UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

August 01, 2023

Robert Schuetz
Chief Executive Officer
Energy Northwest
MD 1023
P.O. Box 968
Richland, WA 99352

SUBJECT: COLUMBIA GENERATING STATION – INTEGRATED INSPECTION REPORT 05000397/2023002

Dear Robert Schuetz:

On June 30, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Columbia Generating Station. On July 13, 2023, the NRC inspectors discussed the results of this inspection with W. Grover Hettel, Executive Vice President/Chief Nuclear Officer, and other members of your staff. The results of this inspection are documented in the enclosed report.

Three findings of very low safety significance (Green) are documented in this report. All three findings involved violations of NRC requirements. We are treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

A licensee-identified violation which was determined to be of very low safety significance is documented in this report. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or the significance or severity of the violations documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement; and the NRC Resident Inspector at Columbia Generating Station.

If you disagree with a cross-cutting aspect assignment 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 IV; and the NRC Resident Inspector at Columbia Generating Station.

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 Vossmar, Patricia
on 08/01/23

Patricia J. Vossmar, Chief
Reactor Projects Branch A
Division of Operating Reactor Safety

Docket No. 05000397
License No. NPF-21

Enclosure:
As stated

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COLUMBIA GENERATING STATION – INTEGRATED INSPECTION REPORT
05000397/2023002 DATED AUGUST 01, 2023.

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000397
License Number:	NPF-21
Report Number:	05000397/2023002
Enterprise Identifier:	I-2023-002-0002
Licensee:	Energy Northwest
Facility:	Columbia Generating Station
Location:	Richland, WA
Inspection Dates:	March 1, 2023, to June 30, 2023
Inspectors:	P. Niebaum, Senior Resident Inspector A. Donley, Resident Inspector D. Antonangeli, Health Physicist J. Drake, Senior Reactor Inspector N. Greene, Senior Health Physicist S. Lichvar, Resident Inspector
Approved By:	Patricia J. Vossmar, Chief Reactor Projects Branch A 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 Columbia 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. A licensee-identified non-cited violation is documented in report section: 71111.20.

List of Findings and Violations

Failure to Perform Pressure Testing of Standby Liquid Control System			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000397/2023002-01 Open/Closed	[P.2] - Evaluation	71111.08G
The inspectors identified a Green, non-cited violation of 10 CFR 50.55a(g)(4) involving the licensee's failure to restore compliance with 10 CFR 50.55a(g)(4) in a timely manner. Specifically, from December 13, 2022, until May 5, 2023, the licensee failed to perform pressure testing of the standby liquid control system as required by ASME Section XI Table IWC-2500-1, Category B-P and Table IWC-2500-1, Category C-H and Article IWC-5000, "System Pressure Tests" during the second inservice inspection (ISI) period and failed to restore ASME Code compliance in a timely manner.			

Failure to Follow Procedures in Performing Internal Dose Assessments			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000397/2023002-02 Open/Closed	[H.1] - Resources	71124.01
The inspectors identified a Green, non-cited violation of technical specifications 5.4.1.a for failure to follow procedures to perform internal dose assessments. Specifically, on the week of May 14, 2023, the inspectors observed four pipefitters exiting the radiologically controlled area unable to initially pass the personnel exit monitors due to unintended contamination and internal uptakes. The licensee failed to properly evaluate the internal doses associated with these uptakes and assigned no committed effective dose equivalent (CEDE) to the pipefitters.			

Failure to Follow Procedure for Proper Storage of SCBA Respirator Facepieces			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000397/2023002-03 Open/Closed	[P.2] - Evaluation	71124.03
The inspectors identified a Green, non-cited violation of technical specifications 5.4.1.a for failure to follow procedure GEN-RPP-05, "Respiratory Protection Program Description," for proper storage of the self-contained breathing apparatus (SCBA) respirator facepieces. Specifically, on the week of May 14, 2023, the inspectors walked down these SCBA facepieces that were staged for use and found them improperly stored within the control room, turbine building fire brigade turnout station, and building 66.			

Additional Tracking Items

None.

PLANT STATUS

Columbia Generating Station (CGS) began the inspection period at approximately 89 percent rated thermal power (RTP) due to an issue with the 'A' adjustable speed drive (ASD). On April 3, 2023, power was raised to approximately 100 percent following repairs. On April 18, 2023, the 'A' ASD experienced a failure and trip of the 'A' reactor recirculation pump, which resulted in a down power to approximately 42 percent RTP. The 'B' reactor recirculation pump remained in service in single loop operation until April 21, 2023. After the 'A' ASD system was recovered following repairs, CGS achieved approximately 90 percent RTP on April 23, 2023. In preparation for a refueling outage, CGS coasted down to approximately 83 percent RTP until May 4, 2023. On May 5, 2023, reactor power was lowered to approximately 68 percent to remove a portion of the 'A' ASD system from service, and then the plant was taken offline and shutdown to begin the planned refueling outage. The plant was restarted and the main generator was synchronized to the electrical grid on June 19, 2023. On June 23, 2023, 100 percent RTP was achieved. On June 24, 2023, power was lowered to 85 percent for a rod set and then returned to 100 percent RTP where it remained until the end 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

71111.04 - 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) residual heat removal system B in shutdown cooling mode during a refueling outage on June 2, 2023

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (5 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 RC-1/2, waste tank area, on April 19, 2023
(2) Fire Area RC-19/2, vital island corridor, on April 19, 2023
(3) Fire Area RC-2/1, 13/2, cable spreading room, on April 19, 2023
(4) Fire Area R1-E471, reactor building equipment area, on April 20, 2023
(5) Fire Area TG-1-E441, equipment area, on April 20, 2023

71111.06 - Flood Protection Measures

Flooding Sample (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated internal flooding mitigation protections in the low pressure core spray pump room on June 5, 2023.

71111.07A - Heat Exchanger/Sink Performance

Annual Review (IP Section 03.01) (1 Sample)

(1) The inspectors evaluated readiness and performance of the residual heat removal exchanger 1B on June 9, 2023.

71111.08G - Inservice Inspection Activities (BWR)

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

The inspectors evaluated boiling water reactor non-destructive testing by reviewing the following activities from May 15, 2023, to May 18, 2023:

(1) 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:

03.01.a - Nondestructive Examination and Welding Activities

- Ultrasonic examination, fire protection system, FP-V-32B, 2.0 inch schedule 80 piping upstream of FP-V-V32B
- Dye penetrant examination, reactor water cleanup system, RWCU Pre-Fab 6" SCH80 Large Bore Piping Weld, Pipe to Valve
- Magnetic particle examination, residual heat removal, AS-2, Heat Exchanger Upper Support Weld on RHR-HX-1A
- Magnetic particle examination, reactor water cleanup, weld XI-26A, return to reactor feedwater piping
- Magnetic particle examination, residual heat removal, RHR-HX-1A support
- Magnetic particle examination, service water, weld FW-22C1, FW23C1, FW-28
- Visual Test-1, Jet Pump 17-RS-9C weld
- Visual Test-1, feedwater sparger, weld FS2
- Reviewed weld package for repair of leak near SW-RO-11B

71111.11Q - Licensed Operator Requalification 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 control room during a power reduction before recirculation pump 1A restart on April 28, 2023.

