



Entergy Nuclear Operations, Inc.
1340 Echelon Parkway
Jackson, MS 39213
Tel 601-368-5573

Mandy K. Halter
Director, Nuclear Licensing

LETTER NUMBER: 2.18.035

August 1, 2018

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: License Amendment Request to Revise the Pilgrim Nuclear Power Station
Emergency Plan and Emergency Action Level Scheme to Address the
Permanently Defueled Condition

Pilgrim Nuclear Power Station
Docket No. 50-293
Renewed License No. DPR-35

REFERENCE:

1. PNPS Letter to NRC, Subject: "Notification of Permanent Cessation of Power Operations," dated November 10, 2015 (Letter Number 2.15.080) (ML15328A053)
2. PNPS Letter to NRC, Subject: "License Amendment Request to Revise the Pilgrim Nuclear Power Station Emergency Plan to Address the Permanently Defueled Condition," dated January 12, 2018 (Letter Number 2.18.004) (ML10823A687)
3. PNPS Letter to NRC, Subject: "Request for Exemptions from Portions of 10 CFR 50.47 and 10 CFR Part 50, Appendix E," dated July 3, 2018 (Letter Number CNRO-2018-00031) (ML18186A635)

Dear Sir or Madam:

Pursuant to Title 10 of the Code of Federal Regulations (CFR), 50.90, Entergy Nuclear Operations, Inc. (ENO) hereby requests U.S. Nuclear Regulatory Commission (NRC) review and approval of an amendment to the Renewed Facility Operating License Number DPR-35 for the Pilgrim Nuclear Power Station (PNPS). The proposed amendment would revise the PNPS Emergency Plan and Emergency Action Level (EAL) scheme for the permanently defueled condition.

In Reference 1, ENO notified the NRC that it plans to permanently cease power operations of PNPS no later than June 1, 2019, in accordance with 10 CFR 50.82(a)(1)(i). Once certification of permanent removal of fuel from the reactor vessel is submitted to the NRC in accordance with 10 CFR 50.82(a)(1)(ii), and docketed, the 10 CFR Part 50 license will no

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longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel in accordance with 10 CFR 50.82(a)(2).

Therefore, the reason for this proposed amendment is to revise the PNPS Site Emergency Plan (SEP) for the permanently shut down and defueled condition. The proposed changes are being submitted to the NRC for approval prior to implementation, as required under 10 CFR 50.54(q)(4) and 10 CFR Part 50, Appendix E, Section IV.B.2.

In Reference 2, ENO submitted proposed changes to the PNPS Emergency Plan to reduce the minimum required on-shift and Emergency Response Organization (ERO) staffing following the transition from an operating facility to a permanently defueled facility. Separate from this license amendment request, in Reference 3, ENO requested exemptions from portions of 10 CFR 50.47 and 10 CFR 50, Appendix E.

The proposed Permanently Defueled Emergency Plan (PDEP) and Permanently Defueled EAL scheme in this proposed amendment are commensurate with the significantly reduced spectrum of credible accidents that can occur in the permanently shut down and defueled condition and are necessary to properly reflect the conditions of the facility while continuing to preserve the effectiveness of the emergency plan.

The proposed PDEP further modifies the PNPS on-shift staff and ERO staffing proposed in Reference 2. The staffing proposed in the PDEP is commensurate with the need to safely store spent fuel in the spent fuel pool (SFP) and with the consequences of potential radiological events at PNPS in the permanently shut down and defueled status of the facility.

The proposed PDEP will provide the ability to assess, classify, and declare an emergency within 30 minutes and the ability to notify State and local authorities within 60 minutes of an emergency declaration or change in classification. Emergency declaration is required to be made as soon as conditions warranting classification are recognizable, but within 30 minutes after the availability of indications that an EAL has been, or may be, exceeded.

Reference 3 included an analysis that shows that 10 months following shut down of the PNPS reactor, the spent fuel stored in the SFP will have decayed to the point where the PDEP and Permanently Defueled EAL scheme may be implemented. The analysis demonstrates that 10 months after permanent cessation of power operations, there is sufficient time to mitigate events that could lead to a zirconium fire. Following the PNPS shut down, which is expected to occur by June 1, 2019 (Reference 1), 10 months will occur on April 1, 2020.

The proposed changes have been reviewed by the PNPS On-site Safety Review Committee (OSRC).

The description, technical and regulatory analysis, significant hazards determination, and environmental considerations evaluation for the proposed amendment are contained in Attachment 1. Attachment 2 provides a comparison of the proposed Permanently Defueled EAL Technical Bases Document to the corresponding information contained in NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Revision 6. Enclosure 1 provides the proposed PDEP. Enclosure 2 provides the Permanently Defueled EAL Technical Bases Document. Enclosure 3 provides the proposed Permanently Defueled EAL scheme.

The proposed changes have been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c), and ENO has determined that this change involves no significant hazards consideration. ENO has also determined that the proposed emergency plan changes satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22(c)(9) and do not require an environmental review. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is required.

This letter contains no new regulatory commitments.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Commonwealth of Massachusetts officials.

In support of this license amendment request for the PDEP and EAL Scheme, PNPS has held meetings with cognizant state and local response organizations that have included discussions of the proposed changes to the PNPS emergency plan to be submitted to the NRC as indicated above. PNPS will continue to meet with representatives from the Commonwealth of Massachusetts, local emergency preparedness personnel, and Regional leadership from the Federal Emergency Management Agency.

ENO requests approval of the proposed license amendment by June 30, 2019, with an effective date of April 1, 2020. Approval of this amendment by June 30, 2019 will allow PNPS adequate time to implement the changes to the emergency plan and EAL Scheme by the requested effective date.

If you have any questions or require additional information, please contact Mr. Peter J. Miner at (508) 830-7127.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 1, 2018.

Sincerely,



MKH/dd/mp

- Attachments:
1. Description and Evaluation of the Proposed Changes
 2. Comparison Matrix for Permanently Defueled EALs Based on NEI 99-01, "Development of Emergency Action Levels for Non-Passive Reactors," Revision 6
- Enclosures
1. PNPS Permanently Defueled Emergency Plan
 2. Permanently Defueled Emergency Action Level Technical Bases Document
 3. Permanently Defueled Emergency Action Level Scheme Matrix

cc:

Mr. David C. Lew
Acting Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

Mr. John Lamb, Senior Project Manager
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop O-8C2A
Washington, DC 20555-0001

Mr. John Giarrusso, Jr.
Planning, Preparedness and Nuclear Section Chief
Mass. Emergency Management Agency
400 Worcester Road
Framingham, MA 01702

Mr. John Priest, Director
Massachusetts Department of Public Health
Radiation Control Program
Commonwealth of Massachusetts
529 Main Street, Suite 1M2A
Charlestown, MA 02129-1121

NRC Senior Resident Inspector
Pilgrim Nuclear Power Station