

From: Mary Richmond
Sent: Thursday, June 27, 2024 1:33 PM
To: James Miksa
Cc: Salena Long; Laura Willingham
Subject: Draft letter in support of Draft RAIs and Draft Environmental Regulatory Audit Plan
Attachments: Draft RAI Letter 6-27-24.pdf

Please find attached, the draft letter forwarding the NRC staff's:

1. Environmental Regulatory Audit Plan
2. Draft RAIs

Please note that the draft package is for information and planning purposes and is in advance of the final and is subject to change. The final letter with the draft RAIs will be forthcoming.

If you have any questions, please let me know.

Mary C Richmond

Environmental Project Manager

U.S. Nuclear Regulatory Commission
Office of Nuclear Materials Safety and Safeguards (NMSS)
Division of Rulemaking, Environmental, and Financial Support (REFS)
Environmental Project Management Branch 3 (EPMB3)
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

Ms. Jean A. Fleming
Vice President, Licensing,
Regulatory Affairs, and Probabilistic Safety Analysis
Holtec International, LLC
Krishna P. Singh Technology Campus
1 Holtec Boulevard
Camden, NJ 08104

SUBJECT: ENVIRONMENTAL REGULATORY AUDIT AND REQUESTS FOR ADDITIONAL INFORMATION REGARDING THE PROPOSED REAUTHORIZATION OF POWER OPERATIONS OF PALISADES NUCLEAR PLANT UNDER RENEWED FACILITY OPERATING LICENSE NO. DPR-20

Dear Ms. Fleming:

Holtec Decommissioning International, LLC (HDI), submitted a series of licensing and regulatory requests that are necessary to reauthorize power operations at the Palisades Nuclear Plant (PNP) through March 24, 2031, the end of the current operating license term under PNP's Renewed Facility Operating License (RFOL) No. DPR-20. Collectively, these requests define the proposed U.S. Nuclear Regulatory Commission (NRC) Federal actions, that is, for the NRC to determine whether to grant or deny the requests necessary to reauthorize power operations at PNP. Enclosure 1 is a table which lists the submittals received, the NRC's acceptance letters, and the associated Agencywide Documents Access and Management System (ADAMS) accession numbers.

In a letter dated, June 18, 2024, the NRC stated it had accepted the last submittal in Enclosure 1 for review (ADAMS Accession No. ML24169A434), and on June 27, 2024, NRC published a Notice of Intent (NOI) (ML24149A002) in the Federal Register (89 FR 53659) informing stakeholders, including the public, that the NRC intends to conduct a 30-day scoping period to gather the information necessary to prepare an environmental assessment (EA) related to the review of the licensing actions for the potential reauthorization of power operations at PNP, thereby initiating NRC's environmental review under the National Environmental Policy Act (NEPA). As part of the NRC's environmental review, the staff will be conducting an environmental regulatory audit. The audit is conducted during the environmental review with the intent to gain understanding, verify information, and to identify information required to support the basis of the licensing or regulatory decisions necessary for reauthorization of power operations.

In HDI's "*Request for Exemption from Certain Termination of License Requirements of 10 CFR 50.82*", and other restart-related submittals, HDI concluded that the proposed Federal actions met the categorical exclusion criteria; however, the NRC staff, after reviewing the criteria in 10 CFR 51.20, 51.21, 10 CFR 51.22, and the Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-203, Revision 4, "Procedural Guidance for Preparing Categorical Exclusions, Environmental Assessments, and Considering Environmental Issues," has determined to prepare

an Environmental Assessment (EA) instead of invoking the categorical exclusions. This determination is based largely on concluding that the submittals (1) are either not collectively covered by the criteria for a categorical exclusion or, in the case of the license transfer request, do not fall within the factual basis underlying the corresponding categorical exclusion; (2) are connected (i.e., interdependent) actions that should be considered together as part of the NEPA review; and (3) are not specifically covered by the criteria for preparing an Environmental Impact Statement (EIS) because the NRC does not yet know the significance of potential impacts from the proposed actions.

Preparation of an EA would lead either to a finding of no significant impact (FONSI) or a determination that preparation of an EIS is necessary. The environmental regulatory audit will, therefore, focus on information needed to determine whether there is a significant impact.

The environmental regulatory audit activities will be conducted in accordance with the environmental regulatory audit plan (Enclosure 2). The environmental regulatory audit will be a “hybrid” consisting of two components or phases. Phase 1 will consist of a “virtual environmental regulatory audit”. The focus of the virtual environmental regulatory audit will be on those resource areas that are not anticipated to need detailed analysis in the EA and not indicative of a site visit. Phase 2 will consist of a “on-site environmental regulatory audit” that will focus on resource areas that are anticipated to require detailed analysis in the EA and are indicative of a site visit.

The first session of the Phase 1 “virtual environmental regulatory audit” will be conducted virtually during the week of July 1, 2024 with remaining virtual sessions being scheduled during the weeks of July 8 and July 15, 2024 as necessary. The Phase 2 “on-site environmental regulatory audit” will be conducted at and near the PNP site during the week of July 8, 2024. Both components of the environmental regulatory audits will be conducted by NRC staff and its contractors.

To develop the EA, the NRC staff requests submission of the information described in the Draft Requests for Additional Information (RAIs) (Enclosure 3). To support a successful environmental regulatory audit, the NRC staff asks that the information requested by the Draft RAIs be made available, to the extent possible, during the environmental regulatory audit. This will assist the NRC staff in identifying either subsequent Request for Confirmatory Information (RCIs), issued while the audit remains open or, finalizing the draft RAIs and any newly identified RAIs that might be needed to allow the staff to conduct a complete review and to prepare the EA. A draft schedule of tours and meetings for the on-site environmental regulatory audit is also provided (Enclosure 2).

Please reference Docket No. 50-255 in future correspondence related to this request. The NRC staff is available to clarify these questions, if necessary, to meet and discuss your proposed responses. If you have any questions regarding this matter, please contact Mary Richmond at Mary.Richmond@nrc.gov or Laura Willingham at Laura.Willingham@nrc.gov.