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

(1) The inspectors observed and evaluated just-in-time-training in the simulator and classroom for a plant shutdown, cooldown, and reactor cavity fill April 25 through April 27, 2023.

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) as-found testing methodology of the main steam isolation valves during refueling outage (RFO) R26
(2) service water pressure control valve 15A, SW-PCV-15A, did not fully open during inservice testing on April 3, 2023

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (2 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) Yellow risk for residual heat removal system B planned maintenance on April 26, 2023
(2) Yellow risk during refueling outage (sufficient defense in depth), residual heat removal system A and diesel generator 1 while unavailable on May 10, 2023

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) CR 443569, standby liquid control pumps 1A and 1B preconditioned during surveillance testing on April 12, 2023

(2) CR 443698, instrument found out of tolerance during performance of ISP-MS-Q943, Division 2 Channel D Isolation Actuation on Reactor Level 1 and Level 2 Channel Functional Test, on April 17, 2023
(3) CR 445176, residual heat removal valve motor operator (RHR-MO-6B) suspect torque and thrust values, completed on June 1, 2023
(4) CR 445332, low oil level in lower motor bearing reservoir for residual heat removal pump A, completed on June 1, 2023
(5) CR 446198, SGT-FN-1B2, standby gas treatment fan 1B air flow cycling, completed on June 26, 2023

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

(1) EC 19774, installed jumper for bypassing the E-MO-DISC/B, disconnect switch on the B phase of the 500 kV line to support back feed during RFO 26

71111.20 - Refueling and Other Outage Activities

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

(1) The inspectors evaluated RFO 26 activities from May 5, 2023, to June 19, 2023.

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) (5 Samples)

(1) OSP-CCH/IST-M701, Control Room Emergency Chiller System A Operability, following repairs to SW-PCV-15A on April 16, 2023
(2) WO 02189490, source range monitor channel D functional test, on May 9, 2023
(3) WO 02148075, low pressure core spray relief valve 18 replacement, on May 16, 2023
(4) WO 02191441, service water motor operator 12A full post-maintenance test, on May 19, 2023
(5) WO 02194914, residual heat removal valve 27B seat leakage repair, on June 2, 2023

Surveillance Testing (IP Section 03.01) (4 Samples)

(1) OSP-SLC/IST-Q701, Standby Liquid Control Pumps Operability Test, on April 12, 2023
(2) ISP-RCIC-Q901, reactor core isolation cooling (RCIC) Isolation on RCIC Steam Supply Flow High Division 1 - CFT/CC, on April 13, 2023
(3) OSP-MS/IST-Q701, Main Steam Isolation Valve (MSIV) Closure Test - Shutdown, on May 6, 2023
(4) TSP-DG2/LOCA-B501, Standby Diesel Generator DG2 LOCA Test, on May 31, 2023

Inservice Testing (IST) (IP Section 03.01) (1 Sample)

(1) OSP-HPCS/IST-Q701, high pressure core spray (HPCS) System Operability Test, on April 28, 2023

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

(1) TSP-MSIV-B801, Main Steam Isolation Valve Leak Rate Testing, on May 12, 2023

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

(1) The inspectors evaluated an emergency preparedness drill on April 18, 2023.

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) (3 Samples)

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

(1) licensee surveys of potentially contaminated material leaving the radiologically controlled area (RCA)
(2) workers exiting the RCA at Unit 1 during RFO 26
(3) workers exiting the wetwell and drywell access points during RFO 26

Radiological Hazards Control and Work Coverage (IP Section 03.04) (4 Samples)

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

(1) RWP 30004931, movement of control rod drive mechanism (CRDMs) in the drywell
(2) RWP 30004966, valve work in the drywell
(3) RWP 30004973, diving work in the wetwell
(4) storage of radioactive materials inside of the Radwaste Building

High Radiation Area and Very High Radiation Area Controls (IP Section 03.05) (5 Samples)

The inspectors evaluated licensee controls of the following High Radiation Areas and Very High Radiation Areas:

(1) door R-404, flex water makeup connection, RHR-V-63C
(2) door R-406, RWCU-P-1B
(3) door R-405, RWCU-P-1A
(4) south valve room on 467-foot Radwaste Building
(5) door C-111 and high rad trash on 437-foot 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) (1 Sample)

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

(1) control room emergency ventilation filter system, division 1 and 2

Temporary Ventilation Systems (IP Section 03.02) (1 Sample)

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

(1) high efficiency particle (HEPA) filter set up for main steam line isolation valve C decontamination work

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

(1) The inspectors evaluated the licensee’s use of respiratory protection devices.

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.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (1 Sample)

(1) April 1, 2022, through March 31, 2023

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

(1) April 1, 2022, through March 31, 2023

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) April 1, 2022, through March 31, 2023

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (1 Sample)

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

(1) The inspectors reviewed the licensee's implementation of its corrective action program related to CR 441036, descoping residual heat removal valves 27A and 27B from appendix J scope, on May 16, 2023.

71152S - Semiannual Trend Problem Identification and Resolution

Semiannual Trend Review (Section 03.02) (1 Sample)

(1) The inspectors reviewed the licensee's corrective action program for potential adverse trends associated with following posted signage within the plant that might be indicative of a more significant safety issue. One observation was documented in the results section of this report.

INSPECTION RESULTS

Failure to Perform Pressure Testing of Standby Liquid Control System			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000397/2023002-01 Open/Closed	[P.2] - Evaluation	71111.08G
The inspectors identified a Green, non-cited violation of 10 CFR 50.55a(g)(4) involving the licensee's failure to restore compliance with 10 CFR 50.55a(g)(4) in a timely manner. Specifically, from December 13, 2022, until May 5, 2023, the licensee failed to perform pressure testing of the standby liquid control system as required by ASME Section XI Table IWC-2500-1, Category B-P and Table IWC-2500-1, Category C-H and Article IWC-5000, "System Pressure Tests" during the second ISI period and failed to restore ASME Code compliance in a timely manner.			
Description: During an inservice inspection program review, the inspectors noted that the licensee had identified that they had not performed system leakage tests of the standby liquid control system during the 2021 refueling outage. The inspectors identified that the licensee			

had failed to restore compliance in a timely manner as required by 10 CFR 50.55a(g)(4). Article IWC-5000, “System Pressure Tests,” of Section XI of the ASME Code requires that all pressure retaining components be pressure tested via a system leakage test per IWC-5220, “System Leakage Test.” The licensee is required by 10 CFR 50.55a(g)(4) to comply with the requirements imposed by Section XI of the ASME Code or request exemption from the requirement via a relief request. The corrective actions performed were a review of the ISI program and modifying the preventive maintenance identification program (PMID) to consistently meet ASME Section XI requirements. However, the licensee failed to submit a relief request to restore compliance with ASME Code going forward until the plant conditions needed to perform surveillance could be established. The licensee entered this issue into the corrective action program.

