

POLICY ISSUE INFORMATION

July 13, 2012

SECY-12-0095

FOR: The Commissioners

FROM: R. W. Borchardt
Executive Director for Operations

SUBJECT: TIER 3 PROGRAM PLANS AND 6-MONTH STATUS UPDATE IN
RESPONSE TO LESSONS LEARNED FROM JAPAN'S MARCH 11,
2011, GREAT TOHOKU EARTHQUAKE AND SUBSEQUENT TSUNAMI

PURPOSE:

The purpose of this paper is to provide the U.S. Nuclear Regulatory Commission (NRC) staff's program plans on Tier 3 Japan lessons learned recommendations. This paper also provides the staff's second 6-month status update on charter activities related to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. This paper does not address any new commitments.

BACKGROUND:

In the staff requirements memorandum (SRM) for SECY-11-0117, dated October 19, 2011, the Commission approved the staff's proposed "Charter for the Nuclear Regulatory Commission Steering Committee to Conduct a Longer-Term Review of the Events in Japan," (Agencywide Documents Access and Management System (ADAMS) Accession No. ML112920034). The charter requires, among other things, status updates every 6 months on the work conducted under the charter. The 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). Enclosure 1 of this SECY paper provides the staff's second 6-month status update.

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In SECY-11-0137, "Prioritization of Recommended Actions to be Taken in Response to Fukushima Lessons Learned," dated October 3, 2011 (ADAMS Accession No. ML11272A111), the staff provided the results of its assessment and prioritization into three tiers of the Near-Term Task Force's (NTTF's) recommendations in SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan" (ADAMS Accession No. ML11186A950). For those NTTF recommendations that staff identified as Tier 1 or Tier 2, the staff provided an assessment, an initial evaluation of the schedule and milestones, resources and critical skill sets, and implementation challenges, along with recommendations for regulatory action. Tier 3 recommendations were those that require further staff study to support a regulatory action, have an associated shorter-term action that needs to be completed to inform the long-term action, are dependent on the availability of critical skill sets, or are dependent on the resolution of NTTF Recommendation 1. In SECY-11-0137, the staff committed to providing an assessment of Tier 3 recommendations to the Commission within 9 months. This paper provides those assessments. In SECY-11-0137, the staff also described six additional issues with a clear nexus to the Fukushima Dai-ichi event, which were not included with the NTTF recommendations, and for which the staff had insufficient time to complete an assessment.

In SECY-12-0025, the staff described its process to disposition (1) the six additional recommendations described in SECY-11-0137, and (2) other issues that continue to arise as part of ongoing staff deliberations, stakeholder interactions, and interactions with the Advisory Committee on Reactor Safeguards (ACRS). This disciplined process ensures that the NRC screens and evaluates all issues; if evaluation shows that an issue does not have a clear nexus to the Fukushima Dai-ichi event, the NRC will nevertheless review it outside the Japan lessons learned process, and in accordance with other established regulatory processes. Enclosure 2 to this SECY provides an updated list of current recommendations that have a clear nexus to the Fukushima Dai-ichi event and are therefore being addressed under the Japan lessons learned project.

One of the six additional recommendations identified in SECY-11-0137, and further developed in SECY-12-0025, was consideration of additional performance requirements, including filters, for hardened containment vent systems for boiling-water reactor Mark I and Mark II containment designs. In SECY-12-0025, the staff explained that it needed to resolve technical and policy issues before regulatory action could be proposed that would require licensees to install filters, or change any other performance requirement, for hardened containment vent systems. The staff will provide a separate paper describing its recommendation on additional performance requirements for containment vents.

In SECY-12-0025, the staff also provided three proposed orders and a request for information (RFI) that were identified as Tier 1 actions in SECY-11-0137. The Commission approved issuance of the proposed orders on March 9, 2012, "Staff Requirements - 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," (ADAMS Accession No. ML120690347). The staff issued all three orders and the RFI on March 12, 2012.

DISCUSSION:

Status Update

The staff continues work on the Tier 1 and Tier 2 actions in a manner that is consistent with the milestones set forth in SECY-11-0137, SRM-SECY-11-0124, "Staff Requirements - SECY-11-0124 – "Recommended Actions to be Taken without Delay from the Near-Term Task Force Report," and SRM-SECY-12-0025. The staff's continued high-level focus on these actions has ensured that steady progress has been made, with stakeholder engagement, consistent with the established schedules. The staff has succeeded in performing these actions while ensuring that its efforts do not displace ongoing work of greater safety benefit, work that is necessary for continued safe operation, or other existing high priority work.

Enclosure 1 provides the staff's second 6-month status update on charter activities, including summary descriptions of Tier 1 and Tier 2 actions.

Staff Assessment of Tier 3 Recommendations

In order for the staff to complete its assessment of the Tier 3 recommendations, including initial evaluation of the schedule and milestones, resources and critical skill sets, and implementation challenges, along with the staff's plan for regulatory action, the staff developed an evaluation framework consisting of the following questions:

1. Is additional information needed to recommend a path forward?
2. Does the path forward depend on other regulatory actions?
3. Are sufficient resources, critical skills, tools (e.g., codes and models), and data available to pursue the path forward?

