



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

January 29, 2025

Adam Heflin, Executive Vice President
and Chief Nuclear Officer
Arizona Public Service Company
P.O. Box 52034, MS 7602
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION – INTEGRATED
INSPECTION REPORT 05000528/2024004 AND 05000529/2024004 AND
05000530/2024004

Dear Adam Heflin:

On December 31, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Palo Verde Nuclear Generating Station. On January 17, 2025, the NRC inspectors discussed the results of this inspection with Cary Harbor, Senior Vice President, Site Operations, and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

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,

A handwritten signature in black ink, appearing to read "John L. Dixon, Jr.", is located below the word "Sincerely,".

Signed by Dixon, John
on 01/29/25

John L. Dixon, Jr., Chief
Reactor Projects Branch D
Division of Operating Reactor Safety

Docket Nos. 05000528, 05000529 and 05000530
License Nos. NPF-41, NPF-51 and NPF-74

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

PALO VERDE NUCLEAR GENERATING STATION – INTEGRATED INSPECTION REPORT
 05000528/2024004 AND 05000529/2024004 AND 05000530/2024004 – DATED
 JANUARY 29, 2025

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DOCUMENT NAME: PALO VERDE NUCLEAR GENERATING STATION – INTEGRATED INSPECTION REPORT
 05000528/2024004 AND 05000529/2024004 AND 05000530/2024004

ADAMS ACCESSION NUMBER: **ML25028A366**

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers: 05000528, 05000529 and 05000530

License Numbers: NPF-41, NPF-51 and NPF-74

Report Numbers: 05000528/2024004, 05000529/2024004 and 05000530/2024004

Enterprise Identifier: I-2024-004-0002

Licensee: Arizona Public Service

Facility: Palo Verde Nuclear Generating Station

Location: Tonopah, AZ

Inspection Dates: October 1, 2024 to December 31, 2024

Inspectors: L. Merker, Senior Resident Inspector
N. Cuevas, Resident Inspector
R. Azua, Senior Reactor Inspector
L. Carson, Senior Health Physicist
J. O'Donnell, Senior Health Physicist
K. Pfeil, Resident Inspector

Approved By: John L. Dixon, Jr., Chief
Reactor Projects Branch D
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Palo Verde Nuclear Generating Station, 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

No findings or violations of more than minor significance were identified.

Additional Tracking Items

None.

PLANT STATUS

Unit 1 operated at or near full power for the duration of the inspection period.

Unit 2 entered the inspection period at full power. On October 4, 2024, the unit was shut down for refueling outage 2R25. On November 8, 2024, the reactor was made critical following completion of the refueling outage. On November 10, 2024, the unit was shut down to repair an oil leak from a main turbine bearing due to a missing oil port plug. On November 11, 2024, the reactor was made critical following repairs and returned to full power on November 15, 2024, where it remained for the remainder of the inspection period.

Unit 3 operated at or near full power for the duration 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 performed activities described in IMC 2515, Appendix D, "Plant Status," observed risk significant activities, and completed on-site portions of IPs. 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.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Impending Severe Weather Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the adequacy of the overall preparations to protect risk-significant systems from impending severe weather due to monsoon season, on October 24, 2024.

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (1 Sample)

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

- (1) Unit 2, high-pressure safety injection train B following maintenance, on December 19, 2024

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (6 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) Unit 1, emergency diesel generator B room and emergency diesel generator B control room, fire zones 21B and 22B, on December 11, 2024
- (2) Unit 2, low-pressure safety injection train A and B pump rooms, fire zones 32A and 32B, on December 16, 2024
- (3) Unit 1, main control room, fire zone 17, on December 18, 2024
- (4) Unit 1, train A and B remote shutdown rooms, fire zones 10A and 10B, on December 18, 2024
- (5) Unit 3, containment spray train B pump room, fire zone 30B, on December 18, 2024
- (6) Unit 2, motor-driven auxiliary feedwater pump room, fire zone 73, on December 18, 2024

Fire Brigade Drill Performance Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated the onsite fire brigade training and performance during an unannounced fire drill, on July 17, 2024.

71111.06 - Flood Protection Measures

Flooding Sample (IP Section 03.01) (1 Sample)

- (1) Units 1, 2, and 3, control building 74-foot elevation due to sump pump failures, on December 17, 2024

71111.08P - Inservice Inspection Activities (PWR)

The inspectors verified that the reactor coolant system boundary, reactor vessel internals, risk-significant piping system boundaries, and containment boundary were appropriately monitored for degradation and that repairs and replacements were appropriately fabricated, examined and accepted by reviewing the following activities in Unit 2 during refueling outage 2R25 from October 6 to October 19, 2024.

