



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

May 05, 2023

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

**SUBJECT: COLUMBIA GENERATING STATION – INTEGRATED INSPECTION REPORT
05000397/2023001**

Dear Robert Schuetz:

On March 31, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Columbia Generating Station. On April 13, 2023, the NRC inspectors discussed the results of this inspection with Dave Brown, Vice President of Operations, and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. 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 violation or the significance or severity of the violation 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 05/05/23

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

Docket No. 05000397
License No. NPF-21

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

COLUMBIA GENERATING STATION – INTEGRATED INSPECTION REPORT
 05000397/2023001- DATED MAY 05, 2023

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 REPORT 05000397/2023001

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

Docket Number: 05000397

License Number: NPF-21

Report Number: 05000397/2023001

Enterprise Identifier: I-2023-001-0002

Licensee: Energy Northwest

Facility: Columbia Generating Station

Location: Richland, WA

Inspection Dates: January 1, 2023, to March 31, 2023

Inspectors: P. Niebaum, Senior Resident Inspector
A. Donley, Senior Resident Inspector
S. Lichvar, Resident Inspector
H. Strittmatter, Emergency Preparedness 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.

List of Findings and Violations

Failure to Implement a Station Procedure Resulted in a Challenge to Primary Containment			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Barrier Integrity	Green NCV 05000397/2023001-01 Open/Closed	[H.12] - Avoid Complacency	71152A
The inspectors reviewed a self-revealed Green, non-cited violation (NCV) of Technical Specification (TS) 5.4.1.a, "Procedures," for the licensee's failure to establish, implement, and maintain procedures recommended in Appendix A of Regulatory Guide 1.33, revision 2. Specifically, the licensee failed to establish and monitor wetwell (WW) pressure as a key parameter while performing OSP-RHR/IST-Q702, "RHR Loop A Operability Test," with suppression pool spray in service, in accordance with licensee procedure OI-09, "Operations Standard and Expectations." This resulted in a momentary loss and challenge to primary containment integrity when WW to reactor building vacuum breakers CSP-V-9 and CSP-V-10 opened in response to lowering WW pressure.			

Additional Tracking Items

None.

PLANT STATUS

Columbia began the inspection period at rated thermal power (RTP). On January 11 and 12, 2023, the unit was down powered to approximately 46 percent for reactor recirculation pump adjustable speed drive (ASD) glycol coolant leak repairs. Following repairs and restoration of the ASD drive, the unit was returned to full RTP on January 14, 2023. On February 26, 2023, the 1A2 channel of ASD system experienced a failure which resulted in a down power to 93 percent once the recirculation loop flows were matched. On February 28, 2023, Columbia lowered power to 74 percent to recover the 1A2 channel following repairs and achieved 100 percent power later that day. On March 26, the station experienced a loss of the ASD channel 1A2 which ultimately resulted in a power reduction to approximately 90 percent RTP once the recirculation loop flows were matched. On March 27, 2023, following repairs to the 1A2 ASD channel, the station lowered power to approximately 73 percent to recover/repower the 1A2 ASD channel. Power was restored to approximately 100 percent on March 28, 2023. Later on March 28, 2023, the station identified issues with the ASD 1A2 channel and reduced power to approximately 89 percent RTP. On March 29, 2023, the station reduced power to approximately 83 percent RTP to take the 1A2 channel out of service. Once the station determined that the 1A1 channel could support higher flows/power, the station raised power to 89 percent RTP. Power remained at approximately 89 percent RTP for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors 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) (4 Samples)

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

- (1) control room air conditioning system B while system A was out of service for maintenance on January 11, 2023
- (2) control room air conditioning system A while system B was out of service for maintenance on January 24, 2023
- (3) reactor core isolation cooling (RCIC) system while the high-pressure core spray diesel generator was out of service for maintenance on February 27-28, 2023
- (4) diesel generator (DG) system A while DG system B was out of service for maintenance on March 21-22, 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-12/1, HVAC equipment room B division 2, on January 11, 2023
- (2) Fire Area DG-1/1, HPCS diesel generator room, on January 27, 2023
- (3) Fire Area RC-11/1, HVAC equipment room A division 1, on March 9, 2023
- (4) Fire Area DG-3/2, DG-2 diesel generator room, on March 12, 2023
- (5) Fire Area TG-1/2, turbine generator 471, NW general area, on March 13, 2023

71111.06 - Flood Protection Measures

Flooding Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated internal flooding mitigation protections in the reactor building 471-foot elevation.

