

**POLICY ISSUE  
NOTATION VOTE**

April 17, 2014

SECY-14-0046

FOR: The Commissioners

FROM: Mark A. Satorius  
Executive Director for Operations

SUBJECT: FIFTH 6-MONTH STATUS UPDATE ON RESPONSE TO LESSONS  
LEARNED FROM JAPAN'S MARCH 11, 2011, GREAT TŌHOKU  
EARTHQUAKE AND SUBSEQUENT TSUNAMI

PURPOSE:

The purpose of this paper is to provide a status update on the U.S. Nuclear Regulatory Commission (NRC) staff's activities related to lessons-learned from the March 2011 accident at Japan's Fukushima Dai-ichi facility. This paper also requests Commission approval of two items: (1) a revised charter for the Japan Lessons-Learned Steering Committee; and (2) a staff proposal to consolidate certain post-Fukushima rulemaking activities. This paper does not address any new commitments or resource implications.

BACKGROUND:

In Staff Requirements Memorandum (SRM)-SECY-11-0117, "Proposed Charter for the Longer-Term Review of Lessons Learned from the March 11, 2011, Japanese Earthquake and Tsunami," dated October 19, 2011 (Agencywide Document Access and Management System (ADAMS) Accession No. ML112920034), the Commission approved a charter that established the structure, scope and expectations for the NRC's longer-term review of the events in Japan. The charter required, among other things, status updates every 6 months for 2 years on the work conducted under the charter.

CONTACT: Barry W. Miller, NRR/JLD  
301-415-4117

In SRM-SECY-13-0095, "Fourth 6-Month Status Update on Response to Lessons Learned from Japan's March 11, 2011, Great Tōhoku Earthquake and Subsequent Tsunami," dated November 13, 2013 (ADAMS Accession No. ML13317A271), the Commission directed the NRC staff to continue to provide the Commission a status report every 6 months until completion of the implementation of Tier 1 actions.

The NRC staff provided its first 6-month status update in SECY-12-0025, "Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tōhoku Earthquake and Tsunami" dated February 17, 2012 (ADAMS Accession No. ML12039A103). The second 6-month update was provided as Enclosure 1 to SECY-12-0095 (ADAMS Accession No. ML12165A092). The third update was presented in SECY-13-0020 (ADAMS Accession No. ML13031A512), and the fourth update was provided in SECY-13-0095 (ADAMS Accession No. ML13213A304). This is the staff's fifth 6-month status update, which covers September 2013 through March 2014.

In SECY-11-0137, the NRC staff prioritized the Near-Term Task Force (NTTF) recommendations provided in SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan" dated July 12, 2011 (ADAMS Accession No. ML11186A950), into three tiers. SECY-11-0137 also provided the staff's assessment of the Tier 1 and Tier 2 items, including recommendations for regulatory action on Tier 1 items. SECY-12-0095 provided assessments and program plans for the Tier 3 items, along with six additional recommendations identified in SECY-11-0137.

On March 12, 2012, the NRC issued Orders EA-12-049 (Mitigation Strategies), EA-12-050 (Hardened Vents), and EA-12-051 (Spent Fuel Instrumentation), and a request for information (RFI) letter to licensees (ADAMS Accession Nos. ML12054A735, ML12054A694, ML12054A679, and ML12053A340, respectively). These regulatory actions addressed most of the Tier 1 items. On June 6, 2013, the NRC issued Order EA-13-109 (Severe Accident Capable Hardened Vents) that modified and superseded Order EA-12-050 on reliable hardened containment vents (ADAMS Accession No. ML13143A321). Implementation of these regulatory actions, along with additional efforts to employ the rulemaking process for the remaining Tier 1 activities, has remained the primary focus of the staff's effort since the last 6-month update. In addition, the NRC staff has made progress on the Tier 2 and Tier 3 recommendations.

## DISCUSSION:

This update covers the period from September 2013 through March 2014. Status updates specific to each lessons-learned activity are contained within the enclosures, which are organized by tier. Enclosure 1 addresses Tier 1 activities; Enclosure 2 addresses Tier 2 activities; Enclosure 3 addresses Tier 3 activities; and Enclosure 4 addresses activities that are not contained within a tier. Specifically, those topics that do not fit into one particular lessons-learned activity are discussed below.

