



Pre-Submittal Meeting

Palisades Nuclear Plant

License Amendment Request for Revision to the Site Emergency Plan



March 18, 2024

Meeting Agenda

- Introductions
- Meeting Purpose & Outcome
- Background
- License Amendment Request (LAR) Content
- Reason for Proposed Change
- Power Operations Site Emergency Plan (POSEP)
- Power Operations Emergency Action Levels (POEALs)
- Regulatory Basis
- Environmental Assessment
- Other Emergency Planning (EP) Changes
- Schedule
- Questions

Introductions



- U.S Nuclear Regulatory Committee (NRC) Staff
- Holtec Decommissioning International, LLC (HDI)
 - Jean Fleming – Holtec International, Vice President of Licensing, Regulatory Affairs & PSA
 - Michael Schultheis – HDI, Manager of Regulatory Assurance for Palisades
 - Jim Miksa – HDI, Regulatory Assurance Engineer for Palisades

Meeting Purpose & Outcome

■ Purpose:

- Present the proposed Palisades Nuclear Plant (PNP) Power Operations Site Emergency Plan (POSEP):
 - POSEP changes from the pre-decommissioning POSEP
 - Power Operations Emergency Action Levels (POEALs) changes from pre-decommissioning POEALs

■ Outcome:

- Solicit NRC Staff questions and comments ahead of submittal
- Provide schedule information to support NRC resource allocation

Background



- April 20, 2022, The Governor of the State of Michigan voices support for power operations at Palisades Nuclear Plant (PNP)
- June 13, 2022, PNP docketed 10 CFR 50.82(a)(1) Certifications of Permanent Cessation Power Operations and Permanent Removal of Fuel from Reactor Vessel (ADAMS Accession No. ML22164A067)
- June 28, 2022, PNP ownership and license transferred from Entergy to Holtec
- July 11, 2022, PNP docketed an Exemption Request from certain Emergency Planning requirements (ADAMS Accession No. ML22192A134)
- July 12, 2022, PNP docketed LAR for Proposed Permanently Defueled Emergency Plan (PDEP) (ADAMS Accession No. ML22193A090)
- March 20, 2023, Holtec holds a public meeting to present a proposed regulatory path for return of PNP to power operations
- May 24, 2023, Holtec holds a public meeting to present a proposed regulatory framework for return of PNP to power operations with emphasis on exemption request to 10 CFR 50.82(a)(2)

Background

- June 28, 2023, The State of Michigan legislature expressed their support for the restart of PNP by approving a 2024 budget that includes 150 million dollars for the return of PNP to power operations
- September 28, 2023, HDI submitted Request for Exemption from Certain Termination of License Requirements of 10 CFR 50.82 on (ADAMS Accession No. ML23271A140)
- December 6, 2023, HDI submitted License Transfer Application for PNP Operational Authority on (ADAMS Accession No. ML23340A161)
- December 14, 2023, HDI submitted License Amendment Request Power Operations Technical Specifications (ADAMS Accession No. ML23348A148)
- December 27, 2023 , NRC approves Permanently Defueled Emergency Plan (PDEP) and Revised Emergency Action Levels (EALs) for Decommissioning (ADAMS Accession No. ML23236A004)
- January 4, 2024, PDEP implemented at PNP (ADAMS Accession No. ML24005A126)

Background



- February 9, 2024 , HDI submitted License Amendment Request to Revise Selected Permanently Defueled Technical Specifications Administrative Controls to Support Resumption of Power Operations (ADAMS Accession No. ML24040A089)
- PNP Renewed Facility Operating License (RFOL) remains active (i.e., it has not been terminated)
- The PNP License Renewal 20-year term ends on March 24, 2031 (i.e., PNP return to power operations is currently within the License Renewal term)

LAR Content

- Summary Description
- Detailed Description
 - Reason for Proposed Changes
 - Description of Proposed Changes
- Technical Evaluation
 - Description of Emergency Plan
- Applicable Regulatory Requirements
- Precedent
- No Significant Hazards Consideration
- Environmental Evaluation
- Proposed Power Operations Emergency Plan