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 power maneuvering for planned adjustable speed drive maintenance on January 12, 2022.

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

- (1) The inspectors observed and evaluated a licensed operator requalification evaluated scenario on March 6, 2023.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (1 Sample)

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

- (1) RCIC-P-3, reactor core isolation cooling water leg (keep fill) pump

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 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) elevated risk for planned maintenance associated with a cooling coil replacement in WMA-AH-51A, control room air handling unit, on January 10, 2023
- (2) yellow risk during the performance of ICP-CSP-X301, reactor building vacuum breaker actuation instrumentation channel calibration, on January 23 and 24, 2023
- (3) yellow risk during replacement of a digital electro-hydraulic control system filter on February 9, 2023
- (4) yellow risk during a planned maintenance outage of diesel generator 3 on February 27, 2023
- (5) elevated/yellow risk during main turbine quadvoter valve solenoid replacement on March 16, 2023

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (4 Samples)

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

- (1) CR 440991, CSP-DPT-6 (containment supply purge differential pressure transmitter) found low out of tolerance during surveillance testing on January 24, 2023
- (2) CR 441013, locked in low air pressure alarm following emergency diesel generator 3 bar over, on January 26, 2023
- (3) CR 441445, LPCS-FIS-4 flexible conduit detached from flow instrument on February 7, 2023
- (4) CR 442498, reactor core isolation cooling system leakage beneath RCIC-DT-1 on March 13, 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) (3 Samples)

- (1) OSP-CCH/IST-M702, Control Room Emergency Chiller System B Operability, on January 6, 2023
- (2) OSP-ELEC-M703, HPCS Diesel Generator Monthly Operability Test, on February 28, 2023
- (3) OSP-MT-W701, Quad Voter Solenoid Valve Test following replacement of a main turbine quadvoter solenoid pilot valve with work order (WO) 02205059, on March 16, 2023

Surveillance Testing (IP Section 03.01) (2 Samples)

- (1) OSP-ELEC-M701, Diesel Generator 1 - Monthly Operability Test, on January 5, 2023
- (2) WO 02195089, monthly diesel generator 2 operability surveillance, on January 20, 2023

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

- (1) OSP-RHR/IST-Q704, RHR Loop C Operability Test, on January 20, 2023

71114.02 - Alert and Notification System Testing

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

- (1) The inspectors evaluated the maintenance and testing of the alert and notification system between November 1, 2020, and January 31, 2023.

71114.03 - Emergency Response Organization Staffing and Augmentation System

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

- (1) The inspectors evaluated the readiness of the Emergency Preparedness Organization between November 1, 2020, and January 31, 2023. Inspectors also evaluated the licensee's ability to staff their emergency response facilities in accordance with emergency plan commitments.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated the 10 CFR 50.54(q) emergency plan change process and practices between November 1, 2020, and January 31, 2023. The evaluation reviewed screenings and evaluations documenting implementation of the process. In addition, the inspectors evaluated:

- Emergency Plan, revision 68, effective January 26, 2023

- PPM 13.14.4, Emergency Equipment Maintenance and Testing, revision 57, effective June 16, 2022

This evaluation does not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness

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

- (1) The inspectors evaluated the maintenance of the emergency preparedness program between November 1, 2020, and January 31, 2023. The evaluation reviewed evidence of completing various emergency plan commitments, the conduct of drills and exercises, licensee audits and assessments, and the maintenance of equipment important to emergency preparedness.

