set of recommendations for near-term Orders, rulemakings that should be initiated, and items that should be further studied in order to determine the best course of action in response to the Fukushima melt-downs. Chairman Jaczko then issued a proposal (see Attachment 1) for how the Commission should consider these recommendations. This proposal included meetings with external stakeholders, three full Commission meetings, and input from additional NRC staff and the NRC’s Advisory Committee on Reactor Safeguards. He also proposed that the Commission determine, one way or the other, how it planned to proceed on each of the Task Force’s recommendations by October 21 – 90 days after the publication of the report that itself took 90 days to prepare.

Regrettably and surprisingly, you did not indicate your support for the Chairman’s proposal, instead calling for additional study and delays.

You appear able to wholeheartedly trust the Task Force’s conclusion that “a sequence of events like the Fukushima accident is unlikely to occur in the United States,” and that “continued operation and continued licensing activities do not pose an imminent risk to public health and safety.” Yet for some inexplicable reason, you do not trust the Task Force’s other conclusions which include numerous recommendations to revise regulatory requirements to ensure that nuclear reactors in the U.S. are better able to withstand large impact events such as earthquakes and tsunamis or mitigate against the sort of long power outages that caused the melt-downs in Japan. You have not embraced the aggressive yet thorough approach proposed for action on these recommendations by the Chairman that includes the opportunity for formal engagement and input from all the many stakeholders you say you wish to hear from. You have instead called for yet another NRC staff work group to evaluate the NRC Task Force’s own report, and require a Commission vote on the work group plan to study the Task Force report, all before this new round of studying can even begin!

Your recommended approach leaves me with the impression that you simply do not wish to *lead* the Commission in efforts to ensure the safety of the nuclear industry sector in this country, but instead wish to *preside* over dilatory efforts to ignore, perhaps indefinitely, the recommendations of the Commission’s expert and dedicated staff. I urge you in the strongest possible terms to re-consider your ill-advised votes and instead work with your colleagues to address the NRC Task Force’s recommendations in as serious a manner as their work befits.

Sincerely,

  
Edward J. Markey

## ROADMAP FOR COMMISSION DECISIONMAKING AND OBTAINING STAKEHOLDER INPUT ON THE NEAR-TERM TASK FORCE'S RECOMMENDATIONS

### Key Attributes

- The Commission would hold three meetings with the staff and external stakeholders. Prior to each of these Commission meetings, there would be opportunities for stakeholders to provide feedback on the near-term Task Force's recommendations and for the staff to provide additional information to the Commission.
  - The three proposed Commission meetings would be organized by overarching recommendation, as delineated on pages 69 and 70 of the near-term Task Force report (attached), including discussion of implementation strategies as outlined in Appendix A, and are envisioned to be full day meetings.
  - Prior to the Commission meetings, external stakeholder input on the near-term Task Force's recommendations would be obtained through a *Federal Register* notice issued no later than July 28, 2011.
  - The Commission meetings would include a panel of external stakeholders. The staff is developing a panel of external stakeholders to provide individual advice and perspectives to the Commission and staff. These stakeholders could be used as panelists for the three Commission meetings, and would be well-suited to provide feedback to the Commission on the recommendations.
  - The staff envisions that the level of detail of the information it would present at the Commission meetings would be similar to that provided to the Commission at the July 12, 2011, Commission meeting on the status of actions to address the recommendations of the Integrated Regulatory Review Service mission.
- Once the three Commission meetings are complete, the Commission will have the opportunity to consider the near-term Task Force's recommendations holistically with the benefit of stakeholder input, as it votes on the Task Force Report, SECY-11-0093, with a goal of October resolution.

### Proposed Commission Meetings

- Safety Through Defense-in-Depth: Ensuring Protection From External Events

August 8	determine stakeholder panel and issue invites
August 15	additional staff and stakeholder comments on Recommendation 2, 3 (R2 and R3)
August 22	TA briefing to provide additional background and near-term Task Force and additional staff views, if requested
August 29 or 30	Commission meeting on R2 and R3 (an ITAAC meeting is currently scheduled for August 30)

- **Safety Through Defense In Depth: Mitigation**
  - August 22 determine stakeholder panel and issue invites
  - August 29 additional staff and stakeholder comments on R4 – R8
  - September 6 TA briefing to provide additional background and near-term Task Force and additional staff views, if requested
  - September 13 Commission meeting on R4 – R8
  
