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

March 2, 2016

Mr. Marty Richey
Site Vice President
FirstEnergy Nuclear Operating Company
Beaver Valley Power Station
P.O. Box 4
Shippingport, PA 15077

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2 (REPORT 05000334/2015006 AND 05000412/2015006)

Dear Mr. Richey:

On February 9, 2016, the U. S. Nuclear Regulatory Commission (NRC) completed its end-of-cycle performance review of Beaver Valley Power Station, Unit Nos. 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from January 1, 2015, through December 31, 2015. 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 determined that overall, Beaver Valley Power Station, Unit Nos. 1 and 2, operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Beaver Valley Power Station, Unit Nos. 1 and 2 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through December 31, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. In addition to baseline inspections, the NRC will perform Inspection Procedure (IP) 60855.1, "Operation of an ISFSI Independent Spent Fuel Storage Installation at Operating Plants." The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events." This Order requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable

Spent Fuel Pool Instrumentation." This Order requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The audit was completed for Beaver Valley Power Station Unit Nos. 1 and 2, and the information gathered will aid staff in development of the Final Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing TI 2515-191, "Inspection of the Implementation of Mitigating Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communications/Staffing/Multi-Unit Dose Assessment Plans."

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Please contact me at (610) 337-5046 with any questions you have regarding this letter.

Sincerely,

***/RA/***

Silas R. Kennedy, Chief
Projects Branch 6
Division of Reactor Projects

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

Enclosure: Beaver Valley Power Station
Inspection/Activity Plan

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| ☑ SUNSI Review | | ☑ Non-Sensitive<br>☐ Sensitive | | ☑ Publicly Available<br>☐ Non-Publicly Available | |
|---|---|---|---|---|---|
| OFFICE | RI/DRP | RI/DRP | RI/DRP | | |
| NAME | JKrafty/ JK via email | SShaffer/ SWS | SKennedy/ SRK | | |
| DATE | 02/ 23 /16 | 02 / 23 /16 | 02/ 23 /16 | | |

OFFICIAL RECORD COPY

# Beaver Valley
## Inspection / Activity Plan
## 01/01/2016 - 12/31/2017

| Unit Number | Planned Dates Start | Planned Dates End | Inspection Activity | Title | No. of Staff on Site |
|---|---|---|---|---|---|
| | | | **7111111B** | **- BV1 REQUAL INSP W/ P/F RESULTS** | **2** |
| 1 | 04/11/2016 | 04/15/2016 | IP 7111111B | Licensed Operator Requalification Program | |
| | | | **71124** | **- RAD SAFETY INSPECTION** | **1** |
| 1, 2 | 03/07/2016 | 03/11/2016 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 03/07/2016 | 03/11/2016 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 03/07/2016 | 03/11/2016 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 03/07/2016 | 03/11/2016 | IP 71124.04 | Occupational Dose Assessment | |
| | | | **EP** | **- EP EXERCISE EVALUATION** | **4** |
| 1, 2 | 06/13/2016 | 06/17/2016 | IP 7111401 | Exercise Evaluation | |
| | | | **7111107T** | **- TRIENNIAL HEAT SINK** | **1** |
| 1, 2 | 05/16/2016 | 05/20/2016 | IP 7111107T | Heat Sink Performance | |
| | | | **EXM10/3** | **- BEAVER VALLEY 1 INITIAL EXAM** | **6** |
| 1 | 09/12/2016 | 09/16/2016 | U01922 | FY17-BV1 INITIAL OPERATOR LICENSING EXAM | |
| 1 | 10/31/2016 | 11/11/2016 | U01922 | FY17-BV1 INITIAL OPERATOR LICENSING EXAM | |
| | | | **7111117T** | **- PERMANENT PLANT MODIFICATIONS** | **3** |
| 1, 2 | 06/06/2016 | 06/10/2016 | IP 7111117T | Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications | |
| 1, 2 | 06/20/2016 | 06/24/2016 | IP 7111117T | Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications | |
| | | | **71124** | **- RAD SAFETY INSPECTION** | **3** |
| 1, 2 | 07/11/2016 | 07/15/2016 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| 1, 2 | 07/11/2016 | 07/15/2016 | IP 71124.06 | Radioactive Gaseous and Liquid Effluent Treatment | |
| 1, 2 | 07/11/2016 | 07/15/2016 | IP 71124.07 | Radiological Environmental Monitoring Program | |
| 1, 2 | 07/11/2016 | 07/15/2016 | IP 71151-PR01 | RETS/ODCM Radiological Effluent Occurrences | |
| | | | **71124** | **- RAD SAFETY INSPECTION** | **1** |
| 1, 2 | 10/03/2016 | 10/07/2016 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 10/03/2016 | 10/07/2016 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 10/03/2016 | 10/07/2016 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 10/03/2016 | 10/07/2016 | IP 71124.04 | Occupational Dose Assessment | |
| | | | **7111108P** | **- BV U1 INSERVICE INSPECTION** | **2** |
| 1 | 10/03/2016 | 10/14/2016 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | **71124** | **- RAD SAFETY INSPECTION** | **1** |
| 1, 2 | 12/12/2016 | 12/16/2016 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 12/12/2016 | 12/16/2016 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 12/12/2016 | 12/16/2016 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |

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

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## 01/01/2016 - 12/31/2017

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| | | | **71124** | **- RAD SAFETY INSPECTION** | **1** |
| 1, 2 | 12/12/2016 | 12/16/2016 | IP 71124.04 | Occupational Dose Assessment | |
| 1, 2 | 12/12/2016 | 12/16/2016 | IP 71151-OR01 | Occupational Exposure Control Effectiveness | |
| | | | **71124.08** | **- RADWASTE** | **1** |
| 1, 2 | 12/05/2016 | 12/09/2016 | IP 71124.08 | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation | |
| | | | **71124** | **- HP INSPECTION** | **1** |
| 1, 2 | 04/10/2017 | 04/14/2017 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 04/10/2017 | 04/14/2017 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 04/10/2017 | 04/14/2017 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| | | | **7111108P** | **- U2 INSERVICE INSPECTION** | **2** |
| 2 | 04/10/2017 | 04/21/2017 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | **7111111B** | **- BV2 REQUAL INSP WITH P/F RESULTS** | **2** |
| 2 | 06/19/2017 | 06/23/2017 | IP 7111111B | Licensed Operator Requalification Program | |
| | | | **10/8EXAM** | **- BEAVER VALLEY 2 INITIAL EXAM** | **6** |
| 2 | 09/11/2017 | 09/15/2017 | U01938 | FY18-BV2 INITIAL OPERATOR LICENSING EXAM | |
| 2 | 10/09/2017 | 10/20/2017 | U01938 | FY18-BV2 INITIAL OPERATOR LICENSING EXAM | |
| | | | **EP** | **- EP PROGRAM INSPECTION** | **2** |
| 1, 2 | 06/19/2017 | 06/23/2017 | IP 7111402 | Alert and Notification System Testing | |
| 1, 2 | 06/19/2017 | 06/23/2017 | IP 7111403 | Emergency Preparedness Organization Staffing and Augmentation System | |
| 1, 2 | 06/19/2017 | 06/23/2017 | IP 7111405 | Correction of Emergency Preparedness Weaknesses and Deficiencies | |
| 1, 2 | 06/19/2017 | 06/23/2017 | IP 71151 | Performance Indicator Verification | |
| | | | **71124** | **- HP INSPECTION** | **1** |
| 1, 2 | 06/05/2017 | 06/09/2017 | IP 71124.04 | Occupational Dose Assessment | |
| 1, 2 | 06/05/2017 | 06/09/2017 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| | | | **71152B** | **- PI&R BIENNIAL** | **2** |
| 1, 2 | 06/01/2017 | 06/05/2017 | IP 71152B | Problem Identification and Resolution | |
| 1, 2 | 06/15/2017 | 06/19/2017 | IP 71152B | Problem Identification and Resolution | |
| | | | **TI-191** | **- FUKUSHIMA LESSON LEARNED** | **1** |
| 1, 2 | 07/10/2017 | 07/15/2017 | IP 2515/191 | Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012 | |
| | | | **ISFSI** | **- ISFSI LOADING CAMPAIGN INSPECTION** | **1** |
| 1, 2 | 07/24/2017 | 07/28/2017 | IP 60855 | Operation Of An ISFSI | |
| 1, 2 | 07/24/2017 | 07/28/2017 | IP 60855.1 | Operation of an Independent Spent Fuel Storage Installation at Operating Plants | |

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## 01/01/2016 - 12/31/2017

| Unit Number | Planned Dates Start | End | Inspection Activity | Title | No. of Staff on Site |
|---|---|---|---|---|---|
| | | | **71124 - HP INSPECTION** | | **1** |
| 1, 2 | 10/16/2017 | 10/20/2017 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 10/16/2017 | 10/20/2017 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 10/16/2017 | 10/20/2017 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1 | 10/16/2017 | 10/20/2017 | IP 71151-OR01 | Occupational Exposure Control Effectiveness | |
| 1 | 10/16/2017 | 10/20/2017 | IP 71151-PR01 | RETS/ODCM Radiological Effluent Occurrences | |
| | | | **7111121 - CDBI** | | **9** |
| 1, 2 | 10/16/2017 | 10/20/2017 | IP 7111121 | Component Design Bases Inspection | |
| 1, 2 | 10/30/2017 | 11/03/2017 | IP 7111121 | Component Design Bases Inspection | |
| 1, 2 | 11/13/2017 | 11/17/2017 | IP 7111121 | Component Design Bases Inspection | |

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