## Palisades Nuclear Plant Potential Restart Update

U.S. Nuclear Regulatory Commission April 23, 2025



## **Public Meeting Agenda**



5:00 – 6:00 pm

Open House

NRC

6:00 – 6:15 pm

Welcome, Ground Rules, Opening Remarks

Facilitator, NRC

6:15 – 7:15 pm

Palisades Restart Panel

NRC

7:15 – 7:30 pm

Statements from Elected Officials

Public Officials

7:30 – 9:00 pm

**Public Questions & Comments** 

9:00 pm

Meeting Adjourned

## **Maximizing Engagement**

Please silence phones, smart watches, and laptops.

Please keep your questions brief and concise to allow everyone to participate.







#### **Questions**

- In-Person: Use one of the microphones
  - Dial-in using the bridge line
  - Raise Hands on Teams



#### **Dial-In Info**

**1** (301) 576-2978 Passcode: 929026745#

- Press \*5 to raise your hand
- (opt.) Press \*6 to unmute your microphone



### **Closed Captions**

- Click the three dots at the top of the Teams **Application** 
  - Click "Language and Speech"
  - Click "Turn on Live Captions"

## **Opening Remarks**



Welcome & Ground Rules

**Opening Remarks** 

Sophie Holiday, NRC Facilitator

Jamie Pelton,
Acting Director,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation

Introductions

**NRC Staff** 



## **Updated Mission Statement**

The NRC protects public health and safety and advances the nation's common defense and security by enabling the safe and secure use and deployment of civilian nuclear energy technologies and radioactive materials through efficient and reliable licensing, oversight, and regulation for the benefit of society and the environment.

## Systematic Approach to Restart

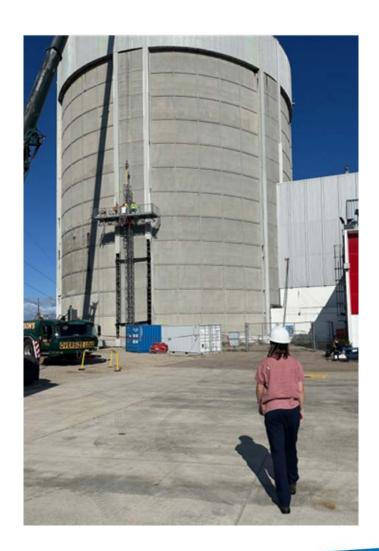


- NRC staff has determined that Holtec's plan to use the licensing bundle approach is within the "existing regulatory framework" that the Commission referred to in its 2021 denial of Petition for Rulemaking PRM-50-117.\*
- This approach protects public health and safety while utilizing efficient and reliable licensing, oversight, and regulation in order to enable the safe and secure use and deployment of civilian nuclear energy technologies.

\*PRM-50-117, "Criteria To Return Retired Nuclear Power Reactors to Operations" (86 FR 24362)

## **Palisades Restart**





To restart Palisades, Holtec needs to

- (1) gain NRC approval to restore the licensing basis of the plant to an operational status;
- (2) return plant components to a status that supports safe operation; and
- (3) make any upgrades or repairs necessary to meet the proposed operational licensing basis.

## What is the licensing bundle?



## Actions to Restore Palisades' Operating Licensing Basis

- Complete safety reviews
- Publication of Final Environmental Assessment/Finding of No Significant Hazard
- Bundle to be issued together

### **The Licensing Bundle**

- (1) Exemption from 10 CFR 50.82(a)(1)
- (2) License transfer request
- (3) Two Technical Specification License Amendments
- (4) Emergency Preparedness Amendment
- (5) Main Steam Line Break Amendment

NRC issuance of the licensing bundle would allow the plant to transition from a **decommissioning** status to an **operational** status from a regulatory standpoint, but the plant would not yet be **operating**.

## **Licensing Review Process**



### **Review of exemptions**

- NRR Office Instruction LIC-103 (ML19155A121)
  - Authorized by law, no undue risk to public health and safety, and consistent with common defense and security
  - Special circumstances defined in 10 CFR 50.12(a)(2)

#### **Review of license transfers**

- NRR Office Instruction LIC-107 (ML20010F469)
  - Focus of review is on confirming the technical and financial qualifications of the new licensee
  - The application for the transfer of a license will be approved if:
    - (1) the proposed transferee is qualified to be the holder of the license; and
    - (2) the transfer of the license is otherwise consistent with applicable provisions of law, regulations, and orders issued by the Commission

## **Licensing Review Process**



#### **Review of amendments**

- NRR Office Instruction LIC-101 (ML19248C539)
- For Operating License (OL)/Technical Specification (TS) amendment
  - Focus of review is on changes from previous OL/TS
  - TS are supported by the plant design found in the UFSAR
  - Using Rev. 35 of the UFSAR, which was the last revision in place during operation, plus response to request for additional information, as basis for review
    - Staff confirming that updates from the operating UFSAR (Rev 35) are minimal

Because the updates from the previous operating (TS) and design basis (UFSAR) documents are expected to be minimal, Palisades will not be required to submit a new UFSAR in support of the restart effort.

