NUCLEAR ENERGY INSTITUTE

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SENIOR VICE PRESIDENT AND
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February 28, 2012

The Honorable Gregory B. Jaczko
Chairman
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Industry Input on SECY 12-0025, *Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011 Great Tohoku Earthquake and Tsunami*

Project Number: 689

Dear Chairman Jaczko:

This letter provides industry input on SECY 12-0025, *Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011 Great Tohoku Earthquake and Tsunami.* The industry has interacted with the U.S. Nuclear Regulatory Commission (NRC) staff in public meetings on the lessons learned from the Fukushima Dai-ichi accidents in Japan since July 2011. We appreciate the extensive and constructive public dialogue that has taken place in the development of the proposed orders and requests for information included in the SECY document.

FLEX

SECY 12-0025 acknowledges the industry proposal to develop a diverse and flexible coping capability, or FLEX, to add an additional layer of defense-in-depth for potential beyond-design-basis external events. FLEX is designed to prevent fuel damage and preserve containment integrity in the event of a loss of AC power and loss of normal access to the ultimate heat sink. The industry is moving forward with the initial steps toward implementing FLEX. Initial steps include the industry initiative to order the first phase of portable on-site equipment by March 31, 2012 and the development of draft implementation guidance.

The industry goal is for FLEX to be fully responsive to the order associated with mitigation strategies for beyond-design-basis external events. Of all the Tier 1 recommendations, we believe the implementation of FLEX in response to this order offers the greatest safety enhancement in the shortest timeframe. We also believe that the requirements of the order and the implementation of FLEX can serve as the basis for the rulemaking associated with the extended loss of AC power. As such, the rulemaking will provide the underpinning for long-term inspection and enforcement of FLEX at each station. We look forward to upcoming interactions with the agency on the

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implementation guidance for FLEX, for which we will seek NRC endorsement, and on the Advanced Notice of Proposed Rulemaking.

Seismic Reevaluations

The industry is committed to ensuring that nuclear energy facilities remain safe from extreme natural events, including earthquakes and flooding. Our principal concern with SECY 12-0025 is the request for information regarding seismic reevaluations. We have consistently communicated to the NRC staff that the staff's proposed timeframe for completing seismic probabilistic risk assessments (PRAs) is not realistic. The majority of the 104 operating plants could not complete the assessment of the difference between the new and existing seismic hazard before the end of 2016. Current technical resource constraints preclude more than a dozen parallel seismic PRAs. In addition, there is a huge difference between NRC staff and industry resource estimates for performing the assessment phase of the seismic reevaluations. The NRC staff estimates 5,200 hours to complete the hazard development and assessment phases that could involve using a seismic margins or seismic PRA. The industry's estimates for a seismic PRA project range from 15,000 to 30,000 hours, based on recent projects. An example of a resource plan for a seismic PRA is provided in the attachment for information.

The Section 50.54(f) process for requesting additional information has the necessary flexibility to allow for alternative approaches. The industry believes that there would be safety benefit in pursuing an alternative practical engineering approach that would result in earlier plant safety enhancements and enable plants to complete the assessment within the schedule defined in the request for information. We are developing this approach for discussion with the agency and plan to submit it within 90 days of the issuance of the request for information. We specifically request that the Commission support the concept of an alternative approach and provide time for the staff to review and accept the approach in the Staff Requirements Memorandum on SECY 12-0025.

Flooding Walk-down Scope

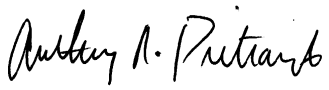
The Section 50.54(f) letter requests information with respect to walk-downs of flooding protection features against the design basis of each facility (Recommendation 2.3), **and** that licensees identify potential "cliff-edge effects" with respect to increased flooding risk. We believe this request to identify potential "cliff-edge effects" is misplaced and would be better handled during the reevaluation of flooding hazards (Recommendation 2.1). Without the information generated by the reevaluation of the flooding hazard, the walk-down team would be speculating on increased flood hazards versus focusing on the verification of flood design features. We strongly believe that it would be more effective and efficient to focus the walk-down scope on verification of the design bases, and for the reevaluation to focus on a potential increase in the flood hazard and any "cliff-edge effects."

Emergency Preparedness

The request for information on emergency preparedness (EP) requires the assessments for onsite and offsite communications and multi-unit staffing to be complete within 90 days. In the numerous public interactions on EP activities in recent months, there is a general consensus that priority must be given to implementing the new EP rule that was promulgated on November 23, 2011. The resources (utility and contractors) needed to perform assessments and plan, implement enhanced capabilities and procure equipment are the same industry resources that are fully engaged in implementing the new rule. As a result, the industry will respond within 60 days that these assessments will begin in December 2012 following implementation of the revised EP rule.

The industry remains fully committed to working with the NRC to achieve the most efficient and effective implementation of the Tier 1 actions with an emphasis on implementing safety enhancements that will provide increased assurance for the protection of public health and safety. If you, other commissioners or your staff have questions please contact me or Adrian Heymer (aph@nei.org; 202-739-8094).

Sincerely,



Anthony R. Pietrangelo

Attachment

c: The Honorable Kristine L. Svinicki, Commissioner, NRC
The Honorable George Apostolakis, Commissioner, NRC
The Honorable William D. Magwood IV, Commissioner, NRC
The Honorable William C. Ostendorff, Commissioner, NRC
Mr. R. William Borchardt, Executive Director of Operations, NRC
Mr. Martin J. Virgilio, Deputy Executive Director for Reactor and Preparedness Programs, NRC
Mr. James T. Wiggins, NSIR, NRC
Mr. Eric J. Leeds, NRR, NRC
Mr. Brian W. Sheron, RES, NRC
Mr. Michael R. Johnson, NRO, NRC
Ms. Catherine Haney, NMSS, NRC
Mr. Mark A. Satorius, FSME, NRC
Mr. Victor McCree, R-II, NRC
Mr. Elmo E. Collins, Jr., R-IV, NRC
Mr. David L. Skeen, Director, Japan Lessons Learned Project Directorate
NRC Document Control Desk

Seismic PRA Tasks and Resource Estimates

TOTAL Estimate: 20160 hours

- Review and Gather Plant Data
  - 1280 hours: General engineering skill
- Hazard Definition
  - 940 hours: Specialized experts and seismic qualified A/E
- Build Lumped Mass and/or FE Model with Soil Structure Interaction
  - 5360 hours: Specialized and experienced civil, structural and seismic engineers
- SPRA Walkdowns
  - 400 hours: System, PRA and structural engineers
- Fragility Work Scope
  - 4240 hours: Experienced and specialized fragility structural engineers
- SEL Development, Electrical Evaluation and Configuration Control
  - 4020 hours: civil seismic structural and Engineers with PRA experience and PRA engineers w/ SPRA experience
- Logic Model Development
  - 3440 hours: PRA engineers with seismic PRA experience
- SPRA Peer Review
  - 480 hours: ASME similar qualifications for seismic PRAs