Sincerely,

/RA/

Mary Richmond, Environmental Project
Manager

NMSS/REFS/EPMB3

Enclosures:

Licensing and Regulatory Requests for the Reauthorization of Power Operations at Palisades Nuclear Plant

Environmental Regulatory Audit Plan

Draft Requests for Additional Information

cc w/encls: Listserv

DRAFT

SUBJECT: ENVIRONMENTAL REGULATORY AUDIT REGARDING THE PALISADES
 POWER PLANT REAUTHORIZATION TO RESUME POWER OPERATIONS,
 UNDER PNP'S RENEWED FACILITY OPERATING LICENSE (RFOL) NO. DPR-20

DATED: June 27, 2024

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ADAMS Accession No: MLXXXXXXXX (Letter)

OFFICE	AA:REFS	LA:REFS/EPM2	PM:REFS/EP MB3	OGC	PM:REFS/EPMB3	BC:EPMB3
NAME		AWalker-Smith	LWillingham	MASpencer	LWillingham	DBarnhurst
DATE	6/XX/2024	6XX/2024	6/XX/2024	6/XX/2024	6/XX/2024	6/XX/2024

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**Licensing and Regulatory Requests for the Reauthorization of Power Operations at
Palisades Nuclear Plant**

DOCUMENT DESCRIPTION	ADAMS Accession No. (Submittal)	ADAMS Accession No. (Acceptance Review)
Request for Exemption from Certain Termination of License Requirements of 10 CFR 50.82, dated September 28, 2023.	ML23271A140	ML23291A440
Application for Order Consenting to Transfer of Control of License and Conforming License Amendments, dated December 6, 2023.	ML23340A161	ML24012A242
Request to Revise Operating License and Technical Specifications to Support Resumption of Power Operations, dated December 14, 2023.	ML23348A148	ML24022A117
Request to Revise the Administrative Technical Specifications to Support Resumption of Power Operations, dated February 9, 2024.	ML24040A089	ML24060A221
Request to Reinstate the Palisades Emergency Plan to Support Resumption of Power Operations, dated May 1, 2024.	ML24122C666	ML24141A119
Request to Update the Main Steam Line Break Analysis Methodology, dated May 24, 2024.	ML21145A143	ML24169A434

DRAFT

**ENVIRONMENTAL REGULATORY AUDIT PLAN
PALISADES NUCLEAR PLANT PROPOSED REAUTHORIZATION OF POWER
OPERATIONS**

1. Background

The Palisades Nuclear Plant (PNP), located in Covert Township, Michigan, after more than 40 years of commercial operation, permanently ceased operations on May 20, 2022. On June 13, 2022, Entergy Operations, Inc. submitted certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel in accordance with 10 CFR 50.82(a)(1). With the docketing of the certifications, PNP is not authorized for operation, or emplacement or retention of fuel into the reactor vessel.

After the cessation of power operations and commencement of decommissioning, HDI has elected to pursue a pathway to resume power operations at PNP. HDI has submitted licensing and regulatory requests that, if granted, would allow a newly formed entity, Palisades Energy, LLC (OPCO), to place fuel into the PNP reactor vessel and resume power operations through March 24, 2031, the end of the renewed operating license term under the PNP Renewed Facility Operating License (RFOL) No. DPR-20.

The currently submitted licensing and regulatory requests that are necessary for the reauthorization of power operations at PNP are:

- An exemption from the 10 CFR 50.82(a)(2) restriction that prohibits reactor operations and retention of fuel in the reactor vessel due to the docketing the 10 CFR 50.82(a)(1) certifications.
- Approval of an order to transfer operational authority of PNP under the RFOL from HDI to OPCO.
- Approval of four license amendments (LARs).

Collectively, the application to transfer operational authority, in combination with a request for exemption from 10 CFR 50.82(a)(2), and associated LARs define the currently planned regulatory path and the scope of NRC's proposed Federal actions, i.e., to determine whether to grant or deny the application for transfer, exemption request, and the associated LARs. Enclosure 1 provides a listing of these actions along with the associated ADAMS Accession numbers.

In its "*Request for Exemption from Certain Termination of License Requirements of 10 CFR 50.82*" and other related submittals, HDI stated that the proposed Federal action met the categorical exclusion criteria; however, the NRC staff, after reviewing the criteria in 10 CFR 51.20, 51.21, 10 CFR 51.22, and the Office of Nuclear Reactor Regulation (NRR) Office Instruction LIC-203, Revision 4, "Procedural Guidance for Preparing Categorical Exclusions, Environmental Assessments, and Considering Environmental Issues," has determined to prepare an Environmental Assessment (EA) instead of invoking the categorical exclusions. This determination is based largely on concluding that the submittals (1) are either not collectively covered by the criteria for a categorical exclusion or, in the case of the license transfer request, do not fall within the factual basis underlying the corresponding categorical exclusion; (2) are connected (i.e., interdependent) actions that should be considered together as part of the NEPA review; and (3) are not specifically covered by the criteria for preparing an Environmental Impact

Statement (EIS) because the NRC does not yet know the significance of potential impacts from the proposed actions.

Preparation of an EA would lead either to a finding of no significant impact (FONSI) or a determination that preparation of an EIS is necessary. The environmental regulatory audit will, therefore, focus on information needed to determine whether there is a significant impact.

To inform its environmental review, the NRC staff is considering a number of sources, including the previous NRC environmental review for PNP license renewal that is documented in the October 2006 “Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 27, Regarding Palisades Nuclear Plant - Final Report” (hereafter “License Renewal EIS Supplement”). The License Renewal EIS Supplement addresses the environmental impacts of continued operation during the license renewal period, which is the same operating period applicable to HDI’s requests for reauthorization of power operations. The NRC staff is also considering the environmental information that HDI submitted in Enclosure 2, “Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant,” of the September 28, 2023, exemption request. As stated in the exemption request, Enclosure 2 documents HDI’s “environmental review of potentially new and significant information, and environmental issues not addressed in the” License Renewal EIS Supplement.

In preparation for the environmental regulatory audit, the staff reviewed the data and information within the corresponding context of the submittal and identified information that would promote a better understanding of the detailed analysis and bases underlying the submittal. The NRC staff has prepared Draft Requests for Additional Information (RAIs) for information that the NRC requests be submitted to it to support preparation of the EA. To support a successful environmental regulatory audit, the NRC staff asks that the information requested by the Draft RAIs be made available, to the extent possible, during the environmental regulatory audit.

The environmental regulatory audit will be a “hybrid” consisting of two components or phases. Phase 1 will consist of a “virtual environmental regulatory audit”. The focus of the virtual environmental regulatory audit will be on those resource areas that are not anticipated to need detailed analysis in the EA and not indicative of a site visit. Phase 2 will consist of a “on-site environmental regulatory audit” that will focus on resource areas that are anticipated to require detailed analysis in the EA and are indicative of a site visit. In conjunction with the environmental regulatory audits, several members of the NRC staff and its contractor, Pacific Northwest National Laboratory (PNNL), will conduct the audit.

The first session of the Phase 1 “virtual environmental regulatory audit” will be conducted virtually during the week of July 1, 2024, with remaining virtual sessions being scheduled during the weeks of July 8 and July 15, 2024, as necessary. During the “virtual environmental regulatory audit”, NRC staff and PNNL would be afforded the opportunity to discuss the responses to the “Draft Requests for Additional Information” (Enclosure 3) identified during the staff’s initial review of the *“Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant”* with the applicant’s subject matter experts (SMEs), NRC staff and contractors.