Corrective Actions: The licensee entered this issue into the corrective action program. The corrective actions performed were a review of the ISI program and modification of the PMID to consistently meet ASME Section XI requirements. Compliance with 10CFR 50.55a(g)(4) was restored when the unit was shut down for the refueling outage.

Corrective Action References: 428932, 445323

Performance Assessment:

Performance Deficiency: The inspectors determined that the licensee’s failure to restore compliance with 10 CFR 50.55a(g)(4) in a timely manner for failure to perform a system leakage test of the standby liquid control system was a performance deficiency.

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.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” In accordance with Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” dated June 19, 2012, Exhibit 2, “Mitigating Events Screening Questions” for the Reactor Protection System (RPS), the finding was determined to be of very low safety significance (Green) because it did not affect a single RPS trip signal to initiate a reactor scram AND the function of other redundant trips or diverse methods of reactor shutdown.

Cross-Cutting Aspect: P.2 - Evaluation: The organization thoroughly evaluates issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. The finding has a problem identification and resolution cross-cutting aspect associated with evaluation. Although the licensee identified that they had failed to perform pressure testing on the standby liquid control system, they failed to thoroughly evaluate the issue to ensure that their resolution addressed ASME Code requirements and restored compliance with federal regulations because they failed to identify the need to obtain a relief request at the end of the period on December 12, 2022.

Enforcement:

Violation: Title 10 CFR 50.55a(g)(4) requires that components classified as ASME Code Class 1, Class 2, and Class 3 meet the requirements set forth in Section XI of the applicable

editions of the ASME Boiler and Pressure Vessel Code, and Addenda. ASME Section XI Table IWB-2500-1, Category B-P and Table IWC-2500-1, Category C-H requires pressure testing of the Class 2 pressure boundary piping. The licensee established surveillance procedure TSP-SLC/ISI-R801 for completing the pressure test of the standby liquid control system. Contrary to 10 CFR 50.55a(g)(4) requirements, from December 13, 2022, until May 5, 2023, the licensee failed to complete pressure testing for the standby liquid control system Class 2 pressure boundary piping during the second ISI period as required per ASME Section XI Table IWB-2500-1, Category B-P and Table IWC-2500-1, Category C-H. The licensee was not in compliance with 10 CFR 50.55a(g)(4) because they had failed to perform the required system leakage test, shutdown the plant, or submit a relief request to the NRC.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Licensee-Identified Non-Cited Violation	71111.20

This violation of very low safety significance was identified by the licensee and has been entered into the licensee corrective action program and is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Violation: Title 10 CFR 26.4(a) states in part that "All persons who are granted unescorted access to nuclear power reactor protected areas by the licensees in § 26.3(a) … and perform the following duties shall be subject to a [fitness for duty] program..." Further, 10 CFR 26.205 states, in part, that "individuals who perform duties identified in § 26.4(a)(1) through (a)(5) shall be subject to the requirements of 10 CFR 26, Subpart I, and that licensees shall calculate, schedule, and control the work hours of individuals who are subject to that section." Additionally, 10 CFR 26.207 (a) states that “licensees may grant a waiver of one or more of the work hour controls in 26.205(d)(1) through (d)(5)(i) and (d)(7)….”

Contrary to the above, on May 17, 2023, and June 16, 2023, the licensee failed to grant waivers when one or more of the work hour controls in 26.205(d)(1) through (d)(5)(i) and (d)(7) were violated. Specifically, four individuals from various departments violated work schedule requirements due to being held over past their scheduled end of shift, and senior leaders did not initiate a waiver request within 4 hours of exceeding work hour schedules as required by licensee procedure SWP-FFD-04, “Work Hour Controls,” Revision 010. These individuals worked greater than 72 hours in a 7-day period. The licensee identified the issue, entered it into their corrective action program, and adjusted the work schedule for the individuals to restore compliance.

Significance/Severity: Green. Using Inspection Manual Chapter 0609, Attachment 04, “Initial Characterization of Findings,” and Inspection Manual Chapter 0609, Appendix G, Attachment 1, “Shutdown Operations Significance Determination Process Phase 1 Initial Screening and Characterization of Findings,” the inspectors determined that the finding was of very low safety significance (Green) because the finding did not cause any known effects to plant safety caused by worker fatigue.

Corrective Action References: 445326, 447420, 447511

Failure to Follow Procedures in Performing Internal Dose Assessments			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000397/2023002-02 Open/Closed	[H.1] - Resources	71124.01

The inspectors identified a Green, non-cited violation of technical specifications (TS) 5.4.1.a for failure to follow procedures to perform internal dose assessments. Specifically, on the week of May 14, 2023, the inspectors observed four pipefitters exiting the radiologically controlled area unable to initially pass the personnel exit monitors due to unintended contamination and internal uptakes. The licensee failed to properly evaluate the internal doses associated with these uptakes and assigned no committed effective dose equivalent (CEDE) to the pipefitters.

Description: On May 17, 2023, during Refuel Outage 26, four pipefitters were working in the auxiliary steam tunnel of RFW-V-65A and received “perceived uptakes” of radioactive materials during the job. The pipefitters were working on a RWP 30004994 to disassemble the pressure seal ring, thrust ring, and retaining plate. The job was cut short due to a site stand down meeting that was required to be attended by all workers on site. As a result, all workers evacuated the radiologically controlled area (RCA). The pipefitters had begun disassembly of the valve and were working to remove the valve bonnet, prior to full breach of the system. As everyone exited the RCA, inspectors observed in live time, the four pipefitters unable to pass the personnel contamination monitors (PCMs) and gamma exit monitors (GEM-5) due to contamination. This occurred around 11:05 AM. The licensee later determined that these individuals were subject to contamination because they “essentially needed to hug the valve” during the removal and assembly process due to the tight workspace.

As these individuals were consistently monitored, at least five consecutive times, they were finally taken for showers, and one pipefitter shaved all facial hair, and eventually was taken for a whole body count (WBC). As inspectors observed, the PCMs were displaying contamination in the facial zones, but per NRC’s observations, the pipefitters were not being routinely frisked for facial contamination at the RCA egress point by the radiation protection (RP) technicians on duty.

After multiple unsuccessful attempts to pass the monitors, all but three of the pipefitters eventually passed, but one could not. This individual was finally taken for a WBC and initially showed approximately 81 nCi of Co-60 activity, as observed by the NRC inspectors. About an hour later, RP determined they would also need to count the other three pipefitters associated with the event. All three individuals showed positive counts of Co-60 activity. On day 2, post this event, the WBC equipment on site was not operable, and thus, these four individuals were sent offsite for an additional WBC at a vendor site. These were the only two WBCs performed on the pipefitters.

On May 25, 2023, the licensee uploaded internal dose assessment data for each of the four pipefitters. The assessments noted that no individual would be assigned any dose based on the data evaluated. The committed effective dose equivalent (CEDE) values assessed for each of the four pipefitters were noted as: 20.5 mrem inhalation (NRC determined this value should have been 23.7 mrem) and 0.7 mrem ingestion; 20.5 mrem inhalation and 0.6 mrem ingestion; 12.5 mrem inhalation and 0.4 mrem ingestion; and 20.5 mrem inhalation (NRC

determined this value should have been 16.8 mrem) and 0.5 mrem ingestion. These values were based on a total of two WBCs, one onsite and one at the vendor site.