PWR Inservice Inspection Activities Sample - Nondestructive Examination and Welding Activities (IP Section 03.01) (1 Sample)

The inspectors verified that the following nondestructive examination and welding activities were performed appropriately:

- (1) Ultrasonic Examination
 - steam generator 1 auxiliary and downcomer feedwater pipe (ISI zone 58) circumferential weld 58-23A
 - steam generator 1 auxiliary and downcomer feedwater pipe (ISI zone 58) circumferential weld 58-24A
 - cold leg 1B safety injection line dissimilar metal weld, piping nozzle-to-safe end (ISI Zone 24) weld 11-10; phased array, axial and circumferential coverage

Dye Penetrant Examination

- safety injection system, 24 inch pipe, welded pipe support, (ISI zone 104), weld 2-SI-308-H-15-W
- steam generator 2, 2MRCEE01B**HTEXCH test line isolation valve 2JSGBUV-0226, welds 5548110-1 and 5548110-2

Visual 1 Examination

- auxiliary feedwater pipe welded support (ISI zone 300) weld 2-AF-005-H-001-W
- essential cooling water pipe restraint (ISI zone 300) 2-EC-062-H-005

Visual 3 Examination

- auxiliary feedwater pipe support (ISI zone 300) strut 2-AF-027-H-002
- essential cooling water pipe restraint (ISI zone 300) 2-EC-062-H-005
- safety injection pipe (ISI zone 104) support 2-SI-308-H-015

Magnetic Particle Examination

- steam generator 2 2MRCEE01B**HTEXCH support stand skirt weld

Radiographic Examination

- pressurizer spray pipe weld 5555570-2

Welding Activities

- gas tungsten arc welding
- steam generator 2 2MRCEE01B**HTEXCH test line isolation valve 2JSGBUV-0226, welds 5548110-1 and 5548110-2

PWR Inservice Inspection Activities Sample - Vessel Upper Head Penetration Inspection Activities (IP Section 03.02)

No vessel upper head penetration inspections were scheduled or performed this refueling outage.

PWR Inservice Inspection Activities Sample - Boric Acid Corrosion Control Inspection Activities (IP Section 03.03) (1 Sample)

The inspectors verified the licensee is managing the boric acid corrosion control program through a review of the following evaluations:

- (1) The inspector performed a boric acid walkdown on October 11 and 12, 2024, and evaluated the licensee's actions relating to the following condition reports: CR 22-02504, CR 24-09783, CR 24-09825, and CR 24-09827.

PWR Inservice Inspection Activities Sample - Steam Generator Tube Inspection Activities (Section 03.04)

No steam generator tube inspections were scheduled or performed during this refueling outage.

71111.11Q - Licensed Operator Regualification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the main control room during the Unit 2 shutdown for refueling outage 2R25, on October 5, 2024.

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

- (1) The inspectors observed and evaluated licensed operator continued training simulator activities, on December 17, 2024.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (2 Samples)

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

- (1) Unit 1, emergency diesel generator train B, on October 30, 2024
- (2) Unit 1, plant protection system channel C, on November 20, 2024

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (1 Sample)

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) Unit 2, use of risk-informed completion times for planned maintenance to jumper out degraded battery cell 50 on the class 1E 125 Vdc channel D battery, on December 17, 2024

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (3 Samples)

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

- (1) Units 1, 2, and 3, essential spray pond system operability determination due to the identification of mild corrosion on pipe supports, on November 14, 2024
- (2) Unit 3, high-pressure safety injection pump A long term recirculation valve SIA-HV-604 operability determination due to circuit breaker trip during testing, on December 2, 2024
- (3) Unit 2, containment spray pump A operability determination due to vibration survey in the alert range for y-axis vibration point, on December 11, 2024

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated the Unit 2 refueling outage 2R25 activities from October 4 through November 15, 2024. Operating experience smart sample 2007-03, "Crane and Heavy lift Inspection, Supplemental Guidance to 71111.20 and 71111.13," revision 3, was used to inform this sample.

71111.24 - Testing and Maintenance of Equipment Important to Risk

The inspectors evaluated the following testing and maintenance activities to verify system operability and/or functionality:

Post-Maintenance Testing (PMT) (IP Section 03.01) (6 Samples)

- (1) Unit 1, emergency diesel generator train B post-maintenance test following maintenance outage, on November 5, 2024
- (2) Unit 1, plant protection system parameter 19, steam generator 2 low level setpoint, channel B post-maintenance testing following bistable card replacement, on November 7, 2024
- (3) Unit 2, containment spray train B post-maintenance testing following pump mechanical seal replacement, on November 8, 2024
- (4) Unit 2, control element drive mechanism control system motor generator set A and B post-maintenance test following replacement, on November 12, 2024
- (5) Unit 2, emergency core cooling system safety injection tank 2B isolation valve SIB-UV-624 circuit breaker post-maintenance testing following component replacement, on November 25, 2024
- (6) Unit 2, class 1E 125 Vdc channel D battery post-maintenance testing following jumpering of degraded battery cell 50, on December 13, 2024

Surveillance Testing (IP Section 03.01) (3 Samples)

- (1) Unit 1, class 1E 4.16kV train A undervoltage protective relays testing, on October 9, 2024
- (2) Unit 2, emergency diesel generator B and integrated safeguards train B testing, on October 31, 2024
- (3) Unit 3, motor-driven auxiliary feedwater pump testing, on October 31, 2024

Containment Isolation Valve (CIV) Testing (IP Section 03.01) (1 Sample)

- (1) Unit 2, chemical and volume control system to seal injection for reactor coolant pumps containment isolation check valve, CH-NV-835, testing, on October 31, 2024

71114.06 - Drill Evaluation

Additional Drill and/or Training Evolution (1 Sample)

- (1) The inspectors evaluated an emergency preparedness drill, on September 4, 2024.

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated how the licensee identifies the magnitude and extent of radiation levels and the concentrations and quantities of radioactive materials and how the licensee assesses radiological hazards.

