



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

November 3, 2021

Mr. Darrell Corbin
Vice President, Operations
Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT – INTEGRATED INSPECTION REPORT
05000255/2021003

Dear Mr. Corbin:

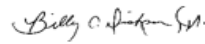
On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Palisades Nuclear Plant. On October 21, 2021, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding did not involve a violation of NRC requirements.

If you disagree with a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; and the NRC Resident Inspector at Palisades Nuclear Plant.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> 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."

Sincerely,



Signed by Dickson, Billy
on 11/03/21

Billy C. Dickson, Jr., Chief
Branch 2
Division of Reactor Projects

Docket No. 05000255
License No. DPR-20

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Darrell Corbin from Billy C. Dickson, Jr. dated November 3, 2021.

SUBJECT: PALISADES NUCLEAR PLANT – INTEGRATED INSPECTION REPORT
05000255/2021003

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 05000255

License Number: DPR-20

Report Number: 05000255/2021003

Enterprise Identifier: I-2021-003-0102

Licensee: Entergy Nuclear Operations, Inc.

Facility: Palisades Nuclear Plant

Location: Covert, MI

Inspection Dates: July 01, 2021 to September 30, 2021

Inspectors: G. Hansen, Senior Emergency Preparedness Inspector
P. Laflamme, Senior Resident Inspector
C. St. Peters, Resident Inspector

Approved By: Billy C. Dickson, Jr., Chief
Branch 2
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Palisades Nuclear Plant, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

Failure to Properly Classify Steam Dump Control Relay Caused Atmospheric Dump Valves to be Rendered Inoperable			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000255/2021003-01 Open/Closed	None (NPP)	71153
A finding of green significance was self-revealed on June 16, 2021, for the licensee's failure to properly classify the steam dump control relay (SDCR). Specifically, the licensee did not classify the SDCR in 2005 in accordance with fleet procedure FP-E-SE-02 "Component Classification," and as a result, the SDCR exceeded the vendor recommended service life without an evaluation. This led to the SDCR's failure, which rendered the atmospheric dump valves (ADVs) inoperable.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000255/2021-001-00	LER 2021-001-00 for Palisades Nuclear Plant, Atmospheric Steam Dump Valves Inoperable Due to Relay Failure	71153	Closed

PLANT STATUS

The plant began the inspection period at rated thermal power. On July 28, 2021, the plant was down powered to 23 percent for condensate pump maintenance. The plant was returned to full power on July 31, 2021. On August 10, 2021, the plant was down powered to 88 percent for heater drain pump discharge header maintenance. The plant was returned to full power on August 11, 2021 and remained at or near full power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident and regional inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time, the resident inspectors performed periodic site visits each week, increasing the amount of time on-site as local COVID-19 conditions permitted. As part of their on-site activities, resident inspectors conducted plant status activities as described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution," observed risk significant activities; and completed on-site portions of IPs. In addition, resident and regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on-site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Right train component cooling water on July 26, 2021
- (2) 1-1 Emergency Diesel Generator (EDG) starting air system on September 7, 2021
- (3) Service water screen system on September 23, 2021

Complete Walkdown Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated system configurations during a complete walkdown of the left train containment spray system on August 23, 2021.

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Fire Area 4: 1C 2.4kV switchgear room on July 14, 2021
- (2) Fire Area 16: Component cooling pump room, elevation 590' on July 20, 2021
- (3) Fire Area 13B: Charging pump room on July 27, 2021
- (4) Fire Area 12: 12 Battery Room; elevation 607' on September 21, 2021

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated PLSEG-OPS-21C-02 Multi-Department Event and PLSEG-LOR-21C-07 Secondary Malfunctions on August 12, 2021.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (1 Sample)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

- (1) Chemical volume and control system on September 23, 2021

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) Fire protection system on July 1, 2021