The Phase 2 “on-site environmental regulatory audit” will be conducted at and near the PNP site during the week of July 8, 2024. The Phase 2 regulatory audit will include a site visit to the site location and the PNP surrounding area to become familiar with the site and proposed actions

required for reauthorization of power operations. During Phase 2 of the regulatory audit, in addition to the on-site visit, the NRC staff proposes to discuss a range of environmental matters related to the draft RAIs (Enclosure 3).

The hybrid environmental regulatory audit will allow the NRC staff to better understand the actions and affected environment in order to draw appropriate conclusions. It will also assist the staff in identifying either subsequent Request for Confirmatory Information (RCIs), issued while the audit remains open or, finalizing the draft RAIs and any newly identified RAIs that might be needed to allow the staff to conduct a complete review and to prepare the EA.

2. Environmental Regulatory Audit Bases

The NRC's implementing regulations (10 CFR Part 51) define specific actions under the NEPA, as amended, which require different levels of environmental analyses, including EIS, EA or categorical exclusion. The NRC does not have a prescribed regulatory framework to reauthorize power operations, and the proposed Federal actions are not identified as an action requiring an EIS under 10 CFR § 51.20, "Criteria for and identification of licensing and regulatory actions requiring environmental impact statements." The NRC staff evaluated whether the Federal action would meet criteria in 10 CFR § 51.22 "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review" and determined not to invoke categorical exclusions for the proposed Federal actions, as discussed above. Therefore, the NRC staff has determined that the appropriate level of NEPA review is an EA. An EA is appropriate to determine if a FONSI can be made or if, based on the EA, an EIS is appropriate. The criteria for an EA in 10 CFR § 51.21 "Criteria for and identification of licensing and regulatory actions requiring environmental assessments" is provided below:

All licensing and regulatory actions subject to this subpart require an environmental assessment except those identified in § 51.20(b) as requiring an environmental impact statement, those identified in § 51.22(c) as categorical exclusions, and those identified in § 51.22(d) as other actions not requiring environmental review. As provided in § 51.22(b), the Commission may, in special circumstances, prepare an environmental assessment on an action covered by a categorical exclusion.

Given the NRC staff is preparing an EA, much of the regulatory basis is centered in 10 CFR 51.41 "Requirement to submit environmental information." Each draft RAI (Enclosure 3) includes this as the regulatory basis.

3. Environmental Regulatory Audit Scope or Methodology

The audit will focus on the "Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant", questions raised in the draft RAIs (Enclosure 3) and supporting documentation. The scope of the audit is to ensure the NRC staff has the information necessary to complete an EA and to identify issues which are significant and those which can be eliminated from detailed analysis. The environmental regulatory audit team members will focus on reviewing the documents and information related to draft RAIs in Enclosure 3 and discussing the information with subject matter experts (SME).

4. Information and Other Material Necessary for the Regulatory Audit

As described in this Environmental Regulatory Audit Plan (Enclosure 2) and the Draft Requests for Additional Information (Enclosure 3)

5. Environmental Regulatory Audit Team Members and Resource Assignments

Phase 1:

During Phase 1 of the environmental regulatory audit, the NRC staff proposes to discuss a wide range of environmental matters related to the actions required for reauthorization to resume power operations, the purpose and need statement, alternatives, land use, air resources, geologic environment, radiological health and radiological waste management, fuel cycle, transportation, decommissioning, postulated accidents, non-radiological health and non-radiological waste management, and past, present, and reasonably foreseeable projects considered for cumulative impacts.

The Environmental Project Manager for the Phase 1 “virtual environmental regulatory audit” is Mary Richmond. Audit team members are listed in the table below.

Technical Resource Area	PNNL	NRC
Actions Required for Reauthorization (Planned Restart Related Activities)	Cyler Conrad	Mary Richmond
Purpose and Need Statement	Cyler Conrad	Mary Richmond
Alternatives/Need for Power	Cyler Conrad/ Dave Anderson	Mary Richmond/ Jeffrey Rikhoff Bob Hoffman
Land Use	Cyler Conrad	Jeffrey Rikhoff
Air Resources (Climate, Air Quality, and Meteorology)	Saikat Ghosh	Brian Glowacki
Geologic Environment	Becka Bence	Gerry Stirewalt
Radiological Health and Radiological Waste Management	John Napier	Don Palmrose
Fuel Cycle, Transportation, and Decommissioning	John Napier	Rao Tammara
Postulated Accidents	John Napier	Jerry Dozier/Donald Palmrose
Non-radiological Health and Non-radiological Waste Management	Leah Hare	Rao Tammara
Cumulative Impacts/Climate Change	Cyler Conrad/ Phil Meyer	Don Palmrose/ Brian Glowacki Mary Richmond

Phase 2:

During Phase 2 of the environmental regulatory audit, in addition to the on-site visit, the NRC staff proposes to discuss a range of environmental matters related to ground and surface water, terrestrial and aquatic ecology, socioeconomics, environmental justice, and cultural resources related to the draft RAIs (Enclosure 3).

The Environmental Project Manager for the Phase 2 “on-site regulatory audit” is Mary Richmond. Audit team members are listed in the table below.

Technical Resource Area	PNNL	NRC
Water Resources (Surface Water)	Rajiv Prasad	Brian Glowacki
Water Resources (Groundwater)	Rajiv Prasad	Gerry Stirewalt (virtual attendance)
Ecological Resources (Aquatic Ecology)	Caitlin Wessel	Peyton Doub
Ecological Resources (Terrestrial Ecology)	Caitlin Wessel	Peyton Doub
Socioeconomics and Environmental Justice	Dave Anderson and Kendall Parker	Jeffrey Rikhoff (virtual attendance)
Historic and Cultural Resources	Cyler Conrad	Jennifer Davis

6. Logistics

Phase 1- Draft Schedule:

The “virtual regulatory audit” will consist of a series of Teams Meetings. Proposed, as follows:

[July 2, 2024- Day 1]

10:15 am ET- Introduction of virtual audit attendees and discussion of audit objectives, logistics, and the audit schedule

10:30am ET- Actions required for reauthorization (Planned Restart Related Activities)
Purpose and Need Statement

12:30 pm ET- NRC Staff Closeout/Briefing

12:45 pm ET- End of Virtual Regulatory Audit, Day 1

[Virtual July 9- Day 2]

9:30 am ET- Introduction of virtual audit attendees and discussion of audit objectives for day 2, logistics, and the audit schedule, including any necessary adjustments.

10:00 am ET- Radiological Health, Fuel Cycle, Decommissioning and Transportation

11:30 am ET- NRC Staff Closeout/Briefing

12:00 pm ET- End of Virtual Regulatory Audit, Day 1

Remaining resource areas will be scheduled for Virtual Audit during the week of July 15, 2024.