Instructions to Workers (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated how the licensee instructs workers on plant-related radiological hazards and the radiation protection requirements intended to protect workers from those hazards.

Contamination and Radioactive Material Control (IP Section 03.03) (2 Samples)

The inspectors observed/evaluated the following licensee processes for monitoring and controlling contamination and radioactive material:

- (1) Unit 2, surveys of potentially contaminated material leaving the radiologically controlled area
- (2) Unit 2, workers exiting the containment building during a refueling outage

Radiological Hazards Control and Work Coverage (IP Section 03.04) (3 Samples)

The inspectors evaluated the licensee's control of radiological hazards for the following radiological work:

- (1) Unit 2 pressurizer heater replacement activities under radiation work permit (RWP) 2-3412-R25, revision 0
- (2) Unit 2 in-core instrumentation removal activities under RWP 2-3006-R25, revision 0
- (3) Unit 2 filter storage transfer activities (F36 RCS purification filter) under RWP 9-1006, revision 4

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (4 Samples)

The inspectors evaluated licensee controls of the following high radiation areas (HRAs) and very high radiation areas (VHRAs):

- (1) (VHRA) Unit 2 under vessel access on the 80-foot containment elevation
- (2) (HRA) Unit 2 regenerative heat exchanger room on the 111-foot containment elevation

- (3) (HRA) Unit 2 reactor vessel head stand on the 140-foot containment elevation
- (4) (HRA) Unit 2 high level storage area on the 120-foot elevation of the radwaste building

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 03.06) (1 Sample)

- (1) The inspectors evaluated radiation worker and radiation protection technician performance as it pertains to radiation protection requirements.

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

Permanent Ventilation Systems (IP Section 03.01) (2 Samples)

The inspectors evaluated the configuration of the following permanently installed ventilation systems:

- (1) Units 1, 2, and 3 control room ventilation air intake systems (HJA/HJB-F04) and radiation monitors (RU-29 and RU-30)
- (2) Technical Support Center ventilation air intake system (AM-ZYN-A04) and radiation monitors (RU-13A)

Temporary Ventilation Systems (IP Section 03.02) (2 Samples)

The inspectors evaluated the configuration of the following temporary ventilation systems:

- (1) Unit 2, temporary high efficiency particulate air (HEPA) ventilation systems pressurizer area
- (2) Unit 2, temporary HEPA ventilation reactor vessel head stand

Use of Respiratory Protection Devices (IP Section 03.03) (1 Sample)

- (1) During this inspection, the only respiratory protection devices that were issued for use were powered air purifying respirators for the pressurizer heater cut out, removal, and replacement project (RWP-3212).

Self-Contained Breathing Apparatus for Emergency Use (IP Section 03.04) (1 Sample)

- (1) The inspectors evaluated the licensee's use and maintenance of self-contained breathing apparatuses (SCBAs). The inspectors observed control room operators in all three units and an emergency response team member prepare and use SCBAs. In addition, the inspectors toured the SCBA fill station, maintenance facility, and areas where the licensee securely stored backup SCBAs.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (3 Samples)

- (1) Unit 1 (October 1, 2023, through September 30, 2024)
- (2) Unit 2 (October 1, 2023, through September 30, 2024)
- (3) Unit 3 (October 1, 2023, through September 30, 2024)

BI02: RCS Leak Rate Sample (IP Section 02.11) (3 Samples)

- (1) Unit 1 (October 1, 2023, through September 30, 2024)
- (2) Unit 2 (October 1, 2023, through September 30, 2024)
- (3) Unit 3 (October 1, 2023, through September 30, 2024)

OR01: Occupational Exposure Control Effectiveness Sample (IP Section 02.15) (1 Sample)

- (1) Units 1, 2, and 3 (April 1, 2023, through June 30, 2024)

PR01: Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual
Radiological Effluent Occurrences (RETS/ODCM) Radiological Effluent Occurrences Sample
(IP Section 02.16) (1 Sample)

- (1) Units 1, 2, and 3 (April 1, 2023, through June 30, 2024)

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (3 Samples)

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

- (1) Units 1, 2, and 3, effectiveness of corrective actions following discovery of Ametek oil filled capacitor Part 21 notification, on December 12, 2024
- (2) Unit 1, effectiveness of corrective actions and adverse condition monitoring plans following discovery of low oil level in the lower oil reservoirs of reactor coolant pumps 1B and 2B pump motors, on December 26, 2024
- (3) Unit 2, effectiveness of corrective actions following discovery of the multiple stud tensioner in a seismic category IX storage condition during core alterations, on December 30, 2024

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

- (1) From April 8 to November 20, 2024, the licensee wrote condition reports documenting issues regarding performance errors in operations. The inspectors assessed the licensee's problem identification threshold, evaluations, and corrective actions related to these condition reports. In each instance the licensee adequately followed site procedures to identify, evaluate, and correct the issue. No issues of more than minor significance were identified.