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) Emergent work activities associated with water intrusion into 2B, condensate pump, motor thrust bearing, and subsequent power reduction for repair on July 28, 2021
- (2) Emergent work activities associated with P-10A, heater drain pump discharge header inspection, and subsequent power reduction for repair on August 10, 2021
- (3) Emergent work activities associated with the 1-2 EDG #7L cylinder sleeve replacement on August 17, 2021

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (5 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) Safety injection (SI) suction piping flange evaluation on July 21, 2021
- (2) Pressurizer vapor phase sample line evaluation on July 27, 2021
- (3) EDG 1-1 governor evaluation on August 2, 2021
- (4) Volume control system evaluation on September 3, 2021
- (5) CV-0826 valve performance evaluation on September 13, 2021

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (6 Samples)

The inspectors evaluated the following post-maintenance test activities to verify system operability and functionality:

- (1) Charging pump P-55A packing and O-ring replacement and testing on July 19, 2021
- (2) Hydrogen monitoring system maintenance and testing on July 26, 2021
- (3) 2B condensate pump oil cooler replacement and testing on July 29, 2021
- (4) 1-2 EDG cylinder 7L sleeve replacement and testing on August 23, 2021
- (5) P-10A heater drain pump maintenance and testing on August 11, 2021
- (6) 1-1 EDG Governor replacement and testing on August 30, 2021

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (4 Samples)

- (1) QO-16 P-54B; Containment Spray Pump Test on August 4, 2021
- (2) QO-21B; P-8B Steam Driven AFW Pump Test on August 10, 2021
- (3) QO-5; Service Water Valve Stroke Test on August 24, 2021
- (4) QO-20B; P-67B Inservice Inspection Low Pressure Safety Injection Test, on September 7, 2021

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) QO-19A; P-66A High Pressure Safety Injection (HPSI) Surveillance, on July 7, 2021

71114.02 - Alert and Notification System Testing

Inspection Review (IP Section 02.01-02.04) (1 Sample)

- (1) The inspectors evaluated the following maintenance and testing of the alert and notification system:
 - Annual siren inspection and maintenance records for the period from August 2019 to August 2021
 - Monthly alert notification system (siren) tests for the period from August 2019 to August 2021

71114.03 - Emergency Response Organization Staffing and Augmentation System

Inspection Review (IP Section 02.01-02.02) (1 Sample)

- (1) The inspectors evaluated the readiness of the Emergency Preparedness Organization

71114.05 - Maintenance of Emergency Preparedness

Inspection Review (IP Section 02.01 - 02.11) (1 Sample)

- (1) The inspectors evaluated the maintenance of the emergency preparedness program

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.01) (1 Sample)

The inspectors evaluated:

- (1) An emergency preparedness (EP) drill on September 22, 2021

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS07: High Pressure Injection Systems (IP Section 02.06) (1 Sample)

- (1) July 1, 2020 through June 30, 2021

MS09: Residual Heat Removal Systems (IP Section 02.08) (1 Sample)

- (1) July 1, 2020 through June 30, 2021

BI02: RCS Leak Rate Sample (IP Section 02.11) (1 Sample)

- (1) July 1, 2020 through June 30, 2021

EP01: Drill/Exercise Performance (DEP) Sample (IP Section 02.12) (1 Sample)

- (1) July 01, 2020 through June 30, 2021

EP02: Emergency Response Organization (ERO) Drill Participation (IP Section 02.13) (1 Sample)

- (1) July 01, 2020 through June 30, 2021

EP03: Alert and Notification System (ANS) Reliability Sample (IP Section 02.14) (1 Sample)

- (1) July 01, 2020 through June 30, 2021

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) Safety injection and refueling water tank roof inspection evaluation on September 27, 2021

71153 – Follow-up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (1 Sample)

The inspectors evaluated the following licensee event reports (LERs):

- (1) LER 05000255/2021-001-00, Atmospheric Steam Dump Valves Inoperable Due to Relay Failure (ADAMS Accession No. ML21226A001). The inspection conclusions associated with this LER are documented in the Inspection Results Section of this report.

