



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

September 18, 2024

LICENSEE: Holtec Decommissioning International, LLC (HDI)
FACILITY: Pilgrim Nuclear Power Station (PNPS)
SUBJECT: SUMMARY OF JUNE 25-26 AND AUGUST 21, 2024, ROUTINE NRC SITE VISITS AT THE PILGRIM NUCLEAR POWER STATION TO DISCUSS LICENSE TERMINATION PLANS AND OTHER ENVIRONMENTAL, TECHNICAL AND SCHEDULE RELATED TOPICS

On June 25-26, 2024, U.S. Nuclear Regulatory Commission (NRC) staff from NRC Headquarters visited the Pilgrim Nuclear Power Station (PNPS) in Plymouth, Massachusetts. The purpose of the site visit was for the NRC technical team assigned to review the PNPS License Termination Plan (LTP) to:

1. Tour the site to gain a better understanding of the site layout and the relationships between facility structures, natural and engineered land features, and the surrounding waterways.
2. Obtain an understanding of the licensee's status regarding site characterization progress and future plans as they relate to informing the development of the PNPS LTP.
3. Inquire about the planned schedule and potential complexities for LTP development, and discuss any unique or site-specific aspects that may impact the PNPS LTP information.

The NRC site visit to PNPS was conducted in support of the ongoing preapplication readiness assessment review of the draft PNPS LTP, the plan for which is documented in a letter to HDI dated May 28, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24129A104). The NRC staff notes that several items related to the PNPS LTP submittal schedule have changed since the start of the PNPS LTP readiness assessment; these changes are documented and discussed as part of this site visit summary.

In addition, on August 21, 2024, members of the NRC's environmental staff participated in an additional site visit to PNPS specific to the NRC's eventual review of the supplement to the PNPS environmental report that will be submitted as part of the LTP. The purpose of this additional site visit was to allow the NRC staff to understand the licensee's general considerations related to updating the site-specific environmental impacts of decommissioning on (1) historic and cultural resources; (2) ecology and endangered species, (3) surface water, and (4) waste management. Most of these review areas require the NRC staff to engage in consultation with other government agencies in accordance with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, and the Endangered Species Act.

The ability to participate in early discussions on these topics will allow the NRC to be more efficient and effective in its review of the potential environmental impacts of completing

decommissioning at PNPS. The initial observations from the environmental site visit are included as an attachment to this memorandum; the final observations will be included as part of the overall PNPS LTP readiness assessment and documented in the associated report.

Forthcoming Action:

According to the HDI letter dated April 22, 2024 (ML24113A209), requesting that the NRC conduct a readiness assessment of the draft PNPS LTP, HDI was originally planning to submit the PNPS LTP in September 2024. However, after initial discussions with the NRC staff as part of the PNPS LTP readiness assessment, including the discussions conducted during this site visit, HDI has elected to delay submittal of the final PNPS LTP to September 2025. This delay will provide HDI with sufficient time to complete the activities necessary to appropriately characterize the remaining subsurface structures in support of developing a specific cleanup criteria (i.e., a derived concentration guideline level (DCGL)) related to the basement structures that will remain at the site at the time of license termination, as well as complete other ongoing site characterization actions and dose modeling activities.

In accordance with the NRC regulations and associated guidance, the PNPS LTP will include: (1) a site characterization; (2) identification of remaining dismantlement activities; (3) plans for site remediation; (4) detailed plans for the final radiation survey; (5) a description of the end use of the site, if restricted; (6) an updated site-specific estimate of remaining decommissioning costs; (7) a supplement to the environmental report describing any new information or significant environmental change associated with the licensee's proposed termination activities; and (8) identification of parts, if any, of the facility or site that were released for use before approval of the license termination plan.

The NRC staff's review of the PNPS LTP will ensure that the remaining decommissioning activities planned at the site are adequate to ensure the site will meet the radiological criteria for unrestricted use in Section 20.1402, "Radiological criteria for unrestricted use," of Title 10 of the *Code of Federal Regulations* (10 CFR). Upon receipt of the PNPS LTP, the NRC staff will make the license termination plan available for public comment and schedule a meeting in the vicinity of PNPS to discuss the LTP and upcoming activities. If the PNPS LTP demonstrates that the remainder of the decommissioning activities will be performed in accordance with the NRC's regulations, will not be inimical to the common defense and security or to the health and safety of the public, and will not have a significant effect on the quality of the environment, and after notice to interested persons, the NRC will approve the plan, by license amendment, subject to such conditions and limitations as the Commission deems appropriate and necessary to authorize implementation of the license termination plan.

