Update on Activities Not Within a Tier

Recommendation 1 – Regulatory Framework

Status Update

This lessons-learned activity originated from Near-Term Task Force (NTTF) Recommendation 1, to establish "a logical, systematic, and coherent regulatory framework for adequate protection that appropriately balances defense-in-depth and risk considerations." In Staff Requirements Memorandum (SRM)-SECY–11–0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," dated August 19, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML112310021), the Commission directed that NTTF Recommendation 1 be pursued independently of activities associated with the review of the other NTTF recommendations.

On February 26, 2013, the staff working group released its second white paper on Recommendation 1 which discussed a wide range of possible approaches for implementing three regulatory framework improvement activities:

(1) Establish a new category of beyond design basis events and associated regulatory requirements.

(2) Establish a decision-making process and criteria for considering defense-in-depth, risk, and safety margins.

(3) Clarify the role of voluntary industry initiatives in the NRC regulatory process.

On April 30, 2013, the Nuclear Energy Institute submitted a letter providing industry views on the improvement activities being considered by the staff.

On May 15, 2013, the staff issued another white paper for public comment that provided the staff's recommended approach for implementing each of the three regulatory framework improvement activities. These proposals were discussed at an Advisory Committee on Reactor Safeguards subcommittee meeting in May and at a public meeting in June. The NRC accepted public comments on the proposals through August 15 at www.regulations.gov under docket ID NRC-2012-0173. The public comments will help to inform the staff's final options and recommendations to the Commission in December 2013.

Transition to Line Organization Oversight

On July 16, 2013, an evaluation of the readiness for this lessons-learned activity to be fully transitioned to line organization oversight was presented to the Steering Committee. The Steering Committee determined that the activity is ready for transition, but that the previously established Recommendation 1 Office Director Oversight Committee composed of Office Directors from cognizant offices should remain at least until the staff receives Commission direction on the options it will present for Commission consideration in December 2013.

Line organization ownership is being established for each of the three framework improvement activities currently proposed by the staff. The “design basis extension category” proposal will have a champion within the Office of Nuclear Reactor Regulation (NRR) and the Office of New Reactors (NRO); the “defense-in-depth” proposal will have a champion within NRR, NRO, and the Office of Nuclear Regulatory Research; and the “voluntary industry initiatives” proposal will have primary ownership in NRR. The staff will continue to discuss line organization ownership following receipt of the Commission direction on the upcoming December Commission paper. Any interoffice issues not already preempted by the ownership structure can be coordinated using existing processes.

The staff considers this activity mature. While the implementation of current staff proposals depends on a Commission decision, a path forward using clear regulatory processes has been established. These processes include communication with internal and external stakeholders. Furthermore, the oversight provided by the Recommendation 1 Office Director Oversight committee established specifically for this activity will provide additional support and guidance for issues that might arise.

Other NRC-Regulated Facilities

Status Update

This lessons-learned activity originated from the SRM to the Chairman’s tasking memorandum COMGBJ–11–0002, “NRC Actions Following the Events in Japan,” dated March 23, 2011 (ADAMS Accession No. ML110820875). The Commission directed the staff to consider the applicability of lessons learned from the event to “non-operating reactor and non-reactor facilities.”

The staff has developed a process to evaluate the potential applicability of lessons-learned activities to nonpower reactor facilities. The NRC offices responsible for classes of licensees other than power reactors have created working groups to perform the evaluations. The offices and associated licensees include:

NRR:	research reactors; test reactors; medical isotope production facilities
NMSS:	fuel cycle facilities; spent fuel storage; transportation
FSME:	materials decommissioning facilities; decommissioning reactors; uranium recovery and uranium milling facilities; low-level waste; waste treatment; irradiators; medical facilities; academic and industrial use licensees

As described in the last update, the staff has completed inspections at fuel cycle facilities per Temporary Instruction 2600/015, “Evaluation of Licensee Strategies for the Prevention and/or Mitigation of Emergencies at Fuel Facilities” (ADAMS Accession No. ML111030453). The process developed to evaluate all types of nonpower reactor licensees against the full scope of Fukushima lessons learned will still be performed for fuel cycle facilities.

The evaluations of each type of facility or licensee are currently underway. The staff will document the results of each evaluation and expects to present the results to the Commission, along with a proposed path forward to address any identified issues, in a paper scheduled for the second quarter of fiscal year (FY) 2014.

Transition to Line Organization Oversight

On July 23, 2013, an evaluation of the readiness for this lessons-learned activity to be fully transitioned to line organization oversight was presented to the Steering Committee. The Steering Committee determined that, given that the fuel cycle facilities have already had inspections conducted and several aspects of the lessons learned have therefore been reviewed, the fuel cycle facilities are ready for transition. However, because the other classes of licensees and facilities are undergoing their first detailed review of the applicability of lessons-learned activities, the Steering Committee determined that these facilities should remain under its oversight. Once the Commission makes a decision on the paper scheduled for the second quarter of FY 2014 and the staff begins to implement actions, the Steering Committee expects to reevaluate the need for continued oversight.

