



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PA 19406-2713

March 3, 2020

Mr. Rod Penfield
Site Vice President
Energy Harbor Nuclear Corp.
Beaver Valley Power Station
P.O. Box 4, Route 168
Shippingport, PA 15077

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BEAVER VALLEY POWER STATION,
UNITS 1 AND 2 (REPORTS 05000334/2019006 AND 05000412/2019006)

Dear Mr. Penfield:

The NRC has completed its end-of-cycle performance assessment of Beaver Valley Power Station, Units 1 and 2, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2019, through December 31, 2019. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. The NRC concluded that overall performance at your facility preserved public health and safety.

The NRC determined the performance at Beaver Valley Power Station, Units 1 and 2, during the most recent quarter was within the Licensee Response Column (Column 1) of the NRC's Reactor Oversight Process (ROP) Action Matrix in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," because all inspection findings had very low safety significance (i.e., Green), and all PIs were within the expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at Beaver Valley Power Station, Units 1 and 2.

The enclosed inspection plan lists the inspections scheduled through December 31, 2021. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. You should be aware that the agency is pursuing potential changes to the ROP, including changes to engineering inspections (SECY-18-0113, "Recommendations for Modifying the Reactor Oversight Process Engineering Inspections") and other changes to the baseline inspection program described in SECY-19-0067, "Recommendations for Enhancing the Reactor Oversight Process." Should these changes to the ROP be implemented, the engineering and other region-based inspections are subject to change in scope, as well as schedule.

Additionally, in a letter (ADAMS Accession No. ML18115A007) dated April 25, 2018, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.82(a)(1)(i), the NRC was notified of the intent to permanently cease power operations at Beaver Valley Power Station,

Units 1 and 2. Unit 1 will shut down by May 31, 2021, and Unit 2 will shut down by October 31, 2021. Therefore, the inspection schedule is tentative and may be revised. Once you formally notify the NRC in accordance with 10 CFR 50.82(a)(1)(ii) that either Unit 1 or Unit 2 is permanently shutdown and that all the nuclear fuel has been removed from the reactor vessel, then that unit will transition from NRC IMC 0305, "Operating Reactor Assessment Program," and IMC 2515, "Light-Water Reactor Inspection Program – Operations Phase," to IMC 2561, "Decommissioning Power Reactor Inspection Program." The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

In addition to normal baseline inspections, the NRC will be performing Inspection Procedure (IP) 60854.1, "Preoperational Testing of Independent Spent Fuel Storage Installations (ISFSI) at Operating Plants," and IP 60855.1, "Operation of an ISFSI at Operating Plants," at your facility. Lastly, the NRC will schedule an additional inspection per a revised version of Temporary Instruction (TI) 2515/194, "Inspection of the Licensee's Implementation of Industry Initiative Associated with the Open Phase Condition Design Vulnerability in Electrical Power Systems (NRC Bulletin 2012-01)," for any sites who elect to implement the guidance of the Industry Initiative on Open Phase Condition, Revision 3 (ADAMS Accession No. ML19163A176). Licensees will be individually notified when the NRC schedules these inspections.

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."

Please contact me at 610-337-5356 with any questions you have regarding this letter.

Sincerely,

X /RA/

Signed by: Patrick W. Finney

Patrick W. Finney, Acting Chief
Reactor Projects Branch 5
Division of Reactor Projects

Docket Nos. 50-334 and 50-412
License Nos. DPR-66 and NPR-73

Enclosure:
Beaver Valley Inspection Plan

cc w/ encl: Distribution via LISTSERV®

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BEAVER VALLEY POWER STATION,
 UNITS 1 AND 2 (REPORTS 05000334/2019006 AND 05000412/2019006)
 DATED MARCH 3, 2020

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ADAMS ACCESSION NUMBER: ML20059L509

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IP 22 Inspection Activity Plan Report

Beaver Valley

01/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
TI-194 Open Phase Condition Inspection - BV						2
1, 2	01/27/2020	01/31/2020	TI 2515/194	000512	Inspection of the Licensee's Implementation of Industry Initiative Associated With the Open Phase Condition Design Vulnerabilities In Electric Power Systems (NRC Bulletin 2012-01)	
Rad Safety Inspection						1
1, 2	01/27/2020	01/31/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	01/27/2020	01/31/2020	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	01/27/2020	01/31/2020	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	01/27/2020	01/31/2020	IP 71124.04	000728	Occupational Dose Assessment	
ISI - UNIT 2						1
2	04/20/2020	05/01/2020	IP 71111.08P	000702	Inservice Inspection Activities (PWR)	
Rad Safety Refuel						1
1, 2	04/20/2020	04/24/2020	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	04/20/2020	04/24/2020	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	04/20/2020	04/24/2020	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	04/20/2020	04/24/2020	IP 71124.04	000728	Occupational Dose Assessment	
EP EXERCISE INSPECTION - BEAVER VALLEY						5
1, 2	06/08/2020	06/12/2020	IP 71114.01	000716	Exercise Evaluation	
1, 2	06/08/2020	06/12/2020	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
1, 2	06/08/2020	06/12/2020	IP 71151	001397	Performance Indicator Verification	
BV1 Requal Inspection with P/F Results						2
1	06/21/2020	06/27/2020	IP 71111.11A	000703	Licensed Operator Requalification Program and Licensed Operator Performance	
1	06/21/2020	06/27/2020	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance	
Rad Safety Instruments						1
1, 2	08/17/2020	08/21/2020	IP 71124.05	000729	Radiation Monitoring Instrumentation	
Access Control, Equip Perf, Training-BV						3
1, 2	08/31/2020	09/04/2020	IP 71130.02	000734	Access Control	
1, 2	08/31/2020	09/04/2020	IP 71130.04	000736	Equipment Performance, Testing, and Maintenance	
1, 2	08/31/2020	09/04/2020	IP 71130.07	000739	Security Training	

This report does not include INPO and OUTAGE activities.