Logistics – Phase 2:

The audit will consist of two parts: 1) face-to-face meeting at PNP, and 2) additional audit discussions if needed. The on-site visit and audit discussions will occur during the week of July 8, 2024 through July 12, 2024. The audit will remain open with an agreed upon date for closeout.

The proposed draft schedule for the on-site in-person audit is as follows:

Monday, July 8, 2024

8:30 am – Staff arrives, badging.

9:00 am – Introduction of audit attendees and discussion of audit objectives, logistics, and the on-site regulatory audit schedule

10:00 am – General Tour- Planned Restart Related Activities

12:00 noon- Lunch

1:00 pm- Staff begins review of data and documentation related to the following resource areas:

Breakout session 1:

Water Resources (surface water)

Water Resources (ground water)

Breakout session 2:

Ecological Resources -Aquatic

Ecological Resources -Terrestrial

4:00 pm – NRC Staff closeout.

5:00 pm – Exit briefing.

6:00 pm – Staff departs.

Tuesday, July 9, 2024

8:30 am – Staff arrives, badging.

9:00 am – Discussion of day's audit objectives, logistics, and the on-site regulatory audit schedule

9:30 am- Water Resources and Ecology Site Tours

Staff begins review of data and documentation related to the following resource areas:

Breakout session 1:

Cultural/Historic

Breakout session 2:

Socioeconomics and Environmental Justice

Breakout session 3:

VIRTUAL- Radiological Health, Fuel Cycle, Decommissioning, and Transportation

12:00 noon – Lunch

1:00 pm - Staff resumes review of data and documentation related to the following resource areas:

Breakout session 1:

Water Resources (surface water)

Water Resources (ground water)

Breakout session 2:

Ecological Resources -Aquatic

Ecological Resources -Terrestrial

Breakout session 3:

Cultural/Historic

4:00 pm – NRC Staff closeout.

5:00 pm – Exit briefing.

6:00 pm – Staff departs.

Wednesday, July 10, 2024

8:30 am – Staff arrives, badging.

9:00 am – Discussion of day's audit objectives, logistics, and the on-site regulatory audit schedule

9:30 am- Staff resumes review of data and documentation related to the following resource areas:

Breakout session 1:

Socioeconomics and Environmental Justice

Breakout session 2:

As needed.

12:00 noon – Lunch

1:00 pm - Staff resumes review of data and documentation related to the following resource areas:

Breakout session 1:

As Needed

4:00 pm – Staff closeout and development of Virtual Audit schedules for the week of July 15, 2024.

5:00 pm – Exit briefing.

6:00 pm – Staff departs.

Special Requests

The NRC staff has requested that each audit team member receive a copy of any summary material, and that a computer with all documentation gathered by HDI or its contractors in support of the new information process be available for staff use. Wireless Internet access, links to the references for the NRC/PNNL SMEs and proprietary documents (e.g., calculation documents) should be available.

HDI staff, or its contractors, who are SMEs in the disciplines listed on table of technical resource areas should be available for interviews and to provide tours.

7. Deliverables

The staff will develop and issue an audit report in accordance with NRR Office Instruction NRR-LIC-111 that will be placed in ADAMS within 90 days of the completion of the audit.

9. Reference

U.S. Nuclear Regulatory Commission (NRC). 2019. *Regulatory Audits*. NRR-LIC-111, Revision 1, Washington, D.C (ML19226A274).

DRAFT REQUESTS FOR ADDITIONAL INFORMATION

The following draft requests for additional information (RAIs) identify information needed by the U.S. Nuclear Regulatory Commission (NRC) staff to complete its environmental review of the submittals necessary to reauthorize power operations at the Palisades Nuclear Plant (PNP). Given that the NRC staff is preparing an EA, the regulatory basis for each draft RAI is the following requirement in 10 CFR 51.41 “Requirement to submit environmental information”:

The Commission may require an applicant for a permit, license, or other form of permission, or amendment to or renewal of a permit, license or other form of permission, or a petitioner for rulemaking to submit such information to the Commission as may be useful in aiding the Commission in complying with section 102(2) of NEPA. The Commission will independently evaluate and be responsible for the reliability of any information which it uses.

This regulatory basis is not repeated for each draft RAI. Where additional regulatory basis beyond 10 CFR 51.41 exists, it is provided below.

Generic:

GEN-1

Provide a detailed list of activities—all activities related to the Federal actions—planned for the PNP to support resumption of power operations (planned restart-related activities). Including:

- For any ground disturbing activities, or any refurbishment activities, (e.g.: building or demolition, etc.) provide:
 - Location of activity.
 - Number of acres disturbed.
 - Whether the disturbance is temporary or permanent.
- A figure or drawing indicating location of all planned restart-related activities, including, laydown areas, and extent of ground disturbance on an updated site map.

This request for additional information intersects multiple resource areas and Federal regulations as the details of any activities may influence environmental evaluations of a variety of processes and functions. Enclosure 2, “*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*”, of HDI’s exemption request did not provide a detailed list of activities planned to support the resumption of power operations.

GEN-2

Provide a properly-supported purpose and need statement for the proposed Federal actions. Include any applicable related analyses and studies informed by HDI’s purpose and need statement, e.g., alternatives.

The purpose and need statement is the foundation of the environmental analysis on which the rest of the environmental assessment is built. Enclosure 2, “*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*”, did not provide a NEPA-based purpose and need statement – while the submittals describe the project and purposes, an overall purpose and need statement as it relates to the NEPA analysis is needed for the lead agency to respond to the proposed Federal actions before them. That is, a purpose

and need statement should be provided that briefly specifies the underlying purpose and need to which the agency is responding as it provides the foundation for determining which alternatives will be considered. A properly-supported purpose and need statement, which should incorporate the applicant's objectives and not be too narrowly defined, provides a focused limit on the range of alternatives to be considered and allows an agency to dismiss without detailed study any alternative that fails to meet the proposed purpose and need.

In requesting this information, the NRC is guided by the following Council on Environmental Quality (CEQ) regulations¹:

- 40 CFR 1501.5 requires Environmental Assessments to briefly describe the purpose and need for the proposed agency action.

GEN-3

Provide a status for all necessary environmental permits, licenses, approvals, and other entitlements required for the proposed actions to resume and continue operations of the PNP (e.g., permits issued under the Clean Water Act, Clean Air Act, Coastal Zone Management Act, etc.). Include any permits required for any planned restart-related activities in support of the proposed Federal actions. Describe the status of compliance with these requirements and any consultations with state or local agencies.

The NRC staff is preparing an environmental assessment and will assess whether there have been any changes to operating permits or other requirements. Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", Table 1.3-1, did not provide a complete listing and status, e.g., the Low-Level Radioactive Waste permit expires August 2024, the Maintenance Dredging permit expires April 2025, the Scientific Collector's Permit expired December 2023, and consistency with the Coastal Zone Management Act was not included.