INSPECTION RESULTS

Observation: SIRW Tank Roof Inspection Evaluation	71152
<p>The inspectors reviewed the associated causal evaluation, failure mode analysis, culpability model, performance analysis, and corrective actions associated with the SIRW tank roof inspections, water collection, and subsequent chemistry samples performed on June 17, 2021. The inspectors selected this issue to review because the initial chemistry results did not match the expected results. Specifically, one of the initial isotopes identified during the filtration sample analysis was CO-58, a short-lived isotope not expected to be found on the SIRW roof. The inspectors noted that the licensee immediately performed an additional review and subsequent analysis to validate the initial results. In response, the licensee investigated the original test methodology and discovered that a chemistry technician used a contaminated filtration apparatus typically used for primary coolant analysis during the sample preparation to analyze the original sample resulting in contaminating the sample with CO-58. In their review, the inspectors inspected the SIRW tank roof area and interviewed chemistry personnel. The inspectors collaborated with a regional inspector with a background in chemistry who reviewed the spectrum chemistry analysis and associated white paper. A review of the spectrum analysis from the water sample obtained on the SIRW tank roof and samples utilizing the same filtration rig, like the one used for the analysis of the roof water indicated that the water found on the SIRW tank roof did not originate from the SIRW tank. For corrective actions, the licensee generated several condition reports. These condition reports, including efforts to enhance field presence by supervisors, managers, and quality assurance personal, along with a read and sign document specifying that filtration of non-routine samples is not permitted per EN-CY-110, Chemistry Gamma Spectroscopy System Operation.</p>	

Failure to Properly Classify Steam Dump Control Relay Caused Atmospheric Dump Valves to be Rendered Inoperable			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green FIN 05000255/2021003-01 Open/Closed	None (NPP)	71153
<p>A finding of green significance was self-revealed on June 16, 2021, for the licensee's failure to properly classify the steam dump control relay (SDCR). Specifically, the licensee did not classify the SDCR in 2005 in accordance with fleet procedure FP-E-SE-02 "Component Classification," and as a result, the SDCR exceeded the vendor recommended service life without an evaluation. This led to the SDCR's failure, which rendered the atmospheric dump valves (ADV) inoperable.</p>			
<u>Description:</u>			
<p>In 2005, the licensee performed a classification verification of all systems, structures, and components (SSCs) using external resources. During this effort, the SDCR, a non-safety related relay, was not properly classified in accordance with fleet procedure FP-E-SE-02, "Component Classification" Rev. 0, Section 5.1.5, "Determine Duty Cycle and Service Condition" step 2, which says "Duty Cycle - There are two primary choices for Duty Cycle: high or low. The selected duty cycle will be applied to each component and the result recorded in the spreadsheet/ database. The primary question is: Does the component operate continuously or cycle repeatedly? It is considered 'high' if 'yes.'" The SDCR was classified as critical, low duty cycle, mid service condition (CLM) instead of critical, high duty</p>			

cycle, mid service condition (CHM). The SDCR duty cycle should have been "HIGH" due to the normally energized state of the relay. A high duty cycle classification of the relay would have resulted in a replacement PM interval of 18 years. During the same time frame of 2005, the site documented in condition report CR-PLP-2005-00222 that the SDCR relay was subject to the same failure mode documented in NRC Bulletin No. 84-02 but was never replaced with a new relay. This was due to the model number being confused with a non-HFA relay. CR-PLP-2005-00222 recommended replacing the SDCR relay with a newer Century Series coil design relay and directed adding the replacement to the scope of CR-PLP-2004-02235-CA-4. There were no changes made to the evaluation scope of CR-PLP-2004-02235-CA-4, and the relay was never replaced. In 2018, a fleet-wide effort to review all critical components was performed by Rolls Royce, and the SDCR was included in the review, but no changes to the classification were suggested.