Reason for Proposed Change

- Supports State of Michigan clean energy initiative
 - Governor of the State of Michigan Letters to US Secretary of Energy
 - Legislature State of Michigan 2024 Budget Approval 150 Million dollars for return of Palisades Nuclear Plant (PNP) to power operations
- Supports reinstatement of PNP POLB
- Last of five key licensing actions
 - 10 CFR 50.82(a)(2) exemption to remove operational restrictions
 - License transfer application for operational authority
 - License amendment for power operations technical specifications
 - License amendment for technical specifications administrative changes
 - License amendment for a power operations emergency plan (This proposed change)

Power Operations Site Emergency Plan (POSEP)



- Emergency plan and EALs classification scheme to reflect power operations plant
 - POSEP is based on NUREG-0654/FEMA-REP-1, Revision 2
 - POSEP in effect prior to permanent cessation of power operations was based on NUREG-0654, Revision 1
 - PNP Site Emergency Plan Revision 32
 - POEALs in effect prior to permanent cessation of power operations were based on NEI 99-01, Rev 5, Development of EALs for Non-Passive Reactors
 - Reinstating the NRC-approved PNP EAL classification scheme (ADAMS Accession No. ML111300431)
 - Retains Independent Spent Fuel Storage Installation (ISFSI) EAL approved as part of PDEP LAR (based on NEI 99-01, Rev. 6, ADAMS Accession No. ML23236A004)
 - Benefits of this approach:
 - Update to NUREG-0654 Revision 2 is consistent with industry precedent
 - Minimizes changes and impacts on plant staff preparing for restart

NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

POSEP - What is changing

- Proposed POSEP will replace the PNP Permanently Defueled Emergency Plan (PDEP) and associated emergency classification scheme.
 - PDEP Approved by NRC December 27, 2023 (ADAMS Accession No. ML23236A004)
- POSEP is primarily a reorganization of the content of the previous PNP power operations SEP Rev. 32, incorporates NUREG-0654 Rev. 2 changes, and includes the below deviations from NUREG-0654, Rev. 2
 - Elimination of EOF Communicator position
 - Combine Craft Supervisor to Single Position
 - Eliminate EOF Information Technology (IT) Technician ERO Position
 - Credit Radiological Protection (RP) Task-Qualified personnel in the Operations Support Center (OSC)
 - Allow Remote Response for Engineering and Dose Assessment

POSEP - What is changing

- POSEP proposed deviations from NUREG-0654, Rev. 2
 - Eliminate EOF Communicator position
 - Technical Support Center (TSC) Offsite Response Organization (ORO) Communicator Retained
 - TSC ORO Communicator responsible for State and Local Authorities communications
 - A second TSC Communicator responsible for NRC communications
 - Combine Craft Supervisor to Single Position
 - Combines one mechanical supervisor, and one electrical and instrument and control supervisor, into one supervisor position
 - Aligns with plant organization “Fix-it-Now” (FIN) staff supervisor position
 - Eliminate EOF Information Technology (IT) Technician ERO Position
 - Computer and communications systems have redundant primary and backup systems available

POSEP - What is changing

- POSEP proposed deviations from NUREG-0654, Rev. 2 - Continued
 - Credit RP Task-Qualified personnel in OSC
 - On-shift RP Technicians reduced from two to one, and add one RP task qualified on-shift staff
 - Emergency Response Organization (ERO) RP Technicians from six to three, and add three RP Task qualified individuals
 - ERO RP support staff remains unchanged at 8 staff, four RP Technicians and four RP task qualified staff
 - RIS 2016-10, “License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation” guidance considered
 - HPPOS-238, “Health Physics Position on Task Qualification of HP Technicians” guidance considered

POSEP - What is changing

- POSEP proposed deviations from NUREG-0654, Rev. 2 - Continued
 - Allow Remote Response for Engineering and Dose Assessment
 - Reactor, Mechanical, Electrical/I&C Engineers and Remote Dose Assessor
 - Safer and Faster Response
 - Can function from various locations (added flexibility versus from one facility)
 - Uses reliable computer data systems similar to Emergency Response Facilities
 - Administrative Controls ensure data access, equipment maintenance and functional testing

POSEP - What is not changing

- On-Shift Staffing Analysis – no proposed changes
 - Current analysis adequately evaluates the capability of on-shift staff to perform required actions
 - Current version is PNP On-Shift Staffing Analysis, Revision 4 (ADAMS Accession No. ML17269A183)

- Evacuation Time Estimate (ETE) – no proposed changes
 - ETE results are independent of PNP's operational status
 - Based on 2020 Census data, available evacuation paths, population demographics, etc.
 - Current version is PNP 2022 Evacuation Time Estimate Report (ADAMS Accession No. ML22250A524)