- **Safety Through Defense in Depth: EP and 21<sup>st</sup> Century Framework and Impact**
  - September 9 determine panel and issue invites
  - September 16 additional staff and stakeholder comments on R9, R10, R11, R1, and R12
  - September 26 – 30 TA brief on EP to provide additional background and near-term Task Force and additional staff views, if requested
  - September 26 – 30 TA brief on 21<sup>st</sup> Century Framework and Impact to provide additional background and near-term Task Force and additional staff views, if requested
  - September 30 Commission meeting on R9, R10, R11, R1, and R12

Proposed Schedule for Commission Action on the Near-Term Task Force Report

Request ACRS letter in September, following August 16<sup>th</sup> meeting with Task Force  
Commission votes by October 7  
SRM completed by October 21

# 2528

BARBARA BOXER, CALIFORNIA, CHAIRMAN

MAX BAUCUS, MONTANA  
THOMAS R. CARPER, DELAWARE  
FRANK R. LAUTENBERG, NEW JERSEY  
BENJAMIN L. CARDIN, MARYLAND  
BERNARD SANDERS, VERMONT  
SHELDON WHITEHOUSE, RHODE ISLAND  
TOM UDALL, NEW MEXICO  
JEFF MERKLEY, OREGON  
KIRSTEN GILLIBRAND, NEW YORK

JAMES M. INHOFE, OKLAHOMA  
DAVID VITTER, LOUISIANA  
JOHN BARRASSO, WYOMING  
JEFF SESSIONS, ALABAMA  
MIKE CRAPO, IDAHO  
LAMAR ALEXANDER, TENNESSEE  
MIKE JOHANNIS, NEBRASKA  
JOHN BOOZMAN, ARKANSAS

## United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, DC 20510-6175

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

July 8, 2011

The Honorable Kristine Svinicki  
Commissioner  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Commissioner Svinicki:

A nuclear accident in Japan should not be automatically viewed as an indictment of U.S. institutional structures and nuclear safety requirements. Reconstructing a detailed sequence of events and the technological aspects of the Fukushima accident will take some time to be thoroughly examined and understood. However, I believe that a comparison of U.S. regulatory requirements with those in Japan is essential and can be accomplished in the near term. A regulatory comparison should not be an effort to criticize the Japanese regulatory framework. Rather it should be rooted in an acknowledgement that our regulatory systems and culture are fundamentally different, most notably with the establishment in the U.S. of an independent agency early in the industry's history whose sole focus is to regulate the safe use of nuclear materials.

A systematic and methodical regulatory comparison should determine if there are differences that either indicate necessary safety enhancements or provide added confidence that our nuclear safety regime appropriately reflects lessons learned from past accidents and provides adequate protection of public health and safety. The absence of such a review would diminish the credibility of any new regulatory requirements since there would be no clear basis for assessing whether the recommended changes accurately and adequately address actual problems highlighted by the Fukushima accident.

I am concerned that the Nuclear Regulatory Commission's efforts in this area are inadequate. The Commission's March 23 memo directing the staff to establish a task force fails to mention a comparison of US regulations with Japanese requirements. It appears it was not until June 8th that the staff was directed to make such an evaluation and that direction was limited to station blackouts and given a very low emphasis. Information is emerging from the International Atomic Energy Agency (IAEA), the Japanese Government, the media, and other sources that indicate differences may exist between US and Japanese regulatory institutions and requirements that are relevant and should be evaluated:

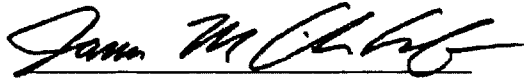
- a. The IAEA observed and the Japanese Government acknowledged that they underestimated the magnitude of a tsunami for which the Fukushima Daiichi plant was at risk. What method was used for that estimation and how does it compare to methods used by the NRC?
- b. The NRC has strict design, maintenance, and testing requirements in place to ensure the operability of emergency diesel generators when needed. These requirements begin with locating multiple, redundant diesel generators, their fuel tanks, and electrical equipment within robust structures designed to withstand hurricanes, earthquakes, tornados, floods and other phenomena. Each generator is strictly maintained and required to be tested weekly or monthly to ensure it will get up to speed in less than 10 seconds when called on, resulting in a 97% reliability rate. How do these requirements compare with the Japanese requirements in place at the time of the Fukushima accident?
- c. U.S. reactor operators are not only empowered but required to take all necessary actions to protect the public. In the wake of the Fukushima accident, there are several press articles about corporate and government officials influencing decision-making about plant operations during the emergency at Fukushima. How do these different approaches impact efforts to respond in an emergency situation?
- d. The Three Mile Island accident raised awareness in the U.S. of the vital importance of operator training. As a result, the NRC, the Institute of Nuclear Power Operations, and the nuclear industry have invested heavily and continuously in operator training, including licensing by the NRC, rigorous standardized training programs, and site-specific simulators at every plant. How does the Japanese training regime compare and how might those differences impact how operators might respond in an emergency?
- e. At the time of the Fukushima accident, did the Japanese have anything comparable to our nuclear industry's Severe Accident Management Guidelines?