71114.06 - Drill Evaluation

Select Emergency Preparedness Drills and/or Training for Observation (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated an emergency preparedness drill on February 14, 2023.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

- (1) January 1, 2022, through December 31, 2022

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (1 Sample)

- (1) January 1, 2022, through December 31, 2022

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (1 Sample)

- (1) January 1, 2022, through December 31, 2022

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

- (1) October 1, 2022, through December 31, 2022

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

- (1) October 1, 2022, through December 31, 2022

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

(1) October 1, 2022, through December 31, 2022

71152A - Annual Follow-up Problem Identification and Resolution

Annual Follow-up of Selected Issues (Section 03.03) (2 Samples)

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

- (1) CR 441418, CSP-V-9 and CSP-V-10 opened during OSP-RHR/IST-Q702, on February 6, 2023
- (2) CR 442428, required element missed in simulator evaluation, on March 9, 2023

INSPECTION RESULTS

Failure to Implement a Station Procedure Resulted in a Challenge to Primary Containment			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Barrier Integrity	Green NCV 05000397/2023001-01 Open/Closed	[H.12] - Avoid Complacency	71152A
<p>The inspectors reviewed a self-revealed Green, non-cited violation (NCV) of Technical Specification (TS) 5.4.1.a, “Procedures,” for the licensee’s failure to establish, implement, and maintain procedures recommended in Appendix A of Regulatory Guide 1.33, revision 2. Specifically, the licensee failed to establish and monitor wetwell (WW) pressure as a key parameter while performing OSP-RHR/IST-Q702, “RHR Loop A Operability Test,” with suppression pool spray in service, in accordance with licensee procedure OI-09, “Operations Standard and Expectations.” This resulted in a momentary loss and challenge to primary containment integrity when WW to reactor building vacuum breakers CSP-V-9 and CSP-V-10 opened in response to lowering WW pressure.</p> <p><u>Description:</u> On February 6, 2023, during performance of licensee surveillance procedure OSP-RHR/IST-Q702, “RHR Loop A Operability Test,” WW pressure lowered as expected with suppression pool sprays in service. The associated pressure changes were neither monitored adequately nor established as a key parameter. The unmonitored pressure drop led to cycling of the reactor building (RB) to WW vacuum breakers CSP-V-9 and CSP-V-10, representing a momentary loss and challenge to primary containment integrity.</p> <p>The inspectors noted that during the performance of procedure OSP-RHR/IST-Q702, “RHR Loop A Operability Test,” the crew did not closely monitor WW pressure as it trended downward, which contributed to the opening of the WW to RB vacuum breakers. When CSP-V-9 and CSP-V-10 opened, a momentary loss and challenge to primary containment integrity occurred. Following this, one of the vacuum breaker valves (CSP-V-10) did not indicate closed in the control room, so the licensee entered Technical Specification Action Statement 3.6.1.6.A, and sent an equipment operator to the valve to verify it was closed locally.</p> <p>The inspectors also noted that procedure OSP-RHR/IST-Q702, “RHR Loop A Operability Test,” contains a caution statement that states operation of the suppression pool sprays may cause WW pressure to drop and cycling of RB and WW vacuum breakers.</p>			

Considering all of the above, the inspectors concluded that during the “RHR Loop A Operability Test,” the control room failed to establish and assign WW pressure as a key parameter and monitor it adequately.

The inspectors confirmed that although CSP-V-9 and CSP-V-10 opened unintentionally, the system performed as designed and cycled the vacuum breakers closed, representing only a momentary loss of primary containment integrity.

Corrective Actions: The licensee entered this issue into their corrective action program as condition report 441418 and performed a critique to evaluate their response and lessons learned.

