



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

July 9, 2021

Andrea L. Sterdis, Vice President  
Regulatory and Environmental Affairs  
Holtec Decommissioning International, LLC  
Krishna P. Singh Technology Campus  
1 Holtec Blvd.  
Camden, NJ 08104

**SUBJECT: PILGRIM NUCLEAR POWER STATION - REQUEST FOR ADDITIONAL INFORMATION REGARDING PILGRIM - LICENSE AMENDMENT REQUEST INDEPENDENT SPENT FUEL STORAGE INSTALLATION ONLY EMERGENCY PLAN (EPID: L-2021-LLA-0021)**

Dear Ms. Sterdis:


By letter dated February 18, 2021 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML21049A192), Holtec Decommissioning International, LLC (HDI) submitted a license amendment request for the Pilgrim Nuclear Power Station (PNPS) pursuant to the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.90, "Application for amendment of license, construction permit, or early site permit." In its request, HDI states that in support of this condition, revisions to the PNPS Emergency Plan and associated Emergency Action Level (EAL) Scheme are proposed to comport with the requirements for a facility configuration with all spent nuclear fuel in dry storage within an Independent Spent Fuel Storage Installation (ISFSI). The HDI staff explains that the reason for this proposed amendment request is to obtain U.S. Nuclear Regulatory Commission (NRC) approval of the PNPS ISFSI Only Emergency Plan and associated EAL Scheme and that the proposed changes are being submitted to the NRC for approval prior to implementation, as required under 10 CFR 50.54(q)(4).

The NRC staff is currently reviewing the submittal. The NRC staff has determined that additional information is needed to complete the review. Therefore, the NRC staff requests additional information (RAI) as specified in the Enclosure. To continue the review of the subject license amendment request, please respond to this RAI no later than August 10, 2021.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions, please contact me at (301) 415-6622 or via e-mail at [amy.snyder@nrc.gov](mailto:amy.snyder@nrc.gov).

Sincerely,

 Signed by Snyder, Amy  
on 07/09/21

Amy M. Snyder, Senior Project Manager  
Reactor Decommissioning Branch  
Division of Decommissioning, Uranium Recovery,  
and Waste Programs  
Office of Nuclear Material Safety  
and Safeguards

Docket Nos. 50-293 and 72-1044

Enclosure:  
Request for Additional Information

cc: Distribution via Listserv  
W/ Enclosure

LICENSE AMENDMENT REQUEST  
RELATED TO PROPOSED EMERGENCY PLAN CHANGES  
FOR THE HOLTEC DECOMMISSIONING INTERNATIONAL, LLC  
PILGRIM NUCLEAR POWER STATION  
DOCKET NO. 50-293 AND 72-1044

By application dated February 18, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21049A192), as supplemented by the letter dated May 20, 2021 (ADAMS Accession No. ML21140A045), Holtec Decommissioning International, LLC (HDI) requested approval by the U.S. Nuclear Regulatory Commission of proposed Pilgrim Nuclear Power Station (PNPS) Independent Spent Fuel Storage Installation Facility (ISFSI) Only Emergency Plan (IOEP) to support the planned off-load of the PNPS spent fuel pool and transfer of the spent fuel to the ISFSI.

The following are requests for additional information (RAIs) to facilitate the technical review being conducted by the Division of Preparedness and Response, Reactor Licensing Branch staff. Timely and accurate response to these draft RAIs is requested.

**RAI-1**

Requirement:

- 10 CFR 50.47(b)(12), requires that arrangements are made for medical services for contaminated injured individuals.
- 10 CFR Part 50, Appendix E.IV.E.6, requires arrangements for transportation of contaminated injured individuals from the site to specifically identified treatment facilities outside the site boundary.
- Associated guidance in NUREG-0654, Section II.B, Evaluation Criterion L.4, states that each licensee shall arrange for transporting victims of radiological accidents to medical facilities.