These are a few areas, and there are surely others, where comparison and analysis need not wait until there is complete understanding of the technical details of the full event. I suggest you and your colleagues promptly work together to provide direction to the staff to develop a charter for a rapid-response study in these and other closely related areas with consideration given to specific design and beyond design basis requirements. I would ask that this comparison and analysis be accomplished with all deliberate speed.

Commissioner Kristine Svinicki  
July 8, 2011  
Page 3

Lastly, the NRC's Efficiency Principle of Good Regulation states: "Regulatory activities should be consistent with the degree of risk reduction they achieve." I hope this statement will inform your perspective as you proceed to consider any potential regulatory changes in response to the Fukushima accident.

Sincerely,



James M. Inhofe  
Ranking Member  
Committee on Environment and Public Works

CC: Chairman Gregory Jaczko  
Cmsr. William Ostendorff  
Cmsr. William Magwood  
Cmsr. George Apostolakis





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

June 16, 2011

COMMISSIONER

The Honorable Darrell E. Issa  
Chairman, Committee on Oversight and  
Government Reform  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Chairman Issa:

I write to address question 2 of your letter dated May 26, 2011. Regarding the information requested by the Advisory Committee on Reactor Safeguards (ACRS) related to the calculations used in developing the recommendation that U.S. residents within 50 miles of the Fukushima Daiichi nuclear facility evacuate, I have not informed members of the ACRS that they will not receive this information, nor have I communicated to the ACRS that there will be a delay in receiving this information. I support the role of the ACRS in reviewing the events at Fukushima, and believe that the NRC Staff should endeavor to fulfill information requests from the ACRS promptly. Thank you for the opportunity to express my individual views on this subject. Please feel free to contact me should you have further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristine L. Svinicki".

Kristine L. Svinicki

cc: The Honorable Elijah E. Cummings, Ranking Member

Commissioner Kristine L. Swinicki

F.I.J.  
Jim Sandziel

~~1. Carol Swinicki~~

2. Carolyn (File -  
Public E-mails + letters -  
(Copy being routed)

(b)(6)

March 19, 2011

A 2309

Mr. R. William Borchardt  
Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Executive Director for Operations R. William Borchardt:

I am writing this letter to request you to direct NRC staff, as necessary, to prepare the necessary draft laws, procedures, guidance, and what ever else is necessary to immediately classify all spent fuel and associated spent fuel storage and handling operations and facilities, both on nuclear plant sites and off, as "Safety-Related" and subject to immediate and continuing NRC inspection efforts. It is clear to me from the news from Japan that such actions on the part of the NRC are imperative in order to protect the safety of the public as well as the nuclear industry employees.

It has also been clear to me from the time I inquired about why the 100 ton loaded spent fuel cask dropped, (that's right, I said "dropped") on the Vermont Yankee refuel floor by a non-(load)-tested overhead reactor building crane did not result in any monetary fine, that, presently such items are not considered important enough to receive the "Safety-Related" classification.

Additionally, I want to state that I do not accept any reason that delay is necessary or that this effort should be delegated to some other function/person/organization. Specifically, I do not think it worthwhile to wait until the final Lessons Learned report is finally finished about the present situation in Japan since I have recently witnessed just how long it takes the NRC to issue a SIT report. And, in particular, I do not want to be contacted by an NRC employee and told that, as a public citizen, I should be the one to do this work (as I have been told in the past.)

Conclusion: I want you to immediately classify as "Safety-Related" and start inspecting all spent fuel storage, all on-site spent fuel facilities, spent fuel movement, spent fuel casks, and all off site spent fuel facilities.

Thank you,

Thomas Gurdziel  
Member, ASME

You might need more budget money to do this: I would support such a request.

