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

February 27, 2012

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

SUBJECT: PILGRIM NUCLEAR POWER STATION – ACKNOWLEDGEMENT OF WITHDRAWAL OF PROPOSED LICENSE AMENDMENT REQUEST FOR ROD WORTH MINIMIZER BYPASS ALLOWANCE TO ALLOW REACTOR STARTUP (TAC NO. ME7801)

Dear Sir or Madam:

By letter dated December 29, 2011 (Agencywide Documents Access and Management System (ADAMS) No. ML12005A198), Entergy Nuclear Operations, Inc. (Entergy) submitted a license amendment request for Pilgrim Nuclear Power Station. The proposed amendment would revise the Technical Specifications (TSs) as it pertains to the operability of the Rod Worth Minimizer (RWM) to allow additional reactor startups with an inoperable RWM.

By letter dated February 9, 2012, Entergy withdrew the application from Nuclear Regulatory Commission (NRC) review, stating that the newly installed RWM is operational and capable of performing its function as described in the TSs. The NRC staff acknowledges your request to withdraw the application. The NRC staff activities on the review have ceased and the associated Technical Assignment Control number has been closed.

The purpose of this letter is: (1) to advise that the above cited application is being treated as withdrawn and (2) to provide the results of the NRC staff's acceptance review of this amendment. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license (including the TSs) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. 10 CFR 50.34 addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff notes that its acceptance review identified that your application did not provide technical information in sufficient detail to enable the NRC staff to complete its detailed review.

Therefore, if you decide to re-submit the request, it must include the information delineated in the enclosure to this letter to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment request in terms of regulatory requirements and the protection of public health and safety and the environment.

If you have any questions, please contact me at (301) 415-1030 or at richard.guzman@nrc.gov.

Sincerely,

Richard V. Guzman, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-293

Enclosure:
As stated

cc w/encl: Distribution via Listserv

NRC STAFF ACCEPTANCE REVIEW COMMENTS

REQUESTED LICENSING ACTION RE: ROD WORTH MINIMIZER

BYPASS ALLOWANCE TO ALLOW REACTOR STARTUP

FACILITY OPERATING LICENSE NO. DPR-35

ENTERGY NUCLEAR OPERATIONS, INC.

PILGRIM NUCLEAR POWER STATION

DOCKET NO. 50-293

By letter dated December 29, 2011 (Agencywide Documents Access and Management System (ADAMS) No. ML12005A198), Entergy Nuclear Operations, Inc. (Entergy) submitted a license amendment for Pilgrim Nuclear Power Station (PNPS). The proposed amendment would revise the Technical Specifications (TSs) as it pertains to the operability of the Rod Worth Minimizer (RWM) to allow additional reactor startups with an inoperable RWM. The Nuclear Regulatory Commission (NRC) staff reviewed the application and concluded that the information listed below is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment request in terms of regulatory requirements and the protection of public health and safety and the environment.

Description of Information Insufficiencies

Use of Precedent: The application does not appropriately justify the cited precedential license amendment.

Regulatory Basis: The application does not specify how the proposed TS change is consistent with 10 CFR 50.36 requirements, or what regulatory requirement would be addressed by submitting a report to the NRC if a startup were performed with an inoperable RWM.

Sufficiency of Information: The application is missing an essential safety analysis (low-power rod withdrawal error).

Acceptance Review Questions

Address the following apparent discrepancies between the referenced precedent (Oyster Creek License Amendment 113 dated November 27, 1986, ADAMS Accession No. ML011160423) and the present request:

1. At the time the Oyster Creek license amendment was approved, the NRC staff understood that the licensee intended to replace the original RWM with new equipment. Please discuss what similar measures are being taken to ensure that the reliability of the RWM will be improved following the planned operating cycle.

Enclosure

2. The Oyster Creek proposed TS required actions include the use of two additional staff members to verify rod movement: (1) a second licensed operator, and (2) a reactor engineer from the Core Engineering Group. The Pilgrim TS are both less restrictive and less specific. Please discuss what ensures that the proposed Pilgrim TS provide similar assurances that the banked position withdrawal sequence (BPWS) will be enforced and the potential for operator error will be reduced to a level similar to that for RWM malfunction.

3. The discussion in the precedential safety evaluation states that the RWM limits rod worth to minimize the consequences of both the control rod drop accident and the control rod withdrawal error; however, the technical analysis of the present amendment request addresses only the control rod drop accident. The technical evaluation considers the rod withdrawal error as follows: "The rod withdrawal transient at low power does not exceed fuel design limits even with a maximum error rod." Given that: (1) PNPS is a different vintage boiling-water reactor (BWR) from the precedent plant, (2) BWR core design strategies have generally become more aggressive in the 25 years between the precedent TS change and the present amendment request, and (3) General Electric has modified its neutronic design and safety analysis methods in the intervening 25 years, the present request lacks the requisite safety analysis to demonstrate that the same consideration is true for Pilgrim today. Please provide a summary of a cycle-specific or bounding analysis, using current-generation analytic methods, to verify that the rod withdrawal transient at low power does not exceed fuel design limits even with a maximum error rod.

4. Title 10 of the *Code of Federal Regulations* Section 50.36(c)(2)(i) states that, "when a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met." The proposal to submit a report to the NRC does not remedy the RWM inoperability that would require this proposed action. Please explain what NRC regulation would require the submission of a report to the NRC in the event that PNPS operators were to start the reactor with an inoperable RWM more than once in a calendar year.

Therefore, if you decide to re-submit the request, it must include the information delineated in the enclosure to this letter to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment request in terms of regulatory requirements and the protection of public health and safety and the environment.

If you have any questions, please contact me at (301) 415-1030 or at richard.guzman@nrc.gov.

Sincerely,

/ra/

Richard V. Guzman, Senior Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-293

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As stated

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