Starting in June 2024 and lasting through the end of the readiness assessment process, the NRC staff plans to engage with the licensee on various aspects of HDI's plans and methods for preparing the site for license termination, including potential discussions related to several site-specific aspects that will inform the PNPS LTP development and documentation. Some of the topics that may be covered during these interactions include the structure of the plan to conduct the final status survey, how site characterization information is being, or will be, used to inform remediation plans, how the inputs to different dose scenarios are being evaluated and justified, and general discussions of the remaining financial assurance and environmental impacts of the dismantlement and decontamination activities that support license termination.

Items Reviewed by NRC or Discussed with HDI:

In preparation for the June site visit, the NRC staff participated in a teleconference with HDI on June 12, 2024, to discuss the agenda and logistics for the PNPS LTP readiness assessment site visit and understand what information would be available to discuss during the site visit, as well as what topics could benefit from additional interactions between the NRC and HDI staff. The NRC provided a list of items that the NRC staff would like to see or discuss during the site visit; HDI obtained the information and had it available for the NRC staff to review or discuss, as appropriate. Before the site visit the NRC technical team also reviewed the PNPS docket for technical reference material and documents of interest related to development of the LTP.

Additional topics covered during the PNPS site visit include:

- The areas planned for near-term radiological characterization survey and sampling, as well as the associated analysis strategy to help establish DCGLs and establish the appropriate radionuclides of concern (ROCs) for the site.
- Any areas of significant known radiological burials, leaks, or spills at the site (e.g., more significant releases or remedial activities that occurred during operation).
- DCGL parameter selection criteria and assumptions for all contaminated media, including deselection of ROCs that are characterized as insignificant contributors to dose and methods for determining radionuclide distribution, variability, and ratios.
- Dose scenarios and pathways assumed for the modeling efforts related to final site status.
- Site/model boundaries and air/groundwater monitoring locations.
- Plans for leaving buried piping and embedded piping or metal penetrations in place.
- Discussion of the plans for grouting of subgrade structures, including penetrations and buried piping as applicable.
- Plans for release or reuse of site materials, including rubblized concrete and backfill materials that originate on the site.
- Methods for characterization of remaining subgrade structures, including concrete characterization to support potential reuse of material as onsite fill.
- Preferred methods for how to report negative survey data in the characterization survey reports, as well as the eventual final status survey report.
- Identification of specific locations, either on maps, drawings or photos, or on the site tour, of:
 - Well locations, including purpose (e.g., monitoring or remediation)
 - Groundwater levels in relation to facility structures, including variations (e.g., seasonal)
 - Site areas with erosional features and erosion protection structures
- Sources and sinks (e.g., retention ponds and dewatering activities) including surface water/runoff locations during operations and expected changes over time.

- Groundwater monitoring needs for U.S. Environmental Protection Agency/NRC Memorandum of Understanding (67 FR 65375) consideration.
- Plans for packaging and shipping of wastes from decommissioning activities, including any intent to recycle or free release as much of the facility materials as practical.
- Methods for ensuring that demolition activities to not create discrete radioactive particles.
- Methods for monitoring and controlling the release of effluents from the site.
- Schedule for final PNPS LTP development and submittal, if available.

On the first day, a site safety briefing was conducted and introductions were made. HDI and contractor staff provided an overview of the decommissioning and license termination project, including state and local interest in the dismantlement of PNPS, the proposed end state for unrestricted release, and high-level conceptual plans for the structure of the PNPS LTP.

On the morning of the first day, HDI provided an overview of ongoing decontamination and decommissioning activities, plans for building demolition and expected final configuration of remaining substructures, methods for waste and materials management, and radiological site characterization activities, including ongoing characterization activities and future continuous characterization activities. The day one discussions also focused on development of the list of ROCs, surveys for hard to detect radionuclides, the efficacy of development of surrogate ratios, support for de-listing of radionuclides as insignificant contributors, DCGL development, and determination of the need for establishment of background or reference radiation areas. In the afternoon, the participants discussed the plans for constructing the final status survey, establishing suitable minimum detectable concentrations, and selecting appropriate dose pathways and exposure scenarios.