Copy: Chairman Gregory B. Jaczko  
Commissioner Kristine L. Svinicki  
Commissioner George Apostolakis  
Commissioner William D. Magwood, IV  
Commissioner William C. Ostendorff

Not in ADAMS

2 pgs

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Jan 04, 2012 14:59

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**PAPER NUMBER:** LTR-12-0001 **LOGGING DATE:** 01/03/2012  
**ACTION OFFICE:** OIP

**AUTHOR:** John Roos  
**AFFILIATION:** JAPAN  
**ADDRESSEE:** Gregory Jaczko  
**SUBJECT:** Expresses appreciation for personal support provided to the Japanese Embassy and express appreciation for the efforts of staff in Japan

**ACTION:** Appropriate  
**DISTRIBUTION:** RF, EDO

**LETTER DATE:** 12/05/2011  
**ACKNOWLEDGED:** No  
**SPECIAL HANDLING:**

**NOTES:**  
**FILE LOCATION:** ADAMS

**DATE DUE:** **DATE SIGNED:**



AMBASSADOR OF  
THE UNITED STATES OF AMERICA  
TOKYO

December 5, 2011

Mr. Gregory B. Jaczko  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Chairman Jaczko,

I am writing to thank you for your continued personal support to our Embassy and to express my deep appreciation for the efforts of your staff here in Japan and of all the men and women of the NRC supporting them from Washington. They have been invaluable over these past months since the events at Fukushima.

As you know, in times of crisis our American embassies around the world become the focal points of the generosity of the American people. We have a great tradition of standing arm-in-arm with suffering peoples during tragic times. We have provided tremendous aid throughout the years in response to various natural and man-made events, but we have never confronted the confluence of one of the worst earthquakes ever measured, followed by a devastating tsunami, and compounded by one of the worst nuclear incidents in history. The tragedy of the earthquake and tsunami that left thousands dead and missing and hundreds of thousands in shelters was overlaid with deep-seated public anxiety over the continuing events at Fukushima.

In the midst of this turmoil, the team you amassed to support us, led by Chuck Casto, has been a thoughtful and deliberate voice of reason. Besides meeting with their Japanese counterparts and working hard to provide their best advice and assistance to stabilize the situation, they have helped us in the Embassy place the media reports of incidents related to Fukushima in their proper context. This in turn has helped us provide valuable information to assure the large community of American citizens throughout Japan.

During those intensive months as I walked the halls and met with our staff, several long-serving employees remarked that these were this Embassy's finest hours. The professionalism, commitment to excellence and dedication of your team both here and in Washington have been evident throughout these long and difficult months. Their articulate communication of complex technical issues has helped me to understand the challenges

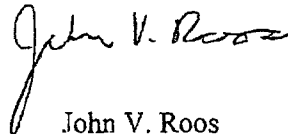
1/3...To OIP for Appropriate Action..Cpy to: RF, EDO..12-0001

FX 711 of 728

before us and to maneuver through the uncharted waters. In addition, the team here has interacted with our Japanese colleagues in a manner that reflects well on the United States and will serve to strengthen our alliance with Japan as we worked to resolve many serious issues.

The excellence, professionalism, and public service dedication of the men and women of the NRC were on display throughout this crisis and brought great credit to the NRC and the United States of America. Please convey to them my heartfelt appreciation for all of their support to this Mission and the American community we serve, and to our good friends, the people of Japan.

Sincerely,

A handwritten signature in cursive script that reads "John V. Roos". The signature is written in dark ink and is positioned above the printed name.

John V. Roos

(b)(5)

(b)(5)



(b)(5)



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 30, 2011

The Honorable Darrell E. Issa  
Chairman, Committee on Oversight and Government Reform  
United States House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

I am responding to your letter of August 5, 2011, seeking additional documents related to your Committee's investigation. Specifically, you requested documents related to the July 6, 2011 response to the Committee's May 26, 2011 letter focused on the 50-mile evacuation recommendation in response to events in Japan, as well as documents related to NRC's responses to the Committee's previous inquiries during the current investigation.

Based on an August 11, 2011 telephone conversation between John Ohly on your Committee staff and NRC staff, it is our understanding that, with respect to Request #4 in your August 5 letter, you are only interested in internal NRC correspondence shedding light on how the agency internally processed and interpreted the scope and terms of your earlier document requests. Our staff followed this guidance in providing the enclosed responses.

Please note that documents in this response have not been released to the public and have thus been marked "not for public disclosure." I respectfully ask that the Committee honor these markings. Also note that, generally, internal NRC communications that summarize communications with the Executive Branch are not being provided.