## **Technical Specifications**



- TS are part of the operating license.
- Operating TS establish minimum safety requirements to meet during each mode of plant operation.
- Licensee responsible for ensuring the plant configuration meets the requirements of the license at all times.
- If a TS is not met, the licensee is required to take specific actions, up to and including shut down, as required by the TS.
- If Palisades is approved to transition to an operational status, NRC inspectors will review mode changes as they occur during startup of Palisades.



## **Panel Updates - Licensing**

In addition to the licensing bundle, Holtec has submitted other licensing actions for NRC review:

- Leak-Before-Break Amendment
- Steam Generator Tube Sleeving Amendment
  - Both have been accepted for review by the NRC
  - Both estimated to be completed after the bundle (August and September 2025, respectively)
- Requests for Relief from ASME Code
  - Not yet submitted
  - Common and allowed by NRC regulations



These licensing actions are needed for Palisades to start operating at power.

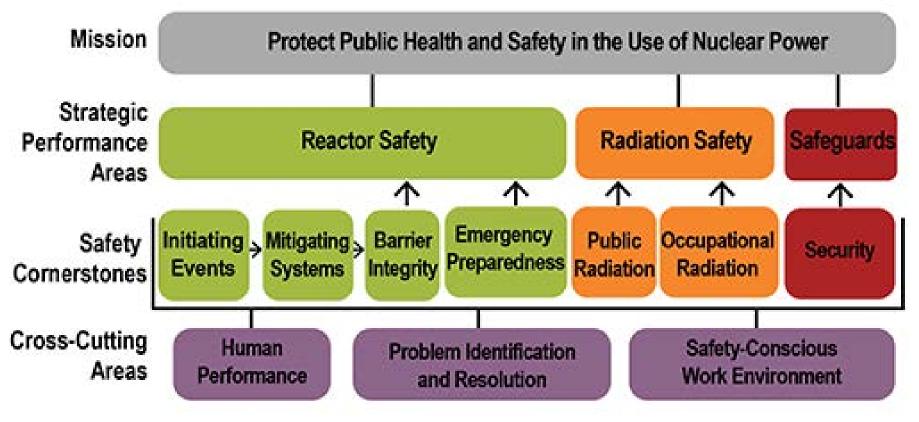
## **On-Site Restart Activities**



- Holtec's Transitional Quality Assurance Plan (TQAP) in place since August 2024.
  - Requirements for QA plan located in 10 CFR 50 Appendix B.
  - Holtec submitted its operating QA plan as part of the license transfer request.
  - Supports both current decommissioning licensing basis and proposed operating licensing bases.
  - Provides guidance and controls to ensure quality controls applied to quality related restart activities.
- Any work completed prior to implementation of an NRC-approved operating licensing basis must meet the approved licensing requirements.
  - Includes the operational QA Plan, Technical Specifications, and UFSAR.
- Inspection activities focus on proposed operational licensing and design bases.

## **Reactor Oversight Framework**





## **Inspection Activities**

- Inspection plan and activities completed per IMC 2562.
- Provide input for developing an objective basis for an NRC decision on readiness for Palisades to transition to the Reactor Oversight Process (ROP) and resume power operations.
- Sample and assess key aspects of Palisades operational readiness across the ROP cornerstones of safety.
  - Baseline inspections
  - Safety culture
  - Corrective action program
  - Open items





## **Inspection Activity Plan**





### UNITED STATES NUCLEAR REGULATORY COMMISSION REGION III 2056 WESTINGS AVENUE, SUITE 400

March 11, 2025

Mike Mlynarek Site Vice President Holtec Decommissioning International, LLC Palisades Nuclear Plant 27780 Blue Star Memorial Highway Covert, MI 49043-9530

SUBJECT: POTENTIAL RESTART INSPECTION ACTIVITY PLAN FOR PALISADES NUCLEAR PLANT

Dear Mike Mlynarek:

The general inspection policy discussed in Inspection Manual Chapter 2562, "Light-Water Reactor Inspection Program for Restart of Reactor Facilities Following Permanent Cessation of Power Operations," states, in part, that the U.S. Nuclear Regulatory Commission (NRC) will ensure that operational readiness has been reasonably verified across the reactor oversight process (ROP) cornerstones of safety. If restart is authorized, the NRC will determine the appropriate point to transition NRC oversight to the ROP.