This information is necessary for the NRC staff to assess the status of permits and the environmental impacts of the proposed Federal actions. In requesting this information, the NRC is guided by the following CEQ regulations:

- 40 CFR 1501.5, "Environmental assessments": "(k) As appropriate to improve efficiency and effectiveness of environmental assessments, agencies may apply the other provisions of part 1502 and 1503 of this subchapter, including §§ ... 1502.24 ... to environmental assessments."
- 40 CFR 1502.24 "Environmental review and consultation requirements": "(b) The draft environmental impact statement shall list all Federal permits, licenses, and other authorizations that must be obtained in implementing the proposal. If it is uncertain whether a Federal permit, license, or other authorization is necessary, the draft environmental impact statement shall so indicate."

¹ The NRC is generally not required to follow CEQ regulations (at least to the extent they have not been incorporated into 10 CFR Part 51), but CEQ regulations can serve as guidance for carrying out the NRC's NEPA responsibilities.

GEN-4

Provide a detailed list of past, present, and reasonably foreseeable future projects in the geographic area of interest surrounding the site that would affect the same resources affected by the proposed Federal actions.

CEQ defines cumulative impacts (also known as cumulative effects) in 40 CFR 1508.1(i) as “effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from actions with individually minor but collectively significant effects taking place over a period of time.” The goal of the analysis is to introduce environmental considerations into the planning process as early as needed to improve decision-making. While Section 4.12 of Enclosure 2, “*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*”, provided a brief description of building activities, there was not a detailed list of past, present, and reasonably foreseeable projects or enough information to make a determination, e.g., are structures such as the day care center to be constructed in an already disturbed area.

Alternatives:

ALT-1

HDI has included the no-action alternative in Enclosure 2, “*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*”:

The no-action alternative is that PNP would not receive authorization to resume power operations, and the plant would continue decommissioning in accordance with NRC regulations. PNP’s Post Shutdown Decommissioning Activities Report (PSDAR) provides the environmental impact assessment for this no-action alternative (HDI 2020).

However, an analysis of other alternative categories was not provided. Provide an analysis of the following alternative categories, as they relate to HDI’s purpose and need statement; if HDI believes alternatives in these categories should be dismissed from further consideration, please provide the bases:

- Energy Alternatives
- System Alternatives

Water Resources (Surface Water and Groundwater):

Surface Water-

SW-1

To adequately discuss the baseline affected environment, provide any NPDES permit exceedances or violations that have occurred since PNP was shut down on May 20, 2022. If there were any violations, provide details of all such occurrences.

Surface water quality can be adversely affected by exceedances of NPDES permit limits or other violations.

SW-2

Michigan Department of Environment, Great Lakes, and Energy (EGLE)-issued Stormwater Management Industrial Site Certification, I-18257, is set to expire on July 1, 2026. Describe if this certification applies to the current, in-decommissioning state of the PNP (affected environment), planned restart-related activities, and also during reactor operation, if authorized. Are any changes expected to this Certification to support a return to reactor operation? (See also GEN-3)

Surface water quality can be adversely affected by discharges of pollutants and sediments with stormwater from a nuclear power plant.

SW-3

EGLE-issued dredging permit expires April 16, 2025. Provide an explanation if this permit applies to the current, in-decommissioning state of the PNP and whether dredging is necessary for the planned restart-related activities, e.g., intake structure. Also, include if any inspections or studies of the intake structure have taken place. If so, provide copies. (Section 4.2.2.6 states “There is no planned dredging in Lake Michigan should power operations resume at PNP” but there are no details related to planned restart-related activities.) (See also GEN-3)

Surface water quality can be adversely affected by dredging activities performed to maintain the performance of nuclear power plant water intakes and discharges.

Under the CWA Section 404, administered and enforced by the EPA and the U.S. Army Corps of Engineers (USACE), a permit is required for discharge of dredged or fill material into wetlands or waters of the U.S. States, and Tribes can also administer Section 404 for some non-navigable waters within their jurisdictions.

SW-4

Provide the location, on an appropriate map, where any dredged materials are permitted to be placed during planned restart-related activities and operations should dredging be necessary.

Enclosure 2, “*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*,” Section 4.2.2.6 mentions both unvegetated and vegetated beach areas and the lake where dredged materials were placed.

Surface water quality can be adversely affected by dredging activities performed to maintain the performance of nuclear power plant water intakes and discharges.

SW-5

To adequately address the current baseline affected environment, provide a description of the surface water use in PNP’s current, in-decommissioning state, including water supply sources, and quantities.

Plant surface water use can adversely affect the availability and associated quality of surface water resources for other users of the resource.

SW-6

To adequately address the current baseline affected environment, provide a description of any surface water discharges from PNP in its current, in-decommissioning state and any planned discharges during PNP restart-related activities including any plant process water, equipment cleaning, sanitary and wastewater, and stormwater. Enclosure 2, "Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant," discusses discharges related to "operations".

Surface water quality can be adversely affected by discharges of pollutants and sediments with stormwater from a nuclear power plant.

SW-7

Provide a description of any water treatment systems in use at PNP in its current, in-decommissioning state, including any retention and/or detention ponds and any planned water treatment to occur during restart-related activities and operations. (For operations, indicate if there would be any changes to water treatment systems or chemicals used that may alter the discharge characteristics).

Surface water quality can be adversely affected by discharges of pollutants and sediments with stormwater from a nuclear power plant.

SW-8

Provide a description of any changes in surface water use and users in the vicinity of the PNP since PNP was shut down on May 20, 2022. Please describe any changes to authorized wastewater discharges in the vicinity of the PNP since PNP was shut down on May 20, 2022.

Plant surface water use can adversely affect the availability and associated quality of surface water resources for other users of the resource.

SW-9

Provide a description of any changes, or planned changes, to plant structures, systems, components, or equipment related to surface water use and effluent discharge since PNP was shut down on May 20, 2022. Are any alterations to plant structures, systems, components, or equipment related to surface water use and effluent discharge expected during restart-related activities, e.g., refurbishment and/or repairs to support PNP's proposed return to operations or once operations resume? If yes, provide a description of these activities, their locations, and any associated local, State and/or Federal permits and/or authorizations needed to perform these activities.

Include any water use changes anticipated during operations that would alter previous operation water use evaluations. (The October 2006 "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 27, Regarding Palisades Nuclear Plant - Final Report" (hereafter "License Renewal EIS Supplement") discusses impacts for continued operations; therefore, there would be no anticipated change. However, the PNP potential reauthorization of power operations would be going from a "decommissioning state" to an "operations state" and the impact on water use should be evaluated as such.)

Restart-related activities necessary to resume power operations at PNP such as refurbishment activities that impact surface water use or discharge-related plant structures, systems, components, and equipment can adversely affect quality of the surface water resources and may require Federal, State, or local authorizations and/or permits.