Answers to these questions shaped the scope and extent of the program plans. For example, for those plans for which the staff needs additional information before it can plan a regulatory path forward (e.g., order or rulemaking), the plan focuses on an approach for obtaining that information. For other plans, the path forward may be clear, but the schedule reflects the fact that there is not sufficient staff with the necessary critical skills to begin immediately. For other plans, the path forward is strongly dependent on other ongoing Tier 1 and Tier 2 actions, completion of which will provide information that is necessary to recommend a path forward. For these reasons, the program plans vary in terms of the level of detail, and the schedule and resources required to complete the reviews.

In addition to the dependencies described above, some Tier 3 activities will rely on information that is being developed as a part of ongoing staff research and analysis. For example, the staff is developing a paper that will provide the Commission background information on current approaches for considering economic consequences (e.g., loss of property due to radiological contamination) in regulatory decision-making. The staff is also performing a spent fuel pool scoping study, which includes best-estimate calculations of potential consequences from a postulated beyond-design-basis earthquake at a U.S. Mark I boiling-water reactor. Also, in its September 21, 2011, SRM-SECY-11-0089, "Staff Requirements - SECY-11-0089 - Options for

Proceeding with Future Level 3 Probabilistic Risk Assessment (PRA) Activities,” the Commission approved the staff’s plan to perform a new full-scope comprehensive site Level 3 PRA for an operating plant over the next four years.

In SECY-11-0137, the staff prioritized the issuance of emergency preparedness (EP) orders associated with Recommendation 9.3 as a Tier 2 action. At that time, the staff recommended engaging stakeholders on acceptance criteria, and developing and issuing an order to ensure that licensees can adequately respond to prolonged station blackout (SBO) and multiunit events. As described in COMSECY-12-0014, “Revised Schedule and Plans for Japan Lessons-Learned,” the staff now recommends that it will be more effective and efficient to utilize the advanced notice of proposed rulemaking (ANPR) process. An ANPR is an appropriate regulatory action because: (1) continued plant operation and licensing activities do not pose an imminent risk to the public and are not inimical to the common defense and security; (2) recent revisions to the EP regulations and the proposed enhancements to licensee staffing and communication equipment will continue to provide adequate protection of public health and safety; and (3) it enhances stakeholder engagement to more fully inform any potential regulatory action.

The staff held 3 days of public meetings on May 3, 7, and 14, 2012, to obtain stakeholder feedback on each of the program plans. The meetings were well attended by members of the public, industry, and representatives of stakeholder interest groups. The staff also received written comments from stakeholders. These comments will be considered by the project teams as they implement the program plans. The ACRS also reviewed the draft plans and summaries during meetings on May 22 and 23, 2012, and June 6, 2012. In a letter dated June 19, 2012, the ACRS concluded that the staff’s plans have been developed appropriately at this stage (ADAMS Accession No. ML12163A268).

CONCLUSION:

The staff plans to proceed with the evaluation of the Tier 3 recommendations as discussed in Enclosure 3, “Program Plans for Tier 3 Recommendations.”

RESOURCES:

The table below identifies the estimated resource needs by office through FY 2016 for all Tier 3 program plans in Enclosure 3. There are no resources included in the FY 2012 budget and the FY 2013 Congressional Budget Justification for Tier 3 activities. Resource needs for FY 2014 and beyond will be requested through the Planning, Budgeting, and Performance Management process. Following a decision on the need for regulatory action for any Tier 3 recommendation, the staff would identify the necessary budget resources for pursuing orders, developing new regulations, or other possible actions.

Office	FY 2012		FY 2013		FY 2014		FY 2015		FY 2016	
	FTE	Dollars, \$K	FTE	Dollars, \$K	FTE	Dollars, \$K	FTE	Dollars, \$K	FTE	Dollars, \$K
RES	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
NRR	[]	[]	Official Use Only – Sensitive Internal Information						[]	[]
NRO	[]	[]							[]	[]
NSIR	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
NMSS	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
RI	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
OCHCO	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
OGC	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
TOTAL	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]

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COORDINATION:

The Office of the General Counsel has reviewed this paper and has no legal objection. The Office of the Chief Financial Officer has reviewed this paper for resource implications and has concurred.

/RA by Michael R. Johnson for/

R. W. Borchardt
Executive Director
for Operations

Enclosures:

1. Six-Month Status Update on Charter Activities—February 2012–July 2012
2. Japan Lessons-Learned Action Items and Long-term Evaluations (July 2012)
3. Program Plans for Tier 3 Recommendations

Office	FY 2012		FY 2013		FY 2014		FY 2015		FY 2016	
	FTE	Dollars, \$K	FTE	Dollars, \$K	FTE	Dollars, \$K	FTE	Dollars, \$K	FTE	Dollars, \$K
RES	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
NRR	[]	[]	Official Use Only – Sensitive Internal Information						[]	[]
NRO	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
NSIR	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
NMSS	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
RI	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
OCHCO	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
OGC	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
TOTAL	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]

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