

Response to Request for Information
Senators Thomas Carper and Sheldon Whitehouse
Committee on Environment and Public Works
Letter Dated April 1, 2019

**Description of the Nuclear Regulatory Commission's Decisionmaking Process in
Response to the Fukushima Dai-ichi Accident**

The nuclear accident at Fukushima Dai-ichi involved reactors that used the same design as some operating nuclear power plants in the United States. As a result, the occurrence of the accident raised the questions of whether such an accident could occur in the United States and what actions should be taken to prevent such an accident. To answer these questions, shortly following the accident, the Commission issued a staff requirements memorandum, or SRM, to the staff, "Tasking Memorandum – COMGBJ-11-0002 – NRC Actions following the Events in Japan," (Agencywide Documents Access and Management System (ADAMS) Accession No. ML110820875) directing the staff to establish a senior-level agency task force to conduct a methodical and systematic review and make recommendations to the Commission for its policy direction. SRM-COMGBJ-11-0002 provided near-term and longer-term objectives for the review, including the direction that "the task force efforts should be informed by some stakeholder input but should be independent of industry efforts." Following this direction, the NRC staff established a Near-Term Task Force, which developed the initial recommendations that were provided in its report to the Commission in the Notation Vote Paper SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions following the Events in Japan," (ADAMS Accession No. ML11186A950). This report includes the 12 broad safety recommendations that you mention in your letter.

In response to the Notation Vote Paper SECY-11-0093, the Commission issued its August 19, 2011, SRM, "Staff Requirements – SECY-11-0093 – Near Term Report and Recommendations for Agency Actions following the Events in Japan," (ADAMS Accession No. ML112310021), directing the staff to engage promptly with stakeholders to review and assess the recommendations of the Near-Term Task Force in a comprehensive and holistic manner for the purpose of providing the Commission with fully-informed options and recommendations. Staff was further instructed to remain open to strategies and proposals presented by stakeholders, expert staff members, and others as it provides its recommendations to the Commission. SRM-SECY-11-0093 directed the staff to provide an initial notation vote paper that identifies and makes recommendations regarding any Task Force recommendations that can, and in the staff's judgment, should, be implemented, in part or in whole, without unnecessary delay. The SRM further directed the staff to provide an additional notation vote paper recommending a prioritization of the Task Force recommendations informed by a steering committee that reflected all regulatory actions to be taken by the staff to respond to Fukushima lessons learned; identified implementation challenges, including the technical and regulatory bases for the prioritization; identified any additional recommendations; and included a schedule and milestones with recommendations for appropriate stakeholder engagement and involvement of the Advisory Committee on Reactor Safeguards.

The NRC staff responded to the direction in SRM-SECY-11-0093 by providing two notation vote papers, SECY-11-0124, "Recommended Actions to Be Taken without Delay from the Near-Term Task Force Report," (ADAMS Accession No. ML11245A158) and SECY-11-0137, "Prioritization of Recommended Actions to Be Taken in Response to Fukushima Lessons Learned" (ADAMS Accession No. ML11272A111). In these notation vote papers, the staff recommended the imposition of three orders that corresponded to the preliminary

recommendations of SECY-11-0093. The staff also recommended gathering further information regarding reevaluated natural hazards, including flooding, under existing regulatory processes governed by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(f) to determine whether or not individual licenses should be modified, suspended or revoked on a plant-specific basis for other broad safety recommendations in SECY-11-0093. The three orders were to impose requirements for mitigation strategies for beyond-design-basis external events, for spent fuel pool level indication, and for hardened containment venting systems for certain boiling-water reactors. The orders for mitigation strategies and spent fuel pool level indication make up the foundation of the final MBDBE rule. The information gathering included the areas of seismic and flooding hazards amongst other items that SECY-11-0093 recommended addressing through the issuance of orders

Following receipt of the two notation vote papers, the Commission issued its SRM, "Staff Requirements – SECY-11-0124 – Recommended Actions To Be Taken without Delay from the Near-Term Task Force Report," (ADAMS Accession No. ML112911571) and its SRM, "Staff Requirements – SECY-11-0137 – Prioritization of Recommended Actions To Be Taken in Response to Fukushima Lessons Learned" (ADAMS Accession No. ML113490055). In SRM-SECY-11-0124, the Commission approved the staff's proposed actions as described in SECY-11-0124 subject to comments.

The NRC staff provided the Notation Vote Paper 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. ML12039A103) to provide the draft orders for Commission approval as well as to inform the Commission of the issuance of letters under 10 CFR 50.54(f) as directed in SRM-SECY-11-0124 and SRM-SECY-11-0137. The Commission approved the issuance of the proposed orders in its SRM, "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) subject to changes and edits, including the revision of the bases used for imposition of the requirements with respect to the Commission's regulations in 10 CFR 50.109, "Backfitting."

In parallel with the implementation of the post-Fukushima orders and the gathering of information under 10 CFR 50.54(f), the NRC staff undertook several rulemaking activities that ultimately resulted in the MBDBE rulemaking. This was the result of consolidation of the rulemaking activities proposed to the Commission in COMSECY-13-0002, "Consolidation of Japan Lessons Learned Near-Term Task Force Recommendations 4 and 7 Regulatory Activities," (ADAMS Accession No. ML13011A034); COMSECY-13-0010, "Schedule and Plans for Tier 2 Order on Emergency Preparedness for Japan Lessons Learned," (ADAMS Accession No. ML12339A262); and SECY-14-0046, "Fifth 6-Month Status Update on Response to Lessons Learned from Japan's March 11, 2011, Great Tōhoku Earthquake and Subsequent Tsunami," Enclosure 6, "Proposal to Consolidate Post-Fukushima Rulemaking Activities," (ADAMS Accession No. ML14064A544).

The proposed MBDBE rule was presented to the Commission in Notation Vote Paper SECY-15-0065, "Proposed Rule: Mitigation of Beyond-Design-Basis Events (RIN 3150-AJ49)," (ADAMS Accession No. ML15049A201) on April 30, 2015. The stated purpose of this paper was to "obtain Commission approval to publish for public comment a proposed rule that would establish requirements for the mitigation of beyond-design-basis events for certain nuclear power reactor licensees and applicants." On August 27, 2015, the Commission approved publication of the draft proposed rule notice in the *Federal Register* in its SRM, "Staff Requirements – SECY-15-

0065 – Proposed Rulemaking: Mitigation of Beyond-Design-Basis Events,” (ADAMS Accession No. ML15239A767). In granting approval for the publication for comment of the proposed rule, the Commission directed the removal of certain proposed requirements but took no action to modify the existing comments to the staff from SRM-SECY-11-0124 and SRM-SECY-11-0137 regarding the evaluation of the staff’s basis for imposing new requirements when documented in notation vote papers for any new requirements promulgated by orders or rulemaking.

The above discussion reflects the thorough, rigorous, and disciplined approach the agency took to responding to the accident at Fukushima Dai-ichi. Rather than a sudden departure from these principles, the final MBDBE rule reflects the Commission’s careful assessment of the cumulative result of those activities and the codification of only those requirements the Commission found necessary to ensure adequate protection or provided a substantial and cost-justified increase in safety, as required by the Backfit Rule.