If NRC staff find additional documents responsive to this request in the course of their work, our Office of Congressional Affairs will provide them to the Committee. I understand that my colleagues on the Commission may respond to you under separate cover.

As I have conveyed in my previous correspondence with you, I would be happy to meet and discuss your concerns. I look forward to that opportunity.

Sincerely,

Gregory B. Jaczko

Enclosure: As stated

cc: Representative Elijah E. Cummings

GARRETT L. ISAAC, CALIFORNIA  
CHAIRMAN

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LAWRENCE J. BRADY  
STAFF DIRECTOR

ONE HUNDRED TWELFTH CONGRESS

# Congress of the United States

## House of Representatives

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

Telephone: (202) 225-2374  
Facsimile: (202) 225-2942  
Website: www.house.gov  
http://oversight.house.gov

July 15, 2011

WILLIAM T. COFFMAN, MARYLAND  
RANKING MEMBER

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CANDACE B. MANNING, NEW YORK  
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DANNY K. DAVIS, ILLINOIS  
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PETER WELCH, VERMONT  
JOHN A. YARMOUTH, KENTUCKY  
CHRISTOPHER S. MURPHY, CONNECTICUT  
JACKIE SPEER, CALIFORNIA

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

Dear Chairman Jaczko:

The Committee's investigation into the management and operations of the Nuclear Regulatory Commission (NRC) has led to new concerns about the control of information at the Commission. Specifically, it appears that you and your staff continue to restrict your fellow Commissioner's access to the advice and opinions of NRC staff and ignore established Commission procedures for collegial deliberation.

As you know, following the accident at the Japanese Fukushima Daiichi reactors, the Commission instructed NRC technical staff to establish a Task Force to perform both a near-term and long-term review of NRC "processes and regulations to determine whether the agency should make additional improvements to [its] regulatory system."<sup>1</sup>

On July 12, 2011, the Task Force provided the Commission with the results of the near-term review. Though the Task Force found no "imminent risk to public health and safety," NRC's technical staff made twelve recommendations to improve the agency's regulatory framework.<sup>2</sup> These recommendations reflected solely the findings of the Task Force and were not informed by substantial engagement with internal or external stakeholders.

Pursuant to the direction provided in the March 23, 2011 tasking memorandum, the staff delivered the near-term report to the Commission as a Notation Vote Paper.<sup>3</sup> As you are aware,

<sup>1</sup> U.S. Nuclear Regulatory Commission, Memorandum from Chairman Jaczko to R.W. Borchardt, Executive Director of Operations "Tasking Memorandum - COMGBJ-11-0002 - NRC Actions Following the Events in Japan," (March 23, 2011), *available at* <http://www.nrc.gov/reading-rm/doc-collections/commission/comm-secy/2011/2011-0002comgbj-srm.pdf>.

<sup>2</sup> Press Release No. 11-127, U.S. Nuclear Regulatory Commission, "NRC's Japan Task Force Recommends Changes to Defense in Depth Measures at Nuclear Plant; Cites Station Blackout, Seismic, Flooding and Spent Fuel Pools as Areas for Improvement." (July 13, 2011) *available at* <http://pbadupws.nrc.gov/docs/ML1119/ML11194A079.pdf>.

<sup>3</sup> (Notation Vote Paper) indicates an issue requiring consideration by the Commission or consultation with the Commission prior to action by the staff, but not requiring collegial deliberation among Commissioners or a formal

The Honorable Gregory B. Jaczko  
July 15, 2011  
Page 2

a Notation Vote Paper falls within the category of documents – known as SECY papers – used by staff to deliver information to the full Commission, via the Secretary of the Commission, for consideration and guidance.

Consistent with established NRC procedures, when the Commission received the near-term report it was accompanied by a SECY paper summarizing the staff's findings and positions. The Committee has learned the original SECY paper included a suggestion from the staff that the recommendations presented in the near-term review may warrant greater stakeholder participation prior to action by the Commission. Subsequently, the Secretary of the Commission was instructed to withdraw the SECY paper.

The Commission later received a substantially revised version of the SECY paper. Apparently, the new version no longer contains suggestions that the staff originally included for consideration by the Commission. Despite the fact that this document is correspondence from the staff to the Commission, we have learned that the revised SECY paper may have been drafted or influenced by your personal staff.