### Decommissioning Reactors

Four reactor units at three sites have permanently ceased operations and begun the decommissioning process since the Fukushima lessons-learned orders and the RFI letter were issued in March 2012. The licensees for the Kewaunee Power Station (Kewaunee), Crystal River, Unit 3 (Crystal River), and San Onofre Nuclear Generating Station, Units 2 and 3 (San

Onofre), have submitted the certifications required by Title 10 of the *Code of Federal Regulations* Part 50, Section 50.82(a)(1)(i) and (ii), and are no longer authorized to operate the reactor or place or retain fuel in the reactor vessel. Two additional licensees, the Vermont Yankee Nuclear Power Station (Vermont Yankee) and the Oyster Creek Nuclear Generating Station, have also publicly announced plans to permanently shut down. The NRC staff has received requests from the three shutdown sites to relax or rescind the applicable orders and relieve them from the obligations of the RFI letter. The staff also received a request from Vermont Yankee to relax and rescind Order EA-13-109 (severe accident capable hardened vents), and they have informed the staff of its intent to submit additional requests for relief from all the orders and the request for information letter prior to or shortly after shutdown. To date, the staff has rescinded Orders EA-12-049 (mitigation strategies) and EA-12-051 (spent fuel pool instrumentation) for Crystal River (the hardened vents order is not applicable to Crystal River), and Kewaunee, Crystal River and San Onofre have all been relieved of the obligations of the request for information letter. The staff is evaluating the remainder of the requests and expects to make a decision in summer 2014.

### Japan Trip

In February 2014, a 14-member delegation of senior NRC leadership traveled to Japan to meet with regulatory and industry counterparts, and conduct site visits. The meetings and site visits included: the Nuclear Regulatory Authority, Japan's nuclear regulator; Japan Institute of Nuclear Safety, Japan's version of the Institute for Nuclear Power Operations, Tokyo Electric Power Company; three manufacturing sites in the Yokohama area, Toshiba, Ishikawajima Harima Heavy Industries Corp., and Keihin; Kashiwazaki-Kariwa nuclear power plant (NPP); Fukushima Daini NPP; and Fukushima Dai-ichi NPP. The senior leadership team identified many lessons-learned from the trip and will provide their reflections and impressions of the trip through a NUREG, knowledge management video, and agency-wide panel session during the month of April 2014.

### Revised Charter

On October 19, 2011, the Commission approved a charter (via SRM-SECY-11-0117) that established a Steering Committee to oversee and provide direction for the NRC's activities related to lessons-learned from Fukushima. The Steering Committee defined issues, established plans, and guided the initial implementation of NRC actions related to the accident. Since that charter was approved, the Steering Committee has transitioned oversight of most issues to the NRC line organizations, but still maintains oversight of several others. The Steering Committee also continues to resolve implementation issues, when necessary, and continues to meet with the industry's steering committee. In the previous 6-month update (SECY-13-0095), the NRC staff recommended that the Commission dissolve the charter because most lessons-learned activities had been transitioned to line organization oversight. The Commission, however, disapproved this recommendation. In SRM-SECY-13-0095, the Commission directed the staff "to modify or change the Charter and submit to the Commission for approval" to better characterize the current scope and responsibilities of the Steering Committee. The staff's proposal for a revised charter is in Enclosure 5.

### Proposal to Consolidate Rulemaking Activities

On January 28, 2014, the NRC's Fukushima Steering Committee endorsed an NRC staff proposal for integrating related post-Fukushima rulemakings into a single rulemaking activity. Specifically, the Steering Committee endorsed consolidating, into a single rulemaking activity, the Station Blackout Mitigation Strategies rulemaking (NTTF Recommendations 4 and 7) with the Onsite Emergency Response Capabilities rulemaking (NTTF Recommendation 8), as well as the portions of NTTF Recommendations 9, 10, and 11 that are already being addressed as part of Order EA-13-049 (Mitigation Strategies) implementation (NTTF Recommendation 4.2), the Onsite Emergency Response Capabilities rulemaking, and items currently being implemented by industry.

During development of the rulemakings, the NRC staff identified that the Onsite Emergency Response Capabilities rulemaking cannot be issued before the Station Blackout Mitigation Strategies rulemaking because it will need to reference the station blackout mitigation strategies requirements. The staff had also previously identified several areas of overlap between the two rules. The direct links between these post-Fukushima rulemakings imply that, from a practical view, they should be combined into a single rulemaking package. The staff believes that it is more efficient to combine the rulemakings during the development of the proposed rules rather than during the final stage of the rulemaking process. Consolidating the rulemaking will produce a more coherent framework and reduce the potential for inconsistencies between the related actions. Additionally, consolidation into a single rulemaking adds clarity for internal stakeholders as they review and concur on a single rulemaking package, and reduces impact on external stakeholders as they will be able to comment on a single rulemaking package. However, while the Station Blackout Mitigation Strategies requirements and the Onsite Emergency Response Capabilities would be addressed in the same rulemaking, it should be recognized that each has a different scope with respect to an accident, and that combining them will not change their respective scopes. Specifically, they would continue to address a range of accident sequences, such as, loss-of-coolant accidents in addition to station blackout, but with greater capabilities to maintain or restore key functions.