During a call with the NRC on June 20, 2023, the licensee expressed that they determined the contamination was external because the activity dropped off significantly on day 2 with the WBCs performed at the vendor site (e.g., 69.4 nCi to 14.1 nCi of Co-60 for one of the pipefitters). According to the licensee, this indicated there was not internal contamination because the actual activity levels were far below the expected trend of inhalation or ingestion.

The inspectors challenged this position because there were only two WBCs performed, on different WBC equipment with different sensitivities, efficiencies, count times, and default calibration geometries (*lung* at the licensee site vs. *total body* at the vendor site), and a trend should include more than two data points for an accurate internal dose assessment. This is particularly true for using different equipment for each single WBC.

The licensee informed the inspectors that although the second day measurement was not zero (0), it was below "their action level" for further assessment, and thus they counted it as external contamination. The licensee also stated that based on the second day activity identified for Co-60, it was likely the assessment would not result in a CEDE of greater than 10 mrem, thus no further evaluation was required (per section 4.1 of procedure HPI-5.9, "Evaluation of In-Vivo Bioassay Results Following a Potential Intake").

It is noteworthy that the 0.1 day post intake WBC activity for Co-60 for each pipefitter was above the 15 nCi threshold for Action Level 1 as noted in procedure PPM 11.2.4.5, "Whole Body Counts and Daily Checks Using the Renaissance Fastscan." The procedure notes this activity level is indicative of an uptake. Inspectors also noted that in order to determine if the CEDE would be below the 10 mrem threshold, an adequate fit to the inhalation or ingestion curve would need to be established to rule out this factor. Two data points do not establish this trend or a proper fit. Moreover, section 4.1 of HPI-5.9 states, in part, "If a conservative estimate indicates a CEDE LT [less than] 10 mrem, no further evaluation is required." The conservative estimate was via the inhalation pathway, which indicted greater than 10 mrem CEDE for all four pipefitters. Thus, further evaluation was required.

As noted on the "In Vivo Measurement Report," dated May 22, 2023, the amount of Co-60 activity (in nCi) detected during the WBCs for three of the four pipefitters exceeded the Co-60 decision level for the vendor site measurements and was thus flagged for further action. Additionally, all four pipefitters had detectable trace amounts of Cs-137 activity, with the highest being 1.350 nCi.

NRC inspectors reviewed PPM 11.2.4.5, section 5.4, "Internal Dose Action Levels," and determined that the licensee failed to follow their procedures. Step 5.4.1 states, "Action Level 1 (.001 ALI to 0.02 ALI or 5 mrem CEDE to 100 mrem CEDE) – Radiological Operations should **SCHEDULE** follow-up whole body counts until radioactive material deposited in body is no longer detected." Additionally, step 5.1.3 in procedure HPI-5.9, states, "Schedule a whole body count follow-up to aid in determining the elimination rate constants of the deposited radionuclide(s). If the follow-up indicates that the radionuclides detected initially are still detectable, schedule additional follow-up counts until the body burden is below Derived Action Level 1 (see PPM 11.2.4.5) or until elimination rate parameters have been adequately characterized."

At day 1 post intake, the Action Level 1 threshold is 13 nCi for Class Y inhalation of Co-60. The licensee's data showed that the day 1.012 activity for Co-60 was 14.14 nCi for one pipefitter. This would have required the licensee to schedule additional WBCs until the radioactive material deposited in the body was no longer present in the pipefitter. This was not done. The licensee only scheduled the two WBCs performed. The other three pipefitters' activity data were below the derived action level (of 13 nCi) at day 1 post intake.

Thus, the inspectors determined there was a violation of TS 5.4.1.a for the failure to follow procedures PPM 11.2.4.5 and HPI-5.9, as required.

The inspectors further determined that, in general, the internal dose assessment procedures are inadequate based on language that the dose assessment instructions are guidance, with the use of "should" perform these additional steps rather than making them requirements to do so. Also, a dose assessment should not stop because internal doses are expected to be below 10 mrem CEDE. This does not align with industry standards or good practices for internal dose assessments, which generally use a minimum of three WBC sampling points to establish a trend for assessments of exposure pathways, as aligned with NUREG/CR-4884, Tables A.7.

Corrective Actions: The licensee entered the issue into the corrective action program to determine appropriate actions, as well as reviewed their internal dose assessment procedures for enhancements. The licensee also conducted a Prompt Investigation Report for this occurrence.

Corrective Action References: 447712

Performance Assessment:

Performance Deficiency: The licensee's failure to follow procedures for performing internal dose assessments is a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. This is also similar to Example (6f) in Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports – Examples of Minor Issues," appendix E, in which a performance deficiency is more than minor if radiological conditions existed resulting in greater than 10 mrem of unplanned dose to the worker. The internal dose assessments provided show an internal dose based on the inhalation pathway as greater than 10 mrem CEDE for each of the four pipefitters (12.5 mrem, 16.8 mrem, 20.5 mrem, and 23.7 mrem, respectively). Considering these factors, NRC determined the violation as more than minor.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix C, "Occupational Radiation Safety SDP." Using IMC 0609, appendix C, the violation was determined to be of very low safety significance (Green) because: (1) it was not a finding associated with ALARA Planning or Work Controls, (2) it was not an overexposure, (3) there was no substantial potential for overexposure, and (4) the ability to assess dose was not compromised. Based on IMC 0609, appendix C, although there was insufficient data available to determine appropriate exposure pathways and trends, per NRC's review, the scenario for internal dose assessment in this case would not exceed 0.02 ALI (100 mrem). Thus, NRC assessed the compromised ability to assess dose as a "No," which would characterize this performance deficiency as having Green significance.

Cross-Cutting Aspect: H.1 - Resources: Leaders ensure that personnel, equipment, procedures, and other resources are available and adequate to support nuclear safety. Specifically, the licensee did not have adequate procedures, equipment, or personnel available to appropriately complete the internal dose assessments needed to determine and assign the CEDE values for each pipefitter. Thus, per their internal dose assessment, the licensee assigned no CEDE value to the pipefitters for these exposures.

Enforcement:

Violation: Technical Specifications 5.4.1(a) requires, in part, that written procedures shall be established, implemented, and maintained covering applicable procedures recommended in NRC Regulatory Guide 1.33, revision 2, appendix A, dated February 1978. Regulatory Guide 1.33, appendix A, section 7.e.(8) required procedures for “Bioassay Program.” The licensee established procedure PPM 11.2.4.5, "Whole Body Counts and Daily Checks Using the Renaissance Fastscan," revision 16, and HPI-5.9, "Evaluation of In-Vivo Bioassay Results Following a Potential Intake," revision 15, which establishes the licensee's program and process, in part, for performing internal dose assessments.

