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Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104

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10 CFR 50.90
10 CFR 50.54(p)
10 CFR 73.55(r)

April 02, 2020

U.S. Nuclear Regulatory Commission
One White Flint
ATTN: Document Control Desk
11555 Rockville Pike
Rockville MD 20852-2738

Pilgrim Nuclear Power Station
Renewed Facility License No. DPR-35
NRC Docket Nos. 50-293 and 72-1044

Subject: Physical Security Plan Revision and License Amendment Request to Incorporate Additional Independent Spent Fuel Storage Installation

References:

[1] Letter, Entergy Nuclear Operations, Inc. to U.S. NRC, "Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel," dated June 10, 2019, (Accession No. ML19161A033)

[2] Letter, U.S. NRC to Entergy Nuclear Operations, Inc., "Pilgrim Nuclear Power Station—Order Approving Direct and Indirect Transfer of License and Conforming License Amendment," dated August 22, 2019 (ML19170A101)

[3] Letter, Holtec Decommissioning International, LLC to U.S. NRC, "Notification of Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate for Pilgrim Nuclear Power Station," November 16, 2018 (ML18320A040)

[4] NRC Interim Staff Guidance, NSIR/DSP-ISG-03, "Review of Security Exemptions/ License Amendment Requests for Decommissioning Nuclear Power Plants," September 28, 2015 (Accession No. ML15106A737)

Dear Sir or Madam:

Pursuant to the provisions of 10 Code of Federal Regulations (CFR) 50.4, 10 CFR 50.54(p), 10 CFR 73.55(r), and 10 CFR 50.90, Holtec Decommissioning International, LLC (HDI) requests approval of the enclosed Pilgrim Nuclear Power Station (PNPS) Physical Security Plan (PSP) revision and License Amendment Request to License Condition 3.G, Physical Protection.

NOTE: ENCLOSURE 1 TO THIS LETTER CONTAINS SENSITIVE SECURITY INFORMATION. ENCLOSURES 2 AND 3 TO THIS LETTER CONTAIN "SAFEGUARDS INFORMATION". THESE ENCLOSURES MUST BE PROTECTED ACCORDINGLY. UPON REMOVAL OF ENCLOSURES 1, 2, AND 3, THIS LETTER IS DECONTROLLED."

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The revised PSP integrates Appendix D which provides the security requirements for the new Independent Spent Fuel Storage Installation (ISFSI II) that is currently being built in the Owner Controlled Area (OCA) outside of the existing Pilgrim Protected Area (PA). The Security Training and Qualification Plan, and the Safeguards Contingency Plan are included in the proposed PSP but remain unchanged from the existing PSP.

The proposed changes are appropriate for a facility that has submitted the 10 CFR 50.82(a) certifications for permanent cessation of power operations and the permanent removal of fuel from the reactor vessel (Reference 1).

On August 27, 2019, Pilgrim was transferred to Holtec Pilgrim, LLC (Holtec Pilgrim) as the licensed owner and HDI as the licensed operator for decommissioning (Reference 2). In support of the NRC review and approval of the license transfers, HDI prepared and submitted a revised Post-Shutdown Decommissioning Activities Report (PSDAR) including a revised Site-Specific Decommissioning Cost Estimate (DCE) for Pilgrim (Reference 3). The HDI revised PSDAR included the scope, schedule and cost estimate for managing the PNPS spent fuel.

Since the existing Pilgrim ISFSI pad does not provide enough space to store the spent fuel currently stored in the spent fuel pool (SFP), the construction of additional ISFSI capacity is necessary. The HDI decommissioning plan as provided in Reference 3 includes the construction of a new ISFSI II pad to include capacity for the existing dry casks on the Pilgrim ISFSI pad as well as the spent fuel currently in the SFP. The new ISFSI II pad will also include storage capacity for greater than Class C (GTCC) waste. The spent fuel and GTCC waste will remain on the ISFSI II pad until it is transferred to the DOE.

To satisfy the ISFSI II security requirements, implementation of the proposed changes to the Pilgrim PSP will be required prior to transfer of irradiated fuel to dry cask storage on the new ISFSI II pad. The new ISFSI II pad is expected to be completed in the fourth quarter of 2020.

Implementation of the proposed changes will also require the installation or modification of security structures, systems and components necessary to support the revised Pilgrim PSP including Appendix D. In addition, appropriate security measures will be required to be in place during transition from the current site PSP to the revised PSP (including Appendix D).

A campaign to transfer additional irradiated fuel located in the spent fuel pool (SFP) to dry cask storage on the existing Pilgrim ISFSI pad, is scheduled to commence in the second quarter of 2020. These specific SFP fuel transfers to dry cask storage are addressed via the current PSP and the current ISFSI pad licensing basis. The above referenced fuel transfer is expected to be completed by the fourth quarter 2020. Completion of this fuel transfer campaign does not rely on approval of the proposed amendment request for the ISFSI II pad PSP and associated license amendment.