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On October 15, 2024, the inspectors presented the Unit 2 inservice inspection results to Cary Harbor, Senior Vice President, Site Operations, and other members of the licensee staff.
- On October 25, 2024, the inspectors presented the occupational radiation safety inspection results to Todd Horton, Senior Vice President, Nuclear Regulatory and Oversight, and Ryan Lane, Director, Technical Support Organization, and other members of the licensee staff.
- On January 17, 2025, the inspectors presented the integrated inspection results to Cary Harbor, Senior Vice President, Site Operations, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Calculations	13-MC-SP-0307	SP/EW System Thermal Performance Design Bases Analysis	9
	Corrective Action Documents		24-09791, 24-09792, 24-07868, 24-06329, CRDR 2905162, CRAI 3392785, CRDR 2906487	
	Procedures	40AO-9ZZ21	Acts of Nature	39
		40OP-9ZZ19	Hot Weather Protection	7
		51DP-9OM03-04	Summer Readiness Administrative Guideline	1
71111.04	Corrective Action Documents		24-08845	
	Drawings	02-M-SIP-001	P & I Diagram Safety Injection & Shutdown Cooling System	58
	Procedures	40ST-9SI07	High Pressure Safety Injection System Alignment Verification	21
71111.05	Calculations	13-MC-FP-808	Combustible Loads - Diesel Generator Building	6
	Corrective Action Documents		24-07577, 24-09923, 24-07577, 24-08847-001	
	Fire Plans		Pre-Fire Strategies Manual	31
	Miscellaneous		PVNGS DBM – Fire Protection System	15
		FPD01-05-001	Initial Fire Team Member Job Qualification Card	07/15/2022
		NPL41-D-3Q1C-24	Summary/After Action Review for Regulatory Fire Drill	07/19/2024
		NPL41.3Q1C.24	Unit 1 TB07 Main Turbine Lube Oil Storage Room Fire Scenario Drill Packet Final	07/19/2024
		NPL41.3Q1C.24	C-Shift Fire Drill After Action Review Summary Final Revised	08/22/2024
	Procedures	14DP-0FP33	Control of Transient Combustibles	33
		40AO-9ZZ19	Control Room Fire	42
		40DP-9ZZ19	Operational Considerations Due to Plant Fire	37
		12DP-0TR01	Fire Department Training Program Description	22
		14DP-0TR02	Fire Department Training Program Administration	31
71111.06	Corrective Action Documents		24-11575, 24-12450, 24-06054, 24-07035, 24-06055	
	Drawings	01-M-OWP-003	P & I Diagram Oily Waste and Non-Radioactive Waste	7

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			System (Control Building)	
		02-M-OWP-003	P & I Diagram Oily Waste and Non-Radioactive Waste System (Control Building)	5
		03-M-OWP-003	P & I Diagram Oily Waste and Non-Radioactive Waste System (Control Building)	4
	Miscellaneous		DBM- PVNGS Fire Protection System	15
		13-MC-ZA-0810	Flooding Between Adjacent Safety Related Structures	8
		13-MC-ZJ-0200	As Built Control Building Flooding Calculation	8
		Study 13-NS-C099	Internal Flooding PRA -PRA Modeling and Quantification	4
71111.08P	Corrective Action Documents		22-02504	
	Corrective Action Documents Resulting from Inspection		24-09783, 24-09825, 24-09827	
	Miscellaneous	4INT-ISI-2	4th Inspection Interval - Inservice Inspection Program Summary Manual - PVNGS Unit 2	1
	Procedures	70TI-9ZC01	Boric Acid Walkdown Leak Detection	29
		73DP-9WP01	Welder and Procedure Qualification	9
		73DP-9WP04	Welding and Brazing Control	21
		73DP-9WP05	Weld Filler Material Control	12
		73DP-9ZC01	Boric Acid Corrosion Control Program	12
		73TI-9ZZ05	Dry Magnetic Particle Examination	19
		73TI-9ZZ07	Liquid Penetrant Examination	19
		73TI-9ZZ10	Ultrasonic Examination of Welds in Ferritic Components	16
		73TI-9ZZ17	Visual Examination of Welds, Bolts, and Components	15
		73TI-9ZZ18	Visual Examination of Component Supports	18
		73TI-9ZZ22	Visual Examination For Leakage	15
		73TI-9ZZ82	Visual Examination of Metal Containment Building Surfaces	8
		73TI-0ZZ02	Ultrasonic Thickness Measurement	14
		PDI-UT-1	Generic Procedure for the Ultrasonic Examination of Ferritic Pipe Welds	2

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.11Q		PDI-UT-10	PDI Generic Procedure For the Ultrasonic Examination of Dissimilar Metal Welds	G
	Work Orders		5548608, 5548699, 5555570	
	Corrective Action Documents		24-10518, 24-10519, 24-10520, 24-10521, 24-10522	
	Miscellaneous		Specific Maneuver Plan: EOC Shutdown 100% to 26.67% Unit 2 Cycle 25	0
		NLR24S050301	Excess Steam Demand and Pressurizer Thermal Stress Prevention Training	05/17/2024
		NLR24S050701	Loss of Offsite Power and Loss of Forced Circulation	10/17/2024
	Procedures	40DP-9AP10	Excess Steam Demand Technical Guideline	27
		40DP-9AP12	Loss of Offsite Power and Loss of Forced Circulation Technical Guideline	28
		40DP-9OP02	Conduct of Operations	79
		40EP-9EO01	Standard Post Trip Actions	23
		40EP-9EO02	Reactor Trip	14
		40EP-9EO05	Excessive Steam Demand	35
71111.12	Corrective Action Documents		24-10411	
	Engineering Changes	2024-00405	Update Design Documents for EC 24-10411-003	10/15/2024
		24-10411-003	Alt Detail DEC to Support the Use of an Alternate Drop Resistor Within the Process Protective Cabinet	0
	Miscellaneous		Commercial Grade Dedication Test/Inspection Results of Item #500003039	10/16/2024
			Inspection Plan for Item #500003039	10/13/2024
			MR 2.0 – Performance Monitoring Bases Document Worksheet: Reactor Protection System (SB)	0
			MR 2.0 – Performance Monitoring Bases Document Worksheet: Engineered Safety Features Actuation System (SA)	0
			System Training Manual Volume 49: Plant Protection System (PPS-SA/SB)	2
		13VTD-C628-00051	Cooper Energy Instruction Manual for KSV Turbocharged Diesel Generating Unit for Nuclear Power Plant Emergency	21