On the second day additional presentations and discussions took place between HDI and NRC staff on groundwater monitoring, site history and hydrology, future plans for recycling, release, or reuse of concrete and other solid materials to facilitate decommissioning activities, maintaining doses as low as is reasonably achievable (ALARA), and dose modeling methodology. HDI and NRC staff further discussed conceptual models and exposure pathways for backfilled subsurface portions of structures. Additional discussions covered Cesium-137 background radiation soil data, the new groundwater monitoring wells installed since 2020, and a future update of the conceptual site model for groundwater flow and transport. The second day also included a discussion of the environmental review that will take place as part of the formal review of the PNPS LTP; this discussion mostly covered the National Historic Preservation Act and the need to consider potential eligibility of site buildings for listing in the National Register of Historic Places if the buildings are older than 50 years.

HDI conducted a tour of PNPS, including walkdowns of various elevation levels in the turbine and reactor building, the radioactive waste building, the intake and discharge area, areas of potential subsurface contamination for future continuing characterization efforts, waste storage and staging areas, and other areas of the site. This tour helped the NRC staff gain a better understanding of the expected final configuration of the site following decontamination and demolition activities to support license termination to unrestricted release standards.

During the 2-day visit, the NRC staff's recently issued interim staff guidance (ISG) on subsurface surveys and dose modeling was discussed, including alternative methods for survey and sampling of hard to access locations, small excavations, subsurface structures, and backfill materials. A discussion on methods to support risk-significant parameters, such as distribution coefficients, is also included in the ISG, as well as methods to assess the risk from subsurface soil and existing groundwater contamination, if present. The NRC staff also discussed methods for proper consideration of negative survey data in assessing the average concentrations of residual radioactivity in various media and estimating a compliance dose for a survey unit. For additional details, see the NRC ISG at the following link:

<https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML23177A008>.

During the August environmental site visit HDI conducted an additional tour of PNPS, which included the intake and discharge canals, potential barge loading/unloading site, the adjacent upland near the site, the independent spent fuel storage installation pad site, waste storage and staging areas, and walkdowns of various elevation levels in the reactor building. This tour facilitated additional discussion of the environmental topics that will be covered in the PNPS LTP and contributed to the observations contained in the attachment.

Upcoming and Additional Readiness Assessment Activities:

Additional interactions between HDI and NRC staff are planned between now and the proposed submittal of the PNPS LTP in September 2025 in order to address the action items and ongoing discussion topics related to the licensee's plan to decontaminate the site for unrestricted release. Future interactions may include additional teleconferences or site visits in advance of a formal LTP public meeting in the vicinity of the PNPS site after the LTP is submitted by HDI and accepted for NRC review; these interactions will be coordinated and documented as needed.

In addition, near the close of the readiness assessment process, the NRC staff will host a virtual public meeting to discuss the staff's initial observations from the full readiness assessment with HDI in advance of releasing a publicly available readiness assessment report related to the PNPS LTP. This virtual public meeting was initially planned for August 2024; however, as noted above, the overall schedule for submittal of the PNPS LTP has moved to September 2025. Therefore, the planned virtual public meeting, as well as the schedule for the remaining portions of the PNPS LTP readiness assessment review, will be adjusted as needed to accommodate this change. All public meetings will be noticed on the NRC's public meeting website.

As noted in the readiness assessment plan for the PNPS LTP, a readiness assessment is not part of the NRC's official acceptance review process. The observations provided during the readiness assessment related to particular technical topics are not final or exhaustive, nor do they predetermine whether the application will be docketed. While a readiness assessment can help to determine any regulatory gaps or other major deficiencies in an application before it is submitted, this process may still lead to the need to request additional information during either the acceptance or technical review phase of the project. However, the completion of a readiness assessment is expected to streamline the overall PNPS LTP review and better prepare both the NRC and HDI staff to reach a decision on final release and disposition of the PNPS site.