Groundwater- **GW-1**

Sections 3.2.1 and 4.2.1.5 of Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant,*" of HDI's exemption request states the PNP Groundwater Protection Initiative (GPI) began in 2008. Does HDI have a site-specific Groundwater Protection Plan that supports the Groundwater Protection Initiative? If yes, provide a copy of the plan and any updates to the plan for review by NRC staff.

NEI 07-07 was developed to describe the industry's GPI. The GPI identifies actions to improve utilities' management and response to instances where the inadvertent release of radioactive substances may result in low but detectable levels of plant-related materials in subsurface soils and water.

GW-2

Provide an updated geologic cross-section of the site that includes current building foundations and site infrastructure elevations.

An updated geologic cross-section depicting pertinent water-bearing units that can transport potential releases of radioactive and nonradioactive material offsite was not provided. The NRC staff assesses the modified environment around the plant to determine the potential for offsite transportation of contaminants.

GW-3

Figure 3.2-1 of Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant,*" of HDI's exemption request depicts groundwater contours. Provide the year and month that the elevation data were collected that were used to generate the contours. Provide recent contour maps or groundwater elevation data that capture seasonal variation (if any) of site groundwater levels.

The present-day hydraulic characterization of the site is needed to inform baseline conditions that may be impacted by the proposed actions. Recent groundwater elevation data and seasonal variability inform groundwater flow patterns at the site that may impact offsite groundwater users and groundwater quality.

GW-4

To appropriately characterize the baseline affected environment, provide data on whether any radionuclides were detected in groundwater between January 2023 and April 2024, and include details of all such occurrences.

Inadvertent releases of radionuclides to onsite groundwater can adversely affect the quality and associated use of offsite groundwater resources. NRC staff assess potential pathways from plant systems and infrastructure into the environment to determine the impact of operations on groundwater quality. The requisite information was not provided in Enclosure 2, "*Environmental*

New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant".

GW-5

Section 3.2.1.2 of Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", of HDI's exemption request states HDI's plans to undertake remediation and repairs as part of the resumption of power operations efforts in response to inadvertent releases of tritium to groundwater. Describe updates (if any) to these plans beyond what is described in the exemption request, including any potential ground disturbance.

GW-6

Section 3.2.1.1 of Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", of HDI's exemption request states all onsite groundwater supply wells were capped and disused in 2019. State if there are any changes expected to groundwater use for PNP's proposed return to operations, including planned restart-related activities. If groundwater use is anticipated in during operations, provide anticipated water consumption rates (maximum, average by month, and average by plant operating status).

Groundwater use (consumptive and non-consumptive) at nuclear plants may impact offsite groundwater users and sensitive ecological receptors. Planned groundwater use in the re-instated operational mode is needed to assess potential groundwater use conflicts during this term, and Section 3.2.1.1 of HDI's exemption request does not explicitly state the anticipated groundwater use following the anticipated re-start of operations.

Air Resources (Climate, Air Quality, and Meteorology):

MET-1

Provide recent climatological data, synoptic meteorology and extreme weather events.

A climate summary has been provided in the License Renewal EIS Supplement based on 2005 data. More recent data should be analyzed and provided and was not included in the Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*" submittal.

MET-2

Provide a discussion regarding radioactive effluents, for the X/Q (short-term and long-term) and cooling tower impact (Seasonal Annual Cooling Tower Impact (SACTI)) analyses, and whether any updates to the analyses have been performed. Also, provide recent meteorological data after the cooling tower replacement. Indicate whether a comparison analysis between the most recent 3 years of meteorological data and that used in the respective X/Q and SACTI analyses has been performed to determine if the current 3 years of meteorological data would affect the X/Qs, the cooling tower impacts, or other analyses.

The Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*" document did not provide the vent height through which

airborne radioactives are emitted. This height is used to calculate X/Qs and consequent airborne radiological dose.

MET-3

Are there any impacts to the frequency of inversions and analyses of atmospheric stability and mixing height from the most recent 3 years of local meteorological data?

This information was not included in the Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*" submittal.

MET-4

Describe if there would be any changes to the meteorological monitoring program such as instrumentation, type of data, frequency and averaging technique for data collected onsite. Provide a copy of PNP's Meteorological Monitoring Report or a detailed description thereof.

This information was not included in the Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*" submittal.

However, per Regulatory Guide 1.23, Meteorological Monitoring Programs for Nuclear Power Plants, this information is needed to understand the overall metrological monitoring at the site.

MET-5

If there are any restart-related activities that would produce pollutant emissions (e.g., from construction equipment), then provide information on these emissions, including emissions estimates of fugitive dust and best management practices (BMPs).

This information was not included in the Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*" submittal.

MET-6

Provide annual pollutant emissions (including criteria pollutants) since 2022, if any.

The EPA has set National Ambient Air Quality Standards for criteria pollutants. Air quality emissions for a plant are regulated through permits. NRC staff review air emissions to verify compliance with permitting to support the NRC staff making environmental impact determinations under NEPA. Permitted annual emissions (including criteria pollutants) have been documented in the Enclosure 2, Table 3.7-2 from year 2018-2022. There is no information past 2022 included in the Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*" submittal.

Ecological Resources (Aquatic Ecology and Terrestrial Ecology):

Aquatic-

AE-1

Provide a copy of the draft National Pollutant Discharge Elimination System (NPDES) permit with 10/01/2028 expiration date (Table 1.3-1) and any verification from the Michigan Department of Environment, Great Lakes and Energy (EGLE) that the existing NPDES permit is valid for both the restart-related activities and reactor operations or if a separate permit is required for these activities. (see also GEN-3)

The NRC staff needs copies of supporting documentation related to NPDES permitting to identify any restrictions in the permit that are placed on temperature, Dissolved Oxygen (DO), or other chemical constituents from the discharge, along with consequential impacts on aquatic ecology.

AE-2

Has the U.S. Environmental Protection Agency (EPA) or EGLE made a determination about the cooling water intake structure and whether it represents best technology available (BTA) (Section 316(b) of the CWA). If yes, please provide a copy of document.

The NRC staff needs copies of supporting documentation related to CWA 316(b) concerning cooling water intakes used to determine impacts of impingement or entrainment.

AE-3

Have any invasive aquatic species been found during NPDES permit monitoring (Table 4.3-1)? If yes, please provide information on which species, numbers, years observed, etc.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a description of aquatic invasive species found onsite (including cooling water intake and discharge systems).

AE-4

Is there any past or current monitoring (or planned monitoring after a return to operations) of the intake and traveling screens for fish or other aquatic organisms? If so, please provide information, if available, on numbers and species entrained. Have there been any fish kills since the PNP entered into decommissioning?

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a description of any monitoring plans to assess the numbers of fish or other aquatic organisms found on the intake or traveling screens and impacts were provided for license renewal (the license renewal impact determinations assumed a baseline of continued operations).