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Stand-by Service	
		24-10411-004	Commercial Grade Item Dedication Vishay Y0785250R000T9L Resistor Technical Evaluation	10/14/2024
		DWG 13-M018-00147	Control Schematic – Engine Governor Control System	20
		DWG M018-01248	ES150136 Voltage Regulator	A
		MEE-01008	Material Engineering Evaluation: Resistors, Item Type Technical Evaluation	4
		N001-1303-02483	Vishay Foil Resistors S Series Data Sheet	0
	Procedures	12DP-0MC46	Receipt Inspection	22
		12DP-0MC48	Quality Receiving Checklist Development	8
		32MT-9PE01	Cleaning, Inspection, and Testing of the Class 1E Diesel Generator	52
		36ST-9SB28	PPS Input Loop Calibrations for Parameter 13, (HI CNT PRESS) and Parameter 17, (H H CNT PRESS)	18
		70DP-0MR02	Maintenance Rule Monitoring Process	1
		73ST-9DG08	Class 1E Diesel Generator Load Rejection, 24 Hour Rated Load and Hot Start Test Train B	14
		87DP-0MC39	Commercial Grade Dedication (CGD) Process	6
	Work Orders		5544920, 5544775, 5544941, 5462268, 5536346, 5503860, 5662955	
71111.13	Corrective Action Documents		24-13060, 24-13476, 24-13592, 24-13633, 24-13642, 24-13660	
	Miscellaneous	RICT-U2-2024-02	Risk-Informed Completion Time Report for LCO 3.8.4.B.1	12/11/2024
	Procedures	02DP-9RS01	Configuration Risk Management and Risk-Informed Completion Time Programs	4
		32MT-9PK02	Temporary Jumpering of PK Battery Cell	1
		32ST-9PK02	92-Day Surveillance Test of Station Batteries	40
		40DP-9RS03	Risk Management Actions	1
		40DP-9RS05	Calculation of RMAT and RICT	0
		70DP-0RA05	Assessment and Management of Risk When Performing Maintenance in Modes 1 and 2	27
	Work Orders		5678487, 5679929	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.15	Calculations	13-MC-ZY-0527	Outside Area – Essential Spray Pond System	9
	Corrective Action Documents		24-04349, 24-04546, 24-06665, 24-12000, 23-04544, 24-11133, 24-05924	
	Miscellaneous		PVNGS Design Basis Manual – Essential Spray Pond System	24
			PVNGS – Safety Injection System	42
		03-M-SIP-001	P&I Diagram Safety Injection and Shutdown Cooling System	59
		03-M-SIP-002	P&I Diagram Safety Injection and Shutdown Cooling System	40
		13-SP-030-H-007	Spray Pond Pipe Support Assembly	3
		13-SP-030-H-008	Spray Pond Pipe Support Assembly	2
		VTD-I075-00012	INGERSOLL-RAND INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS FOR 8X23WDF CONTAINMENT SPRAY PUMPS	6
	Procedures	32MT-9ZZ74	Molded Case Circuit Breaker Test	54
		37DP-9ZZ05	Vibration Survey Review	4
		37MT-9ZZ01	Vibration Survey	16
		73DP-9ZZ26	Motor Operated Valve MOV Testing with Quicklook	6
		73ST-9SI15	Containment Spray Pumps - Comprehensive Pump Test	39
		73ST-9XI13	Train A HPSI Injection and Miscellaneous SI Valves	40
		73TI-9XI01	Vibration Data Collection for Surveillance Tests	26
	Work Orders		5670922, 5405200, 5550966	
71111.20	Corrective Action Documents		24-08414, 24-10090, 24-10727, 24-10068, 24-10169, 24-10171, 24-10941, 24-10956, 24-11157, 24-11259, 24-11260, 24-11293, 24-11626, 24-11721, 24-11722, 24-11723, 24-11726, 24-11730, 24-11731, 24-11734, 24-11735, 24-11737, 24-11746, 24-11757, 24-11774, 24-11777, 24-11784, 24-11786, 24-11787, 24-11788, 24-11790, 24-11796, 24-11797, 24-11800, 24-11804, 24-11811, 24-11813, 24-11825, 24-11831, 24-11836, 24-11846, 24-11847, 24-11854, 24-11864, 24-11903, 24-12001, 24-12009, 24-12013, 24-12025, 24-12027, 24-12044, 24-12057, 24-12080, 24-12173, 24-12247, 24-12275, 24-12285, 24-12290, 24-12337, 24-12353, 24-12611, 24-12618, 24-12660	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Miscellaneous		Specific Maneuver Plan: EOC Shutdown 100% to 26.67% Unit 2 Cycle 25	0
			Unit Two 25th Refueling Outage Shutdown Risk Assessment Final Report	0
			Startup Rate Prediction - Unit 2 Cycle 26	11/01/2024
	Procedures	01DP-0AP17	Managing Personnel Fatigue	12
		05DP-0NF25	Fuel Integrity Program Implementing Components	8
		31MT-9AZ05	Open/Close the Containment Equipment Access Hatch and Missile Shield Doors	43
		40DP-9AP19	Lower Mode Functional Recovery Technical Guideline	17
		40DP-9RS02	Shutdown Risk Management	8
		40OP-9PC01	Fuel Pool Cooling	16
		40OP-9PC05	Augmentation of Fuel Pool Cooling with Shutdown Cooling	39
		40OP-9SI01	Shutdown Cooling Initiation	59
		40OP-9ZZ02	Initial Reactor Startup Following Refuelings	64
		40OP-9ZZ11	MODE change checklist	107
		40OP-9ZZ23	Outage GOP	91
		40OP-9ZZ26	Tracking Containment Penetrations	29
		40ST-9RC01	RCS and Pressurizer Heatup and Cooldown Rates	21
		40ST-9RC03	RCS Loop/SDC Train Weekly Breaker Alignment and Power Availability Surveillance in MODEs 3, 4, 5, and 6	7
		40ST-9ZZ09	Containment Cleanliness Inspection	27
		70DP-0RA01	Shutdown Risk Assessments	65
		72IC-9RX03	Core Reloading	60
		72OP-9RX01	Calculation of Estimated Critical Condition	40
		72ST-9RX14	Shutdown Margin – Modes 3, 4, and 5	23
		78OP-9FX01	Refueling Machine Operations	67
		78TI-9RX01	Spent Fuel Inspection	18
71111.24	Calculations	02-EC-MA-0221	AC Distribution	16
		13-EC-PB-0202	4160 V Degraded Voltage Relay (DVR) and Loss of Voltage Relay (LoVR) Setpoint & Calibration Calculation	5
		13-MC-AF-0309	AF Hydraulic Calculation for Q-Trains	10
		EW 4464093	Evaluate the AF Pump Discharge Piping System for Effects	10/10/2013