Corrective Action References: 441418

Performance Assessment:

Performance Deficiency: Failure to implement procedure OI-09, “Operations Standard and Expectations,” revision 084, in accordance with Regulatory Guide 1.33 and TS 5.4.1.a was a performance deficiency. Specifically, Section 4.2.7 of OI-09 states that key parameters are established to allow precise control of critical parameters and safe operation of plant systems, but during an “RHR Loop A Operability Test,” the control room failed to establish and assign WW pressure as a key parameter.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Human Performance attribute of the Barrier Integrity cornerstone and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, by not establishing a key parameter and adequately monitoring WW pressure with suppression pool spray in service, the licensee unintentionally caused a WW pressure drop that opened the RB to WW vacuum breakers (containment supply purge valves, CSP-V-9, and CSP-V-10) resulting in an unnecessary challenge to primary containment.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix A, “The Significance Determination Process (SDP) for Findings At-Power.” The inspectors determined that the finding was of very low safety significance (Green) because although this resulted in a momentary actual open pathway from the WW to the RB, it was controlled by an operable containment supply purge valve control system and the valves were verified to be closed after they actuated. Also, the finding did not involve an actual reduction in the function of hydrogen igniters in containment.

Cross-Cutting Aspect: H.12 - Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Individuals implement appropriate error reduction tools. Specifically, individual contributors perform a thorough review of the work site and planned activity every time work is performed rather than relying on past successes and assumed conditions.

Enforcement:

Violation: Technical Specification 5.4.1.a, “Procedures,” requires, in part, that written procedures shall be established, implemented, and maintained in accordance with Regulatory Guide 1.33, revision 2. Section 2.g of Appendix A to Regulatory Guide 1.33 recommends power operation and process monitoring procedures. The licensee established procedure

OI-09, "Operations Standard and Expectations," as a power operation and process monitoring procedure. Procedure OI-09 requires, in part, that key parameters be established to allow precise control of critical parameters and safe operation of plant systems.

Contrary to the above, on February 6, 2023, the licensee failed to establish key parameters to allow precise control of critical parameters and safe operation of plant systems. Specifically, during performance of procedure OSP-RHR/IST-Q702, "RHR Loop A Operability Test," the licensee did not establish WW pressure as a key parameter, which impacted precise control of containment integrity and resulted in a momentary loss and challenge to primary containment integrity when the WW to RB vacuum breakers, CSP-V-9 and CSP-V-10, opened in response to lowering WW pressure.

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

EXIT MEETINGS AND DEBRIEFS

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

- On February 9, 2023, the inspectors presented the emergency preparedness biennial program inspection results to William G. Hettel, Chief Nuclear Officer/ VP Nuclear Generation, and other members of the licensee staff.
- On April 13, 2023, the inspectors presented the integrated inspection results to Dave Brown, Vice President of Operations, and other members of the licensee staff.

THIRD PARTY REVIEWS

The inspectors reviewed the World Association of Nuclear Operators (WANO)/Institute on Nuclear Power Operations (INPO) report that was issued during the inspection period.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Corrective Action Documents Resulting from Inspection	Action Requests	442782	
71111.04	Drawings	M519	Flow Diagram Reactor Core Isolation Cooling System	103
71111.04	Drawings	M775	Flow Diagram Emergency Chilled Water Piping System Control Room	031, 032
71111.04	Procedures	SOP-DG1-LU	Emergency Diesel Generator (DIV 1) Valve and Power Supply Lineup	009
71111.04	Procedures	SOP-DG1-STBY	Emergency Diesel Generator (DIV 1) Standby Lineup	023
71111.04	Procedures	SOP-HVAC/CR-LU	Control, Cable, and Critical Switchgear Rooms HVAC Lineup	003
71111.04	Procedures	SOP-HVAC/CR-OPS	Control, Cable, and Critical Switchgear Rooms HVAC Operations	030
71111.04	Procedures	SOP-HVAC/CR-STBY	Control, Cable, and Critical Switchgear Rooms HVAC in Standby Status	002
71111.04	Procedures	SOP-RCIC-LU	RCIC Valve and Breaker Lineup	004
71111.04	Procedures	SOP-SW-LU	Standby Service Water System Valve & Breaker Lineup	016
71111.04	Work Orders		02194139	
71111.05	Calculations	FP-02-85-03	Combustible Loading Calculation	011
71111.05	Corrective Action Documents Resulting from Inspection	Action Requests	440618, 440575, 442335	
71111.05	Fire Plans	PFP-DG-BUILDING	Diesel Generator Building Pre-Fire Plan	005
71111.05	Fire Plans	PFP-RW-525	Radwaste 525	008
71111.05	Fire Plans	PFP-TG-471	Turbine Generator 471 Pre-Fire Plan	006
71111.05	Miscellaneous	A554	Door Schedule Sheet 2	033
71111.05	Miscellaneous	FM892-3	Fire Barrier and Fire Boundary Plan Operating Floors at EI 501'-0", 507'-0" and 525'-0"	007