Power Operation Emergency Action Levels (POEALs)



- POEALs will replace PDEP EALs
 - POEALs restore the approved EALs that were in place immediately prior to cessation of power operations
 - POEALs will retain ISFSI EALs approved as part of PDEP LAR
 - Damage to Loaded Cask POEAL is independent from other POEALs
 - Consistent with other PNP restart project license submittals, to restore POLB to what was in place immediately prior to cessation of power operations
 - Minimize change management

Regulatory Basis

- Applicable Regulations:
 - 10 CFR 50.47, Emergency Plans
 - 10 CFR 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities

Environmental Assessment

- 10 CFR 51.22(c)(9) Categorical Exclusion
- No Significant Hazards Consideration
 - No changes proposed to the power operations design basis configuration or operation of the plant as originally designed / constructed / operated
 - No relaxations in criteria used to establish safety limits or safety system settings or TS LCOs that were in effect during power operations prior to the decommissioning certifications
- No significant change in the types or significant increase in the amounts of any effluents that may be released offsite
 - No physical plant changes
 - Restoration of SSCs to monitor and limit the amounts of effluents released ensures the 1972 Final Environmental Statement (FES), the 1978 final addendum, and the 2006 license renewal Supplemental Environmental impact Statement (SEIS) environmental impacts are not significantly changed
 - Resumed power operations conducted under existing environmental permits

Environmental Assessment

- No significant increase in individual or cumulative public or occupational dose
 - Plant programs and processes to support an operating plant will be restored to ensure 10 CFR 20 limits are not exceeded. The previous radiological impacts to the public, as evaluated in the FES and 1978 Addendum for the original 40 years and the SEIS for the additional 20 years is still bounding.
 - References 10 CFR 50.82(a)(2) Exemption submitted on September 28, 2023 (ADAMS Accession Number ML23271A140) which included an independent environmental review against revised Generic Environmental Impact Statement (GEIS).
 - The independent environmental review validated that the proposed licensing actions are bounded by the environmental impact findings of the PNP Final Environmental Statement (FES, NUREG-0343) with 1978 Addendum, and the PNP RFOI Supplemental Environmental Impact Statement (SEIS, NUREG 1427, Supp 27).

Other Emergency Planning Changes

- Alert and Notification System (ANS)
 - Separate from this amendment request
 - PNP, in cooperation with Michigan State Police, Van Buren, Berrien, and Allegan Counties, is developing an updated ANS Evaluation Report
 - Updated report will satisfy:
 - Planning standards E and F of 10 CFR 50.47(b), Emergency Plans
 - 44 CFR 350.5(a), Emergency Management and Assistance, Preparedness
 - Guidance in NUREG-0654/FEMA-REP-1, Rev. 2
- ANS report will be submitted to the U.S. Federal Emergency Management Agency (FEMA) for review and approval

Schedule



Title	Submit	Request Approval	Effective
Exemption	Sep 2023	Dec 2024	Aug 2025
License Transfer	Dec 2023	Jan 2025	Aug 2025
Power Ops Tech Specs	Dec 2023	Jan 2025	Aug 2025
Power Ops Admin Tech Specs	Feb 2024	Mar 2025	Aug 2025
Emergency Plan – Power Ops	Mar 2024	Apr 2025	Aug 2025
10 CFR 50.82(a)(7) - Post-Shutdown Decommissioning Activities Report (PSDAR)	Mar 2024	N/A	Mar 2024
Notification of Intent to Pursue Subsequent License Renewal	April 2024	N/A	N/A

Transition Date - Palisades Transitions from Facility in Decommissioning to Power Operations Plant

Schedule - Continued



Title	Submit	Request Approval	Effective
Power Operations Quality Assurance Plan – POLB	Apr 2024	May 2025	Aug 2025
Notification of Readiness to Transition - POLB	Jul 2025	N/A	N/A
Notification of Transition – POLB	Aug 2025	N/A	Aug 2025

Transition Date - Palisades Transitions from Facility in Decommissioning to Power Operations Plant

Questions

- NRC Staff Questions or Comments?

Thank You



Krishna P. Singh Technology Campus
1 Holtec Boulevard
Camden, NJ 08104
Tel: (856) 797-0900
www.holtec.com