



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

July 5, 2019

Mr. Brian R. Sullivan
Site Vice President
Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360-5508

SUBJECT: PILGRIM NUCLEAR POWER STATION – NRC RESPONSE TO ENTERGY'S
FINAL RESPONSE TO THE MARCH 12, 2012, REQUEST FOR INFORMATION
LETTER REGARDING NEAR-TERM TASK FORCE
RECOMMENDATIONS 2.1, 2.3, AND 9.3 (EPID L-2019-JLD-0003)

Dear Mr. Sullivan:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information pursuant to Section 50.54(f) of Title 10 to the *Code of Federal Regulations* (10 CFR) (hereafter referred to as the 50.54(f) letter), to all nuclear power reactor licensees and construction permit holders in response to lessons-learned from Japan's March 2011 earthquake and subsequent tsunami. Enclosures 1 through 4 to the 50.54(f) letter include information requests regarding Near-Term Task Force (NTTF) Recommendations 2.1 and 2.3 for seismic and flooding hazard actions, and Enclosure 5 includes NTTF Recommendation 9.3 for emergency preparedness, as part of the response to the "*Near-Term Task Force Recommendations for Enhancing Reactor Safety in the 21st Century*" report, issued July 12, 2011 (ADAMS Accession No. ML111861807). The 50.54(f) letter requests licensees to perform seismic and flooding walkdowns and hazard re-evaluations, and perform emergency preparedness communication and staffing evaluations for prolonged loss of power events.

By letter dated June 10, 2019 (ADAMS Accession No. ML19161A033), Entergy Nuclear Operations, Inc. (Entergy, the licensee) submitted a letter certifying permanent cessation of power operations of Pilgrim Nuclear Power Station (Pilgrim), per 10 CFR Subpart 50.82(a)(1)(i) and certified that the fuel has been permanently removed from the Pilgrim reactor vessel and placed in the spent fuel pool, per 10 CFR Subpart 50.82(a)(1)(ii). Entergy acknowledged in its letter that, once these certifications are docketed, the Pilgrim license will no longer authorize operation of the reactor, or placement or retention of fuel in the reactor vessel.

By letter dated June 19, 2019 (ADAMS Accession No. ML19170A391), Entergy submitted its final response to the 50.54(f) letter regarding NTTF Recommendations 2.1, 2.3, and 9.3.

In the June 19, 2019, letter, Entergy reaffirmed that Pilgrim is no longer an operating plant, and is a permanently shut down and defueled reactor. Therefore, the licensee considers the requests of the 50.54(f) letter to no longer be applicable to Pilgrim, and no longer plans on proceeding with any further implementation of the requests in the 50.54(f) letter or any alternative approach for NTTF Recommendations 2.1, 2.3 and 9.3.

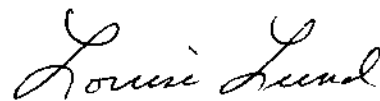
The NRC staff verified that the Pilgrim certifications are docketed and that the license is no longer authorized for operation of the reactor or placement or retention of fuel in the reactor vessel. Further, the NRC staff has reviewed the licensee's responses to the information requests described in Enclosures 1 through 5 of the 50.54(f) letter and have determined that the requests are no longer necessary for Pilgrim.

No further responses or actions associated with the 50.54(f) letter are necessary for Pilgrim since the licensee is no longer authorized to load fuel into the vessel and potential fuel-related accident scenarios are limited to the spent fuel pool. Unlike the reactor, the safety of fuel located in the spent fuel pool is assured for an extended period through maintenance of pool structural integrity, which preserves coolant inventory and maintains margin to prevent criticality. Small changes in the flooding hazard elevation would not threaten the structural integrity of a flooded pool. In addition, the staff considered insights from NUREG-2161, "Consequence Study of a Beyond-Design-Basis Earthquake Affecting the Spent Fuel Pool for a U.S. Mark I Boiling Water Reactor" (ADAMS Accession No. ML14255A365). This NUREG concluded that spent fuel pools are robust structures that are likely to withstand severe earthquakes without leaking, and that spent fuel pools accidents are a small contributor to overall risk.

Based on the discussion above, the safety of the fuel stored in spent fuel pools would not be substantially affected by potential changes in the flooding or seismic hazard levels. Furthermore, within a few months following permanent shutdown of the reactor, the decay heat levels present in the pool become very low. As such, the progression of any accident due to a beyond-design-basis external event would be very slow, and recovery and mitigation actions could be completed over a longer period of time. Thus, spent fuel pool beyond-design-basis accident scenarios at decommissioning reactor sites do not require the enhanced communication and staffing that may be necessary for the reactor-centered events the 50.54(f) letter addresses.

If you have any questions regarding this letter, please contact Mr. Joseph Sebrosky at 301-415-1132 or Joseph.Sebrosky@nrc.gov.

Sincerely,



Louise Lund, Director
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Docket No. 50-293

cc: Distribution via Listserv

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