



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

November 6, 2019

Mr. Rod Penfield
Site Vice President
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
P.O. Box 4, Route 168
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY POWER STATION, UNITS 1 AND 2 – INTEGRATED
INSPECTION REPORT 05000334/2019003 AND 05000412/2019003

Dear Mr. Penfield:

On September 30, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Beaver Valley Power Station, Units 1 and 2. On October 3, 2019, the NRC inspectors discussed the results of this inspection with Matt Enos, General Plant Manager, and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any finding or violation of more than minor significance.

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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Matthew R. Young, Chief
Reactor Projects Branch 5
Division of Reactor Projects

Docket Nos. 05000334 and 05000412
License Nos. DPR-66 and NPF-73

Enclosure:
As stated

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SUBJECT: BEAVER VALLEY POWER STATION, UNITS 1 AND 2 – INTEGRATED
INSPECTION REPORT 05000334/2019003 AND 05000412/2019003 DATED
NOVEMBER 6, 2019

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

Docket Numbers: 05000334 and 05000412

License Numbers: DPR-66 and NPF-73

Report Numbers: 05000334/2019003 and 05000412/2019003

Enterprise Identifier: I-2019-003-0039

Licensee: FirstEnergy Nuclear Operating Company

Facility: Beaver Valley Power Station, Units 1 and 2

Location: Shippingport, PA

Inspection Dates: July 1, 2019 to September 30, 2019

Inspectors: J. Krafty, Senior Resident Inspector
S. Horvitz, Resident Inspector
J. Brand, Reactor Inspector
M. Orr, Reactor Inspector
S. Pindale, Senior Reactor Inspector
R. Rolph, Health Physicist

Approved By: Matthew R. Young, Chief
Reactor Projects Branch 5
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Beaver Valley Power Station, Units 1 and 2, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

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

Additional Tracking Items

None.

PLANT STATUS

Unit 1 and Unit 2 operated at or near rated thermal power for the entire 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 plant status activities described in IMC 2515 Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Seasonal Extreme Weather Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal high temperatures.

71111.04Q - Equipment Alignment

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

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

- (1) Unit 2 component cooling water system following surveillance testing of the 'B' component cooling water pump on August 2, 2019
- (2) Unit 1 reactor plant component cooling water system following 'C' component cooling water pump testing on August 8, 2019
- (3) Unit 1 'B' train of reactor plant river water with the 'C' pump aligned to the 'B' train on August 26, 2019

71111.05Q - Fire Protection

Quarterly Inspection (IP Section 03.01) (5 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) Unit 1 control room and computer room, fire compartment 3-CR-1, on July 17, 2019
- (2) Primary access facility, fire compartment 3-PAF-1, on August 7, 2019

- (3) Unit 1 and 2 emergency response facility diesel generator building and substation, fire compartments 3-ER-1 and 3-ER-2, on August 19, 2019
- (4) Unit 2 battery room 2-5, fire compartment 2-SB-10, on August 25, 2019
- (5) Unit 1 and 2 meteorological tower, fire compartment 3-MT-1, on September 12, 2019

71111.06 - Flood Protection Measures

Inspection Activities - Internal Flooding (IP Section 02.02a.) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

- (1) Unit 2 service building during the week of August 26, 2019

71111.07T - Heat Sink Performance

Triennial Review (IP Section 02.02) (4 Samples)

The inspectors evaluated heat exchanger/sink performance on the following:

- (1) Unit 2 emergency diesel generator 2-1 intercooler heat exchanger (2EGS-E21A) - 02.02(b)
- (2) Unit 2 emergency diesel generator 2-2 water jacket cooling heat exchanger (2EGS-E22B) - 02.02(b)
- (3) Unit 2 service water pump motor oil cooler (2SWS-P21A-Motor) - 02.02(b)
- (4) Unit 2 ultimate heat sink - service water system piping integrity and intake structure functionality - 02.02(d)(6, 7)

71111.11Q - Licensed Operator Regualification Program and Licensed Operator Performance

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

- (1) The inspectors observed and evaluated Unit 2 operator performance in the control room during control rod partial movement testing and 'B' low head safety injection pump testing on July 25, 2019, and turbine driven auxiliary feedwater pump testing on August 27, 2019.