71111.05	Procedures	1.3.57	Barrier Impairment	046
71111.05	Procedures	15.2.14	Function Check, Sensitivity Check and Cleaning of Photoelectric Detectors	015
71111.05	Procedures	ABN-FIRE	Fire	045
71111.05	Work Orders		02066677, 02167597, 02195886	
71111.06	Corrective Action Documents Resulting from Inspection	Action Requests	441373	
71111.06	Engineering Evaluations	ME-02-02-02	Reactor Building Flooding Analysis	004
71111.06	Engineering Evaluations	ME-02-02-32	Post Fire Safe Shutdown (PFSS) Flooding Analysis - Reactor Building	000
71111.11Q	Corrective Action Documents	Action Requests	442262	
71111.11Q	Miscellaneous	LR002579	Cycle 23-1 Evaluated Scenario	000
71111.11Q	Procedures	3.2.6	Power Maneuvering	021
71111.11Q	Procedures	A.603.A8	603.A8 Annunciator Panel Alarms	046
71111.11Q	Procedures	SOP-COND-SHUTDOWN	Main Condensate System Shutdown	026
71111.11Q	Procedures	SOP-CW-SHUTDOWN	Circulating Water and Cooling Towers Shutdown	008
71111.11Q	Procedures	SOP-RFT-SHUTDOWN	Reactor Feedwater Turbine Shutdown	016
71111.11Q	Procedures	TDI-08	Licensed Operator Requalification Program	021
71111.11Q	Procedures	TDI-23	LORQ Annual Exam Development and Administration	018
71111.12	Corrective Action Documents	Action Requests	439058, 439205, 439395, 439427, 439491, 439967, 440884, 442278	
71111.12	Procedures	5.1.1	Emergency Operating Procedure (EOP) Flow Chart for RPV (reactor pressure vessel) Control	023
71111.12	Procedures	SYS-4-22	Maintenance Rule Program	015
71111.13	Corrective Action Documents Resulting from Inspection	Action Requests	442683	
71111.13	Miscellaneous		High risk work plan for WO 02194023	12/29/2022

71111.13	Miscellaneous		High risk work plan for WO 02202434	01/10/2023
71111.13	Procedures	1.3.76	Integrated Risk Management	064
71111.13	Procedures	1.3.83	Protected Equipment Program	037
71111.13	Procedures	1.5.14	Risk Assessment and Management for Maintenance/Surveillance Activities	044
71111.13	Work Orders		02194023, 02166978, 02205059	
71111.15	Calculations	E/I-02-91-1072	Setpoint determination for instrument loop CSP-DPT-6	000
71111.15	Corrective Action Documents		442498, 442876	
71111.15	Drawings	M512-1	Flow Diagram Diesel Oil and Miscellaneous Systems Diesel Generator Building	048
71111.15	Drawings	M543-3	Flow Diagram Reactor Building Primary Containment Cooling and Purging System	004
71111.15	Engineering Evaluations	EC 18082	High Energy Line Break (HELB) evaluation	000
71111.15	Operability Evaluations	CMR-95-0228	Calculation Modification Record for E/I-02-91-1072	03/08/1995
71111.15	Procedures	1.3.66	Operability Determination	038
71111.15	Procedures	4.DG3	DG3 Annunciator Panel Alarms	021
71111.15	Procedures	ICP-CSP-X301	Vacuum Breaker Actuation Instrumentation - CC	006
71111.15	Procedures	ISP-CSP/IST-B101	RB-WW Vacuum Breaker Setpoint Verification, Visual Inspection, Actuation and VPI-CC	003
71111.15	Procedures	OSP-DG3-STBY	High Pressure Core Spray Diesel Generator Standby Lineup	022
71111.15	Procedures	OSP-ELEC-S703	HPCS Diesel Generator Semi-Annual Operability Test	068
71111.15	Procedures	OSP-RCIC/IST-Q701	RCIC Operability Test	
71111.15	Procedures	TSP-RCIC-B801	RCIC Leakage Surveillance	
71111.15	Work Orders		02174877, 02197701, 02197704, 02166978	
71111.15	Work Orders	Work Requests	29169313	
71111.24	Calculations	ME-02-05-01	Determination of acceptable oil leakage rates from pump motors	001
71111.24	Corrective Action Documents	Action Requests	440287, 441039, 442648	