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			of a Metal Temperature of 131 deg F	
	Corrective Action Documents		21-11923, 21-11924, 23-06164, 24-10659, 24-10660, 24-10684, 24-11535, 24-11849, 24-10792, 24-12111, CRDR 116301, CRAI 90882, 24-12551, 24-11362, 24-13633	
	Drawings	02-E-SFB-0001	Elementary Diagram Reactor Control System CEDM M-G Sets 2J-SFN-C02A and 2J-SFN-C02B	1
		02-J-RCE-0A7	Instrument Loop Wiring Diagram Reactor Coolant System	10
		02-M-CHP-001	P & I Diagram Chemical and Volume Control System	40
		DWG 13-N001-1303-00926	Plant Protection System Schematic Bistable Comp card	6
		DWG E-SYS80-411	Plant Protection System Simplified Functional Diagram	2
	Engineering Changes	2006-00346	Add the GE Letter on Magne-blast Breaker Driving PAWL Adjustment to VTD-G080-00409, 00464, 00259. Add Fues Resistance Values in VTD-G080-00261.	09/05/2006
	Miscellaneous		Design Basis Manual – Auxiliary Feedwater System	27
		13VTD-C628-00051	Cooper Energy Instruction Manual for KSV Turbocharged Diesel Generating Unit for Nuclear Power Plant Emergency Stand-by Service	21
		DWG 02-E-PHA-006	Single Line Diagram 480V Class 1E Power System Motor Control Center 2E-PHB-M36,	22
		DWG 02-E-SIF-006	Control Wiring Diagram Safety Injection & Shutdown Cooling Sys Safety Injection Tank Iso Valve 2J-SIB-UV-624	3
		JN1017-A00022	MG Set Design Verification Test PTVS Unit 2	0
		RICT-U2-2024-02	Risk-Informed Completion Time Report for LCO 3.8.4.B.1	12/11/2024
		VTD-E-146-00004	ABB ELECTRO-MECHANICS, INC. OPERATION AND MAINTENANCE INSTRUCTION FOR PLANT PROTECTION SYSTEM	8
	Procedures	01DP-0RS03	Surveillance Test Interval Control	26
		30DP-9WP04	Post-Maintenance Testing Development	20
		31MT-9SI03	Containment Spray Pump Disassembly and Assembly	27
		32MT-9PE01	Cleaning, Inspection, and Testing of the Class 1E Diesel Generator	52
		32MT-9PK02	Temporary Jumpering of PK Battery Cell	1

