




UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 30, 2015

COMSECY-15-0019

MEMORANDUM TO: Chairman Burns  
Commissioner Svinicki  
Commissioner Ostendorff  
Commissioner Baran

FROM:   
Mark A. Satorius  
Executive Director for Operations

SUBJECT: CLOSURE PLAN FOR THE REEVALUATION OF FLOODING  
HAZARDS FOR OPERATING NUCLEAR POWER PLANTS

This memorandum provides the Commission with a plan for closing Near-Term Task Force (NTTF) Recommendation 2.1 on the reevaluation of flooding hazards for operating nuclear power plants. The staff is providing this plan for Commission review and approval, as directed in the staff requirements memorandum (SRM) dated March 30, 2015, for COMSECY-14-0037, "Integration of Mitigating Strategies for Beyond-Design-Basis External Events and the Reevaluation of Flooding Hazards."

In response to the March 2011 accident at Fukushima Dai-ichi, in Japan, the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-12-049, which directed power reactor licensees to develop, implement, and maintain guidance and strategies ("mitigating strategies") to maintain or restore core cooling, containment and spent fuel pool cooling capabilities following a beyond-design-basis external event. In addition, the NRC issued letters to power reactor licensees pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," Section 50.54(f), which requested that licensees reevaluate the seismic and flooding hazards at their sites using updated hazard information and current regulatory guidance and methodologies (hereafter referred to as the 50.54(f) letter). The information from the first phase of the reevaluation was requested to support NRC decisionmaking related to possible regulatory actions, which is referred to as Phase 2 of the flooding reevaluation activity.

In COMSECY-14-0037, the NRC staff described issues related to the implementation of Order EA-12-049 and the related rulemaking for mitigation of beyond-design-basis events (MBDBE) and the completion of flooding reevaluations and assessments.

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The staff proposed an approach for coordinating requirements to implement mitigation strategies for beyond-design-basis external events with actions, if any, necessary to address reevaluated flooding hazards. Specifically, the staff recommended that the Commission affirm the following:

1. Licensees for operating nuclear power plants need to address the reevaluated flooding hazards within their mitigating strategies for beyond-design-basis external events (Order EA-12-049 and related MBDBE rulemaking),
2. Licensees for operating nuclear power plants may need to address some specific flooding scenarios that could significantly damage the power plant site by developing targeted or scenario-specific mitigating strategies, possibly including unconventional measures, to prevent fuel damage in reactor cores or spent fuel pools, and
3. The staff should revise the NTTF Recommendation 2.1 flooding assessments and integrate the Phase 2 decision-making into the development and implementation of mitigating strategies in accordance with Order EA-12-049 and the related MBDBE rulemaking.

In the SRM for COMSECY-14-0037, the Commission approved Recommendations 1 and 2. The Commission disapproved Recommendation 3 and directed the staff to reassess the guidance developed for the Phase 1 integrated assessments and develop the criteria and guidance for Phase 2 of the flooding reevaluations.

The Commission further directed that:

The NRC staff should continue to work with licensees toward the expeditious completion of the flooding hazard reevaluations in order to ensure that flooding hazards are understood for every site using the current flooding regulations and guidance. The closure of the § 50.54(f) letter should proceed in parallel with implementation and closure of Order EA-12-049 and the associated MBDBE rulemaking and should not impact the schedule for these actions.

The NRC staff should also proceed expeditiously to clearly define the steps needed to complete our actions in response to NTTF Recommendation 2.1 for flooding and, within three months of the date of the SRM for COMSECY-14-0037, provide a plan for achieving closure of this recommendation to the Commission for review and approval. The plan should ensure completion of the Mitigating Strategies Orders and MBDBE rulemaking on the current schedule and provide target closure dates for the revised Phase 1 integrated assessment guidance and development of criteria and guidance for Phase 2. The plan should consider when the ACRS should be given the opportunity to review the Phase 1 integrated assessment revised guidance and Phase 2 criteria and guidance.

The NRC staff has developed a draft "Mitigating Strategies and Flooding Hazard Reevaluation Action Plan" in accordance with the Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-502, "Procedure for Development, Implementation, and Management of Action Plans," which is enclosed for Commission review. If approved by the Commission, the NRC staff will finalize and implement the action plan to manage the closure of NTTF Recommendation 2.1. The NRC staff will likewise use the Commission direction to inform interactions with the industry on guidance to address seismic hazard reevaluations, which is currently following an approach similar to that described in the enclosed plan for flooding. The NRC staff will continue to provide the Commission detailed information on the status of the action plan, including development of guidance, flooding hazard reevaluations, and integrated assessments, through periodic updates of post-Fukushima activities.

The NRC staff recommends that the Commission approve the enclosed plan.

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

SECY, please track.

Enclosure:

Mitigating Strategies and Flooding  
Hazard Reevaluation Action Plan