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

- (1) The inspectors observed and evaluated Unit 1 licensed operator regualification training in the simulator on July 8, 2019.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness Inspection (IP Section 02.01) (1 Sample)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

- (1) Unit 2 Area Ventilation System, System 44F, on August 30, 2019

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

- (1) Unit 1 main unit generator relays and 1-2 emergency diesel generator testing on July 24, 2019
- (2) Unit 2 planned maintenance on the 'A' recirculation spray pump motor and surveillance on the 'A' motor driven auxiliary feed pump on August 7, 2019
- (3) Unit 1 planned maintenance on the emergency response facility 'H' bus breaker and 'A' auxiliary river water pump testing on August 16, 2019
- (4) Unit 1 'B' traveling screen maintenance and 'B' motor driven auxiliary feedwater pump testing on August 28, 2019
- (5) Unit 2 'B' service water pump testing and chemical addition to the 2-2 emergency diesel generator heat exchangers on August 29, 2019

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 02.02) (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Unit 1 control rod H10 rod position indication drifting low on July 20, 2019
- (2) Unit 1 1-2 emergency diesel generator 'C' fuel oil transfer pump low discharge pressure on July 24, 2019
- (3) Unit 2 turbine driven auxiliary feedwater pump 'C' steamline isolation valve, 2MSS-SOV105F, slow stroke time on August 27, 2019
- (4) Unit 2 essential bus 2-5 loss of inverter output on September 9, 2019
- (5) Unit 2 2-1 emergency diesel generator day tank level indication, 2EGF-LIS204A, not reading correctly on September 12, 2019

71111.17T - Evaluations of Changes, Tests, and Experiments

Sample Selection (IP Section 02.01) (19 Samples)

From August 5–15, 2019, the inspectors reviewed and verified that the following evaluations, screenings, and applicability determinations for Beaver Valley Units 1 and 2 were performed in accordance with 10 CFR 50.59.

- (1) 15-00540, Unit 2, Safety Evaluation, Analyses Supporting Steam Generator Replacement (ECP 13-0217), 3/14/17
- (2) 18-02828, Unit 2, Safety Evaluation, Revise Safeguards Area Ventilation Service Water Flow Requirement (UFSAR Change 18-140), 1/11/19
- (3) 06-04505, Unit 1, Replacement High Head Safety Injection Throttle Valves (ECP 06-0246), 4/24/19
- (4) 15-02552, Unit 2, Reactor Trip or Safety Injection (2OM-53A.1.E-0), 11/22/16
- (5) 15-02933, Unit 1, Barrier Installation at Exterior Plant Doors (ECP 15-0357), 1/8/18

- (6) 16-01277, Unit 2, Replace Power-Operated Relief Valve Orifices in 2RCS-PCV455C, 455D, and 456 (ECP 15-0571), 4/20/16
- (7) 17-00133, Unit 2, UFSAR Surveillance Test Frequency Changes to Reflect Surveillance Frequency Control Program Performed by 2OST-36.3 and 2OST-36.4 (UFSAR Change 17-014), 2/20/17
- (8) 17-00255, Unit 2, Replace 'A' CAR Fan BV-2HVR-FN201A Motor with Spare Motor (PERP 001254), 4/5/17
- (9) 17-00877, Unit 2, License Requirements Manual/Core Operating Limits Report and UFSAR Changes for the Cycle 20 Core Design (LDCN 17-040), 4/3/17
- (10) 17-02147, Unit 2, Power-Operated Relief Valve Discharge Piping Support Upgrades and Heat Trace Abandonment (ECP 17-0214), 1/31/18
- (11) 18-00641, Unit 2, Incorporation of Relief Request 2-TYP-4-RV-04 into Calculation and the UFSAR (Calculation 10080-DMC-3537), 3/7/19
- (12) 18-02678, Unit 2, Make Weld Overlay Installed on Service Water Pipe 2-SWS-030-171-4, Permanent (ECP 18-0187), 9/21/18
- (13) 18-02929, Unit 2, 4160 and 480 Volt AC Load Management and Voltage Profile Calculations Relating to Buses 2AE and 2DF (Calculation 10080-E-221), 10/9/18
- (14) 18-03141, Units 1 and 2, Group 1 Flood Door Seal System Operability Check (PAF 18-01719), 12/5/18
- (15) 19-00322, Unit 1, Leading Edge Flow Meter System Maintenance Plan (PNL-LEFM), 2/1/19
- (16) 19-00444, Unit 2, Seismic Evaluation of Westinghouse SSPS Power Supply 5D63760G01 (Calculation 10080-DQC-0179), 3/11/19
- (17) 19-00678, Units 1 and 2, Control of Penetrations, Including High Energy Line Break Doors (1/2-ADM-2021), 4/10/19
- (18) 19-00721, Unit 2, Loss of Residual Heat Removal Capability (PAF-19-00467), 8/5/19
- (19) 19-01173, Unit 2, Replace Air-Operated Valve 2CCS-DCV215 with a Manual Valve (ECP 19-00142), 7/11/19