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		32ST-9PK02	92-Day Surveillance Test of Station Batteries	40
		32ST-9ZZ03	Surveillance Test Procedure for Class 1E 4160 Volt Bus Undervoltage Protective Relays	25
		32ST-9ZZ74	Molded Case Circuit Breaker Surveillance Test	50
		36ST-9SA02	ESFAS Train B Subgroup Relay Functional Test	49
		36ST-9SA04	ESFAS Train B Subgroup Relay Shutdown Functional Test	29
		36ST-9SB02	PPS Bistable Trip Units Functional Test	52
		36ST-9SB42	Plant Protection System Bistable and Bistable Relay Response Time Test	39
		40OP-9SA01	BOP ESFAS Module Operation	34
		40OP-9SF03	CEDM MG Sets Operation	22
		73DP-9XI01	Pump and Valve Inservice Testing Program	44
		73ST-9CL01	Containment Leakage Type B and C Testing	53
		73ST-9DG02	Class 1E Diesel Generator and Integrated Safeguards Test Train B	34
		73ST-9DG08	Class 1E Diesel Generator Load Rejection, 24 Hour Rated Load and Hot Start Test Train B	14
		73ST-9SI15	Containment Spray Pumps – Comprehensive Test	39
		73ST-9XI05	AF Valves – Inservice Test	35
71114.06	Work Orders		5540863, 5533131, 5540842, 5540884, 5633702, 5546533, 5540879, 5550038, 5544920, 5462268, 5618379, 5363807, 5257972, 5405201, 5540884, 5547913, 5567620, 5540888, 5678487, 5679929	
	Corrective Action Documents		24-09680	
	Miscellaneous		2405 Emergency Preparedness - September 4, 2024, Exercise Report	10/22/2024
	Procedures	16DP-0EP23	Emergency Preparedness Drill and Exercise Program Management	19
		EP-0900-010	ERO Positions – Emergency Coordinator (STSC)	3
		EP-0901	Classifications	17
		EP-0902	Notifications	28
71124.01	ALARA Plans	1-3502-R24 00 01	Valve, Flange and Pump Maintenance - ALARA Post-Job Review	02/08/2024

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2-3002-R24_00	Reactor Destack and Restack - ALARA In-Progress Review and ALARA Post-Job Review	08/12/2023
		2-3502-R24 0	Valve, Flange and Pump Maintenance - ALARA Post-Job Review	08/08/2023
		3-3002-R24_00	Reactor Destack and Restack - ALARA In-Progress Review and ALARA Post-Job Review	09/06/2024
		3-3306-R24_00	SG Primary Side Maintenance - ALARA In-Progress Review, and Post Job Review	08/21/2024
		3-3502-R24_00 & _01	Valve, Flange and Pump Maintenance - ALARA Post-Job Review	08/21/2024
	Corrective Action Documents		24-02050, 24-11601, 24-11583, 23-09137, 24-00553, 24-04022, 24-04405, 24-09032, 23-07338, 23-07340, 23-07525, 23-07749, 23-08377, 23-12688	
	Corrective Action Documents Resulting from Inspection		24-11546, 24-10145, 24-10148	
	Procedures	75DP-0RP01	RP Program Overview	13
		75RP-0RP01	Radiological Posting and Labeling	37
		75RP-9OP02	Control of High Radiation Areas, Locked High Radiation Areas, and Very High Radiation Areas	34
		75RP-9RP02	Radiation Work Permits	32
		75RP-9RP07	Radiation and Contamination Surveys	33
		75RP-9RP08	Radiological Air Sampling	4
		75RP-9RP29	Radiological Job Coverage	14
	Radiation Surveys	2-M-20241006-6	114' Rx Cavity Seal Table Significant Evolution for In-Core	10/06/2024
		2-M-20241008-3	114' Rx Cavity/ posting change	10/08/2024
		2-M-20241009-25	New MST (Multi-Stud Tensioner) testing	10/09/2024
		2-M-20241009-5	Rx Head Insulation Removal Verification	10/09/2024
		2-M-20241010-11	Top of UGS (Upper Guide Structure)	10/10/2024
		2-M-20241013-14	U2R25 Top of Reactor Head Dose Rate Only	10/13/2024
		2-M-20241014-12	Rx head stud hole after removing MST	10/14/2024
		2-M-20241014-13	U2R25 Transfer Gaps	10.14/2024
		2-M-20241020-12	R101-High Level Storage Area	10/20/2024

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Radiation Work Permits (RWPs)	2-M-20241021-16	A232 - Filter Access Gallery	10/21/2024
		2-M-20241023-14	LHRA Entry for filter offload into HICS	10/23/2024
		2-3002-R25	Reactor Destack and Restack	0
		2-3006-R25	Medium Risk - In-Core Instrumentation (ICI) and Heated Junction Thermal Couple (HTJC) Maintenance	0
		2-3412-R25	Pressurizer (PZR) Heater Cut Out and Replacement	0
		2-3501-R25	RP Tours, Inspections and Routine Surveys	0
		2-3518-R25	High Risk - Minor Maintenance in the 120' / 127' Regenerative Heat Exchanger Cubicle	0
		9-1006	Filter Change Out / Transport / Storage / Packaging	4
		9-1031	Radiation Protection Manager Approved Containment Entries At Power in Modes 1 & 2	0
71124.03	Corrective Action Documents		24-09961, 24-09494, 24-07921, 24-07679, 24-06452, 24-05172, 24-04584, 24-04248, 24-02431	
	Corrective Action Documents Resulting from Inspection		24-11281, 24-11568, 24-11560, 24-11674	
	Drawings	01-M-HJP-001	Control Building HVAC P&ID	27
		01-M-HJP-002	Control Building HVAC P&ID	18
		AD-A-ZDY-196	Technical Support Center HVAC	10
	Miscellaneous	230822090-01	Compressed Air/Gas Quality Testing	08/22/2023
		240228083-00	Compressed Air/Gas Quality Testing	02/29/2024
		240903027-01	Compressed Air/Gas Quality Testing	09/03/2024
	Procedures	01DP-0IS21	Palo Verde Industrial Health and Safety	7
		33ST-9HJ02	Surveillance Testing of the Control Room Nuclear Air Treatment System	22
		33TI-9ZY03	NATS Testing - TSC	9
		74RM-9EF40	Radiation Monitoring Systems Operations	13
		74ST-9SQ21	Radiation Monitoring Calibration Test for Baseline Process Monitors	23
		75RP-9RP07	Radiation and Contamination Surveys	33
		75RP-9RP08	Radiological Air Sampling	4