The schedule for a consolidated rulemaking approach will be made consistent with the current overall schedule for the ongoing industry implementation of NRC Order EA-12-049 (i.e., two refueling outages following August 2012 but no later than December 2016). Currently, the Station Blackout Mitigation Strategies proposed rule is due to the Commission by June 30, 2014, and the Onsite Emergency Response Capabilities proposed rulemaking is due July 25, 2014. The current final rule schedule for Station Blackout Mitigation Strategies would be to deliver the final rule to the Commission by December 27, 2016, and the Onsite Emergency Response Capabilities final rule is currently due March 11, 2016. Pending Commission approval of the NRC staff's plans, the staff would deliver the proposed consolidated rule to the Commission by December 31, 2014. A schedule for the final consolidated rulemaking would continue to meet the established milestone for the final Station Blackout Mitigation strategies rule, and be delivered to the Commission on December 27, 2016.

The NRC staff's proposal and rationale for this rulemaking consolidation is described in more detail in Enclosure 6.

RECOMMENDATION:

The NRC staff recommends that the Commission approve: a) the revised charter contained in Enclosure 5; and b) the staff's proposal to consolidate post-Fukushima rulemaking activities as described in Enclosure 6.

COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection.

/RA/

Mark A. Satorius  
Executive Director  
for Operations

Enclosures:

1. Update on Tier 1 Activities
2. Update on Tier 2 Activities
3. Update on Tier 3 Activities
4. Update on Activities Not Within a Tier
5. Charter for the Japan Lessons  
Learned Steering Committee
6. Staff Proposal to Consolidate Post-Fukushima  
Rulemaking Activities

**RECOMMENDATION:**

The NRC staff recommends that the Commission approve: a) the revised charter contained in Enclosure 5; and b) the staff's proposal to consolidate post-Fukushima rulemaking activities as described in Enclosure 6.

**COORDINATION:**

The Office of the General Counsel has reviewed this paper and has no legal objection.

Mark A. Satorius  
Executive Director  
for Operations

**Enclosures:**

1. Update on Tier 1 Activities
2. Update on Tier 2 Activities
3. Update on Tier 3 Activities
4. Update on Activities Not Within a Tier
5. Charter for the Japan Lessons Learned Steering Committee
6. Staff Proposal to Consolidate Post-Fukushima Rulemaking Activities

**201100250      201300052**  
**201300145      Ref: 201300082**

**Accession Nos.:** Package ML14064A520; SECY ML14064A523; Enclosure 1 ML14064A529; Enclosure 2 ML14064A531; Enclosure 3 ML14064A535; Enclosure 4 ML14064A538; Enclosure 5 ML14064A539; Enclosure 6 ML14064A544  
\*via e-mail

<b>OFFICE</b>	NRR/JLD/LA*	QTE*	NRR/JLD/PM	NRR/DSS/D*
<b>NAME</b>	SLent	CHsu	BMiller	TMcGinty
<b>DATE</b>	01/29/14	01/31/14	02/18/14	02/24/14
<b>OFFICE</b>	NRO/DSEA/D*	RES/DRA/D*	NRR/DPR/D*	NRR/DPR/MSD/D*
<b>NAME</b>	SFlanders (NChokshi for)	RCorreia	LKokajko	JDavis
<b>DATE</b>	03/06/14	02/24/14	02/28/14	02/20/14
<b>OFFICE</b>	NRR/DORL/D*	RES/DE/D*	NRR/DRA/D*	NRR/DIRS/D*
<b>NAME</b>	MEvans	MCase	JGiitter	HNieh (CErlanger for)
<b>DATE</b>	03/04/14	02/28/14	03/06/14	02/23/14
<b>OFFICE</b>	RES/DSA/D*	NRR/JLD/D	RES/D*	NSIR/D*
<b>NAME</b>	KGibson	DSkeen	BSheron	JWiggins (SMorris for)
<b>DATE</b>	03/16/14	3/20/14	03/18/14	03/19/14
<b>OFFICE</b>	NRO/D*	NRR/D	OGC*	EDO
<b>NAME</b>	GTracy (CAder for)	ELeeds	BHarris (NLO)	MSatorius
<b>DATE</b>	03/14/14	3/21/14	03/21/14	04/17/2014