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Engineering Change Package 18-0234-001 – Upgrade Emergency Diesel Generator Starting Air Tank Inlet Check Valves to Spring-Assist Closed
- (2) Engineering Change Package 18-0043 - Unit 1 Radiation Monitoring System Upgrade Modifications

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the following post-maintenance tests:

- (1) Unit 1 'B' centrifugal charging pump automatic oil controller replacement on July 16, 2019
- (2) Unit 1 1-2 emergency diesel generator air start solenoid valve (SOV-1EE-104) replacement on July 24, 2019

- (3) Unit 2 'B' steam generator auxiliary feedwater throttle valve breaker maintenance on August 8, 2019
- (4) Unit 1 'C' reactor plant component cooling water pump suction expansion joint replacement on August 8, 2019
- (5) Unit 2 'A' low head safety injection pump coupling greasing on August 13, 2019

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (2 Samples)

- (1) 2OST-1.1, Control Rod Assembly Partial Movement Test on July 25, 2019
- (2) 1MSP-36.41-E, 1AE 4KV Emergency Bus Degraded Voltage Relays [27-VE2100ab] and [27-VE2100bc] Test on September 3, 2019

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) 1OST-24.4, Steam Turbine Driven Auxiliary Feed Pump Test [1FW-P-2] on July 16, 2019

71114.06 - Drill Evaluation

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

The inspectors evaluated:

- (1) Unit 1 simulator training evolution for licensed operators on July 8, 2019

RADIATION SAFETY

71124.01 - Radiological Hazard Assessment and Exposure Controls

Radiological Hazard Assessment (IP Section 02.01) (1 Sample)

The inspectors evaluated radiological hazard assessments and controls.

- (1) The inspectors reviewed the following:

Radiological Surveys

Unit 1

- PCA Shop
- 735' Safeguards
- 756' Safeguards
- Spent Fuel Pool
- 717' Valve Operation Area Bottom Floor
- 727' East Valve Trench
- 741' Safeguards

Unit 2

- 718' Safeguards
- 737' Safeguards
- 767' Fuel Handling Building

Risk Significant Radiological Work Activities

- 1-CH11 valve Repair

Air Sample Survey Records

- 19-139
- 19-140
- Unit 1 East Valve Trench

Instructions to Workers (IP Section 02.02) (1 Sample)

The inspectors evaluated instructions to workers including radiation work permits used to access high radiation areas.

- (1) The inspectors reviewed the following:

Radiation Work Packages

<u>RWP</u>	<u>ALARA Plan</u>	<u>Description</u>
119-0418	19-1-0418	Reactor Disassembly/Re-Assembly
119-0419	19-1-0419	CETNA
119-0421	19-1-0421	Remove/Replace Upper Internals
119-0423		ISI Support
119-0428	19-1-0428	Scaffold
119-0141	19-1-0141	1CH-11

Electronic Alarming Dosimeter Alarms

- No alarms occurred during the period of this inspection

Labeling of Containers

- Observed several bags and drums in the radwaste processing area

Radiological Hazards Control and Work Coverage (IP Section 02.04) (1 Sample)

The inspectors evaluated in-plant radiological conditions during facility walkdowns and observations of radiological work activities.

- (1) The inspectors also reviewed the following radiological work package for areas with airborne radioactivity:

<u>RWP</u>	<u>ALARA Plan</u>	<u>Description</u>
119-0428	19-1-0428	Scaffold

High Radiation Area and Very High Radiation Area Controls (IP Section 02.05) (1 Sample)

- (1) The inspectors evaluated risk-significant high radiation area and very high radiation area controls.

Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 02.06) (1 Sample)

- (1) The inspectors evaluated radiation worker performance and radiation protection technician proficiency.

71124.04 - Occupational Dose Assessment

External Dosimetry (IP Section 02.02) (1 Sample)

- (1) The inspectors evaluated the external dosimetry program implementation.

Internal Dosimetry (IP Section 02.03) (1 Sample)

The inspectors evaluated the internal dosimetry program implementation.

- (1) The inspectors reviewed the following:

Whole Body Counts

- The inspectors reviewed 3 investigative whole body counts. One for an individual with a medical injection. One for an individual with incoming internal exposure and one for an individual who was in an alpha contamination area.

In-Vitro Internal Monitoring

- None were available during this inspection

Dose Assessments Performed Using Air Sampling and Derived Air Concentration-Hour Monitoring

- None were available during this inspection

Special Dosimetric Situations (IP Section 02.04) (1 Sample)

The inspectors evaluated the following special dosimetric situation:

- (1) The inspectors reviewed Beaver Valley's implementation of requirements to manage radiation protection of declared pregnant workers for 3 individuals, application of NRC-approved external dosimetry methods (i.e. EDEX), shallow dose equivalent, and neutron dose assessments.

71124.07 - Radiological Environmental Monitoring Program

Site Inspection (IP Section 02.01) (1 Sample)

The inspectors evaluated the radiological environmental monitoring program implementation.

- (1) The inspectors reviewed the following:

Walkdowns, Calibrations, and Maintenance Record Review

- TLDs at locations 32, 13, 27, and 46.1
- Air Samples at locations 46.1, 32, 47, 13, and 27

Environmental Sample Collections and Preparation Observation

- Surface and Drinking Water Samples at Midland (04) and East Liverpool (05) and a grab sample (49A)
- Garden Sampling at location 10

Licensee Actions in Response to Missed Sample, Inoperable Sampler, Lost TLD or Anomalous Measurement

- None were available for review during this inspection

Sampling Program for the Potential of Licensed Material Entering Groundwater

- Ground Water Sampling Wells at MW-20S and MW-20D

Groundwater Protection Initiative (GPI) Implementation (IP Section 02.02) (1 Sample)

- (1) The inspectors verified that the licensee is continuing to implement the voluntary Nuclear Energy Institute/ Industry Ground Water Protection Initiative.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS08: Heat Removal Systems (IP Section 02.07) (2 Samples)

- (1) Unit 1 - July 1, 2018 through June 30, 2019
(2) Unit 2 - July 1, 2018 through June 30, 2019

MS09: Residual Heat Removal Systems (IP Section 02.08) (2 Samples)

- (1) Unit 1 - July 1, 2018 through June 30, 2019
(2) Unit 2 - July 1, 2018 through June 30, 2019

MS10: Cooling Water Support Systems (IP Section 02.09) (2 Samples)

- (1) Unit 1 - July 1, 2018 through June 30, 2019
(2) Unit 2 - July 1, 2018 through June 30, 2019

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) January 1, 2018 through December 31, 2018

71152 - Problem Identification and Resolution

Semiannual Trend Review (IP Section 02.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program for trends that might be indicative of a more significant safety issue.

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On October 3, 2019, the inspectors presented the integrated inspection results to Matt Enos, General Plant Manager, and other members of the licensee staff.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT, AND ABNORMAL