The restart inspection plan was documented in ADAMS Accession No. <a href="ML24228A195">ML24228A195</a>. The enclosed inspection activity plan lists the inspections scheduled through June 30, 2026. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last 12 months of the inspection plan are tentative and may be revised. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

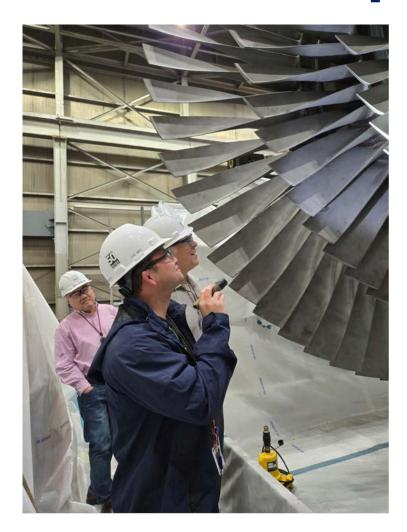
On June 13, 2022, Palisades ceased permanent power operations and subsequently removed all fuel from the reactor, as detailed in the letter from Entergy to the NRC, "Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel," (ADAMS Accession No. ML22164A067). On September 28, 2023, Holtec Decommissioning International, LLC (Holtec) submitted a letter to the NRC requesting exemptions from certain portions of the requirements of Title 10 of the Code of Federal Regulations (10 CFR) 50.82(a)(2) to pursue the potential reauthorization of power operations at Palisades (ADAMS Accession No. ML23271A140). The NRC's initial acceptance to review Palisades' request for exemptions was documented in ADAMS at Accession No. ML23291A440 on November 3, 2023.

This letter and its enclosure will be made available for public inspection and copying at <u>ADAMS Public Documents | NRC.qov</u> and at the NRC Public Document Room in accordance with Title 10 of the Code of Federal Regulations 2.390, "Public Inspections, Exemptions, Requests for Withholding."

- Implements inspections discussed in Inspection Plan.
- Lists inspections scheduled through June 30, 2026.
- Used for planning and dates may be subject to change.
- Routine inspections performed by Resident Inspectors are not included in the plan.

## Resident Inspector Activities





### **Safety Cornerstones**: All

### **Objectives**:

- Assess readiness of Palisades' programs, activities, and systems, structures, and components (SSCs) for operational status.

- Safety culture
- System return to service reviews
- Plant modifications
- Testing for operability/functionality
- Problem identification and resolution

## **System Return to Service**



**Safety Cornerstones**: Initiating Events, Mitigating Systems, Barrier Integrity **Objectives**:

- Evaluate Holtec's return to service plans to identify if activities verify that the configuration and condition of SSCs are consistent with the proposed design and licensing bases to support a restart.
- Verify readiness of SSCs and programs to support their return to service.

- Proposed licensing and design bases functions
- Material condition of SSCs
- Testing requirements and history

## **Inservice Inspection**



**Safety Cornerstones**: Initiating Events, Barrier Integrity **Objectives**:

- Verify that the primary coolant system boundary, SG tubes, reactor vessel internals, risk-significant piping system boundaries, and containment boundary are appropriately monitored for degradation.
- Verify that required repairs and replacements are appropriately examined and accepted.

- Steam generator tube repairs
- Reactor head repairs
- Alloy 600 primary piping weld mitigation

## **Problem Identification & Resolution**



### **Safety Cornerstones**: All

### **Objectives**:

- Evaluate if Palisades' Problem Identification and resolution (PI&R) program complies with NRC regulations and other standards for participation in the Reactor Oversight Process.
- Evaluate the effectiveness of Palisades' PI&R program.
- Review issues that pose challenges to the free flow of information.
  - Employees feel free to raise safety concerns without fear of retaliation.

- Corrective Action Program (PI&R)
- Safety Culture/Safety Conscious Work Environment

## **Fire Protection**



**Safety Cornerstones**: Initiating Events, Mitigating Systems **Objectives**:

- Verify that plant SSCs credited in the fire protection program will function as required to support the credited functions.
- Conduct reviews of fire protection program administrative controls and changes/modifications.

#### Focus:

- Implementation of National Fire Protection Association (NFPA) 805 modifications.

# License Renewal – Current Period of Operation



**Safety Cornerstones**: Initiating Events, Mitigating Systems, Barrier Integrity **Objectives**:

- Verify license conditions, regulatory commitments, selected aging management programs, time-limited aging analyses, and license renewal activities are implemented and/or completed.
- Verify age-related degradation is identified and properly managed or corrected.