This report shows only on-site and announced inspection procedures.

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Enclosure

IP 22 Inspection Activity Plan Report

Beaver Valley

01/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
Access Control, Equip Perf, Training-BV						3
1, 2	08/31/2020	09/04/2020	IP 71130.09	001656	Security Plan Changes	
1, 2	08/31/2020	09/04/2020	IP 71151	001338	Performance Indicator Verification	
Design Basis Assurance Inspection – Teams – Beaver Valley Unit 1 and 2						6
1, 2	09/14/2020	09/18/2020	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
1, 2	09/28/2020	10/02/2020	IP 71111.21M	000713	Design Bases Assurance Inspection (Teams)	
Radwaste						1
1, 2	09/14/2020	09/18/2020	IP 71124.08	000732	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
ISFSI Dry Run & Operational Inspection - BV						2
1, 2	09/28/2020	10/02/2020	IP 60854.1	000589	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
1, 2	10/12/2020	10/16/2020	IP 60855.1	000590	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
Rad Safety RETS						1
1, 2	10/19/2020	10/23/2020	IP 71124.06	000730	Radioactive Gaseous and Liquid Effluent Treatment	
1, 2	10/19/2020	10/23/2020	IP 71151	000746	Performance Indicator Verification	
Rad Safety Inspection						1
1, 2	01/11/2021	01/15/2021	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	01/11/2021	01/15/2021	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	01/11/2021	01/15/2021	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	01/11/2021	01/15/2021	IP 71124.04	000728	Occupational Dose Assessment	
FY21 Beaver Valley 1 Initial Examination						4
1	01/31/2021	02/06/2021	OV	000956	VALIDATION OF INITIAL LICENSE EXAMINATION (OV)	
1	02/28/2021	03/13/2021	EXAD	000500	LICENSE EXAM ADMINISTRATION (EXAD)	
PI&R BIENNIAL - BV						4
1, 2	02/08/2021	02/12/2021	IP 71152B	000747	Problem Identification and Resolution	
1, 2	02/22/2021	02/26/2021	IP 71152B	000747	Problem Identification and Resolution	
Rad Safety Inspection						1
1, 2	04/19/2021	04/23/2021	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	

This report does not include INPO and OUTAGE activities.

This report shows only on-site and announced inspection procedures.

IP 22 Inspection Activity Plan Report

Beaver Valley

01/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
Rad Safety Inspection						1
1, 2	04/19/2021	04/23/2021	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	04/19/2021	04/23/2021	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	04/19/2021	04/23/2021	IP 71124.04	000728	Occupational Dose Assessment	
EP Program Inspection - Beaver Valley						1
1, 2	06/07/2021	06/11/2021	IP 71114.02	000717	Alert and Notification System Testing	
1, 2	06/07/2021	06/11/2021	IP 71114.03	000718	Emergency Response Organization Staffing and Augmentation System	
1, 2	06/07/2021	06/11/2021	IP 71114.04	000719	Emergency Action Level and Emergency Plan Changes	
1, 2	06/07/2021	06/11/2021	IP 71114.05	000720	Maintenance of Emergency Preparedness	
1, 2	06/07/2021	06/11/2021	IP 71151	001397	Performance Indicator Verification	
BV2 Requal Inspection with P/F Results						2
1	07/12/2021	07/16/2021	IP 71111.11A	000703	Licensed Operator Requalification Program and Licensed Operator Performance	
1	07/12/2021	07/16/2021	IP 71111.11B	000704	Licensed Operator Requalification Program and Licensed Operator Performance	
Rad Safety Inspection						1
1, 2	07/12/2021	07/16/2021	IP 71124.07	000731	Radiological Environmental Monitoring Program	
1, 2	07/12/2021	07/16/2021	IP 71151	000746	Performance Indicator Verification	
MATERIAL CONTROL AND ACCOUNTABILITY						1
1, 2	07/18/2021	07/24/2021	IP 71130.11	000742	Material Control and Accounting (MC&A)	
Access Control, Protective Strategy, TSR, SPR						4
1, 2	08/02/2021	08/06/2021	IP 71130.02	000734	Access Control	
1, 2	08/02/2021	08/06/2021	IP 71130.05	000737	Protective Strategy Evaluation	
1, 2	08/02/2021	08/06/2021	IP 71130.09	001656	Security Plan Changes	
1, 2	08/02/2021	08/06/2021	IP 71130.14	000743	Review of Power Reactor Target Sets	
1, 2	08/02/2021	08/06/2021	IP 71151	001338	Performance Indicator Verification	
Rad Safety Inspection						1
1, 2	09/13/2021	09/17/2021	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	09/13/2021	09/17/2021	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	09/13/2021	09/17/2021	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	09/13/2021	09/17/2021	IP 71124.04	000728	Occupational Dose Assessment	

IP 22 Inspection Activity Plan Report

Beaver Valley

01/01/2020 - 12/31/2021

Unit	Start	End	Activity	CAC	Title	Staff Count
Rad Safety Inspection						1
1, 2	10/25/2021	10/29/2021	IP 71124.01	000725	Radiological Hazard Assessment and Exposure Controls	
1, 2	10/25/2021	10/29/2021	IP 71124.02	000726	Occupational ALARA Planning and Controls	
1, 2	10/25/2021	10/29/2021	IP 71124.03	000727	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	10/25/2021	10/29/2021	IP 71124.04	000728	Occupational Dose Assessment	
1, 2	10/25/2021	10/29/2021	IP 71151	000746	Performance Indicator Verification	