Issue: Section 2.1, "Overview of ISFSI Emergency Plan," of Enclosure 1, Attachment 1, "Pilgrim Nuclear Power Stations ISFSI Only Emergency Plan," states, in part,

...ambulance services are provided by American Medical Response (AMR), Inc....

Further, Section 5.2.2, "Ambulance Services," of Enclosure 1, Attachment 1, states,

Notification via a commercial phone line to the Plymouth Fire Department (the ambulance Dispatcher) provides for a coordinated communications link to the ambulances responding to PNPS or transporting personnel from the from PNPS. Radiation monitoring services shall be provided by PNPS whenever it becomes

necessary to use the ambulance service for the transportation of contaminated persons.

HDI stated in the supplemental response, for HDI-Pilgrim Response to NRC RAI – 1,

Not applicable to the PNPS submittal. The IOEP specifies that ambulance services are provided by American Medical Response (AMR), Inc. and coordinated by the Plymouth Fire Department.

However, it is not clear to NRC staff that the American Medical Response provides transportation for contaminated injured personnel.

Request: Please clarify that American Medical Response provides transportation for contaminated injured personnel.

## **RAI-2**

### Requirement:

- 10 CFR 50.47(b)(5), as exempted, requires procedures have been established for notification, by the licensee, of State and local response organizations....
- 10 CFR Part 50, Appendix E.IV.D.3, as exempted, requires a licensee to have the capability to notify responsible State and local governmental agencies after declaring an emergency.
- Associated guidance in NUREG-0654, Section II.B, Evaluation Criterion E.1, states that each licensee shall establish procedures which describe mutually agreeable bases for notification of response organizations consistent with the emergency classification and action level scheme.

Issue: Section 9.2, “Emergency Messages,” of Enclosure 1, Attachment 1, states, in part:

The Emergency Director is responsible for the notification of an emergency declaration to MEMA [Massachusetts Emergency Management Agency], the Plymouth Fire Department, and the NRC within 60 minutes of the event classification or change in classification.

However, Section 5.1.2 “Commonwealth and Local Government Notifications”, of the current “PNPS Permanently Defueled Emergency Plan,” Revision 53 (ADAMS Accession No. ML20121A144), states,

Notification to the responsible Commonwealth and Town of Plymouth authorities is required within 60 minutes of the emergency classification. The commercial telephone network serves as the primary means to provide emergency notification to Commonwealth and Town of Plymouth agencies. It is used to provide initial and updated notifications and for general information flow between these agencies.

The current text in the IOEP Section 9.2 does not detail how the local Plymouth Township government will be notified.

Additionally, neither Section 6.1.1 “ISFSI Shift Supervisor/Emergency Director” nor

Section 9.3, "Means of Providing Emergency Notification," of Enclosure 1, Attachment 1 contains any reference for contacting the local government entity(ies).

HDI stated in the supplemental response, for HDI-Pilgrim Response to NRC RAI – 4,

Not applicable to the PNPS submittal.

The Emergency Director directly notifies both state and local governmental response agencies.

Request: Please clarify how the Plymouth Township will be notified for an emergency at the PNPS ISFSI.

### **RAI-3**

Requirement:

- 10 CFR 50.47(b)(12), requires arrangements to be made for medical services for contaminated injured individuals.
- 10 CFR Part 50, Appendix E.IV.E.5, requires arrangements for medical service providers qualified to handle radiological emergencies onsite.
- Associated guidance in NUREG-0654, Section II.L, Evaluation Criterion 1, states each organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals.

Issue: Section 2.1 of Enclosure 1, Attachment 1, states,

...and medical services are provided by Beth Israel Deaconess Medical Center.

However, Section 5.2.3, "Hospitals," of Enclosure 1, Attachment 1, states,

An agreement is in place with BID [Beth Israel Deaconess] - Plymouth and Morton Hospital for medical treatment of patients from PNPS who have injuries complicated by radioactive contamination.

Request: Please clarify this inconsistency between the two sections in the proposed IOEP and whether both facilities are available for medical treatment of contaminated individuals.

