



NRC/HDI Palisades Restart Public Meeting August 1, 2024



Meeting Agenda



- Introductions
- Palisades Presentation
 - Purpose & Outcome
 - Project Update
 - Questions / Comments

Introductions



- Nuclear Regulatory Commission (NRC) staff
- Holtec Decommissioning International, LLC (HDI) Staff
 - Jeff Borah – Palisades General Manager, Plant Operations
 - Joe Jerz – Palisades Director, Engineering
 - Michael Schultheis – Palisades Director, Regulatory and Site Strategies
 - Nick Culp – Palisades Sr. Manager Government Affairs & Communications

Purpose and Outcome

- Provide general update on the Restart Project to NRC Restart Panel and Staff
 - Overall project timeline and milestones
 - Staffing progress
 - Project funding
 - Significant activities planned
 - Community outreach and engagement

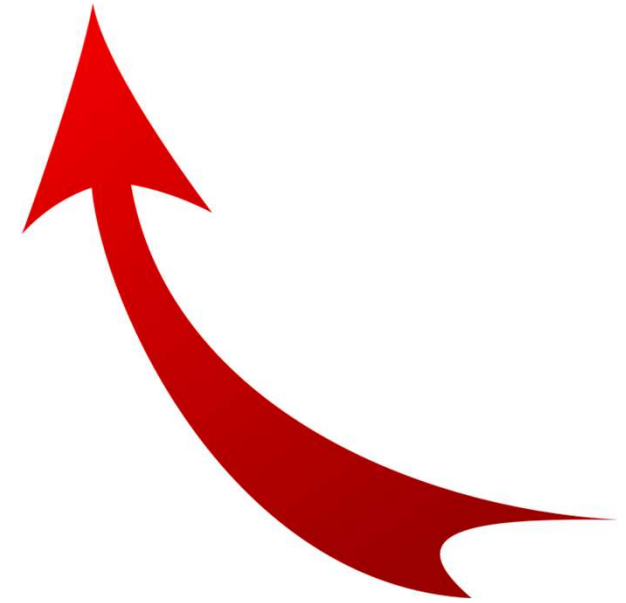
Overall Timeline and Milestones

- Operations Training Initial Accreditation, completed Dec 2023
- 26 operators passed licensed operator requalification examinations, completed May 2024
- Quality Assurance Plan revision, planned Aug 2024
- Maintenance and Technical Training Initial Accreditation, planned Aug 2024
- Nuclear Safety Review Board, planned Oct 2024 and April 2025
- Transition to Operating Licensing Bases, planned Aug 2025
- Resume Power Operations, planned Oct 2025

Staffing Progress

- Current Palisades Employees: 457*
- Current Badged Contractors: 350*

- Approx. **600 full-time, high-paying jobs** during regular operation with large union workforce (two bargaining units, 15 trades)
- Brings an **additional 1,000+ specialty workers** to SWMI for regularly scheduled refueling and maintenance outages every 18 months



*As of July 2024

Project Funding

- \$1.52B U.S. DOE Loan Commitment
 - Conditional loan guarantee announced by DOE Secretary Granholm – Mar 2024
- \$300M State of Michigan Grant
 - \$150M grant in FY 2024 Budget signed by Gov. Whitmer – Jul 2023
 - \$150M grant in FY 2025 Budget signed by Gov. Whitmer – Jul 2024
- Long-Term PPA Established
 - Between Holtec and Wolverine Power Cooperative and Hoosier Energy
 - Ensures financial viability, debt service
 - Multi-decade PPA includes two Holtec SMR-300
- Decommissioning Trust Fund
 - Not being used for any Restart Project Activities
 - Will return to normal operational compliance paradigm under 10 CFR 50.75, coincident with License Transfer

Palisades Reactor Head



- Replacements are conducted utilizing proven techniques and robust technology
- 54 nozzle penetrations
- 5 nozzles have been replaced in previous outages
- The remaining 49 will be replaced prior to plant restart

NFPA-805 Modifications

- Palisades will install all 22 remaining NFPA-805 modifications prior to restart, full transition was previously deferred due to pending shutdown
- Installation of these deferred modifications will align Palisades with other industry leading nuclear plants for fire protection
- These modifications eliminate required manual actions, resulting in an overall reduction in fire risk

Control Rod Drive Seals



- All 45 Control Rod Drive (CRD) Seals will be replaced prior to restart
- Seal design achieved record operational runs
- CRD Operational Testing has been optimized to extend seal life

Steam Generator Inspections

- Robust inspection and testing program of the primary and secondary systems
- Each Steam Generator has 8219 u-tubes
- 100% Eddy Current Exam of all tubes
- Plugs and Stabilizers as necessary
- Cleaning of Primary and Secondary regions of u-tubes
- Updated Condition Monitoring and Operational Assessment

Reactor Vessel and Internals Inspection



- Inspections will be completed on significant reactor components
 - All Materials Reliability Program Vessel Internals Inspections
 - Core Barrel Removal
 - Full Vessel Inservice Inspection
 - Primary Piping Nozzle Inspections
- These inspections utilize state-of-the art, industry-leading inspection technology

Generic Safety Issue 191 – Assessment of Debris Accumulation on PWR Sump Performance



- Prior to Palisades Shutdown, extensive analyses, testing, and modifications were completed to substantially improve Containment Sump performance
- Further GSI-191 closure efforts at Palisades were stopped in March 2019 due to the plant shutdown in May 2022
- HDI is currently evaluating GSI-191 closure options using industry experts and industry guidance document, “WCAP-17788, Comprehensive Analysis and Test Program for GSI-191 Closure“
- HDI plans to present the closure path to the NRC in third quarter 2024

Public Outreach/Engagement

- Strong broad-based support from federal, state, and local partners as well as within plant community
- Continuous utilization engagement tools to inform stakeholders and the public
- Public open houses
 - Palisades Joint Information Center
(330 West Main Street, Benton Harbor, MI)
 - June 4, 2024 – More than 60 public attendees, including job applicants
 - December 2024 TBD – Next open house

Palisades Repower Benefits

• Safe, Reliable Energy

- 800 MW of safe, clean, and reliable electricity – enough to **power more than 800,000 homes**
- Reliability factor of +90% – **24/7 baseload** generation
- Operated in the U.S. Nuclear Regulatory Commission’s **highest safety category**
- Operates under the independent federal oversight of the NRC and adheres to all federal and state regulations

• Environment

- Provides **carbon-free generation** for Michigan to achieve its climate goals, maintain reliability, and attract future employers
- Offsets **4.47 million tons of CO2 emissions annually** – in addition to other harmful GHG emissions – equating to **more than 900K cars on the road**

• Economy

- Employs approx. **600 full-time, highly skilled workers** and supports some **1,000 specialty supplemental workers** during regularly scheduled refuel/maintenance outages
- Large **veteran** and **union employer** (~45% union workforce – UWUA and UGSOA – and 15 trades signed onto restart)
- One of the region’s **largest taxpayers** supporting local public schools and libraries, public safety, transportation, veterans and senior services
- 2023 study by **Economic Growth Institute at the University of Michigan** determined premature shutdown of Palisades resulted in an **annual loss of \$259 million** in labor income and value added for tri-county region alone



**Next Public Open House
December 2024
Joint Information Center
Benton Harbor**



Questions/Comments



- NRC Staff Questions or Comments?