NRC Staff:

Marlayna Doell, Project Manager
Randall Fedors, Senior Hydrogeologist
Dr. Karen Pinkston, Performance Analyst

Gregory Chapman, Senior Health Physicist
Nathan Fuguet, Health Physicist
Dr. Isaac Johnston, Environmental Project Manager
Robert Sun, Branch Chief
Michelle Rome, Branch Chief
Amy Minor, Environmental Project Manager
Mitchell Dehmer, Environmental Scientist

HDI and Contractors:

John Moylan, PNPS Site Vice President
Jean Fleming, HDI Vice President, Licensing, Regulatory Affairs & PSA
Bill Noval, HDI Director, Regulatory Affairs
David Noyes, Manager – Compliance, Pilgrim Station
Tom Williamson, HDI Fleet LTP Project Manager
Mark Lawson, Radiation Protection Manager, Pilgrim Station
Frank McGinnis, Licensing Specialist,
Gordon Madison, Site Closure Specialist / CHP
Krista Torda, RP Site Closure Specialist
Matt Daly, Technical Consulting Director, Environmental Resource Management
Joseph McDonough, Decom Project Director, Pilgrim Station
Edward Sanchez, Radiation Protection Specialist
Steven Walker, Enercon

State of Massachusetts Representative:

David Bryant, NRC State Liaison Officer, Massachusetts Emergency Management Agency

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 NRC's ADAMS. ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions concerning this matter or the ongoing PNPS LTP readiness assessment, please contact me at (301) 415-3178 or via e-mail at Marlayna.Doell@nrc.gov.

Sincerely,



Signed by Doell, Marlayna
on 09/18/24

Marlayna V. Doell, 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
License No.: DPR-35

**NRC Pre-Application Readiness Review Observations for
Draft Chapter 8, “Supplement to the Environmental Report,”
for the Pilgrim Nuclear Power Station License Termination Plan**

Members of the environmental staff at the U.S. Nuclear Regulatory Commission (NRC) have completed a readiness assessment of the draft Chapter 8, “Supplement to the Environmental Report,” of the Pilgrim Nuclear Power Station (PNPS) License Termination Plan (LTP). Provided below are the NRC staff’s observations and preliminary questions related to Chapter 8 of the PNPS LTP, which are intended to help the licensee, Holtec Decommissioning International, LLC (HDI) better prepare the PNPS Supplemental Environmental Report for formal submittal to the NRC for a more thorough technical review during the PNPS LTP approval process.

The observations and preliminary questions provided by the NRC staff largely pertain to (1) requests for additional figures or descriptions in the affected environment descriptions to better identify areas of importance or (2) identification of information required in federal regulations that is missing or incomplete. Some of this information may require coordination with additional state or federal agencies to obtain, which may take a significant period of time. Therefore, this detailed information is being provided to HDI at this stage of the PNPS LTP readiness assessment to facilitate the licensee being able to assemble this information before formal submittal of the PNPS LTP.

Any figures or detailed descriptions provided in publicly available documents, documents previously submitted to the NRC, or in other chapters of the PNPS LTP, do not need to be duplicated in their entirety in the PNPS Supplemental Environmental Report. A statement that more information can be found in these documents is sufficient, provided the cited documentation is publicly available and can reasonably be expected to be up to date and accurate in regard to current PNPS site conditions or potential impacts.

The information described below will allow the NRC staff to be more efficient and effective in its review of the potential environmental impacts of completing decommissioning at the Pilgrim Nuclear Power Station, especially in conducting consultations with interested parties as required in Section 106 of the National Historic Preservation Act and Section 7 of the Endangered Species Act (ESA). The NRC staff believes the current expected submittal date for the PNPS LTP of September 2025 provides sufficient time for HDI to address all provided observations and preliminary questions in the final PNPS LTP. However, the NRC staff may have additional environmental requests for additional information after the PNPS LTP is submitted to the NRC for acceptance and technical review.

Additional information about what information should be included in the Supplement to the Environmental Report provided with the PNPS LTP can be found in NUREG-1748, “Environmental Review Guidance for Licensing Actions Associated with [the Office of Nuclear Material Safety and Safeguard] (NMSS) Programs,” and NUREG-0586, Supplement 1, “Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Regarding the Decommissioning of Nuclear Power Reactors.”

NRC Staff Observations and Preliminary Questions

1. The environmental report is required to have a section discussing reasonable alternatives to the proposed action, as described in Paragraph (b)(3) of Section 51.45, “Environmental report,” of Title 10 of the *Code of Federal Regulations* (10 CFR). This

section must, at a minimum, discuss the no-action alternative. See NUREG-1748, Section 3.4.4, and NUREG-0586, Supplement 1, Chapter 5 for more information.

Based on the discussions during the August 21, 2024, NRC site visit, this would be an appropriate LTP section for HDI to discuss the potential of using barges to remove waste from the PNPS site, as well as the potential for offsite barrows from owner-controlled non-licensed land to be used for fill material. Both of these scenarios were discussed as possible alternatives that the license may, or may not, implement. These actions do not have to be included in the alternatives discussed in the formal PNPS LTP; however, omitting them would mean that a separate environmental review would have to be undertaken prior to the licensee initiating either action.

