

**Responses to Requests for Information
Senator James Inhofe et al.
Letter Dated March 4, 2015**

Request 1.

Has the Commission met to discuss how to best execute the orderly transition of its post-Fukushima effort back into the statutorily mandated organization? If so, please tell us about those plans and schedules.

ANSWER.

The U.S. Nuclear Regulatory Commission (NRC) has strived to maintain an effective and efficient organizational structure for the implementation of lessons learned from the Fukushima Dai-ichi accident. Because of the complex nature of these activities, the agency established a special organization, the Japan Lessons Learned Directorate (now Division) (JLD), to manage and coordinate the activities with oversight provided by the JLD Steering Committee, which is comprised of agency senior managers who collectively possess responsibility for implementation of lessons learned.

The Commission recognizes the importance of ultimately transitioning these activities back to the NRC's normal organizational structure at the appropriate time. In fact, the NRC staff has already done so for the majority of lessons learned activities, as discussed in SECY-13-0095, "Fourth 6-Month Status Update on Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Subsequent Tsunami." As described in that paper, only four issues remain under the direct oversight of the JLD Steering Committee:

- Periodic re-confirmation of external hazards.
- Reliable hardened vents for containment designs other than boiling water reactors with Mark I and II containments.
- Hydrogen control and mitigation, and
- Applicability of lessons learned to other NRC-regulated facilities.

Because of the complexity of the four issues described above, the Steering Committee determined that continued direct oversight of those activities was warranted. The remaining activities were evaluated by the Steering Committee against the criteria described in SECY-13-0095 and moved into the NRC's normal processes and organization. Although these activities are no longer under the direct oversight of the Steering Committee, the Committee continues to stay apprised of the transitioned activities to ensure adequate focus is maintained on implementation and provide executive leadership, if needed.

The NRC staff intends to maintain the JLD in place for some period of time as part of the NRC's organizational structure. The JLD serves as a central liaison to achieve technical and programmatic consistency, especially as it relates to activities that might involve multiple NRC organizations. This role will minimize any potential duplication of effort or inconsistent application of NRC processes. The NRC's Executive Director for Operations is committed to reevaluating Fukushima-related staffing and organizational needs at the end of fiscal year 2016 and reporting back to the Commission.

Enclosure

Request 2.

What agency mechanism is now in place to periodically ensure that the post-Fukushima recommendations are receiving the benefit of a comprehensive structured review, including risk prioritization, to ensure the mistakes of the post-TMI era are not repeated?

ANSWER.

The JLD Steering Committee has been the primary source of direct staff oversight to ensure the NRC's post-Fukushima activities are conducted effectively and efficiently. The Steering Committee, which, as discussed above, consists of senior NRC executives under the leadership of the NRC's Deputy Executive Director for Reactor and Preparedness Programs, has led the staff in ensuring issues are appropriately defined, plans are established, and guidance on the implementation of NRC actions in response to the accident is provided. In addition, the creation of a centralized organizational structure for day-to-day implementation of lessons learned initiatives, the JLD, has been instrumental in ensuring consistent and durable implementation of post-Fukushima lessons learned initiatives.

In carrying out these initiatives, the Steering Committee and the JLD have been mindful of lessons from previous initiatives, including those associated with the Three Mile Island accident. As discussed in SECY-11-0137, "Prioritization of Recommended Actions to be Taken in Response to Fukushima Lessons Learned," from the initial stages of its response to the accident at Fukushima Dai-ichi, the NRC has recognized the importance of discipline and rigor in our response to the accident. For example, shortly after its establishment, the JLD Steering Committee formed the following guiding principles, which continue to provide the foundation for the NRC's post-Fukushima activities:

- Do not distract from safety
- Be disciplined in the screening of additional issues
- Do not displace work of greater safety significance
- Do it right the first time
- Establish a sound basis for decisions.

External stakeholder engagement has also been important to ensure effectiveness and efficiency in this area. The JLD Steering Committee holds periodic public meetings with the industry's Fukushima steering committee, and the NRC staff holds routine meetings with the industry, public, and other parties on a variety of topics related to lessons learned from the accident. These discussions are an opportunity to talk about any challenges to implementation, including the cumulative effect of the efforts, and solicit information from both the industry and members of the public on ways of improving the effectiveness and efficiency of our activities in this area.

Finally, the Commission itself has provided routine oversight and direction to the NRC staff as the agency implements lessons learned initiatives through, for example, routine meetings with the staff and external stakeholders and the issuance of formal requirements to staff in cases when policy issues arise.

The consistent application of the guiding principles, interaction with external stakeholders, and leadership and oversight of the JLD Steering Committee and Commission have ensured, and will continue to ensure, that lessons learned from the Fukushima Dai-ichi accident result in

appropriate, durable safety improvements to U.S. nuclear plants and that lessons learned from previous such initiatives are heeded.

Request 3.

Without such mechanisms to ensure proposed requirements receive a structured review and risk prioritization, would you agree that the imposition of agency requirements becomes more a matter of ad hoc, subjective decisions, and less a product of a consistent, rigorous and risk informed consideration?

ANSWER.