On June 16, 2021, with the reactor at full power, the SDCR failed, causing the four ADVs to be rendered inoperable (as reported in LER 05000255/2021-001-00, Atmospheric Steam Dump Valves Inoperable Due to Relay Failure (ADAMS Accession No. ML21226A001)). The Control Room staff smelled an acrid odor and, upon investigating, found the SDCR showing signs of overheating. Control logic power was lost, which resulted in the site entering a 24-hour shutdown action statement (LCO 3.7.4) for the loss of steam dump control function, and plant risk changed from green to orange. Due to the SDCR overheating, the relay short circuited and caused an overcurrent in the IM13 circuit and fuse FUZ/IM13-1 opening. This resulted in a loss of power to the IM13 scheme. The loss of power disabled the automatic fast-open function of the ADVs and disabled manual operation of ADVs from HIC-0780A (C-01 panel in the Control Room) and from HIC-0780B and HIC-0781B (C-33 panel in the engineered safeguards panel room). An 8-hour non-emergency 10 CFR 50.72(b)(3)(v)(D) report was made to the NRC due to "an event or condition that at the time of discovery could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident."

The site sent the failed relay to United Controls International (UCI) for analysis, and it was confirmed to have failed due to overheating. The licensee performed an apparent cause analysis (ACA). The licensee assessed in the ACA that the direct cause of the SDCR relay was an internal failure of the electrical coil. The failure to correctly classify the SDCR during the preventative maintenance optimization (PMO) effort in 2005 and the failure to address the known relay coil problem for the SDCR in the corrective action program (CAP) in 2005 were also identified as causal factors. The ACA also noted there was evidence that in 1988, the site canceled a project to replace non-safety related HFA relays, such as the SDCR. The licensee reviewed the extent of condition (EOC) to identify if any other HFA relays were potentially impacted in the same manner and criteria, as described previously. One relay was identified, and the site created a work order (WO) to include replacement of the relay, 63X/HIC-0780 (Main Steam Dump Quick Open Relay), per the work order process.

The inspectors responded to the site when the site risk changed from green to orange. The inspectors evaluated the licensee's understanding of the situation, plan to replace the SDCR, and associated compensatory actions. The inspectors determined the licensee failed to properly classify the SDCR duty cycle on more than one occasion.

Corrective Actions: The licensee wrote condition report CR-PLP-2021-1591. An apparent cause analysis was performed which included an EOC to ensure that all HFA relays with outdated coil designs were identified. The site replaced the relay.

Corrective Action References: CR-PLP-2021-1591

Performance Assessment:

Performance Deficiency: The licensee failed to properly classify the SDCR in accordance with FP-E-A-02. Specifically, the licensee failed to follow Section 5.1.5, "Determine Duty Cycle and Service Condition" step 2, which says "Duty Cycle - There are two primary choices for Duty Cycle: high or low. The selected duty cycle will be applied to each component and the result recorded in the spreadsheet/ database. The primary question is: Does the component operate continuously or cycle repeatedly? It is considered 'high' if 'yes'." This led to the SDCR exceeding the vendor recommended service life without an evaluation, subsequent failure, and resultant ADV inoperability.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to properly classify the SDCR duty cycle. This resulted in the SDCR failing from overheating, causing the ADVs to be rendered inoperable.

Significance: The inspectors assessed the significance of the finding using Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspectors screened the finding against the Mitigating Systems screening questions in Exhibit 2 and answered "NO" to every question. This resulted in the finding screening to green.

Cross-Cutting Aspect: Not Present Performance. No cross-cutting aspect was assigned to this finding because the inspectors determined the finding did not reflect present licensee performance.