If a SECY paper developed by the NRC staff was in fact withdrawn without input from your colleagues on the Commission, this would demonstrate yet another example of your disregard for the established collegial protocols of the NRC. As I am sure you are aware, the Internal Commission Procedures state:

A SECY paper or COMSECY will be returned to the staff without action if a majority of the Commissioners participating subscribe to that course of action. If the staff recommends withdrawal of a SECY paper or COMSECY, the staff must explain to the Commission the basis for its recommendation in writing. The Commission can consider such staff recommendations during the voting process.<sup>4</sup>

Obstruction of any Commissioner's full and timely access to the NRC staff, for either factual information or their unadulterated opinions, is completely unacceptable. In order to assist the Committee in understanding how this abrogation of Commission internal procedures occurred, please provide the following by July 29, 2011:

1. All drafts of SECY paper 11-00093. Include all drafts prepared by NRC staff, your staff, or anyone else at the NRC.
2. Documents and communications from you, your staff, Commission staff, members of the task force, or NRC staff referring or related to the withdrawal of SECY paper 11-00093.

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vote in a meeting, thereby lending itself to a written notation process. U.S. Nuclear Regulatory Commission, Internal Commission Procedures, available at <http://www.nrc.gov/about-nrc/policy-making/internal.html#Votes> (retrieved July 14, 2011).

<sup>4</sup> *Id.*

The Honorable Gregory B. Jaczko  
July 15, 2011  
Page 3

3. Documents and communications from you, your staff, Commission staff, members of the task force, or NRC staff referring or related to the submittal of the Near-Term Report to the Commission, the Commission's action on the recommendations contained therein, the public release of the report, and the submittal of the report to any member of Congress.

When producing documents to the Committee, please deliver production sets to the Majority Staff in Room 2157 of the Rayburn House Office Building and the Minority Staff in Room 2471 of the Rayburn House Office Building. The Committee prefers, if possible, to receive all documents in electronic format. An attachment to this letter provides additional information about responding to the Committee's request.

If you have any questions about this request, please contact John Ohly or Jonathan Skladany of the Committee Staff at (202) 225-5074. Thank you for your attention to this matter.

Sincerely,

  
Darrell Issa  
Chairman

Enclosure.

cc: The Honorable Elijah E. Cummings, Ranking Minority Member

The Honorable William Ostendorff, Commissioner  
U.S. Nuclear Regulatory Commission

The Honorable Kristine Svinicki, Commissioner  
U.S. Nuclear Regulatory Commission

The Honorable William Magwood, Commissioner  
U.S. Nuclear Regulatory Commission

The Honorable George Apostolakis, Commissioner  
U.S. Nuclear Regulatory Commission

DARRELL E. ISSA, CALIFORNIA  
CHAIRMAN

ELIJAH E. CUMMINGS, MARYLAND  
RANKING MINORITY MEMBER

ONE HUNDRED TWELFTH CONGRESS

## Congress of the United States

### House of Representatives

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM  
2157 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6143

Majority (202) 225-5074  
Minority (202) 225-5051

#### Responding to Committee Document Requests

1. In complying with this request, you should produce all responsive documents that are in your possession, custody, or control, whether held by you or your past or present agents, employees, and representatives acting on your behalf. You should also produce documents that you have a legal right to obtain, that you have a right to copy or to which you have access, as well as documents that you have placed in the temporary possession, custody, or control of any third party. Requested records, documents, data or information should not be destroyed, modified, removed, transferred or otherwise made inaccessible to the Committee.
2. In the event that any entity, organization or individual denoted in this request has been, or is also known by any other name than that herein denoted, the request shall be read also to include that alternative identification.
3. The Committee's preference is to receive documents in electronic form (i.e., CD, memory stick, or thumb drive) in lieu of paper productions.
4. Documents produced in electronic format should also be organized, identified, and indexed electronically.
5. Electronic document productions should be prepared according to the following standards:
  - (a) The production should consist of single page Tagged Image File ("TIF"), files accompanied by a Concordance-format load file, an Opticon reference file, and a file defining the fields and character lengths of the load file.
  - (b) Document numbers in the load file should match document Bates numbers and TIF file names.
  - (c) If the production is completed through a series of multiple partial productions, field names and file order in all load files should match.