71111.24	Corrective Action Documents Resulting from Inspection	Action Requests	440823	
71111.24	Procedures	OSP-DO-Q702	DO-P-1B Operability	002
71111.24	Procedures	OSP-ELEC-M102	DO-TK-3B Monthly Operability Test	006
71111.24	Procedures	OSP-ELEC-M702	Diesel Generator 2 – Monthly Operability Test	069
71111.24	Work Orders		02194600, 02194139, 02194971, 02193773, 02175153, 02192160, 02196497	
71114.02	Miscellaneous		CGS Alert and Notification System (ANS) Design Report	002
71114.02	Miscellaneous		1st Quarter 2022 ERO Call-In Drill Report	03/15/2022
71114.02	Procedures	TSI-6.2.22	EP Annual Emergency Response Siren System Activation Test	09/27/2021
71114.02	Procedures	TSI-6.2.22	EP Annual Emergency Response Siren System Activation Test	10/03/2019
71114.02	Procedures	TSI-6.2.32	EP Siren Polling Test	003
71114.03	Miscellaneous		4th Quarter 2021 ERO Call-In Drill Report	12/17/2021
71114.03	Miscellaneous		2nd Quarter 2021 ERO Call-In Drill Report	06/22/2021
71114.03	Miscellaneous		1st Quarter 2021 ERO Call-In Drill Report	03/17/2021
71114.03	Miscellaneous		3rd Quarter 2021 ERO Call-In Drill Report	09/15/2021
71114.03	Miscellaneous		ERO Call-Out Drill Team A	11/17/2021
71114.03	Miscellaneous		ERO Call-Out Drill Team D	09/27/2022
71114.03	Miscellaneous		4th Quarter 2022 ERO Call-In Drill Report	12/06/2022
71114.03	Miscellaneous	EP-02	ERO On-Shift Staffing Analysis Report	003
71114.03	Procedures	PPM 13.4.1	Emergency Notifications	044
71114.04	Miscellaneous		50.54(q) Screening for E-Plan Revision 68 Editorials	11/30/2022
71114.04	Miscellaneous		50.54(q) Screening for E-Plan Revision 68	12/28/2022
71114.04	Miscellaneous		50.54(q) Effectiveness Evaluation for PPM 13.14.4 Revision 57	04/04/2022
71114.04	Miscellaneous		50.54(q) Screening for PPM 13.14.4 Revision 57	03/29/2022
71114.04	Miscellaneous		50.54(q) Screening for SWP-EPP-01 Revision 24	11/22/2022
71114.04	Miscellaneous		50.54(q) Effectiveness Evaluation for E-Plan Revision 68	12/28/2022
71114.04	Procedures	EPI-16	50.54(q) Change Evaluation	01/11/2022

71114.05	Corrective Action Documents	Action Requests	412865, 413338, 413822, 414008, 414139, 414414, 414993, 415144, 415590, 415859, 416009, 416084, 416383, 417096, 417389, 418058, 420879, 420927, 423847, 424824, 425263, 428926, 430259, 430989, 432074, 432157, 432295, 433116, 434313, 435460, 436001, 436644, 437044, 437077, 437081, 437119, 437918, 437980, 438355, 438513	
71114.05	Corrective Action Documents Resulting from Inspection	Action Requests	441467, 441556, 441557	
71114.05	Miscellaneous		Focused Self-Assessment Report, Emergency Preparedness	09/07/2021
71114.05	Miscellaneous		Focused Self-Assessment Report, Emergency Preparedness	08/10/2022
71114.05	Miscellaneous		Quality Services Evaluation Report 2022 EP Program 12-Month Audit Frequency Evaluation	02/07/2022
71114.05	Miscellaneous		EP Contaminated Injured Man Drill Report	11/04/2021
71114.05	Miscellaneous		EP Contaminated Injured Man Drill Report	11/17/2022
71114.05	Miscellaneous		Reactor Coolant Sampling Drill Report	11/30/2021
71114.05	Miscellaneous		Reactor Coolant Sampling Drill Report	12/06/2022
71114.05	Miscellaneous	AU-EP-21	Emergency Preparedness 24-Month Audit	03/18/2021
71114.05	Procedures		Emergency Plan	067
71114.05	Procedures		Emergency Plan	068
71114.05	Procedures	PPM 13.14.4	Emergency Equipment Maintenance and Testing	057
71114.05	Procedures	PPM 13.14.8	Drill and Exercise Program	018
71114.05	Procedures	PPM 13.14.9	Emergency Program Maintenance	030
71114.05	Procedures	SWP-EPP-01	Emergency Response Organization and Training	023
71114.05	Procedures	TSI-6.2.19	EP Federal Telephone System Functional Phone Testing	002
71114.05	Procedures	TSI-6.2.29	EP Emergency Response Facsimile Machine Functional Test	003
71114.05	Procedures	TSI-6.2.30	EP Emergency Response Dial-up Extension Functional Test	001
71114.05	Procedures	TSI-6.2.31	EP Emergency Response Crash Extension Functional Test	003
71114.05	Procedures	TSI-6.2.6	EP Emergency Response Ringdown System Functional Test	001
71114.05	Work Orders	Work Order Task	02173553-01	
71114.05	Work Orders	Work Request	29158281, 29163333, 29167996, 29166716	

71114.06	Miscellaneous		Emergency Response Organization (ERO) Drill Scenario, Section 6 for EP drill on February 14, 2023	02/14/2023
71114.06	Miscellaneous		Team D ERO Drill Summary	02/14/2023
71114.06	Miscellaneous		EP Drill Classification Notification Forms (CNFs) for Alert, Site Area Emergency and General Emergency	02/14/2023
71114.06	Miscellaneous		Columbia Generating Station ERO Team "D" ERO Drill February 14, 2023, After Action Report/Improvement Plan	03/13/2023
71114.06	Procedures	13.14.8	Drill and Exercise Program	018
71114.06	Procedures	EPI-21	Drill and Exercise Development and Implementation	019
71151	Miscellaneous		Monthly PI Summary Spreadsheets for 2022	
71151	Miscellaneous		December 2022 Station Performance Spreadsheet	
71151	Miscellaneous		Operations Logs	01/01/2022 - 12/31/2022
71151	Miscellaneous		ANS Test Results and PI Data 4th Quarter 2022	
71151	Miscellaneous		ERO Participation PI Tracking Data 4th Quarter 2022	
71151	Miscellaneous		DEP Opportunity PI Data 4th Quarter 2022	
71151	Procedures	EPI-18	Emergency Preparedness Performance Indicators	027
71152A	Miscellaneous	Form 26297	CRS/SM/STA/IA Evaluation Summary	003
71152A	Miscellaneous	Form 26299	CRO Evaluation Summary	003
71152A	Miscellaneous	Form 27035	Operator Fundamentals Evaluation, evaluated scenario on March 9, 2023	006
71152A	Miscellaneous	LR000250	Operations Requalification Training, Cycle 22-2 Evaluated Scenario	000
71152A	Procedures	SW-CAP-01	Corrective Action Program	045
71152A	Procedures	TDI-08	Licensed Operator Requalification Program	021
71152A	Procedures	TDI-23	LORQ Annual Exam Development and Administration	018