Enforcement:

The inspectors did not identify a violation of regulatory requirements associated with this finding.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On October 21, 2021, the inspectors presented the integrated inspection results to Mr. D. Corbin, Vice President, Operations, and other members of the licensee staff.
- On September 2, 2021, the inspectors presented the Emergency Preparedness inspection results to Mr. D. Corbin, Vice President, Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Corrective Action Documents	CR-PLP-2021-01756	Emergency Diesel Generator (EDG) System Was Not Walked Down During the 2nd Quarter of 2021 in Accordance With EN-DC-178	07/01/2021
		CR-PLP-2021-01782	Air Leak Coming From a Through Wall Wear Spot on Copper Tubing That is Between MV-CA198A, Instrument Air Isolation and MV-CA198, MSIV CV-0501 and CV-0510 NS Header Vent	07/05/2021
	Miscellaneous	DBD 1.01	Design Basis Document for Component Cooling Water	10
		DBD 1.02	Design Basis Document for Service Water System	10
		DBD 2.03	Design Basis Document for Containment Spray	10
	Procedures	DBD 5.02	Design Basis Document for Emergency Generator and Generator Protective Systems	8
		SOP-15	Service Water System	72
		SOP-16	Component Cooling Water System	48
		SOP-22	Emergency Diesel Generator	81
		SOP-3	Engineered Safeguards	109
71111.05	Fire Plans	Fire Area 12	12 Battery Room, Elevation 607'	6
		Fire Area 13B	Charging Pump Rooms, Elevation 590'	5
		Fire Area 4	1C 2.4kV Switchgear Room, Elevation 590'	5
71111.11Q	Miscellaneous	PLSEG-LOR-21C-07	Secondary Malfunctions	1
		PLSEG-OPS-21C-02	Multi-Department Event	2
71111.12	Corrective Action Documents	CR-PLP-2018-02540	Charging Pumps P-55A, P-55B, P-55C Trip Unexpectedly	05/25/2018
		CR-PLP-2021-01962	P-55A Charging Pump, Speed and Flow Stability Are Different From Before the Speed Reducer Was Replaced	07/26/2021
		CR-PLP-2021-02110	The Condensate System (CDS-CDS) is Near Maintenance Rule (a)(1) Status	08/06/2021
		CR-PLP-2021-02165	The Main Feedwater System Has Exceeded its Maintenance Rule Performance Criteria of <2 Functional Failures in the Previous 24 Months	08/12/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR-PLP-2021-02209	The Maintenance Rule Evaluation Associated With MV-FW155 R-1A Turbine Driver	08/18/2021
		CR-PLP-2021-02456	Quarterly System Walkdown for CVC/CBA "Chemical and Volume Control/Concentrated Boric Acid"	09/21/2021
	Miscellaneous	PLP-RPT-12-00026	EGAD-EP-10 Palisades Maintenance Rule Scoping Document	4
		PLP-RPT-12-00026 EGAD-EP-10	Palisades Maintenance Rule Scoping Document	4
71111.13	Corrective Action Documents	CR-PLP-2021-01984	Condensate Pump P-2B Thrust Bearing Temp	07/28/2021
		CR-PLP-2021-01992	Temperature Element for CRD-18 Control Rod Drive Mechanism - Rx Head Loc'n Rose From Approximately 154 Degrees F to Approximately 164 Degrees F	07/28/2021
		CR-PLP-2021-02012	Condensate Pump, P-2B Change in Vibration Frequency for the Upper Motor Bearing	07/29/2021
		CR-PLP-2021-02120	Steam Leak at the Base of P-10A Heater Drain Pump	08/09/2021