6. Documents produced to the Committee should include an index describing the contents of the production. To the extent more than one CD, hard drive, memory stick, thumb drive, box or folder is produced, each CD, hard drive, memory stick, thumb drive, box or folder should contain an index describing its contents.
7. Documents produced in response to this request shall be produced together with copies of file labels, dividers or identifying markers with which they were associated when they were requested.
8. When you produce documents, you should identify the paragraph in the Committee's request to which the documents respond.
9. It shall not be a basis for refusal to produce documents that any other person or entity also possesses non-identical or identical copies of the same documents.
10. If any of the requested information is only reasonably available in machine-readable form (such as on a computer server, hard drive, or computer backup tape), you should consult with the Committee staff to determine the appropriate format in which to produce the information.
11. If compliance with the request cannot be made in full, compliance shall be made to the extent possible and shall include an explanation of why full compliance is not possible.
12. In the event that a document is withheld on the basis of privilege, provide a privilege log containing the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter; (d) the date, author and addressee; and (e) the relationship of the author and addressee to each other.
13. If any document responsive to this request was, but no longer is, in your possession, custody, or control, identify the document (stating its date, author, subject and recipients) and explain the circumstances under which the document ceased to be in your possession, custody, or control.
14. If a date or other descriptive detail set forth in this request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, you should produce all documents which would be responsive as if the date or other descriptive detail were correct.
15. The time period covered by this request is included in the attached request. To the extent a time period is not specified, produce relevant documents from January 1, 2009 to the present.
16. This request is continuing in nature and applies to any newly-discovered information. Any record, document, compilation of data or information, not produced because it has not been located or discovered by the return date, shall be produced immediately upon subsequent location or discovery.

17. All documents shall be Bates-stamped sequentially and produced sequentially.
18. Two sets of documents shall be delivered, one set to the Majority Staff and one set to the Minority Staff. When documents are produced to the Committee, production sets shall be delivered to the Majority Staff in Room 2157 of the Rayburn House Office Building and the Minority Staff in Room 2471 of the Rayburn House Office Building.
19. Upon completion of the document production, you should submit a written certification, signed by you or your counsel, stating that: (1) a diligent search has been completed of all documents in your possession, custody, or control which reasonably could contain responsive documents; and (2) all documents located during the search that are responsive have been produced to the Committee.

#### Definitions

1. The term "document" means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, expense reports, books, manuals, instructions, financial reports, working papers, records, notes, letters, notices, confirmations, telegrams, receipts, appraisals, pamphlets, magazines, newspapers, prospectuses, inter-office and intra-office communications, electronic mail (e-mail), contracts, cables, notations of any type of conversation, telephone call, meeting or other communication, bulletins, printed matter, computer printouts, teletypes, invoices, transcripts, diaries, analyses, returns, summaries, minutes, bills, accounts, estimates, projections, comparisons, messages, correspondence, press releases, circulars, financial statements, reviews, opinions, offers, studies and investigations, questionnaires and surveys, and work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and graphic or oral records or representations of any kind (including without limitation, photographs, charts, graphs, microfiche, microfilm, videotape, recordings and motion pictures), and electronic, mechanical, and electric records or representations of any kind (including, without limitation, tapes, cassettes, disks, and recordings) and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape or otherwise. A document bearing any notation not a part of the original text is to be considered a separate document. A draft or non-identical copy is a separate document within the meaning of this term.
2. The term "communication" means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether in a meeting, by telephone, facsimile, email, regular mail, telexes, releases, or otherwise.
3. The terms "and" and "or" shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this request any information which might



otherwise be construed to be outside its scope. The singular includes plural number, and vice versa. The masculine includes the feminine and neuter genders.

4. The terms "person" or "persons" mean natural persons, firms, partnerships, associations, corporations, subsidiaries, divisions, departments, joint ventures, proprietorships, syndicates, or other legal, business or government entities, and all subsidiaries, affiliates, divisions, departments, branches, or other units thereof.
5. The term "identify," when used in a question about individuals, means to provide the following information: (a) the individual's complete name and title; and (b) the individual's business address and phone number.
6. The term "referring or relating," with respect to any given subject, means anything that constitutes, contains, embodies, reflects, identifies, states, refers to, deals with or is pertinent to that subject in any manner whatsoever.

July 29, 2011

The Honorable Darrell Issa  
Chairman, Committee on Oversight and  
Government Reform  
United States House of Representatives  
Washington, D.C. 20515

Dear Mr. Chairman:

I am writing in response to your July 15, 2011, letter in which you requested information related to the submittal of the ***Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident*** (Task Force Report) to the Commission and ultimately its public release. Documents responsive to your request are included herein. Please note that a number of the documents in this submittal have not been released to the public and have been marked "not for public disclosure." I respectfully ask that the Committee honor these markings.