Procedure PPM 11.2.4.5, step 5.4.1.a, states, “Action Level 1 (.001 ALI to 0.02 ALI or 5 mrem CEDE to 100 mrem CEDE) – Radiological Operations should SCHEDULE follow-up whole body counts until radioactive material deposited in body is no longer detected.” Additionally, step 5.1.3 in procedure HPI-5.9, states, “Schedule a whole body count follow-up to aid in determining the elimination rate constants of the deposited radionuclide(s). If the follow-up indicates that the radionuclides detected initially are still detectable, schedule additional follow-up counts until the body burden is below Derived Action Level 1 (see PPM 11.2.4.5) or until elimination rate parameters have been adequately characterized.”

Contrary to the above, on the week of May 14, 2023, for several contaminated plant workers the licensee failed to implement their Bioassay Program and schedule follow-up whole body counts until radioactive material deposited in body was no longer detected. Specifically, licensee procedures show that at day 1 post intake, the Action Level 1 threshold is 13 nCi for Class Y inhalation of Co-60. The licensee’s data showed that the day 1.012 activity for Co-60 was 14.14 nCi for one pipefitter. This would have required the licensee to schedule additional WBCs until the radioactive material deposited in the body was no longer present in the pipefitter. This was not done. The licensee only scheduled the two WBCs performed, one at the licensee's site and one at the vendor's site. Additionally, a dose assessment should not stop because internal doses are expected to be below 10 mrem CEDE; the radioactive material has not been eliminated from the body.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Failure to Follow Procedure for Proper Storage of SCBA Respirator Facepieces			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Occupational Radiation Safety	Green NCV 05000397/2023002-03 Open/Closed	[P.2] - Evaluation	71124.03

The inspectors identified a Green, non-cited violation of technical specifications 5.4.1.a for failure to follow procedure GEN-RPP-05, “Respiratory Protection Program Description,” for proper storage of the self-contained breathing apparatus (SCBA) respirator facepieces. Specifically, on the week of May 14, 2023, the inspectors walked down these SCBA facepieces that were staged for use and found them improperly stored within the control room, turbine building fire brigade turnout station, and building 66.

Description: During a review of the licensee’s self-assessment report, the inspectors noted the licensee’s identification of improper storage of the facepieces for the SCBA respirators. The licensee identified this in one storage location, the technical support center, and corrected it. However, during the week of inspection, the inspectors walked down a separate SCBA storage location, building 66, and found all respirator facepieces improperly stored at this location.

As a result, the inspectors walked down all applicable storage locations and identified improper storage of almost all SCBA facepieces within the control room and the turbine building fire brigade turnout station. The location identified in the self-assessment was the only location with proper storage of the facepieces for the SCBA respirators. The improper storage of facepieces appears to have an adverse effect on SCBAs being ready for use in risk-significant locations, such as in the control room and fire brigade storage areas.

The proper method of storage, as noted within the licensee’s procedures, is face down on the hard plastic side to protect the rubber face seal that contacts/forms the seal with the wearer’s face. Improper storage, as found in this case, is when the facepiece is stored on the rubber seal side. Proper storage prevents damage such as deformation, degradation, or tears from occurring to the rubber face seal which can affect the fit test of the respirator. The fit test ensures that the SCBA facepiece is effectively preventing airborne contaminants from entering the breathing area. These seals must pass this test to ensure the safety of the wearer during use.

The SCBA respirators are inspected and stored in accordance with their program as outlined in procedure GEN-RPP-05, “Respiratory Protection Program Description,” revision 017. The program states that these inspections shall be conducted in accordance with procedure HPI-15.1, “Inspection and Storage of Respirators and Attachments,” which outlines proper storage after inspection to prevent deformation of the facepiece.

Corrective Actions: The licensee entered the issue into the corrective action program to determine appropriate actions. The licensee also coached staff on the proper storage of SCBA respirators.

Corrective Action References: 445214, 445319

Performance Assessment:

Performance Deficiency: Failure to follow procedures for storage of SCBA respirators is a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern. The finding was similar to examples in Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports – Examples of Minor Issues," appendix E. Specifically, the improper storage of these SCBA facepieces can result in deformation of the SCBA face seal which protects workers from airborne contaminants during use.

Significance: The inspectors assessed the significance of the finding using IMC 0609, appendix C, "Occupational Radiation Safety SDP." The inspectors determined the finding had very low safety significance (Green) because: (1) it was not associated with ALARA planning and work controls, (2) it was not an overexposure, (3) there was no substantial potential for overexposure, and (4) the ability to assess dose was not compromised.

Cross-Cutting Aspect: P.2 - Evaluation: The organization thoroughly evaluates issues to ensure that resolutions address causes and extent of conditions commensurate with their safety significance. Specifically, the licensee had the opportunity to properly evaluate the extent of this condition from their own internal operating experience on storage of these SCBA facepieces. As a result, the condition was not fully addressed across the site. Thus, the inspectors identified the adverse condition to still exist while onsite for inspection of the program.

Enforcement:

Violation: Technical Specifications 5.4.1(a) requires, in part, that written procedures shall be established, implemented, and maintained covering applicable procedures recommended in NRC Regulatory Guide 1.33, revision 2, appendix A, dated February 1978. Regulatory Guide 1.33, appendix A, section 7.e.(5) required procedures for "Respiratory Protection." The licensee established procedure GEN-RPP-05, "Respiratory Protection Program Description," revision 017, which establishes storage/inspection requirements for their program in accordance with procedure HPI-15.1.

Procedure GEN-RPP-05, "Respiratory Protection Program Description," step 3.5.1 states, "All respirators shall be inspected routinely before and after each use, in accordance with HPI-15.1." Procedure HPI-15.1, step 4.5.2 states, "STORE respirators in such a way that will prevent deformation of the face-piece and exhalation valve. (Faceplate down)."

Contrary to the above, on the week of May 14, 2023, the licensee failed to properly store respirators in such a way that would prevent deformation of the face-piece and exhalation valve. (Faceplate down). Specifically, during the week of inspection, the licensee had improperly stored SCBA facepieces in the control room, the turbine building fire brigade turnout station, and in building 66, that were all staged ready for use.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Observation: Adverse Trend in Following Posted Signage in the Plant	71152S
The inspectors reviewed the licensee's corrective action program (CAP) for trends associated with licensee personnel and contractors' adherence to posted signage in the plant during a six-month period ending June 30, 2023. Condition Report (CR) 442389 documented a trend regarding the lack of adherence and disregard for physical barriers and non-radiological signs. This CR cross-referenced 30 additional CRs that make up the adverse trend. Seven of these were NRC identified issues, with two issues (CR 443546, 444730) considered minor violations of licensee procedure 1.3.10C "Control of Combustibles" for routing combustible materials over instrument rack room walls, and one issue (CR 440523) was considered a minor violation of licensee procedure 1.3.57, "Barrier Impairment" for not providing work instructions for the restoration of an essential barrier when no fire impairment was created. The licensee restored compliance by rerouting combustible materials around the instrument rack room walls and restoring the door after maintenance. Further actions are documented in the respective CRs. The licensee applied the following corrective actions: documented the trend in the daily D-15 which is reviewed by all work groups, discussed the trend in monthly department meetings, developed a read and sign training element for individuals which was also discussed during a station safety stand down on May 17, 2023. Since similar issues continued to occur following these corrective actions, the licensee plans to conduct a common cause analysis with a goal of identifying and correcting the gaps that have led to these issues.	