		CR-PLP-2021-02123	Discovered Small Leak on Cap of MV-HED160, Heater Drain Pump P-10B Discharge Drain	08/09/2021
		CR-PLP-2021-02181	The Jacket Water Supply Header for K-6B, Emergency Diesel Generator 1-2	08/16/2021
		CR-PLP-2021-02193	Phoenix Qualitative Fire Risk Safe Shutdown Path Definition	08/17/2021
		CR-PLP-2021-02198	Jacket Water Outlet Elbow Brace is Cracked in Two Spots	08/18/2021
		CR-PLP-2021-02199	After Removal of Cylinder Liner an Indication Was Found On the Block Where the Liner Sits	08/18/2021
	Procedures	AOP-7	Rapid Power Reduction	1
	GOP-5	Power Escalation in Mode 1	07/29/2021	
71111.15	Corrective Action Documents	CR-PLP-2021-01702	A Water Bubble Between the SIRW Roof Membrane	06/25/2021
		CR-PLP-2021-01783	Emergency Diesel Generator 1-1	07/06/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
71111.19		CR-PLP-2021-01921	K-6B (Emergency Diesel Generator 1-2) Start On Both Air Start Motors Slower Than Average	07/21/2021	
		CR-PLP-2021-01975	Boric Acid Build-Up Was Present on the Swagelok Fitting Located Between CV-1901 (Pressurizer T-72 Vapor Phase SX-1045) and MV-PC1045D (Vapor Phase SX-1045 CV-1901 Inlet)	07/27/2021	
		CR-PLP-2021-02129	The PCS Unidentified Leak Rate Appears to Have Taken a Step Change Higher After the Downpower 07/29/2021	08/09/2021	
		CR-PLP-2021-02223	Diesel Generator 1-2 Local Regulator Switch, Generator Voltage Did Not Raise As Expected	08/20/2021	
		CR-PLP-2021-02251	CV-0826 (CCW HX E-54B SW Outlet) Was Timed Stroked Open Unsat During QO-5 Valve Test Procedure	08/24/2021	
		CR-PLP-2021-02333	Entered Action Level 3 Per Admin 4.19, PCS Leak Rate Monitoring Program, For PCS Unidentified Leak Rate Greater Than Baseline Mean by Three Standard Deviations	09/03/2021	
		CR-PLP-2021-02449	The Muffin Fan On the Rear of PY-0102B, "B" Thermal Margin Monitor, Is In Distress	09/21/2021	
		Drawings	M-219, Sheet 1B	Process Sampling System	30
	Engineering Changes	90753	Operability Basis Input for EDG 1-1 (Emergency Diesel Generator) EGA Droop Potentiometer Maximum Acceptance Range	0	
		EC-90325	Operability Basis Input for EDG 1-1 (Emergency Diesel Generator) Hunting	0	
		EC-90958	Operability Input for CR-PLP-2021-02251 for Stroke Time of CV-0826	08/24/2021	
	Procedures	EA-C-PAL-99-1209B-01	Generation of Flow Rate Acceptance Criteria for Technical Specification Test RO-216	3	
		EN-OP-104	Attachment 5, Operability Evaluation Basis Form	16	
		Proc. 4.19	PCS Leakage Decision Flowchart	8	
		SEP-PLP-IST-101	Inservice Testing of Plant Valves	7	
	Work Orders	564567-01	K-6A Governor Tuning (Elect)	08/02/2021	
		564567-04	Replace Diesel Generator EGA Control Box	08/02/2021	
	71111.19	Corrective Action	CR-PLP-2021-	P-55A, 'A' Charging Pump	07/02/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
	Documents	01768			
		CR-PLP-2021-01772	P-55A 'A' Charging Pump Placed in Service in Parallel With P-55C	07/03/2021	
		CR-PLP-2021-01869	Inspections On M-55A (P-55A Charging Pump Fluid Drive)	07/15/2021	
		CR-PLP-2021-01911	EC-162 Containment Hydrogen Monitoring Panel (Right)	07/21/2021	