2. A broad comment for the full draft Chapter 8 document: any use of conclusions from the supplemental environmental impact statement (SEIS) for license renewal should give some rationale for why the conclusion is still applicable for the PNPS site. The PNPS SEIS, NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Supplement 29, "Regarding Pilgrim Nuclear Power Station - Final Report," was published 17 years ago, in July 2007. HDI will need to demonstrate in the PNPS LTP that there are no new potential impacts or new environmental conditions that alter the conclusions reached in the SEIS. In many instances, this would only require a short statement confirming there are no new impacts.

A similar issue exists for any conclusions based on the generic environmental impact statement (GEIS) for decommissioning (NUREG-0586). The license will need to provide an explanation for why it is reasonable to conclude this particular site is within the scope of the generic conclusions made in the GEIS; e.g., there is nothing unique about the site and no potential impacts outside the scope of what is discussed in the Decommissioning GEIS. This should be done every time a conclusion is made based on the SEIS or GEIS.

3. Section 8.2, "Site Location and Description," of draft Chapter 8 of the PNPS LTP, states:

Holtec Pilgrim also owns a mostly undeveloped, approximately 1,500 acre parcel west of the operational area that includes a power transmission right of way and small electrical substation operated by others. A triangular tract of land located within the parcel is owned by a private party. The mostly undeveloped parcel is not part of the NRC licensed area and is held in a forest management trust.

Please specify in the final PNPS LTP who are the "others" using the electrical substation on owner-controlled land and any access they may have to the site; e.g., are there any potential radiological impacts to personal not employed by the licensee.

4. In Section 8.4, "Post-Shutdown Decommissioning Activities Report (PSDAR)," of the final PNPS LTP, please update the schedule for decommissioning. The schedule currently cites the 2018 PNPS PSDAR, which is outdated. For example, the schedule shows the PNPS LTP being submitted to the NRC for review in 2022. This comment may be applicable to other portions of the final PNPS LTP as well.
5. In Section 8.5.2, "Climate," of the final PNPS LTP, please provide the site average and extremes (minimum/maximum) for temperature, precipitation, and wind. The section should also state which months are the coldest/hottest on average and the wettest and

driest on average. The current draft document includes some of this information but should include these values for each of the three atmospheric conditions. Please provide wind roses from a station at or near the site to help inform potential offsite impacts from wind-carried materials. See NUREG-1748, Section 6.3.6, for more information.

6. In Section 8.5.3, "Topography, Geology, and Seismology," of the final PNPS LTP, please provide figures of geologic cross-sections or cite a publicly available document with such figures. This information maybe be located elsewhere than Chapter 8 of the PNPS LTP.
7. In Section 8.5.4, "Hydrology and Hydrogeology," of the final PNPS LTP, please provide more information about current conditions of site groundwater; e.g., does the site groundwater meet the U.S. Environmental Protection Agency (EPA) requirements for potable water (regardless of whether it is being used for potable water), is there groundwater intrusion from nearby Cape Cod, and if so, how far into the site is the intrusion, and are there any known elevated contaminant concentrations in the groundwater, whether natural or from site activities, or cite a publicly available document with such information. Additionally, please provide a figure identifying groundwater monitoring locations at the site, or cite a publicly available document with such figures if such a figure is not provided in another section of the final PNPS LTP.
8. Section 8.6.1.3, "Environmental Effects of Accidents and Decommissioning Events," of draft Chapter 8 of the PNPS LTP, states:

The potential for decommissioning activities to result in offsite radiological releases (i.e., releases related to decontamination, dismantlement, and waste handling activities) will be minimized by use of procedures designed to minimize the likelihood and consequences of such releases.

Please provide in the final PNPS LTP further information about the procedures used at the site to minimize potential offsite radiological impacts. Discuss whether these procedures are outlined in any official site programs; e.g., a Radiation Protection Plan. This information maybe be located elsewhere than Chapter 8 of the PNPS LTP.