Impact of Financial Conditions on Continued Safe Performance

In that the licensee's parent company, FirstEnergy Solutions, was under bankruptcy protection/reorganization during the inspection period, NRC Region I conducted reviews of processes at Beaver Valley. Using the flexibilities in the baseline inspection program, the inspectors evaluated several aspects of FENOC's operations to assess whether any identified plant performance issues could be related to the station's financial condition. The factors reviewed included: (1) impact on regulatory required plant staffing, (2) corrective maintenance backlog, (3) changes to the planned maintenance schedule, (4) corrective action program implementation, and (5) reduction in outage scope, including risk-significant modifications. In particular, the inspectors assessed whether FENOC personnel continued to identify problems at an appropriate threshold and enter these problems into the corrective action program for resolution. The inspectors also assessed whether FENOC continued to develop and implement corrective actions commensurate with the safety significance of the problems identified.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Corrective Action Documents	2019-03955		
		2019-04092		
		2019-05610		
		2019-05623		
	Miscellaneous		Site Vice President letter, Certification of Summer Readiness	06/28/2019
			Summer Readiness Report – Summer Prep 'D'	05/13/2019
			Open summer readiness work orders	06/21/2019
71111.04Q	Drawings	1BVP-CYC-026-1	Clearance FIN-30-CW-003	Posted 8/26/2019
	Procedures	2OM-15.3.B.1	Valve List – 2CCP	Revision 20
		2OST-15.2	Primary Component Cooling Water Pump [2CCP*P21B] Test	Revision 63
71111.05Q	Miscellaneous	ATA-2019-12008		
	Procedures	2OM-54.3-OUT2	Outside Log Readings	Revision 69
71111.06	Corrective Action Documents	2014-14135		
	Miscellaneous	N-265	Flooding Analysis Outside Containment	Revision 6
		N-525	Evaluation of a Main Feedwater Line Break in the Service Building 780'-6" Elevation	Revision 3
		PRA-BV2-AL-R07	(IF) Internal Flooding Analysis	Revision 7
	Procedures	2OM-41D.4.AAD	Pipe Tunnel Service Bldg Sump Level High	Revision 4
		BVBP-OPS-0029	Control of Time Critical Operator Actions	Revision 9
71111.11Q	Miscellaneous	G-OTLC-S1904ASFND_BV1	Unit 1 As Found Evaluation	Revision 0
	Procedures	2OST-1.1	Control Rod Assembly Partial Movement Test	Revision 15
		2OST-11.2	Low Head Safety Injection Pump [2SIS*P21B] Test	Revision 33
		2OST-24.4	Steam Driven Auxiliary Feed Pump [2FWE*P22] Quarterly Test	Revision 91
71111.12	Corrective Action Documents	2016-12428		
		2017-06792		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2018-07462		
		2018-08427		
		2019-03058		
	Miscellaneous		Maintenance Rule (a)(1) Evaluation Form CR 2018-08427	
		601230911		
71111.15	Corrective Action Documents	2019-06105		
		2019-06242		
		2019-07163		
		2019-07454		
		2019-07517		
	Drawings	10080-RE-1BC	One Line Diagram Essential Bus Sh 1	Revision 11
		2001.240-391-031	One Line Diagram Essential Bus UPS	Revision 5
	Procedures	2OM-38.4.AAC	Essential Bus Inverter Operation/Trouble	Revision 9
71111.17T	Corrective Action Documents Resulting from Inspection	2019-06822		
		2019-06867		
		2019-06874		
	Miscellaneous	2016-0009	Surveillance Test Risk-Informed Documented Evaluation	03/23/2017
		ML14322A461	License Amendment 292/179 for Beaver Valley 1/2, Technical Specification Change to Relocate Surveillance Frequencies to Licensee Control	03/06/2015
71111.18	Corrective Action Documents	2019-05844		
		2019-05878		
	Miscellaneous		Quality Control Receiving Inspection Report for Purchase Order 45540128	
		10080-DMS-0552	Procurement Specification for Emergency Diesel Generator Air Start Check Valve Replacements	Revision 0
		DR-SA-A181002	Design Report and Seismic Analysis	Revision 0
		NOP-CC-2003-04	Engineering Change Screen	Revision 1
	Procedures	2OST-47.3L	Containment Penetration and ASME Valve Test – Work Week 7	Revision 43
		S31484938-1FC-MS100A	Field Change Procedure for Main Steam Monitor MS100A	Revision 3