		CR-PLP-2021-01913	PM of Breaker 52-2423, (P-2402 Hydrogen Sample Pump), Per WO 52898258-02	07/21/2021	
		CR-PLP-2021-02000	Upper Oil Cooler Was Removed From P-2B Condensate Pump Motor	07/29/2021	
		CR-PLP-2021-02180	Small Crack On Cylinder 7L	08/16/2021	
		CR-PLP-2021-02183	EDG 1-2 Monthly Test, Starting Air Pressure for Train A	08/16/2021	
	Procedures	CVC-M-1	P-55A Charging Pump Frequent Maintenance	39	
		SPS-E-11	480 Volt Breaker Inspection and Repair	29	
		WI-SPS-E-02	Insulation Resistance Testing of Electrical Equipment	10	
		WI-SPS-E-02	Megger Test Form	07/29/2021	
	Work Orders	00565778-01	EMA-2205, Condensate Pump Motor Replace Upper Cooler - E-908B	07/29/2021	
		00565778-11	P-2B EMA-2205	07/29/2021	
		52898258-01	PM-Breaker 52-2423 (P-2402)	05/24/2021	
		52956357-01	P-55A, 'A' Charging Pump Maintenance	05/03/2021	
		564567-03	K-8A; RE-131 Load Reject Surveillance (I&C)	08/03/2021	
	71111.22	Corrective Action Documents	CR-PLP-2-21-02137	As Found Speed Was 3588 RPM (Band 3540-3580) as Left Speed is 3562 RPM	08/09/2021
			CR-PLP-2021-02114	Sixth Consecutive Day Above the Baseline Mean	08/07/2021
			CR-PLP-2021-02117	A Confirmatory Leakrate Was Required Per Admin 4.19, PCS Leakrate Monitor Program	08/08/2021
CR-PLP-2021-02130			Secured P-8B Per QO-21 Direction	08/09/2021	
CR-PLP-2021-			P-7C Service Water Pump Test, the Vibration Data Taken	09/20/2021	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Procedures	02437	Was Higher Than Expected	
		CR-PLP-2021-02441	1-2 Diesel Generator "B" Air Start Motor Started the Engine Outside of Acceptable Start Time	09/20/2021
		QO-19A	Inservice Test Procedure - HPSI Pumps and ESS Check Valve Operability Test	45
		QO-20	Inservice Test Procedure - Low Pressure Safety Injection Pumps	28
		QO-21	Inservice Test Procedure - Auxiliary Feedwater Pumps	08/19/2021
71114.02	Corrective Action Documents	CR-PLP-2019-04657	PWS Siren 40 Non-Functional	11/21/2019
		CR-PLP-2020-00843	Siren Preventative Maintenance Identified Cracked Power Pole for Siren 040	03/16/2020
		CR-PLP-2020-01388	Siren 057 AC Power Failure	04/30/2020
		CR-PLP-2021-01827	Siren 8 Audio Current Failure	07/10/2021
	Miscellaneous		Federal Emergency Management Agency Palisades Nuclear Plant Public ANS Approval Letter	12/20/2012
			Federal Emergency Management Agency Letter; Provisions for Backup Alert and Notification (ANS) for the Palisades Nuclear Power Plant Emergency Planning Zone (EPZ)	12/10/2012
			Palisade Nuclear Plant Public Warning System Replacement Project Design Report	10/01/2002
			Documentation of Public Warning System Monthly Tests	08/01/2019-06/30/2021
			Alert Notification System Maintenance Records	07/01/2019-06/30/2019
			2020 Emergency Preparedness Public Information Mailer	08/19/2020
			Emergency Preparedness Brochure (Internet Website Document)	09/01/2021
	Procedures	PAL PWS	Palisades Nuclear Plant Public Warning System Operating Procedure	24
	71114.03	Corrective Action Documents	CR-PLP-2020-04067	ERO Shift Did Not Complete Work Task Corrective Action