EXIT MEETINGS AND DEBRIEFS

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

- On May 18, 2023, the inspectors presented the inservice inspection results to W. Grover Hettel, Executive Vice President/Chief Nuclear Officer, and other members of the licensee staff.

- On June 22, 2023, the inspectors presented the radiation protection inspection results to W. Grover Hettel, Executive Vice President/Chief Nuclear Officer, and other members of the licensee staff.

- On July 13, 2023, the inspectors presented the integrated inspection results to W. Grover Hettel, Executive Vice President/Chief Nuclear Officer, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Drawings	M521-2	Flow Diagram Residual Heat Removal Loop B	117
71111.04	Procedures	SOP-RHR-LU	RHR System Valve and Breaker Lineup	009
71111.04	Procedures	SOP-RHR-SDC-BYPASS	Bypassing RHR Shutdown Colling Isolation Logic in Mode 4 and 5	
71111.04	Procedures	SOP-RHR-Shutdown Cooling	Shutdown Cooling	034
71111.04	Work Orders		02199471, 02199446, 0217933	
71111.05	Fire Plans	PFP-RB-471	Reactor 471	
71111.05	Fire Plans	PFP-RW-437-452	Radwaste 437-452	
71111.05	Fire Plans	PFP-RW-467	Radwaste 467	
71111.05	Fire Plans	PFP-RW-484-487	Radwaste 484-487	
71111.05	Fire Plans	PFP-TG-441-456	Turbine Generator 441-456	
71111.05	Work Orders		02204097, 02012048, 02107903	
71111.06	Corrective Action Documents	Action Requests	444381	
71111.06	Miscellaneous	ME-02-02-02	Calculation for Reactor Building Flooding Analysis	004
71111.06	Procedures	ABN-FLOODING	Flooding	022
71111.06	Procedures	OI-69	Time Critical Operator Actions	017
71111.06	Work Orders		02177755	
71111.07A	Corrective Action Documents	Action Requests	399483, 445589, 445627	
71111.07A	Corrective Action Documents Resulting from Inspection	Action Requests	447845	
71111.07A	Miscellaneous	GO2-90-017	Response to Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment	02/05/1990
71111.07A	Procedures	MOT-HX-1-1	Heat Exchangers	014
71111.07A	Work Orders		02181697, 02176472, 29171332	
71111.08G	Corrective Action Documents	Action Requests	00418105, 00418221, 00418331, 00418332, 00418417, 00418673, 00418740, 00418841, 00419030, 00419372,	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			00420379, 00420384, 00420735, 00420787, 00420983, 00420996, 00421077, 00421588, 00421698, 00421938, 00422411, 00427882, 00428932, 00429109, 00429895, 00431856, 00435825, 00436847, 00437658, 00437660, 00437728, 00439199, 00439373, 00439374, 00439375, 00439633, 00440375, 00418559, 00418737, 00418416, 00418331, 00418332, 00422520, 00394620, 00396298, 00415888, 00415889, 00418416, 00422493, 00422494, 00407431, 00407671, 00407704	
71111.08G	Corrective Action Documents Resulting from Inspection	Action Requests	0044987, 00445224, 0045284, 00445323, 00445282	
71111.08G	Miscellaneous	AR-SA 425062	Self-assessment Report	11/17/2022
71111.08G	Miscellaneous	AU-SP-21	Special Processes Program, Audit Report	07/01/2021
71111.08G	Miscellaneous	ISI-4	Inservice Inspection Program Plan - Interval 4	009
71111.08G	Procedures	10.2.18	Maintenance Welding Program	019
71111.08G	Procedures	MWP-10	Welding and Brazing Filler Material Control Procedure - Vacuum Packaged	021
71111.08G	Procedures	SPS-3-3	Liquid Penetrant Examination - Columbia Generating Station – ISI	002
71111.08G	Procedures	SPS-4-3	Magnetic Particle Examination Columbia Generating Station - ISI	003
71111.08G	Procedures	SPS-6-3	Ultrasonic Examination of Small Bore Piping Butt Welds	000
71111.08G	Procedures	SPS-7-1	Visual Examination	005
71111.08G	Procedures	SPS-7-2	Visual Examination - VT-2	002
71111.08G	Procedures	SPS-7-3	Visual Examination - Component Supports	003
71111.08G	Procedures	SPS-7-4	Visual Examination of Containment	003
71111.08G	Procedures	SPS-7-5	Invessel Visual Inspection of the RPV Internals (IVVI)	011
71111.11Q	Procedures	3.2.1	Normal Plant Shutdown	101
71111.11Q	Procedures	3.2.6	Power Maneuvering	021
71111.11Q	Procedures	3.2.7	RPV Level Control Strategies in Modes 3, 4, or 5	007
71111.11Q	Procedures	ABN-RAD-HIGH	Abnormally High Area Radiation Levels	004
71111.11Q	Procedures	SOP-CAVITY-	Reactor Cavity and Dryer Separator Pit Fill	018