9. In Section 8.6.1.4, "Storage and Disposal of Low-Level Radioactive Waste," of the final PNPS LTP, please specify where HDI is planning to dispose of low-level radioactive waste (LLRW) (e.g., offsite waste disposal facility), along with information about the total receiving capacity of the facility to ensure there is sufficient space to accept all estimated LLRW to be generated during the decommissioning of PNPS. This information maybe be located elsewhere than Chapter 8 of the PNPS LTP.
10. In Section 8.6.1.4 of draft Chapter 8 of the PNPS LTP, the total estimated LLRW volume is less than six percent below the high-end estimate of 1.5 million cubic feet in the Decommissioning GEIS. Please provide more information in the final PNPS LTP about what HDI is doing, or will do in the future, to ensure the actual waste generated from decommissioning PNPS does not exceed the high-end estimate in the GEIS, or what the licensee plans to do to ensure there are no environmental impacts if the actual waste generated exceeds the high-end estimate of 1.5 million cubic feet.
11. In Section 8.6.2.1, "Onsite/Offsite Land Use," of the final PNPS LTP, please provide further information about planned recontouring and revegetation during site restoration, or cite a publicly available document with such information.

12. In Section 8.6.2.2, "Water Use," of the final PNPS LTP, please provide the NRC with a copy of the Administrative Order on Consent negotiated with the EPA and the Massachusetts Department of Environmental Protection, or cite a publicly available copy of the administrative order.
13. In Section 8.6.2.2 of the final PNPS LTP, please provide further information about the 2013 tritium leak, or cite a publicly available document with such information. The information should include when the leak was identified, where the leak occurred, estimated concentration of tritium in the groundwater and soil, estimated total tritium leaked, any corrective actions taken, and any long-term monitoring done to ensure the leak has been sealed. This information maybe be located elsewhere than Chapter 8 of the PNPS LTP.

14. Section 8.6.2.2 of draft Chapter 8 of the PNPS LTP, states:

An onsite groundwater well installed in 2000 capable of producing up to 20 [gallons per minute] (gpm) was used prior to 2007 for irrigation and is out of service.

Please provide additional information in the final PNPS LTP about this well, and discuss whether the well has been capped and sealed or is still open at the site but not currently being used.

15. Section 8.6.2.3, "Water Quality (Non-Radiological)," of draft Chapter 8 of the PNPS LTP, states:

Because PNPS does not withdraw groundwater for decommissioning activities, decommissioning is not expected to alter groundwater flow paths or otherwise affect ongoing groundwater monitoring and remedial activities.

The NRC staff notes that groundwater flow paths can be altered without withdrawing water, e.g., digging trenches, removing blockages like basement walls, or injecting water. Please provide further clarification in the final PNPS LTP for why the licensee is concluding that decommissioning will not impact groundwater.

16. In Section 8.6.2.7, "Threatened and Endangered Species," of the final PNPS LTP, please define the action area that applies to the proposed action as defined in 50 CFR 402.02, "Interagency Cooperation – Endangered Species Act of 1973, As Amended."

17. In Section 8.6.2.7 of draft Chapter 8 of the PNPS LTP, there are no critical habitats identified in the U.S. Fish and Wildlife Service (FWS) Information for Planning and Consultation (IPaC) database; however, IPaC is only for FWS jurisdiction. Please specify in the final PNPS LTP if there are any critical habitats present in the action area for species under National Marine Fisheries Service jurisdiction. If present, describe the potential impacts of the proposed action on this habitat and make impact determinations for each critical habitat identified in accordance with the appropriate ESA language and definitions. See Table A-1 in NUREG-1555, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants," Supplement 1, "Operating License Renewal," Revision 2, for more information.