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR-PLP-2021-00963	Outdated Documents in Allegan County Offsite Liaison ERO Position Binder	04/08/2021
	Miscellaneous		Palisades Nuclear Station On-Shift Staffing Analysis Final Report	4
			Emergency Response Organization Off-Hours, Unannounced, Augmentation Response Test Records	08/01/2019-06/30/2021
			Emergency Response Organization Training Records (12 samples)	08/31/2021
			Current Emergency Response Organization Team Staffing	08/06/2021
	Procedures	EI-2.2	Emergency Staff Augmentation	23
		EN-EP 310	Emergency Response Organization Notification System	10
71114.05	Corrective Action Documents	CR-PLP-2019-03742	Emergency Kit 9 Inventory Issues	09/17/2019
		CR-PLP-2019-04155	Q3 2019 Vulnerability Management Assessment Discovered EP Only CDAs Were Not Receiving Microsoft Operating System Upgrades and Security Patches	10/16/2019
		CR-PLP-2020-00252	Inform Program Would Not Connect to the Server	01/27/2020
		CR-PLP-2020-00596	Inform Program Deficiencies Related to Technical Data Form Inputs	02/24/2020
		CR-PLP-2020-00957	Dedicated NRC Phone Lines Not Working in Control Room	03/25/2020
		CR-PLP-2020-01802	EAL Initiating Condition (IC) Use During 8 Year Cycle	06/04/2020
		CR-PLP-2021-00567	TSC Inventory - Incorrect Procedure Revisions	03/03/2021
		CR-PLP-2021-01135	EP Fleet Assessment Team - Negative Observation for ERO Drill Participation Performance Indicator	04/26/2021
	CR-PLP-2021-01469	New South Haven Hospital - Coordination of Management Change and Radiological Emergency Response	06/28/2021	
	Miscellaneous		Monthly Emergency Communications Test Records	08/01/2019-06/30/2021
		Emergency Response Facilities Emergency Kits Quarterly Inventory Records	08/01/2019-06/30/2021	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
			Emergency Response Facilities Monthly Communications Test Records	08/01/2019-06/30/2021	
			Emergency Preparedness Exercise and Drill Evaluation Reports	08/01/2019-08/31/2021	
			Emergency Preparedness Letters of Agreement (LOAs) With Off-Site Response and Support Organizations	08/01/2019-08/31/2021	
		KLD TR-1161	Palisades Power Plant 2020 Population Update Analysis	09/16/2020	
		LO-PLPLO-2021-0039	Pre-NRC Emergency Planning Program Inspection Assessment	05/19/2021	
		QA-7-2020-PLP-1	Quality Assurance Audit Report – Emergency Preparedness	05/11/2020	
		QA-7-2021-PLP-1	Quality Assurance Audit Report – Emergency Preparedness	05/11/2021	
	Procedures	EAL Basis	Emergency Action Level Technical Bases	8	
		SEP	Palisades Nuclear Plant Site Emergency Plan	32	
		SEP Supplement 1	EAL Wall Charts	4	
		SEP, Supplement 2	Evacuation Time Estimates	0	
	71151	Corrective Action Documents	CR-PLP-2020-00564	TSC Security Coordinator Laptop Missing During Emergency Planning Drill	02/20/2020
		Miscellaneous		NRC Performance Indicator — High Pressure Injection (HPSI) (MS-07)	07/02/2020 – 06/30/2021
			NRC Performance Indicators Mitigating Systems Performance Indicator — Residual Heat Removal (RHR) (MS-09)	07/02/2020 – 06/30/2021	
			NRC Performance Indicators Barrier Integrity — Reactor Coolant System (BI-02)	07/02/2020 – 06/30/2021	
71152	Corrective Action Documents	CR-PLP-2021-01702	A Water Bubble Between the SIRW Roof Membrane	06/25/2021	
		CR-PLP-2021-01735	Walkdown of the T-58 SIRW Tank Roof	07/01/2021	
		CR-PLP-2021-01749	Cross Contaminated Sample	07/08/2021	
71153	Corrective Action Documents	CR-PLP-2004-02235	Significant Event Notification 248	03/24/2004	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR-PLP-2005-00222	Steam Dump Control Relay Type HFA Not Updated	01/11/2005
		CR-PLP-2021-01592	SDCR Relay (Steam Dump Control Relay) Showed Signs of Over-Heating	06/16/2021
	Procedures	FP-E-SE-02	Component Classification	0
		FP-PE-PM-01	Preventative Maintenance Program	0