AE-5

Is there any mussel settlement monitoring of plant systems or treatment to prevent mussels settling on water intake or discharge systems? If there is, have any state-listed or invasive mussels been found? If there is not, will active removal of mussels be needed to clear intake or discharge systems prior to plant restart?

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a description of mussel settlement on plant systems (either current treatment to prevent settlement or active removal needed prior to restart).

AE-6

Describe what biocides or other water treatment chemicals (including proposed concentrations) will be added to the cooling water in the CWS or used for restart-related activities and if there

will be any changes in the water treatment from past operations. Include any treatment or discharge limitations. (See also SW-7)

The NRC staff needs copies of supporting documentation to determine effects of non-radiological contaminants on aquatic organisms.

Terrestrial Ecology-

TE-1

The 2013 License Renewal (LR) Generic Environmental Impact Statement (GEIS), NUREG-1437 Rev. 1, stated that cooling system changes were made at PNP to address sulfate deposition and temporary excessive icing conditions that resulted in the conversion of about 5 acres of dune forest near the mechanical draft cooling tower to dense scrub-shrub. a) Summarize the changes made to mechanical cooling towers (operational, infrastructure) to address the vegetation impacts from drift. Include whether the cooling towers have drift eliminators. b) Provide a map showing location of drift impacted vegetation from previous operations. c) If operational changes have occurred to the cooling towers that resulted in dune forest establishment, provide a description. d) Summarize any differences in predicted drift from cooling tower operations. (See also MET-2)

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide an updated analysis of drift impacts from resumed operations.

TE-2

An early successional dune specialist species, Pitcher's thistle (Federally Threatened) is known to have been present at the PNP site near the cooling towers up until the 1990s but were not found again at that location in 2005. However, a new location was found in 2005 on the northern end of the site, near the state park boundary. a) Provide updated information regarding the location(s) and population size(s) of the Federally threatened plant, Pitcher's thistle. b) Provide correspondence or reports with FWS, EGLE, regarding this species.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide current information regarding locations or population sizes of the Federally listed Pitcher's thistle, which is known to occur within PNP site boundaries.

ESA Section 7; 16 U.S.C. § 1456.

TE-3

The entire PNP site is protected under the Coastal Zone Management Act (CZMA) and Michigan's Coastal Zone Management Program. Provide the most recent copies of EGLE permits relating to CZMA for the Palisades site. Provide updated maps of critical dunes within the Palisades site, along with correspondence with EGLE regarding CZMA compliance. (see also GEN-3)

The NRC staff needs maps, permits, and correspondence with EGLE to assess the status of permits and to evaluate consistency with CZMA under 16 USC § 1456(c) "Consistency of Federal activities with State management programs; Presidential exemption; certification".

In requesting this information, the NRC is guided by the following Council on Environmental Quality (CEQ) regulations:

- 40 CFR 1501.5, "Environmental assessments": "(k) As appropriate to improve efficiency and effectiveness of environmental assessments, agencies may apply the other provisions of part 1502 and 1503 of this subchapter, including §§ ... 1502.24 ... to environmental assessments."
- 40 CFR 1502.24 - Environmental review and consultation requirements- "(b) The draft environmental impact statement shall list all Federal permits, licenses, and other authorizations that must be obtained in implementing the proposal. If it is uncertain whether a Federal permit, license, or other authorization is necessary, the draft environmental impact statement shall so indicate."

TE-4

Provide an analysis of the effect of resuming operations on the Federally endangered piping plover, which occurs within 6 miles of the PNP site.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide an analysis of the proposed action on piping plover.

ESA Section 7

TE-5

Milkweeds are monarch butterfly larval habitat. Are any milkweeds known to occur on the PNP site? Provide a recent plant species list.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," states that milkweeds may be present in unmowed areas of the PNP site. The NRC staff needs to confirm whether any are known to be present on site.

ESA Section 7

TE-6

Section 3.3.3.1 of Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," states that suitable roosting and maternity habitat for northern long-eared bat and tricolored bat is potentially present near the PNP site. Confirm that habitat is limited to forested areas onsite. Confirm these areas will not be disturbed.

The NRC staff needs to confirm whether any are known to be present on site to complete its evaluation.

ESA Section 7

TE-7

Provide a description of avian, wildlife, and landscape management practices and provide copies of relevant plans and procedures for NRC staff review.

The NRC staff will need to review avian, wildlife, and landscape management practices to assess the impacts of the proposed actions on Federally protected resources and terrestrial resources in general.

ESA Section 7

TE-8

Provide a list of environmental studies in progress at the site (if any), along with the estimated completion date, and draft report date. This includes any surveys for Federally listed species, State-listed species, critical dune habitat mapping, wetland delineations, invasive species surveys, or any other terrestrial species or habitat studies on the PNP site. Provide copies of any survey plans or completed reports for any of these terrestrial studies.

The NRC staff would need to review the most current information about terrestrial species, habitats, and surveys when evaluating effects.

TE-9

Does HDI hold a Special Purpose Utility Permit (SPUT) for migratory birds from the U.S. Fish and Wildlife Service?

Table 1.3-1 of Enclosure 2 "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," lists environmental authorizations for current PNP operations but does not list a SPUT for migratory birds.

This information is necessary for the NRC staff to assess the status of permits.

TE-10

Provide a summary, if available, of bird mortalities and injuries on the Palisades site (species, date, cause if known) in chronological order from 2013-2024.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide summary of bird mortalities or injuries on the Palisades site.

TE-11

Provide any updates to the site-specific environmental administrative procedures, controls, and BMPs that are to be in place during potential restart activities.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide summary of on-site administrative, controls, and BMPs and how they would change with a restart to plant operations.

TE-12

Describe any noxious weeds or other invasive terrestrial species known to occur on the PNP site? How are invasive species managed onsite?

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a summary of invasive terrestrial species with potential to occur on site, nor did it describe any invasive species management.

Socioeconomics:

SE-1

As briefly indicated in Section 3.4, the planned restart-related activities will likely require a significant number of temporary workers. Provide more information about the temporary workforce, including the number and residence of the temporary workers, work schedule/duration, etc.?

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", did not completely address this aspect of Socioeconomics.

SE-2

Provide a description and breakdown of projected plant employment during operations (similar to Palisades' Permanent Employee Residence Information from the 2006 License Renewal EIS Supplement Table 2-3).

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", did not completely address this aspect of Socioeconomics.

Environmental Justice:

EJ-1

Has HDI engaged with any local communities or groups with Environmental Justice concerns? If so, provide summaries of any engagements to help inform the NRC staff's Environmental Justice review.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide this information.

Historic and Cultural Resources:

HCR-1

Is the Area of Potential Effects (APE) the same as the 2006 License Renewal EIS Supplement APE? Provide a description of, and a map of, the direct, and indirect APE.