The NRC agrees that the establishment of structured and disciplined reviews of new regulatory initiatives is important (both for Fukushima-related activities and others), and that the use of risk insights can inform the prioritization of such initiatives. As discussed above, the NRC recognized the importance of such concepts early into our review of lessons learned from the Fukushima Dai-ichi accident. For example, in SECY-11-0137, the NRC staff discussed the need to carefully review and prioritize activities in light of other important ongoing work:

The overriding challenge the staff will face when implementing actions to address the NTTF [Fukushima Near-Term Task Force] recommendations will be redefining agency priorities while ensuring that this process does not displace ongoing work that has greater safety benefit, work that is necessary for continued safe operation, or other existing high priority work. The staff has identified some examples of work, including National Fire Protection Association 805 reviews; resolution of Generic Safety Issue 191, "Assessment of Debris Accumulation on PWR [pressurized water reactor] Sump Performance;" implementation of the recently updated emergency preparedness rule; materials, fuel facility, and reactor oversight program activities; and near-term combined license reviews, which the staff does not intend to delay to work on the NTTF recommendations. This will be a continuous process as new operating reactor issues emerge which, because of their potential impact on safety, may take priority over action on some lower priority NTTF recommendations. The staff will make use of available risk information and experience when performing these periodic re-evaluations.

The staff further emphasized this commitment in a letter to reactor licensees dated June 13, 2013 (available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML13151A377). The NRC informed licensees that the post-Fukushima work was impacting the review of lower priority licensing actions and encouraged licensees to communicate any safety impacts of their licensing actions to the NRC in order to assist in our properly prioritizing the work. As stated in the letter,

The NRC will continue to assess and redefine priorities, consistent with the agency's mission to protect public health, safety, and the environment. Resource allocations and schedule expectations will be made to ensure timely licensing reviews, based on the level of safety significance and operational needs associated with the action.

The establishment of the organizational structure, guiding principles, and other measures discussed in the NRC's responses to Questions 1 and 2 ensure that the NRC's post-Fukushima safety enhancements are evaluated and implemented in a rigorous and consistent manner.

From a broader perspective, the agency has been focusing on consideration of the cumulative effects of regulation for a number of years. The goal of this effort is to examine ways in which the agency may be able to enhance the efficiency with which it implements regulatory actions, while mitigating the cumulative impact of regulatory activities on licensees. A related activity, referred to as the Risk Prioritization Initiative, has been established with a goal of enabling the NRC staff and licensees to focus resources on issues that are most significant to public safety using risk insights. The NRC staff submitted a paper to the Commission at the end of March that summarizes the efforts to date on this initiative and makes recommendations for options going forward.

The NRC also benefits from the insights of various external stakeholders, such as the nuclear industry, members of the public, and non-governmental organizations, along with internal NRC advisory groups, such as the Advisory Committee on Reactor Safeguards and the Committee to Review Generic Requirements, to ensure our activities are appropriately focused and risk informed.

Request 4.

How many of the remaining post-Fukushima issues would likely be justified under rigorous, quantitative technical and cost benefit analyses in accordance with the NRC's Backfit Rule?

ANSWER.

Because the NRC has not completed the analyses that are required under Section 50.109, "Backfitting," of Title 10 of the *Code of Federal Regulations* (CFR) for each of the remaining Fukushima lessons-learned activities, it is difficult to speculate which of those activities would qualify as cost-justified backfits. The NRC intends to use existing processes, such as the development of formal backfit analyses, as applicable, and interactions with the NRC's Advisory Committee on Reactor Safeguards and Committee to Review Generic Requirements, to ensure that a strong basis is developed for any additional requirements imposed on our licensees.

Request 5.

Please provide a list of additional regulatory requirements imposed over the last five years that have been outside the scope of the Backfit Rule.

ANSWER.

The NRC understands, "outside the scope of the Backfit Rule," as focused on issuance of NRC regulations and orders applicable to nuclear power reactors for which either: (i) a backfit analysis was not prepared, or (ii) a detailed discussion of the comparable "backfitting" protections applicable to new power reactors under 10 CFR Part 52 (referred to as "issue finality" under Part 52) was not prepared.

Over the last five years, the NRC has issued 34 final regulations and 4 orders applicable to nuclear power reactors for which a backfit analysis was not prepared. See Table 1 (Attachment 1). The reasons why backfit analyses were not prepared for these final regulations are summarized in Table 1. For purposes of comparison, the NRC notes that, in the last five years, the NRC has issued two final regulations and one order applicable to nuclear power plants for which a backfit analysis was prepared. See Table 2 (Attachment 2).

Request 6.

Please describe the training and mentoring programs in the agency that emphasize commitment to the Principles of Good Regulation, and empower managers to be guided by them.

ANSWER.

The NRC constantly emphasizes the importance of adhering to our Principles of Good Regulation by integrating the Principles into several formal technical training courses, such as “Field Techniques and Regulatory Processes” and “Conducting Inspections,” which are required for many technical qualification programs. In addition, the agency’s leadership and professional development programs support the development of skills in the areas that help us achieve the spirit of the Principles, e.g., interpersonal and communication skills. Our mentoring and knowledge management programs facilitate the sharing of information and best practices among staff in order to promote open collaboration and effective and efficient implementation of our daily tasks.

The agency’s values also play an important role in emphasizing our commitment to the Principles of Good Regulation. Recently, the agency embarked on an initiative titled “Behavior Matters,” which focuses on identifying and demonstrating behaviors that demonstrate we are living the NRC values. By ensuring there is alignment between the agency’s Values and Principles of Good Regulation, we believe we are developing an organizational culture that expects and empowers staff and managers to be guided by them. Through our training, mentoring, knowledge management, and organizational development activities, we strive to ensure the Principles of Good Regulation are embedded into our regulatory activities.