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The schedule for decommissioning activities at PNPS prioritizes removal of fuel from the PNPS SFP. This prioritization is based on the HDI Revised PSDAR plan to reduce potential risks to workers and members of the public. In particular, removal of irradiated fuel from the SFP would reduce radiation exposure to individuals conducting work activities near the SFP by removing the source term. Removal of the irradiated fuel from the SFP also removes the risk of postulated accidents involving irradiated fuel in the SFP. Lastly, removal of irradiated fuel from the SFP simplifies operation of the facility and reduces the need for maintenance of cooling systems further reducing risk. The reduction in risk is consistent with HDI's plan to safely decommission its facilities.

As discussed in the HDI Revised PSDAR, existing ISFSI pad space and dry cask loading limitations require the construction of additional ISFSI capacity. The construction of the Pilgrim ISFSI II will provide this additional capacity to support storage of the remaining spent fuel stored in the SFP and must be completed in order to support the schedule provided in the HDI Revised PSDAR. In addition, the ISFSI II capacity also provides the capacity necessary to safely store the dry casks currently stored on the existing Pilgrim ISFSI. NRC approval of the proposed PSP and the associated revision to PNPS license condition 3.G is required prior to making the new ISFSI II pad operational. Subsequent fuel loading campaigns are currently scheduled to commence in the second quarter of 2021.

Due to the significant reduction in site risk resulting from the removal of spent fuel from the spent fuel pool to dry cask storage on the new ISFSI II pad, HDI requests NRC approval of the License Amendment Request by February 2, 2021. This request date aligns with the need date for movement of the first cask from the existing ISFSI to the new ISFSI II during the second dry fuel storage campaign. Movement of the loaded casks to the new ISFSI II cannot commence until NRC approves the changes to the PSP and License Condition. Once approved, implementation of the revised PSP will commence upon notification to NRC of the completion of the ISFSI II pad and haul path, and implementation of the approved PSP and proposed license amendment. We request that the amendment be immediately effective.

The proposed PSP is consistent with the guidance provided by NRC Staff in NSIR/DSPISG- 03, "Review of Security Exemptions/License Amendment Requests for Decommissioning Nuclear Power Plants" (Reference 4).

Pursuant to 10 CFR 50.91(a)(1), HDI has performed an evaluation and determined that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified. Furthermore, HDI has evaluated this proposed license amendment against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21 and has concluded, pursuant to 10 CFR 51.22(b), that no environmental impact statement or environment assessment need be prepared in connection with the proposed amendment.

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Attachment 1 to this letter provides a summary and an evaluation of the proposed PSP, including Appendix D. Attachment 1 includes the no significant hazards consideration determination and environmental review conclusion. Attachment 2 to this letter provides a markup of the current PNPS Renewed Facility License to reflect changes to License Condition 3.G, Physical Protection. Attachment 3 to this letter provides the retyped (clean) page of the proposed license condition change.

Enclosure 1 to this submittal contains Security-Related Information to be withheld from public disclosure pursuant to 10 CFR 2.390. Enclosure 1 provides a description and evaluation of the proposed PSP, including a description of programmatic assumptions applied to the development of the proposed PSP based on 10 CFR 72.212(b)(9). Enclosure 1 also includes a summary of the alternative measures requested pursuant to 10 CFR 73.55(r), descriptions of key design features of the proposed PSP, and a list of Orders applicable to the PSP with cross references to relevant PSP sections.

Enclosure 2 to this submittal contains "Safeguards Information" as defined by 10 CFR 73.22 and its disclosure to unauthorized individuals is prohibited by Section 147 of the Atomic Energy Act of 1954, as amended, and must be protected accordingly. Enclosure 2 provides the proposed Appendix D to the PSP and applicable change pages to the existing PSP necessary to address the inclusion of the Appendix.

Pursuant to 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), a copy of this application for license amendment, with Attachments 1, 2 and 3, and Enclosure 1 is being provided to the Commonwealth of Massachusetts, Emergency Management Agency.

This letter contains no new regulatory commitments.

If you have any questions or need further information, please contact me at (856) 797-0900, ext. 3813.

I declare under the penalty of perjury that the forgoing is true and correct.

Executed on April 02, 2020.

Sincerely,

Andrea L.

Sterdis

Andrea L. Sterdis

HDI Vice President, Regulatory and Environmental Affairs
Holtec Decommissioning International, LLC

Digitally signed by Andrea L. Sterdis
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Attachments

1. Summary and Evaluation of Proposed Changes (uncontrolled)
2. Proposed Change to PNPS Renewed Facility License Condition 3.G (mark-up) – (uncontrolled)
3. Revised PNPS Renewed Facility Operating License Condition 3.G (clean copy) – (uncontrolled)

Enclosures

1. Description of PNPS Physical Security Plan Changes – (Security Related Information)
2. Proposed Changes to the PNPS Security Plan including Appendix D (Safeguards Information)
3. Blast Effects Vulnerability/Load Analysis- PNPS ISFSI II Facility (Safeguards Information)

cc: (without Enclosures 2 and 3)
NRC Regional Administrator - Region I
NRC NMSS Project Manager (Pilgrim Nuclear Power Station)
Director, Massachusetts Emergency Management Agency

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