Enclosure 2, "Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant," did not provide a description of the APE.

A determination and description of the Area of Potential Effects is required per 36 CFR 800.4 (see definition in 36 CFR 800.16(d)).

HCR-2

Provide the details and results of all archaeological surveys conducted on the PNP site. Provide copies of all reports.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a description of a physical archaeological

survey of the Palisades Nuclear Plant, only a Michigan State Historic Preservation Office literature review conducted on September 11-13, 2023.

An evaluation of potential effects requires a known identification of historic properties within the APE as defined by 36 CFR 800.4.

HCR-3

Since the issuance of the 2006 License Renewal EIS Supplement, the PNP buildings are over 50 years old. Have any built environment (i.e., buildings) surveys been conducted? If so, provide them to the NRC staff.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a description of a physical built environment survey of the PNP, only a Michigan State Historic Preservation Office literature review conducted on September 11-13, 2023.

An evaluation of potential effects requires a known identification of historic properties within the APE as defined by 36 CFR 800.4.

HCR-4

Provide a description of potential effects to any identified historic and cultural resources and historic properties at PNP. This includes potential impacts to archaeological sites, buildings, and structures as a result of refurbishment activities.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a description of the effects determinations for identified historic properties at PNP.

An evaluation of potential effects is required as part of 36 CFR 800.4 and 36 CFR 800.5.

HCR-5

Provide all records of engagement and communication with the Michigan State Historic Preservation Office, Tribal Historic Preservation Office (or Native American Tribes) and/or other parties as they relate to Section 106 of the National Historic Preservation Act or cultural resources considered under NEPA.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide a description of communications or engagement with the State, Tribes, or other interested parties as it relates to cultural resources, only reference to a Michigan State Historic Preservation Office literature review conducted on September 11-13, 2023.

HCR-6

Provide details and results of identification efforts for historic properties of traditional religious and cultural importance (Traditional Cultural Properties and/or Traditional Cultural Landscapes) at PNP.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide reference to the identification or evaluation

of historic properties of traditional religious and cultural importance (Traditional Cultural Properties or Traditional Cultural Landscapes) at PNP.

Identification of historic properties must take into account historic properties of traditional religious and cultural importance as part of 36 CFR 800.2(c)(2)(ii).

HCR-7

Provide copies of existing historic and cultural resource procedures (e.g., environmental review, Archaeological, Cultural & Historic Resources procedures, excavation and trenching control procedures, inadvertent discovery, stop work and notification procedures) for the PNP site.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide reference to, or copies of, cultural resource procedures for operations of PNP.

As identified in the 2006 License Renewal EIS Supplement, cultural resources procedures were in place at the site (see Section 4.4.5). These procedures were required by the Michigan State Historic Preservation Office as part of license renewal (see ML061920480). See also, 36 CFR 800.13.

HCR-8

Provide an updated, cultural history of the Palisades Nuclear Plant area (including the Area of Potential Effects) since the 2006 License Renewal EIS Supplement.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*," did not provide an updated cultural history of PNP.

Non-radiological Health:

N-1

Provide additional information regarding noise levels resulting from the restart-related activities as the facility transitions to operations.

In the exemption request, Enclosure 2, Section 4.8, there is no discussion of noise impact levels resulting from the potential restart-related activities.

Radiological Health:

RH-1

Provide a description of the current radiological conditions (Baseline Affected Environment). Please include descriptions of known radiological hazards and workflow for mitigating identified unknown radiological hazards, a process for estimating dose in varied radiological conditions, an expected cumulative dose to workers during the refurbishment process, and a determination on if decommissioning-related activities have changed the potential emissions and exposure pathways for workers.

RH-2

Please provide a summary of the past 5 years of environmental and effluent reports.

A description of the baseline affected environment is needed to determine the impacts of the proposed actions.

Radiological and Non-radiological Waste Management:

WM-1

To adequately characterize the baseline affected environment, describe the current waste management strategy, including disposal plans, and quantity of wastes (radioactive, non-radioactive, and mixed). Also describe expected waste to be generated at PNP during restart-related activities and operation.

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", did not provided a description of the expected wastes generated to make a determination of the waste management impacts related to the proposed actions. For example, it is expected that HDI will be performing chemical cleaning of various reactor systems during restart-related activities, such as the primary system loops and reactor vessel. Such activities, including refurbishment activities, may generate mixed wastes in greater quantities than during prior operational years.

WM-2

Will any processes regarding facility refurbishment or other restart-related activities and operations require any modification to waste management practices? If so, please describe and quantify the changes that will occur. (For operations, indicate if there would be any changes that may alter the determination).

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", did not provided a description of the expected wastes generated to make a determination of the waste management impacts related to the proposed actions.

Fuel Cycle, Transportation, and Decommissioning:

FC-1

Provide a status and intention of use of the fuel currently stored at PNP along with initial re-loading strategy. This information should include fuel enrichment level, re-loading plans for fuel onsite, additional fresh fuel to be shipped to the site for the first re-loading, and the expected burnup level(s).

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", did not provided a description of intended fuel characteristics to be used to make a determination of the uranium fuel cycle impacts related to the proposed actions. Part of the information being requested is in connection to draft RAI TR-2 and TR-3.

TR-1

Please describe how HDI will conform to the assumptions listed in 10 CFR 51.52 Table S-4. How is HDI meeting the conditions required in 51.52(a)(2) and 10 CFR 51.52(a)(3) or assumptions listed in NUREG-1437 Rev. 1 (License Renewal GEIS)?

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", did not provide a discussion on how HDI intends to meet the requirements in 10 CFR 51.52(a)(2) and (a)(3). This is needed to make a determination on the environmental impacts of the proposed actions.

TR-2

Describe the baseline affected environment and impacts of transportation of fresh fuel and spent fuel as they relate to restart-related activities and return to power operations. Please provide expected type and quantity of material that will be transported.

A description of the baseline affected environment and related transportation of fresh fuel is needed to determine impacts of the proposed actions. Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*" did not provide this information.

TR-3

Will fresh fuel be shipped to PNP for the return to operations and subsequent refueling? What is the quantity that will be shipped for these actions?

The applicant has not provided a description of current status and intended use of fuel present to make a determination of the transportation impacts related to the proposed actions in Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*".

DC-1

What decommissioning steps have occurred and will need to be reversed? Will new technology or techniques be used during and as part of refurbishment or other restart-related activities that may affect future decommissioning efforts? How will these actions related to refurbishment affect or change the assumptions and conclusions when compared to the generic conclusions determined in the Decommissioning GEIS?

Enclosure 2, "*Environmental New and Significant Review Proposed Resumption of Power Operations Palisades Nuclear Plant*", did not provided a description of the current state of PNP needed to make a determination of the future impacts of decommissioning.