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		FILL		
71111.12	Corrective Action Documents	Action Requests	443292	
71111.12	Corrective Action Documents Resulting from Inspection	Action Requests	444309, 445287	
71111.12	Drawings	M556	Flow Diagram, Containment Instrument Air System	053
71111.12	Drawings	M775	Flow Diagram, Emergency Chilled Water Piping System	033
71111.12	Miscellaneous	ASME OM Code-2004	Code for Operation and Maintenance of Nuclear Power Plants	
71111.12	Miscellaneous	IST-4	Inservice Testing Program Plan, Fourth Ten-Year inspection Interval	006
71111.12	Procedures	ESP-SW/IST-Q703	SW-PCV-15A Operability	001
71111.12	Procedures	OSP-MS/IST-Q701	MSIV Closure Test - Shutdown	021
71111.12	Procedures	OSP-MSIV/IST-R701	MSIV Accumulator Check Valve Operability	006
71111.12	Procedures	SYS-4-22	Maintenance Rule Program	016
71111.12	Work Orders	02148007	Verification of MSIV valve position indication	05/10/2023
71111.12	Work Orders	02205844	Disassemble valve SW-PCV-15A	
71111.13	Corrective Action Documents	Action Requests	444812	
71111.13	Corrective Action Documents Resulting from Inspection	Action Requests	444803	
71111.13	Miscellaneous	eSoms tracker	P-R26-Phase-2-001A, protected equipment scheme	
71111.13	Miscellaneous	R26 Shutdown Safety Plan	Enclosure 3.2.1- Division 1 Outage	000
71111.13	Procedures	1.3.83	Protected Equipment Program	038
71111.15	Calibration Records	EC 7492	Instrument Master Data Sheet for MS-LS-300D	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.15	Engineering Evaluations	443569	Preconditioning Evaluation for SLC-P-1A and SLC-P-1B	04/12/2023
71111.15	Engineering Evaluations	445176	RAOI - Request for Additional Operability Information for RHR-MO-6B	05/19/2023
71111.15	Miscellaneous		RHR-MO-006B MOV Master Data Sheet	019
71111.15	Miscellaneous	CVI 02E12-08,18	Installation and Maintenance Manual, New Schultz Electric Replacement Motors	06/16/2016
71111.15	Procedures	10.2.13	Approved Lubricants	085
71111.15	Procedures	TSP-RB-B501	Reactor Building (Secondary Containment) Drawdown/Leakage Functional Test	013
71111.15	Work Orders		02177813, 02207848, 02181192	
71111.15	Work Orders	Work Request	29171231	
71111.18	Corrective Action Documents	Action Requests	444787	
71111.18	Work Orders		02189599	
71111.20	Corrective Action Documents	Action Requests	444444, 445051, 444935, 445326, 445856, 445048, 445260, 445248, 422731, 447511, 447420	
71111.20	Corrective Action Documents Resulting from Inspection	Action Requests	444730, 444875, 447336	
71111.20	Miscellaneous		R26 Outage Shutdown Safety Plan	000
71111.20	Miscellaneous		Cycle 27 Full Core Verification Core Map	05/11/2023
71111.20	Miscellaneous	C-FPC-ASSIST-ALT-002	Clearance Coversheet, CAUTION-26	05/10/2023
71111.20	Miscellaneous	eSoms Tracker	P-R26-Phase-3-004, protected equipment scheme	
71111.20	Miscellaneous	O-FPC-ASSISTALT-002	Clearance Coversheet, Danger-26	05/10/2023
71111.20	Miscellaneous	OSP-RCS-105	Drain Time Report	05/12/2015
71111.20	Procedures	3.1.2	Reactor Plant Startup	094
71111.20	Procedures	3.2.1	Normal Plant Shutdown	101
71111.20	Procedures	3.2.7	RPV Level Control Strategies in Modes 3, 4, or 5	007
71111.20	Procedures	3.3.1	Reactor Scram	070
71111.20	Procedures	3.4.1	Minimizing the Potential of Draining the Reactor Vessel -	024

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Water Inventory Control	
71111.20	Procedures	6.3.5	Full Core Verification	014
71111.20	Procedures	OSP-RCS-C102	RPV Non-Critical Cooldown Surveillance	014
71111.20	Procedures	OSP-RCS-C105	Drain Time Determination	005
71111.20	Procedures	SOP-CAVITY-DRAIN	Reactor Cavity and Dryer Separator Pit Draining	011
71111.20	Procedures	SOP-CAVITY-FILL	Reactor Cavity and Dryer Separator Pit Fill	018
71111.20	Procedures	SOP-ENTRY-DW	Personnel Entry Into Drywell	031
71111.20	Procedures	SOP-FPC-ASSIST-ALT	Alternate Fuel Pool Cooling Assist	015
71111.20	Procedures	SOP-RFT-SHUTDOWN	Reactor Feedwater Turbine Shutdown	016
71111.20	Procedures	SOP-RHR-SDC	RHR Shutdown Cooling	034
71111.20	Procedures	SWP-FFD-03	Fatigue Management	005
71111.20	Procedures	SWP-FFD-04	Work Hour Controls	010
71111.20	Procedures	SWP-PRO-01	Procedure and Work Instruction Use and Adherence	035
71111.20	Work Orders		29170766, 02179327, 02177109, 02180796, 02181341, 02181641	
71111.24	Corrective Action Documents	Action Requests	444514, 444602, 444737, 444831, 444819, 444515, 446461, 446389, 446344, 446352, 445725, 445966	
71111.24	Corrective Action Documents Resulting from Inspection	Action Requests	445287	
71111.24	Drawings	M520	Flow Diagram HPCS and LPCS Systems Reactor Building	105
71111.24	Drawings	M529	Flow Diagram Nuclear Boiler-Main Steam System Reactor Building	110
71111.24	Drawings	M775	Flow Diagram Emergency Chilled Water Piping System Control Room	033
71111.24	Miscellaneous		Instrument Master Data Sheet - RCIC-DPIS-13A	015
71111.24	Miscellaneous	IST-4	Inservice Testing Program Plan, Fourth Ten-Year Inspection Interval	006
71111.24	Procedures	OSP-WMA-M701	Control Room Emergency Filtration System A Operability	017

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.24	Procedures	TSP-RFW/X17A-R802	LLRT of RFW-V-65A, RFW-V-65B, RWCU-V-40	010
71111.24	Work Orders		02185371, 02198044, 02197913, 02197934, 02178145, 02207396, 02179430, 02182047, 02181057, 02183920, 02145887, 02180975, 02153251, 02181234	
71114.06	Corrective Action Documents	Action Requests	444333	
71114.06	Miscellaneous		Classification Notification Form Nos. 1, 2, 3, 4 and 5	04/18/2023
71114.06	Miscellaneous		ERO Team C, ERO Drill on April 18, 2023, After Action Report/Improvement Plan	05/04/2023
71124.01	Corrective Action Documents	Action Requests	424291, 433448, 434838, 434918, 437113, 439161, 439457, 439458, 439461, 439462, 439467, 439834, 441204, 441455, 441492, 441738, 443141, 444647, 444664, 444744, 444748, 444941, 445117, 445118, 445305, 445316	
71124.01	Corrective Action Documents Resulting from Inspection	Action Requests	445162, 445163, 445373, 445381, 446166	
71124.01	Miscellaneous	DIC 1541.12	Energy Northwest Weekly LHRA and VHRA Door Checks	03/27/2023
71124.01	Miscellaneous	Form 26437	Energy Northwest Locked High Radiation Area and Very High Radiation Area Key Log	05/17/2023
71124.01	Procedures	11.2.13.1	Radiation and Contamination Surveys	046
71124.01	Procedures	11.2.13.8	Airborne Radioactivity Surveys	022
71124.01	Procedures	11.2.2.14	Radiological Planning and Reviews	009
71124.01	Procedures	11.2.2.8	ALARA Engineering Analysis	007
71124.01	Procedures	GEN-RPP-01	ALARA Program Description	009
71124.01	Procedures	GEN-RPP-04	Entry Into, Conduct In, and Exit from Radiologically Controlled Areas	036
71124.01	Procedures	HPI-0.19	Radiation Protection Standards and Expectations	020
71124.01	Procedures	PPM 11.2.4.5	Whole Body Counts and Daily Checks Using the Renaissance Fastscan	017
71124.01	Procedures	PPM 11.2.7.1	Area Posting	046
71124.01	Procedures	PPM 11.2.7.3	High Radiation Area, Locked High Radiation Area, and Very High Radiation Area Controls	046

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71124.01	Procedures	SWP-RPP-01	Radiation Protection Program	016