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders	WO#5268636	Technical Support Center NATS	01/19/2022
		WO#5350006	Unit-1 Train-B Control Room Intake Air Monitor (RU-30)	04/18/2023
		WO#5365428	Unit-2 Train-B Control Room Intake Air Monitor (RU-30)	11/15/2022
		WO#5369065	HEPA Test, Unit-3 Control Room HVAC	12/01/2022
		WO#5397633	HEPA Test, Unit-3 Control Room HVAC	03/07/2023
		WO#5400077	Unit-2 Control Room Essential Air Filtering Unit-A	03/28/2023
		WO#5421250	Technical Support Center NATS	09/28/2023
		WO#5468444	TSC Vent Radiation Monitor (RU-13A)	11/29/2023
		WO#5510848	HEPA Test, Unit-3 Control Room HVAC	07/09/2024
		WO#5517502	Unit-3 Train-B Control Room Intake Air Monitor (RU-30)	06/24/2024
		WO#5540561	Unit-1 Control Room Essential Air Filtering Unit-A	09/03/2024
71151	Corrective Action Documents		24-01358, 24-01894	
	Miscellaneous		Units 1, 2, and 3 PI RCS Leakage Data 10/2023-9/2024	11/15/2024
			Units 1, 2, and 3 NRC PI RCS Activity Data 10/2023-9/2024	11/15/2024
			Unit 1 PI Summary Report for OR01 and PR01	09/18/2024
			Unit 2 PI Summary Report for OR01 and PR01	09/18/2024
			Unit 3 PI Summary Report for OR01 and PR01	09/18/2024
		2023 ARERR	2023 Annual Radioactive Effluent Release Report	04/17/2024
		202408	Radiation Protection Indicator Analysis Detail	09/11/2024
	Procedures	40DP-9LC01	Performance Indicator – Barrier Integrity Cornerstone: RCS Leak Rate	4
		74DP-0LC01	RCS Activity Performance Indicator	8
		74ST-9RC02	Reactor Coolant System Specific Activity Surveillance Test	17
		75RP-0LC01	Performance Indicator Occupational Radiation Safety Cornerstone	5
		75RP-0LC02	Performance Indicator Public Radiation Safety Cornerstone	5
		93DP-0LC09	NRC ROP PI Data Collection, Verification and Submittal	12
	Work Orders		5487583, 5496303, 5524189	
71152A	Corrective Action Documents		23-06802, 24-01963, 24-08552, 24-09241, 24-12985, 16-02625, 24-10633, 24-10825, 24-10873, 24-10876, 24-10904, 24-11072, 24-11093, 24-11411, 24-12065, 24-12093, 24-11072, 24-12825, 24-10873	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Miscellaneous		EN #56958, Part 21 – Interim Report for Oil Filled Capacitors	02/09/2024
			Part 21 NRC Event 56958 PVGS Applicability Review	02/29/2024
			Adverse Condition Monitoring Plan for RCP [1B] Common Trouble for Motor Lower Oil Reservoir Oil Level Low	0
			Adverse Condition Monitoring Plan for RCP [1B] Common Trouble for Motor Lower Oil Reservoir Oil Level Low	1
			Adverse Condition Monitoring Plan for RCP [2B] Common Trouble for Motor Lower Oil Reservoir Oil Level Low	0
			Adverse Condition Monitoring Plan for RCP [2B] Common Trouble for Motor Lower Oil Reservoir Oil Level Low	1
	Procedures	01DP-0AP12	Condition Reporting Process	48
		01DP-0ZZ01	Operational Decision Making	8
		65DP-0QQ01	Industry Operating Experience Review	45
		93DP-0LC18	Part 21 Reporting Process	4
	Work Orders		5545666, 5664048	
71152S	Corrective Action Documents		24-03776, 24-03451, 24-12989, 24-08924, 24-03534, 24-03737, 24-03817, 24-03856, 24-06221, 24-04580	
	Miscellaneous		Appendix B DP 14 – Operator Fundamental Critique	04/07/2024
	Procedures	01DP-0AP12	Condition Reporting Process	48
		01DP-0AP59-06	Human Performance Event Evaluation	5
		40DP-9OP02	Conduct of Operations	79
		40DP-9OP38	Operations Technical Documents	18
		40OP-9DG02	Emergency Diesel Generator B	81
		40OP-9SA02	De-energization of BOP ESFAS	26
		40ST-9ZZ24	Boron Dilution Alarm System Inoperable	17
		74DP-9CY10	Conduct of Chemistry	15
		74OP-9SS01	Primary Sampling Instructions	57