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		S31484938-1FC-MS100B	Field Change Procedure for Main Steam Monitor MS100B	Revision 4
		S31484938-1FC-SV100	Field Change Procedure for Condenser Air Ejector	Revision 3
		S31484938-1FC-VS101B	Field Change Procedure for Ventilation Vent Gas Monitor	Revision 3
	Work Orders	200766078		
71111.19	Corrective Action Documents	2019-06225		
	Procedures	1/2CMP-75-Expansion Joint-1M	Inspection and Replacement of Garlock Rubber Expansion Joints	Revision 9
		1/2CMP-75-MCB-1E	Testing of Westinghouse and Cutler-Hammer Molded Case Circuit Breakers	Revision 18
		1/2CMP-75-SOV-1I	Replacement of ASCO Solenoid Operated Valves (SOV)	Revision 16
		1MSP-36.71B-I	No. 2 Emergency Diesel Generator Air Start Solenoid Valve [SOV-1EE-104] Replacement	Revision 1
	Work Orders	200547305		
		200691943		
		200699905		
		200727313		
		200785775		
71111.22	Corrective Action Documents	2019-00851		
		2019-03817		
		2019-05194		
	Corrective Action Documents Resulting from Inspection	2019-06303		
		2019-06316		
71114.06	Miscellaneous	G-OTLC-S1904ASFND_BV1	Unit 1 As Found Evaluation	Revision 0
71124.01	Corrective Action Documents	2019-4621	Shepherd Calibrator	
	Corrective Action	2019-06424	Procedure errors	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents Resulting from Inspection	2019-06425	Dry Drum Storage Area Housekeeping	
		2019-06426	Communication Equipment	
		2019-06479 and 2019-06480	Outside Radioactive Material Storage Containers	
	Procedures	NOP-OP-4005	ALARA Program	Revision 6
		NOP-OP-4101	Access Controls for Radiologically Controlled Areas	Revision 16
		NOP-OP-4107	Radiation Work Permit (RWP)	Revision 18
		NOP-OP-4201	Radiological Posting and Labeling	Revision 14
		NOP-OP-4502	Control of Radioactive Material	Revision 6
	Radiation Surveys	102110	Unit 1 717' Valve Operation Area Bottom Floor	July 29, 2019
		BV-M-20190319-10	Unit 2 741' Safeguards	March 18, 2019
		BV-M-20190501-1	Unit 2 741' Safeguards	May 1, 2019
		BV-M-20190528-10	Unit 1 PCA Shop	May 22, 2019
		BV-M-20190618-11	Unit 1 PCA Shop	June 18, 2019
		BV-M-20190729-10	Unit 1 727' East Valve Trench	July 29, 2019
		BV-M-20190729-2	Unit 1 727' East Valve Trench	July 29, 2019
71124.04	Corrective Action Documents	2019-00400	Calibration Failure	
		2019-03566	Electrometer Out of Service	
	Procedures	1-2-HPP-6.01.001	HIS-20 Dosimetry Operations	Revision 12
		NOP-OP-4201	Routine External Exposure Monitoring	Revision 4
		NOP-OP-4202	Declared Pregnant Workers	Revision 2
		NOP-OP-4204	Special External Exposure Monitoring	Revision 11
		NOP-OP-4205	Dose Assessment	Revision 9
		NOP-OP-4206	Bioassay Program	Revision 4
71124.07	Miscellaneous		Air Particulate Sample Site No. 46.1, Industry, PA	
			Air Particulate Sample Site No. 47, East Liverpool, OH	
			Air Particulate Sample Site No. 32, Midland, PA	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Air Particulate Sample Site No. 27, Aliquippa, PA	
			Air Particulate Sample Site No. 13, Hookstown, PA	
			Direct Radiation Sample Site No. 32, Midland, PA	
			Direct Radiation Sample Site No. 13, Hookstown, PA	
			Direct Radiation Sample Site No. 27, Aliquippa, PA	
			Direct Radiation Sample Site No. 46.1, Industry, PA	
			Drinking Water Sample Site No. 4, Midland, PA	
			Drinking Water Sample Site No. 5, East Liverpool, OH	
			Surface Water Sample Site No. 5, East Liverpool, OH	
			Surface Water Sample Site No. 49A, Industry, PA	
			Food Crops Sample Site No. 10, Shippingport, PA	
			Groundwater Well MW-20S, Shippingport, PA	
			Groundwater Well MW-2DS, Shippingport, PA	
	Self-Assessments	JQA-17-038	Audit Report PQA 17-008 Revision 0, NUPIC Audit #24367	April 27, 2017
71151	Corrective Action Documents	2018-05630		
		2018-06878		
		2018-07776		
		2018-08331		
		2019-03723		
		2019-07600		
	Miscellaneous	EER 601238680		
		EER 201237888		