By statute, the Chairman is the principal executive officer of the Commission and the Executive Director for Operations (EDO) reports, for all matters, to the Chairman. Moreover, it is also the Chairman's responsibility to ensure that the EDO and the staff are responsive to the requirements of the Commission. In this case, the Commission unanimously established a senior level agency task force to make recommendations to the Commission for its policy direction. In doing so, the Commission directed that the Task Force Report would come to the Commission as a Notation Vote Paper.

Instead, the Task Force Report was originally transmitted to the Commission as an attachment to a separate voting paper, rather than the Report itself being the item upon which the Commission would vote. Because this was inconsistent with the Commission's direction, it was my responsibility to correct this error. I personally spoke with each of my Commission colleagues to explain the matter, and none of my colleagues questioned my actions or expressed concerns to me. I did not hear that my colleagues had concerns until after receiving your letter three days later when Commissioners' staff raised this issue with my staff.

I understand and appreciate your interest in ensuring that all employees at the NRC follow their statutory responsibilities and I can assure you that I share that interest. I am certain that you also share my interest in maintaining the agency's focus on protecting public health and safety, and I commit to you that I will continue to lead this agency with that single-minded focus.

- 2 -

As I have previously indicated, I remain available to speak with you anytime so please do not hesitate to contact me should you have any questions or concerns about the management and operations of the agency.

Sincerely,

*/RA/*

Gregory B. Jaczko

Enclosure: As stated

cc: Representative Elijah E. Cummings



OFFICE OF THE  
GENERAL COUNSEL


UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

CERTIFICATION

To the Committee on Oversight and Government Reform  
U.S. House of Representatives

I hereby certify that the documents provided with this transmittal constitute all responsive documents to the Committee's request dated, July 15, 2011, that were located in a diligent search, and that documents responsive to the request have not been destroyed, modified, removed, transferred, or otherwise made inaccessible to the Committee since the date of receiving the Committee's request or in anticipation of receiving the Committee's request. This certification is based on the representations made by NRC employees and officials of the Nuclear Regulatory Commission in providing documents in response to your request. Documents were collected by the Office of the Executive Director for Operations and the Office of Congressional Affairs. It is my understanding that individual Commissioners will provide his/her responsive documents in separate submittals.

07/29/11  
Date

  
Jeremy M. Suttberg, Esq.  
Attorney, Office of General Counsel  
Nuclear Regulatory Commission

**NOT FOR PUBLIC DISCLOSURE**

Schmidt, Rebecca

---

**From:** Powell, Amy  
**Sent:** Tuesday, July 12, 2011 12:15 PM  
**To:** Miller, Charles  
**Cc:** Schmidt, Rebecca  
**Subject:** RE: Phone briefing for Congressional staff

Would Thursday at 3pm work?

---

**From:** Miller, Charles  
**Sent:** Tuesday, July 12, 2011 11:29 AM  
**To:** Powell, Amy  
**Subject:** RE: Phone briefing for Congressional staff

Thursday would be best. I would want the whole TF to play.

---

**From:** Powell, Amy  
**Sent:** Tuesday, July 12, 2011 9:46 AM  
**To:** Miller, Charles  
**Cc:** Schmidt, Rebecca; Sanfilippo, Nathan  
**Subject:** Phone briefing for Congressional staff

Hi Charlie –

(b)(5)

Thanks,  
Amy

Amy Powell  
Associate Director  
U. S. Nuclear Regulatory Commission  
Office of Congressional Affairs  
Phone: 301-415-6673

Not in ADAMS

3 pgs Ruman

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: Jan 04, 2012 14:59

PAPER NUMBER: LTR-12-0001  
ACTION OFFICE: OIP

LOGGING DATE: 01/03/2012

AUTHOR: John Roos  
AFFILIATION: JAPAN  
ADDRESSEE: Gregory Jaczko

SUBJECT: Expresses appreciation for personal support provided to the Japanese Embassy and express appreciation for the efforts of staff in Japan

ACTION: Appropriate  
DISTRIBUTION: RF, EDO

LETTER DATE: 12/05/2011

ACKNOWLEDGED No  
SPECIAL HANDLING:

NOTES:

FILE LOCATION: ADAMS

DATE DUE:

DATE SIGNED: