



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

September 21, 2021

Mr. Grover Hettel
Interim Chief Executive Officer
Energy Northwest
MD 1023
P.O. Box 968
Richland, WA 99352

SUBJECT: COLUMBIA GENERATING STATION – TRIENNIAL FIRE PROTECTION
INSPECTION REPORT 05000397/2021011

Dear Mr. Hettel:

On September 2, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Columbia Generating Station. On September 2, 2021, the NRC inspectors discussed the results of this inspection with Mr. Robert Schuetz, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

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

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

A handwritten signature in black ink, appearing to read "Nicholas H. Taylor".

Signed by Taylor, Nicholas
on 09/21/21

Nicholas H. Taylor, Chief
Engineering Branch 2
Division of Reactor Safety

Docket No. 05000397
License No. NPF-21

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Enclosure

W. Hettel

COLUMBIA GENERATING STATION – TRIENNIAL FIRE PROTECTION INSPECTION
REPORT 05000397/2021011 - DATED SEPTEMBER 21, 2021

DISTRIBUTION:

SMorris, RA
JMonninger, DRA
AVegel, DRP
MHay, DRP
RLantz, DRS
GMiller, DRS
DCylkowski, RC
AMcCraw RIV/OEDO
VDricks, ORA
LWilkins, OCA
TWengert, NRR
MChawla, NRR
GWerner, DRP
AMoreno, RIV/OCA
BMaier, RSLO
AAgrawal, IPAT
JJosey, DRP
HFreeman, DRP
HMarchlewski, NRAN
SLichvar, DRP
PNiebaum, DRP
ADonely, DRP
MBennett, DRP
BCorrell, IPAT
LFlores, IPAT
FRamirez, IPAT
JMateychick DRS
R4Enforcement

ADAMS ACCESSION NUMBER: ML21257A469

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	SRI: EB2	SRI: EB2	RI: EB2	RPB-A	C: EB2
NAME	J. Mateychick	J. Drake	N. Okonkwo	J. Josey	N. Taylor
SIGNATURE	/RA/	/RA/	/RA/	/RA/	/RA/
DATE	09/15/2021	09/15/2021	09/15/2021	09/20/2021	09/21/2021

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number: 05000397

License Number: NPF-21

Report Number: 05000397/2021011

Enterprise Identifier: I-2021-011-0000

Licensee: Energy Northwest

Facility: Columbia Generating Station

Location: Richland, Washington

Inspection Dates: August 16, 2021 to September 2, 2021

Inspectors: J. Drake, Senior Reactor Inspector
J. Mateychick, Senior Reactor Inspector
N. Okonkwo, Reactor Inspector

Approved By: Nicholas H. Taylor, Chief
Engineering Branch 2
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a triennial fire protection 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

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

Additional Tracking Items

None.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards. Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), inspectors were directed to begin telework. In addition, regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.21N.05 - Fire Protection Team Inspection

Structures, Systems, and Components (SSCs) Credited for Fire Prevention, Detection, Suppression, or Post-Fire Safe Shutdown Review (IP Section 03.01) (4 Samples)

The inspectors verified that components and/or systems will function as required to support the credited functions stated for each sample. Additional inspection considerations are located in the fire hazards analysis or safe shutdown analysis.

- (1) the fire water system including the fire pumps and yard loop distribution piping system.
- (2) Fire Area RC-3, Cable Chase, including fire detection system, fire suppression system, post-fire safe shutdown circuits in cable raceways protected with fire barrier wraps or using fire rated cables and post-fire safe shutdown procedures.
- (3) Fire Area RC-10, Main Control Room, including fire detection system, Halon fire suppression systems in the subfloor cable trenches and post-fire safe shutdown procedures.
- (4) Fire Area RC-14, Switchgear Room #1, including the very early warning fire detection system, manual fire suppression capability and post-fire safe shutdown procedures.

Fire Protection Program Administrative Controls (IP Section 03.02) (2 Samples)

The inspectors verified that the selected control or process is implemented in accordance with the licensee's current licensing basis. If applicable, ensure that the licensee's fire protection program contains adequate procedures to implement the selected administrative control. Verify that the selected administrative control meets the requirements of all committed industry standards.

- (1) The inspectors reviewed the licensee's administrative controls of hot work, transient combustibles, fire impairments and compensatory measures.
- (2) The inspectors reviewed the licensee's fire brigade training program

Fire Protection Program Changes/Modifications (IP Section 03.03) (2 Samples)

The inspectors evaluated the licensee's procedures controlling modifications and procedure revisions for adequacy in reviewing potential impacts to the fire protection program.

- (1) The inspectors reviewed modifications to the plant's fire detection systems and changes to the plant's fire protection program surveillance frequencies.
- (2) The inspectors reviewed modifications impacting equipment supporting post-fire safe shutdown and revisions to post-fire safe shutdown procedures and supporting documentation.

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On September 2, 2021, the inspectors presented the triennial fire protection inspection results to Mr. Robert Schuetz, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.05	Calculations	E/I-02-95-01	Overcurrent Protective Device Settings & Coordination Calculation for 480 Volt Distribution Systems	007
		FP-02-85-03	Combustible Loading Calculation	011
		FP-02-85-03	Combustible Loading Calculation	011
		ME-02-02-23	PFSS Flooding Analysis - Radwaste Building	1
		ME-02-17-04	Air Sampling System Pipe Flow Calculation	001
		NE-02-85-19	Post Fire Safe Shutdown (PFSS) Analysis	14
	Corrective Action Documents	Action Requests	008208 016993 361567 381022 381134 381135 382416 383232 384228 384338 384819 389325 391972 396981 398280 401411 415726 417349 418185 418186 418781 418783 421811 422034 424348 424477 424480 424487 424492 424493 424814	
	Corrective Action Documents Resulting from Inspection	Action Requests	424411 424412 424413 424474 424475 424477 424480 424487 424492 424493 424777 424814 424493	
	Drawings	EC 13537	Fire Detection and Alarm Control Room & FSP Upgrade	5
		EWD-9E-011	Electrical Wiring Diagram Residual Heat Removal System, MOV RHR-V-9 (EI 2-F009) (Shutdown Cooling Suction Isolation)	018
		M515-1	Flow Diagram Fire Protection System	113
		M515-2	Flow Diagram Fire Protection System Details	20
		M515-4	Flow Diagram Fire Protection System General Services Building and Turbine Generator Building	3
		M515-5	Flow Diagram Fire Protection System Reactor Building, Diesel Generator Building and Radwaste Building	7
		M573-2	Flow Diagram Potable Water Cold & Fire Protection Systems Pumphouses	9
		M932-1	Fire Main Ring Header	8
		M932-2	Fire Main Ring Header	4
	Engineering Changes	EC 13537	Fire Alarm and Detection System Upgrade	5
		EC 15009	Updated E/I - 02-95 - 01 REV. 002 Due to Replacing E-	02/12/2018

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			CB-8A4A With Fuse Disconnect	
		EC 16461	Remove DG-EXC-DG2 obsolete bridge control and voltage regulator relays and replace with selector switch	0
		EC 16607	Modification to Resolve Fire Detector Accessibility and Spacing	2
		EC 17765	CHILD EC-Zone 66 Fire Detector Modification for Master EC 16607 Modification to Resolve Fire Detector Accessibility and Spacing	0
		EC- 14850,	Replace ITE SAFETY Related E-CB-8A4A MCCB with Fused Disconnect E-DISC-8A4A	0
	Engineering Evaluations	FPF 1.1-40	Re-Analysis of NRC Information Notice 88-60	2
		FPF 2.1-34	Compliance with NFPA 72E-1974 Smoke Detector Replacement	1
		FPF 2.15-1	Reanalysis of Columbia Fire System Surveillance	3 & 4
	Fire Plans	PFP-RW-467	Fire Pre-Plan Radwaste 467	006
		PFP-RW-501-507	Fire Pre-Plan Radwaste 501-507	006
	Miscellaneous	2.5	2.5 Qual Directory Change Form	21
		AMPBD-BPTI	Aging Management Program Basis Document - Buried Piping and Tanks Inspection Program	0
		AMPBD-FP	Aging Management Program Basis Document - Fire Protection Program	1
		Columbia Generating Station License Renewal Commitment #25	Commitment Notebook Fire Protection	
		DRD-209	Design Specification for Division 200 Section 209 Post-Fire Safe Shutdown (PFSS) Analysis Requirements	9
		Energy Northwest Letter GO2-10-117	Columbia Generating Station, Docket N. 50-397, Response to Request for Additional Information License Renewal Application	08/19/2010
		Energy Northwest Letter	Columbia Generating Station, Docket No. 50-397, Response to Request for Additional Information License	01/20/2011

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		GO2-11-016	Renewal Application	
		Final Safety Analysis Report Appendix A	Supplement Aging Management Programs and Activities Credited for Columbia License Renewal	Amendment 65
		LDCN-19-011	New FP Water Supply System Interface	0
		License Controlled Specification 1.10	Fire Protection	116
		N/A	Crew A Drill Critique 2021 2nd qtr.	4/22/2021
		N/A	Crew B Drill Critique 2021 1st qtr.	2/4/2021
		N/A	Crew B Drill report 1st qtr. 2021	2/4/2021
		N/A	Crew A Drill Scenario 19-011	12/5/2019
		N/A	Crew A Drill Report 4th qtr. 2019	12/5/2019
		N/A	Crew A Drill report 1st qtr. 2021	1/28/2021
		N/A	Crew A Drill Critique 2021 1st qtr.	1/28/2021
		N/A	Crew C Drill Critique 2021 1st qtr.	2/11/2021
		N/A	Crew C U-B Drill Report 2020	1/16/2020
		N/A	Crew D Drill Critique 2021 2nd qtr.	6/21/2021
		N/A	Crew D Drill report 2nd qtr. 2021	6/21/2021
		N/A	Drill Scenario XFMR-TR-B	6/21/2021
		N/A	Drill Scenario XFMR-TR-B	4/22/2021
		N/A	Long remediation package for AR-38114	6/21/2018
		N/A	Rogers remediation package for AR 38115	6/11/2018
		N/A	TG-002 Crew A	1/28/2021
		N/A	Unannounced-BackShift-Critique.4-21-21	4/21/2021
		NUREG-2123, Volume 1	Safety Evaluation Report Related ti the License Renewal of Columbia Generating Station	May 2012
		TIMD415	FP000035 Fire Brigade Members TIMD415 - Qualified Personnel Selection Export Grid	N/A
	Procedures	1.3.10	Plant Fire Protection Program Implementation	036
		10.2.222	Seismic Storage Requirements for Transient Equipment	002
		13.14.4	Emergency Equipment Maintenance and Testing	055
		15.2.49	Function and Sensitivity Check of VERSDA	003

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		15.3.7	Fire System Inspection	012
		981-01-134	GNF2 Fuel Design Cycle-Independent Analyses For Energy Northwest Columbia Generating Station	004
		ABN-CR-EVAC	Control Room Evacuation and Remote Cooldown	044
		ABN-ELEC-SM3/SM8	SM-3, SM-8, SM-85, SM-82, SL-81, SL-83 & SL-31 Distribution System Failures	022
		ABN-FAZ	FAZ	021
		ABN-FIRE	Fire	043/001
		ABN-FIRE-CR	Control Room Fire	005
		ABN-RPS	Loss of RPS	015
		CSP-01.003	Cyber Security Plan	003
		GEH-0000-0075-4920-R6	GE14 Fuel Design Cycle-Independent Analyses For Energy Northwest Columbia Generating Station	006
		ISPM-2	Compressed Gases and Welding/Cutting	11
		MI-1.22A	Maintenance Planners Guide	013
		OI-09 - Operations Standards and Expectation	Operations Standards and Expectation	80
		PPM 1.3.10	Plant Fire Protection Program Implementation	036/001
		PPM 1.3.10B	Active Fire System Operability and Impairment Control	017
		PPM 1.3.27	Fire Barrier Impairment	041
		PPM 1.3.85	On-Line Fire Risk Management	006
		PPM 15.1.1	Fire Suppression Sprinkler System Inspection	021
		PPM 15.1.12	Fire Main Header Flush and Hydrant Inspection	019/003
		PPM 15.1.15	Wet Pipe Sprinkler Flow Switch Functional Test	022/002
		PPM 15.1.3	FP-P-1 Operability Test	026
		PPM 15.1.4	FP-P-110 Operability Test	041
		PPM 15.1.5	FP-P-2A Operability Test	016
		PPM 15.1.6	FP-P-2B Operability Test	016
		PPM 15.2.2	Function and Sensitivity Check of Ionization Detectors	021
		PPM 15.2.33	PGCC Halon Initiator Replacement	006/002
		PPM 15.2.36	PGCC Halon System U679 Through U894 - Sensitivity	010/001

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Check, Actuation Test and CFT	
		PPM 15.2.49	Function and Sensitivity Check of VESDA	003
		PPM 15.2.5	Zone 66 Ionization Detector Visual Inspection, Function and Sensitivity Tests	009/003
		PPM 15.2.7	Zone 22, 23, 25, and 26 HVAC Duct Detector Sensitivity Testing and CFT	007/003
		PPM 15.3.15	Fire Protection Sprinkler System Internal Inspection	023
		PPM 15.3.17	Fire Door Operability - Semiannual, Annual, Biennial	010/001
		PPM 15.3.5	Fire Damper Operational Inspection	017
		PPM 15.3.6	Control Room Halon Pressure Check, Weight Check, Nozzle Inspection, and PGCC Barrier Inspection	011
		PPM 15.3.7	Fire System Inspection	012
		PPM 15.4.2	Fire Main Hydraulic Data Acquisition	014
		PPM 15.4.6	Essential Fire Rated Penetration Seal and Essential Fire and Flood Barrier Operability Inspection	010
		PPM 15.4.8	Fire Protection System Functional Test	027
		PPM 5.1.1	RPV Control (Mode 1-3)	023
		PPM 5.1.8	Alternate Level/Pressure Control (Mode 1-3)	001
		SOP-DG2-START	Emergency Diesel Generator (DIV 2) Start	034
		SOP-RHR-FILL	RHR Loop Fill and Vent	027
		SOP-SW-OPS	Standby Service Water Operations	009
		SS2-PE-98-091	Generic Structural Evaluation of TSW Piping With Hypothetical Through-Wall Flaws	10/14/1999
		SWP-CAP-01	Corrective Action Program	044
		SWP-CAP-06	Condition Report Review	28
		SWP-CSW-15	Portable Media and Digital Device Use	017
		SWP-CSW-28	Cyber Events Recognition, Response and Reporting	001
		SWP-DES-01	Plant Modifications & Configuration Control	018
		SWP-FPP-01	Nuclear Fire Protection Program	008
		SWP-LIC-02	Licensing Basis Impact Determinations	015
		TPD-22	Fire Brigade Training Program Description	006
	Self-	AR-SA: 411359	Focused Self-Assessment Report-Fire Protection, Post	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Assessments		Fire Safe Shutdown, Aging Management of Fire Protection	
		AU-FP-20	Fire Protection Program Audit Report	02/06/2020
	Work Orders		02100668 01 02122123 01 02170969 01 02171962 01 02117970 01 02171963 01 02167618 01 02170942 01 02169165 01 02171844 01 02016625 01 02119302 01 02150709 01 02144648 01 02108761 01 02127008 01 02112518 01 02137252 01 02122586 01 02161448 01 02100984 01 02045955 01 02094033 01 02107667 01 02141329 01 02104673 01 02107903 01 02104673 01 01194985 01 02066673 01 02066673 17 02066673 32 02066673 45 01130428 15 02117321 01 02124553 01 02157987 01 02172031 01 02162339 01 02116224 14 Work Request 29133653 Work Request 29162402	