18. In Section 8.6.2.7 of the final PNPS LTP, please provide an impact determination for each species in accordance with the appropriate ESA language and definitions; e.g., *no effect*, *may affect but is not likely to adversely affect*, and *may affect and is likely to adversely affect*. See Table A-1 in NUREG-1555, Supplement 1, Revision 2, for more information.
19. In Section 8.6.2.7 of the final PNPS LTP, please include information about essential fish habitats protected under the Magnuson-Stevens Fishery Conservation and Management Act. Describe any essential fish habitats in the action area, including any habitat areas of particular concern, and make an effect determination for the essential fish habitat for each species, life stage, and their prey using appropriate language and definitions; e.g., *no adverse effects*, *minimal adverse effects*, *more than minimal but less than substantial adverse effects*, and *substantial adverse effects*. See Table A-3 in NUREG-1555, Supplement 1, Revision 2, for more information.
20. In Section 8.6.2.7 of the final PNPS LTP, please provide further information about sanctuary resources for national marine sanctuaries protected under the National Marine Sanctuaries Act (NMSA). Describe any sanctuary resources in the action area and make an effect determination for these resources in accordance with appropriate NMSA language and definitions; e.g., *no effect*, *may affect but is not likely to destroy*, *cause the loss of*, or *injure*. See Table A-6 in NUREG-1555, Supplement 1, Revision 2, for more information.
21. In section 8.6.2.10, "Socioeconomics," of the final PNPS LTP, please provide additional information about the workforce size as decommissioning continues. How many workers are anticipated to remain at completion of the proposed action; e.g., to remain at the independent spent fuel installation site. Discuss where will the workers likely be commuting from and whether this has any expected impacts on the socioeconomics of the area.
22. In section 8.6.2.12, "Cultural, Historical, and Archaeological Resources," of draft Chapter 8 of the PNPS LTP, an archeological survey of 517-acres of the PNPS site is discussed. Please provide with the final PNPS a copy of this survey, or a citation for a publicly available copy of the survey, along with any consultation records with the State Historic Preservation Officer, Indian Tribes, or any other consulting party.
23. In section 8.6.2.12 of the final PNPS LTP, please provide a copy of the Massachusetts Historical Commission notification to Entergy in 2005 of their determination that No National Register eligible resources would be impacted through continuing operation of the site, or provide a citation for a publicly available copy of the notification.
24. In section 8.6.2.12 of the final PNPS LTP, please provide a National Register of Historic Places evaluation completed by qualified professionals for all facilities being decommissioned/demolished which are currently at or over 50 years of age or will be at or over 50 years of age at the time of decommissioning. See 36 CFR 60.4, "Criteria for evaluation," 36 CFR 800.4(c), "Identification of historic properties," and 36 CFR 800.2(a)(1), "Participants in the Section 106 process."
25. In Section 8.6.2.14, "Noise," of the final PNPS LTP, please provide further information about "higher-than-normal onsite noise levels." Discuss what potential impacts there are

from these elevated noises on local wildlife and what procedures will be in place to ensure occupational and public safety.

26. In Section 8.6.2.16, "Traffic Transportation," of the final PNPS LTP, please provide more information to support the conclusion that waste shipments are not expected to impact local traffic or roads. This information should include estimates of total truck shipments over a given time period, average increase in local traffic due to decommissioning, current and estimated averages of local traffic during decommissioning, and any hazard routes that must be followed for waste transportation to the rail. Since there is no section in the draft PNPS LTP on waste management, this section should also include further information about U.S. Department of Transportation regulations that must be followed for all estimated waste shipments.
27. In Section 8.7, "Cumulative Impacts," of the final PNPS LTP, please provide more information about present or reasonably foreseeable future actions in the area that could have impacts overlapping in place or time with the impacts from the proposed action. For example, housing development nearby that may cumulatively impact wildlife or surface water flows. Any industrial facilities with overlapping impacts on traffic flow, groundwater, atmosphere and climate, etc. This discussion can be limited in scope to nearby sites; however, the licensee should provide some rationale for the distance considered and only review potential cumulative impacts within that radius. The distance considered for cumulative impacts can be the same distance considered for each individual environmental resource area if appropriate; e.g. if the potential impacts of the proposed action on surface water are reasonably considered for all surface water within one mile of the site, then cumulative impacts should consider all cumulative potential impacts to that one-mile radius of surface water. However, potential cumulative impacts on aquatic ecosystems may need to consider cumulative impacts beyond the initial area considered in the Environmental Report given the high mobility and dispersal of aquatic species throughout Cape Cod Bay.

Pilgrim Nuclear Power Station - License Termination Plan Readiness Assessment Site Visit Summary -
 June 2024 DATE September 18, 2024

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NAME	MDoell <i>MD</i>	IJohnston <i>IJ</i>	NFuguet <i>NF</i>	RFedors <i>RF</i>
DATE	Aug 28, 2024	Sep 3, 2024	Aug 29, 2024	Aug 29, 2024
OFFICE	NMSS/DUWP/RTAB	NMSS/DUWP/RDB	R-I/EAGLT	NMSS/DUWP/RDB
NAME	KPinkston <i>KP</i>	GChapman <i>GC</i>	NWarnek <i>NW</i>	MDoell <i>MD</i>
DATE	Aug 29, 2024	Aug 29, 2024	Sep 11, 2024	Sep 18, 2024

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