The line organization ownership will reside within the offices responsible for each type of facility or licensee. In both Offices of Federal and State Materials and Environmental Management Programs and Nuclear Materials Safety and Safeguards, a champion has been designated at the office level to coordinate the review of each type of facility or licensee under its office's purview. In NRR, the Deputy Director of the Division of Policy and Rulemaking has been designated as the champion. The Japan Lessons-Learned Project Directorate (JLD) will coordinate interoffice communication and consistency, especially as it relates to conducting the evaluations and preparing the Commission paper.

The staff does not yet consider this activity fully mature; evaluations are ongoing and, therefore, potential technical and policy issues have not been identified. Furthermore, the implementation of any potential actions that might result from the evaluations is still unknown. However, the staff has developed a clear path forward for the evaluations, and has established a clear process for documenting and communicating the results. Interoffice issues have also been effectively coordinated to create and implement the evaluation process, and the staff expects this to continue. Therefore, once the evaluations are complete and decisions for potential action have been made, the staff expects this activity to become sufficiently mature for full transition to line organization oversight.

National Academy of Sciences Study

As directed by the U.S. Congress, the NRC issued a grant to the National Academy of Sciences (NAS) to conduct a study on lessons learned from the Fukushima Dai-ichi accident. Since the previous 6-month update, NAS has held several information-gathering meetings with NRC participation. One of the Congressionally mandated charges directs NAS to reevaluate conclusions from their 2006 study on spent fuel safety and security. The NRC recently participated in a closed meeting with NAS to discuss classified information related to spent fuel security. Future NAS activities include conducting tours of nuclear power plants and holding additional meetings to prepare a final report with recommendations. The NRC staff is fully engaged with NAS and is providing the requested assistance for NAS to complete their report by mid-2014.

Comparison Study of U.S. and Japan Regulations

In SRM-SECY-12-0110, "Consideration of Economic Consequences within the U.S. Nuclear Regulatory Framework," dated March 20, 2013 (ADAMS Accession No. ML13079A055), the

Commission directed the NRC staff to: (1) document its comparison of U.S. and Japanese regulatory requirements that were in effect at the time of the accident, focused on those areas most relevant to the sequence of events and accident mitigation capabilities at Fukushima; and (2) describe how those differences were factored into post-Fukushima actions taken by the NRC. The staff had assessed specific areas, such as the regulatory approaches to defining requirements for plant responses to losses of electrical power, as part of its activities prior to the Commission's SRM. However, in response to the SRM and similar interest expressed by various external stakeholders, the staff (with contractor support) has undertaken a broader comparison of regulatory requirements that might provide insights into the accident and the subsequent NRC actions. The staff plans to complete and document the assessment in late 2013, and make the report available to the Commission (via an Office of International Programs note) and then subsequently to the public.

Support of International Activities

The NRC staff continues to be actively engaged in various international activities related to the evaluation and response to lessons learned from the Fukushima accident. In December 2012, the NRC and Japan Nuclear Regulatory Authority established a joint Steering Committee to address specific technical issues of mutual interest. A meeting of that joint Steering Committee was held in August 2013. The NRC staff is participating in several working groups within the International Atomic Energy Agency and the Nuclear Energy Agency on efforts to better understand the accident and develop appropriate changes in nuclear power plants to improve their ability to cope with severe natural events. Activities related to addressing lessons learned from the Fukushima accident are also expected to be a significant focus area in the Convention on Nuclear Safety scheduled for April 2014.

Communications Activities

The NRC has held 63 public meetings in FY 2013 related to Japan lessons-learned activities. Most of these meetings enabled wider public participation through webinars, webcasting and teleconferencing. Many of these meetings centered on guidance development or implementation issues related to Tier 1 actions. Additionally, the NRC Steering Committee has continued to meet publicly with the industry's steering committee at least quarterly to discuss and resolve issues related to lessons-learned activities. The staff expects these meetings and interactions to continue during and after transition of oversight to the line organizations.

In the last 6 months, the JLD's strategic communications team has evaluated and implemented tools for enhancing stakeholder understanding of Japan lessons-learned activities. The team's most significant effort was redesigning the NRC public website's Japan lessons-learned section. An icon-based navigation approach and plain-language editing focused on improving public access to relevant information; the updated section went live in June. The communications team also supported the regions with both PowerPoint and printed material on lessons-learned information for annual assessment meetings. Additionally, the JLD has used the NRC's public blog and YouTube channel to highlight Japan lessons-learned activities. The communications team will continue examining communication needs and developing relevant tools, with a focus on upcoming events and milestones.