- Aging management programs
- Age-related degradation

## **Security**



**Safety Cornerstones**: Security

### **Objectives**:

 Determine whether Palisades is meeting all NRC requirements and objectives for operational program readiness for the security cornerstone.

- Physical protection of facilities and radioactive material
- Material control and accounting for special nuclear material
- Information security
- Cybersecurity
- Training

## **Radiation Protection**



**Safety Cornerstones**: Occupational Radiation Safety, Public Radiation Safety **Objectives**:

- Review and assess Palisades' performance in assessing radiological hazards in the workplace and implementation of appropriate radiation monitoring and exposure controls.
- Verify implementation of that Palisades' Radiological Environmental Monitoring Program (REMP).

- Radiological hazard assessment and exposure controls for on-site activities
- Radiation monitoring systems
- REMP

## **Emergency Preparedness**



**Safety Cornerstones**: Emergency Preparedness **Objectives**:

- Evaluate adequacy of Palisades' emergency preparedness exercise conduct.
- Evaluate Palisades' capability to assess performance via a formal critique process and identify and correct weaknesses.

- Palisades' implementation of their emergency plan during exercise
- Palisades' assessment of on-site emergency response organization
- Interface of Palisades' personnel with offsite agencies

## **Licensed Operator Training**



**Safety Cornerstones**: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

### **Objectives**:

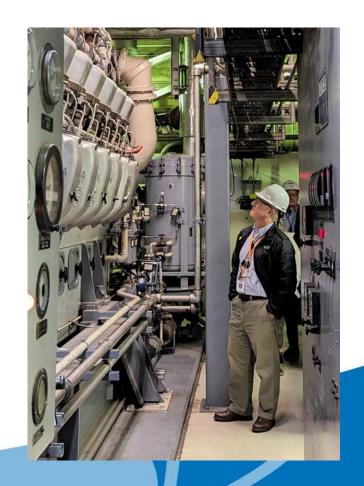
- Evaluate licensed operator performance during examinations, training exercises, and in the actual plant.
- Assess Palisades' ability to evaluate the performance of their licensed operators.
- Evaluate performance of the control room simulator and Palisades' testing and maintenance of the simulator in accordance with 10 CFR 55.46(d).

- Licensed operator performance
- Palisades' training of operators

### **Restart Process Overview**

- 1. Holtec submits operational readiness letter
  - Will contain milestone when Holtec will be ready to transition to an operational status
- 2. PRP make final assessment of Holtec's readiness to restart reactor operation
  - Will consider the results of the NRC's inspection activities and any information from Holtec
- 3. PRP will identify when NRC oversight should transition to the Reactor Oversight Process (ROP)
- 4. Licensing bundle issued to Holtec
- 5. Licensee will then implement the licensing actions in accordance with any implementation conditions for restart
- 6. NRC will transition oversight to the ROP





## **Process for Startup**

- Once Holtec implements their licensing bundle and other licensing actions, they are required to follow the operating license to meet NRC's safety requirements.
- Implementation of actions will allow Holtec to commence moving through the startup process.
- Holtec's Licensed Operators are licensed by the NRC and are personally responsible for safe operation of the nuclear reactor.
- NRC inspectors are onsite to observe how they meet the requirements.

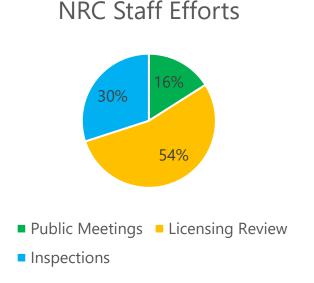




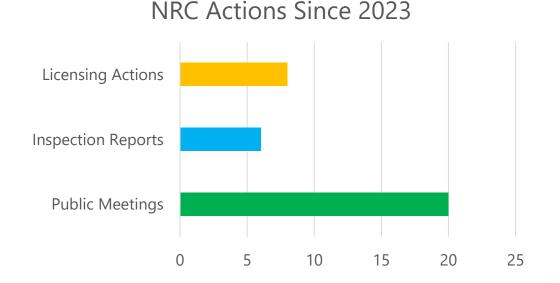
## **Public Outreach**



The NRC will be continuing public meetings throughout the potential restart project, allowing the opportunity to speak directly to NRC inspectors and technical staff.



The NRC dedicates **over 35 direct staff hours** to each public meeting.



## For More Information:



 For additional information about the Palisades Potential Restart Project, please visit:

https://www.nrc.gov/info-finder/reactors/pali.html

Contact us at:

PalisadesRestartProject@nrc.gov



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