### **RAI-4**

Requirement:

- 10 CFR 50.47(b)(11), requires means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA [U.S Environmental Protection Agency] Emergency Worker and Lifesaving Activity Protective Action Guides.

- Associated guidance in NUREG-0654, Section II.K, Evaluation Criterion 1, each licensee shall establish onsite exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Actions Guides (EPA 520/1-75/001).

Issue: Section 15.1, "Exposure Guidelines," Enclosure 1, Attachment 1,

Table 15-1, "Response Worker Emergency Dose Limits," contains the guidelines for emergency exposure criteria, which is consistent with Table 2-2, "Response Worker Guidelines," of the EPA's "Protective Action Guide and Planning Guidance for Radiological Incidents."

Additionally, Section 8.0 "References", of Enclosure 1, Attachment 1, states,

U.S. Environmental Protection Agency, "Protective Action Guide and Planning Guidance for Radiological Incidents," dated January 2017 (EPA-400/R-17/001)

However, Table 2-2 is in the 1999 version of EPA-400. The updated 2017 version of EPA-400 has Table 3-1, "Emergency Worker Guidelines."

Request: Please correct this table reference.

#### **RAI-5**

##### Requirement:

- 10 CFR 50.47(b)(6), requires provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.
- Associated guidance in NUREG-0654, Section II.B, Evaluation Criterion J.1, states that Each licensee shall establish the means and time required to warn or advise onsite individuals and individuals who may be in areas controlled by the operator....

Issue: Section 9.2, "Emergency Messages," of Enclosure 1, Attachment 1, states, in part:

Accountability of all personnel inside the ISFSI Protected Area should be accomplished within 60 minutes after event declaration and maintained thereafter at the discretion of the Emergency Director. Following announcement of an emergency declaration, onsite personnel are responsible for reporting to designated areas and aiding the accountability process. If personnel are not accounted for, the Emergency Director is notified and onsite announcements are made.

Additionally, Section 9.3.3, "ERO Notification," of Enclosure 1, Attachment 1, states, in part:

The Resource Manager is notified of an emergency declaration by an onsite announcement...

However, Section 6.1.1 "PNPS Paging System", of the current "PNPS Permanently Defueled Emergency Plan, Revision 53" states in part,

For all emergency classifications, all personnel within the Protected Area are notified of the declaration, escalation or termination of an emergency by alarms and verbal announcements over this system. Announcements include the emergency classification and response actions to be taken by site personnel.

Request: Please clarify how onsite announcements are made.

#### **RAI-6**

Requirement:

- 10 CFR 50.47(b)(8), requires adequate emergency facilities and equipment to support the emergency response are provided and maintained.
- 10 CFR 50.47(b)(14), requires periodic exercises to be conducted to evaluate major portions of emergency response capabilities,
- Associated guidance in NUREG-0654, Section II.F, Evaluation Criterion 3, each organization shall conduct periodic testing of the entire emergency communications system.

Issue: Section 10.0, Table 10-1 “Communication Systems,” of Enclosure 1, Attachment 1,

Provides testing frequency for the commercial telephone system as weekly.

However, Section 18.2.1, “Communication Drills,” of Enclosure 1, Attachment 1, states in part

The following communications systems, as detailed in Section 10.0, are used on a frequent basis, therefore periodic testing of these systems is not necessary:

- Commercial Telephone System
- Portable Radios

Request: Please clarify if weekly testing of the commercial telephone system is required.

PILGRIM NUCLEAR POWER STATION REQUEST FOR ADDITIONAL INFORMATION REGARDING  
 PILGRIM LICENSE AMENDMENT REQUEST ISFSI Only Emergency Plan DATE July 9, 2021

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**ADAMS Accession No.: Ltr ML21161A107**

OFFICE	NMSS/DUWP/RDB	NMSS/DUWP/RDB	OEDO	NMSS/DUWP/RDB
NAME	ASnyder AS	BWatson BW	JQuichocho JQ	ASnyder AS
DATE	Jul 8, 2021	Jul 8, 2021	Jul 9, 2021	Jul 9, 2021

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