71124.01	Radiation Surveys	Air Sample 1185223	Turbine Building 441 West Rollup Door	08/02/2022
71124.01	Radiation Surveys	Air Sample 1192978	Spent Fuel Pool - RX 606	09/30/2022
71124.01	Radiation Surveys	Air Sample 1203116	Inside High Contamination Area (HCA) - RX 606	12/09/2022
71124.01	Radiation Surveys	Air Sample 1204567	Spent Fuel Pool - RX 606	12/20/2022
71124.01	Radiation Surveys	Air Sample 1212124	Flush MWR Piping - Radwaste 467	02/15/2023
71124.01	Radiation Surveys	M-20230205-3	RB 548 RWCU HX Room	02/05/2023
71124.01	Radiation Surveys	M-20230506-12	Drywell 565-foot Elevation	05/06/2023
71124.01	Radiation Surveys	M-20230506-2	Drywell 501-foot Elevation	05/06/2023
71124.01	Radiation Surveys	M-20230506-2	Drywell 512-foot Elevation	05/06/2023
71124.01	Radiation Surveys	M-20230506-32	Drywell 501-foot Elevation, RWCU Manifold	05/06/2023
71124.01	Radiation Surveys	M-20230506-34	Drywell 535-foot Elevation	05/06/2023
71124.01	Radiation Surveys	M-20230510-23	Drywell 548-foot Elevation Main Steam Relief Valves (MSRVs)	05/10/2023
71124.01	Radiation Surveys	M-20230515-27	R26 TG Dose Rate Alarm Follow Up	05/15/2023
71124.01	Radiation Surveys	M-20230517-23	R26 ST RFW-V-65A Contamination Update	05/17/2023
71124.01	Radiation Work Permits (RWPs)	30004931	R26 CRDM TRANSFER D/W - RX 501 - TRUCKBAY *LHRA* / HI-RISK	000
71124.01	Radiation Work Permits (RWPs)	30004941	PERFORM FINAL SUPPRESSION POOL UW DIVE INSPECTION RB,501 WW	000
71124.01	Radiation Work Permits (RWPs)	30004966	R26 DW/ST/DCA/VALVE ROOMS *LHRA* MISCELLANEOUS MAINTENANCE	000
71124.01	Radiation Work Permits (RWPs)	30004973	R26 RF *HR* WET WORK	000

71124.01	Radiation Work Permits (RWPs)	30004974	LPRM DETECTOR / DRYTUBE REPLACEMENT *HR*	000
71124.01	Radiation Work Permits (RWPs)	30004994	R26 ST RFW-V-65 A & B **HR**	000
71124.01	Self-Assessments	AR-SA 439160	71151-OR01 PI Verification: Occupational Exposure	02/06/2023
71124.01	Self-Assessments	AR-SA 439161-01	Inspection Procedure 71124.01, "Radiological Hazard Assessment and Exposure Controls"	02/02/2023
71124.01	Self-Assessments	AU-RP/RW-22	QA Audit Report: Radiation Protection and Process Control Programs	12/14/2022
71124.03	Corrective Action Documents	Action Requests	441005, 441083, 441118, 432528, 433143, 425213, 431332, 440353, 442244, 443548	
71124.03	Corrective Action Documents Resulting from Inspection	Action Requests	445214, 445319, 445396	
71124.03	Miscellaneous		Personnel Qualifications database for April 2023	
71124.03	Miscellaneous		Spectacle kit qualifications for respirators - December 2022	
71124.03	Procedures	1.3.63	Vacuum Cleaner, Fan and Blower Control	007
71124.03	Procedures	10.2.62	Breathing Air Compressor Operation	013
71124.03	Procedures	10.2.82	HEPA Filter In-Place Testing	009
71124.03	Procedures	11.2.11.3	Issuance of Respiratory Protection Equipment	019
71124.03	Procedures	11.2.13.11	Characterization of Alpha Radioactivity	003
71124.03	Procedures	11.2.15.11	Use and Certification of Portable Air Handling Units	017
71124.03	Procedures	11.2.2.8	ALARA Engineering Analysis	007
71124.03	Procedures	12.2.2.11	Exposure Evaluations for Maintaining TEDE ALARA	010
71124.03	Procedures	12.5.36	Service Air Sampling	005
71124.03	Procedures	GEN-RPP-05	Respiratory Protection Program Description	017
71124.03	Procedures	GEN-RPP-10	Use of Respiratory Protection Equipment	014
71124.03	Procedures	HPI-12.42	Use of MSA Lapel Air Sampler	002
71124.03	Procedures	HPI-15.1	Inspection and Storage of Respirators and Attachments	017
71124.03	Procedures	HPI-15.5	Set up and Use of Bullard Air Line Filters	005
71124.03	Procedures	HPI-15.8	Controlled Vacuum Cleaner Minor Maintenance	002
71124.03	Procedures	HPI-8.2	Quantitative Respirator Fit Testing using PortaCount System	033
71124.03	Procedures	HPI-8.4	Respirator Facepiece Cleaning and Disinfection	004
71124.03	Procedures	MSP-WMA-B101	Control Room DIV A Emergency Filtration System HEPA	010

			Filter Testing	
71124.03	Procedures	SOP-HVAC/TSC-OPS	Technical Support Center HVAC System Operation	003
71124.03	Self-Assessments	AR-SA Number: 00428241	Energy Northwest snapshot self-assessment report for inspection procedure 711124.03 "In-Plant Airborne Radioactivity Control and Mitigation"	01/28/2022
71124.03	Self-Assessments	AR-SA Number: 00439159	Energy Northwest snapshot self-assessment report for inspection procedure 711124.03 "In-Plant Airborne Radioactivity Control and Mitigation"	02/02/2023
71124.03	Self-Assessments	AR-SA Number: 00439753	Energy Northwest snapshot self-assessment report for inspection procedure 711124.03 "In-Plant Airborne Radioactivity Control and Mitigation"	02/01/2023
71124.03	Work Orders	02131678	Control room DIV A emergency filtration system filter testing	10/21/2020
71124.03	Work Orders	02167219	Control room DIV A emergency filtration system HEPA filter testing	10/07/2022
71151	Corrective Action Documents	Action Requests	420829	
71152A	Corrective Action Documents	Action Requests	444824, 443493, 443725, 444092	
71152A	Corrective Action Documents Resulting from Inspection	Action Requests	444809, 445181, 445179	
71152A	Procedures	1.5.5	Primary Containment Leakage Rate Testing	002
71152A	Procedures	IST-4	Inservice Testing Program Plan Fourth Ten-Year Inspection Interval	006
71152A	Procedures	LLRT-01	Primary Containment Leakage Rate Testing Program	011
71152A	Procedures	SWP-IST-01	ASME Inservice Testing	005
71152S	Corrective Action Documents	Action Requests	442389, 445026, 445317, 445227, 444947, 441465, 442287, 442300, 440339, 442447, 443533,443081, 443267, 443510, 443559, 444026, 444065, 444363, 444578, 444717, 444782, 444800, 444801, 444924	
71152S	Corrective Action Documents Resulting from	Action Requests	445210, 440523, 441373, 443546, 444730, 444803, 444812	

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71152S	Procedures	SWP-CAP-01	Corrective Action Program	045