

July 22, 2016

The Honorable Barbara Boxer  
Ranking Member, Committee on  
Environment and Public Works  
United States Senate  
Washington, DC 20510

Dear Senator Boxer:

During the April 6, 2016, oversight hearing of the Committee on Environment and Public Works, I committed to provide you with a status of the U.S. Nuclear Regulatory Commission (NRC) actions based on the lessons learned from the March 2011 accident at the Fukushima Dai-ichi nuclear power plant in Japan and the expected completion dates for these actions.

The NRC has worked to enhance U.S. nuclear power plants' already robust safety measures in the five years since the accident. The bulk of the most safety significant enhancements will be completed by the end of calendar year 2016. A detailed status is enclosed, but I want to highlight a few key accomplishments.

The majority of the commercial reactors in this country have already completed integrating portable pumps, generators and other resources and procedures to maintain key safety functions. We expect that every U.S. plant will have these physical resources in place by the end of the year. The industry also has two fully operational national rapid response centers in Phoenix and Memphis with portable equipment that can be dispatched if needed.

Significant progress has also been made on the NRC's requests for U.S. plants to re-examine earthquakes and flooding hazards. Every plant has completed its detailed inspection, or "walkdown," of their currently installed seismic and flooding protection features to ensure the features met current requirements and to identify and correct any degraded conditions. Following completion of the walkdowns, NRC inspectors performed follow-up inspections to assure degraded conditions were corrected. Most licensees will complete mitigating strategy assessments for the reevaluated earthquake and flooding hazards by the end of the year. Further, all but one plant is on schedule to provide a reliable indication of the water level in spent fuel pools by the end of 2016. Phased implementation of reliable hardened vent systems for containment in Mark I and II boiling-water reactors will begin later this year, as per our schedule.

Finally, we are now incorporating the Fukushima-related work into our ongoing inspection and oversight processes. We strongly believe U.S. plants are better prepared for extreme events now than they were in 2011. With respect to Diablo Canyon's implementation of the Commission Order for Mitigation Strategies for Beyond-Design-Basis External Events, Pacific Gas & Electric has now achieved full compliance for both units and a letter to the NRC documenting full compliance at the site is expected later this month.

A more detailed status of NRC's Fukushima lessons-learned regulatory actions is provided in Enclosure 1. As you will see, some of the high-priority items (generally referred to as Tier 1 recommendations) are represented separately for different phases of implementation; for example, an order followed by rulemaking to establish the requirements in our regulations. We have also completed work on the majority of the items not on the high-priority list (generally referred to as Tier 2 or 3 recommendations). The NRC staff will be providing a proposal to the Commission later this year for resolving three of the remaining Tier 2 and 3 recommendations. The NRC staff's most recent status report to the Commission is also included in Enclosure 2 and provides additional detail on all of the NRC's Fukushima lessons-learned activities.

If you have any questions or concerns regarding this matter, please feel free to contact Eugene Dacus, Director of the Office of Congressional Affairs at (301) 415-1776.

Sincerely,

**/RA/**

Stephen G. Burns

Enclosures:  
As stated

cc: Senator James Inhofe