

**Marty L. Richey**  
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Fax: 724-643-8069January 13, 2017  
L-17-002

10 CFR 50.55a(g)

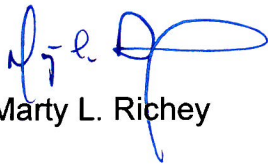
ATTN: Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001**SUBJECT:**Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334, License No. DPR-66  
Twenty-Fourth Refueling Outage Inservice Inspection Summary Report

In accordance with 10 CFR 50.55a, "Codes and standards," and the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Section XI, Article IWA-6000, "Records and Reports," enclosed please find the inservice inspection summary report for examinations performed prior to and during the twenty-fourth refueling outage at Beaver Valley Power Station, Unit No. 1 (BVPS-1).

Class 1, 2, 3, and IWE component inservice inspection examinations addressed in the report are part of the BVPS-1 third period of the fourth ten-year interval and were performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code, 2001 Edition, 2003 Addenda. The inservice inspection term at BVPS-1 covered by this report includes the period from May 23, 2015 to October 25, 2016.

There are no regulatory commitments contained in this submittal. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager - Fleet Licensing, at 330-315-6810.

Sincerely,



Marty L. Richey

Enclosure:

Beaver Valley Power Station, Unit No. 1, Twenty-Fourth Refueling Outage Inservice Inspection Summary Report

Beaver Valley Power Station, Unit No. 1  
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cc: NRC Region I Administrator  
NRC Resident Inspector  
NRC Project Manager  
Director BRP/DEP  
Site BRP/DEP Representative

**Enclosure  
L-17-002**

**Beaver Valley Power Station, Unit No. 1  
Twenty-Fourth Refueling Outage Inservice Inspection Summary Report**

**(146 Pages Follow)**

BEAVER VALLEY POWER STATION, UNIT 1  
Route 168, Shippingport, PA

Outage 24, Year 2016

Inspection Term: 5/23/2015 to 10/25/2016

Issue date: 1/6/17

Owner: FirstEnergy Nuclear Operating Company (FENOC)  
76 South Main St.  
Akron, OH 44308

NRC Docket Number: 50-334

Reactor Supplier: Westinghouse Electric Corporation  
Commercial Service Date: September 30, 1976

Reviewed by: C. O'Neil Carol Date: 1/4/17  
Supv, Nuclear Programs

Approved by: PAT PAULINCH Pat Paulinch Date: 1/6/17  
Manager, Technical Services Engineering

**90-DAY REPORT**  
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# FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. Owner FirstEnergy Nuclear Operating Company (FENOC), 76 South Main St. Akron, OH 44308  
(Name and Address of Owner)

2. Plant Beaver Valley Power Station, P.O. Box 4, Shippingport, PA, 15077  
(Name and Address of Plant)

3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date 9/30/76 6. National Board Number for Unit N/A

## 7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Vessel	Combustion Engineering	69103	105642B	21011
1B Steam Generator	Westinghouse	NP030651/2MB2	591602V	83
1C Steam Generator	Westinghouse	NP030651/3MB2	591603V	84
Pressurizer	Westinghouse	1311	434676V <sup>88-123016</sup>	68-50
MOV-RC-595	Westinghouse	A-2328-A1	N/A	N/A
Reactor Coolant Piping	Southwest Fabricating	N/A	N/A	N/A
Auxiliary Piping	Schneider Power	N/A	N/A	N/A
Component Supports	Various	N/A	N/A	N/A
Containment	N/A	N/A	4630	N/A

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E0029) may be obtained from the ASME Order Dept., 22 Law Drive, Box 2300, Fairfield, NJ 07008-2300

**FORM NIS-1 (Back)**

8. Examination Dates 5/23/2015 to 10/25/2016
9. Inspection Period Identification: 12/3/2014 to 3/31/2018 (3<sup>rd</sup> Inspection Period of 4<sup>th</sup> Interval)
10. Inspection Interval Identification: 4/1/2008 to 3/31/2018 (4<sup>th</sup> 10-Year Inspection Interval)
11. Applicable Edition of Section XI 2001 Addenda 2003
12. Date/Revision of Inspection Plan: 1/2-ADM-2039, Revision 15
13. Abstract of Examination and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan. **See Appendix I (Code Exams) for exams performed during 1R24. 1R24 was the second outage in the 3<sup>rd</sup> Period of the 4<sup>th</sup> Ten-Year Interval. The 4<sup>th</sup> Interval examination requirements will be met in 1R25, within the 1 year IWA-2430(d)(3) extension allowance, for the following Examination Categories: B-A, B-D, B-M-2, B-N-2, B-N-3, and R-A. The remaining examinations of these categories are associated with the Reactor Vessel 10-yr. ISI examination. The 4<sup>th</sup> Interval examination requirements for all other Examination Categories have been completed. Relief requests documenting 4<sup>th</sup> Interval impractical examinations will be submitted to the NRC within the 10CRF50.55a specified time period.**
14. Abstract of Results of Examination and Tests. **See text of summary report.**
15. Abstract of Corrective Measures. **Replacement of River Water piping was required as a result of a pressure test during 1R24. Also, corrective measures were required due to discovery of boric acid leakage on pipe flange and valve bolting. The Boric Acid Corrosion Control (BACC) Team evaluated each condition and determined the necessary corrective actions to resolve the UNSAT condition.**

We certify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A  
 Date 12/14/16 Signed FirstEnergy Nuclear Operating Company (FENOC) By Leo P. Seaman  
 (Owner)

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Pennsylvania and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, Connecticut have inspected the components described in this Owner's Report during the period 5/23/2015 to 10/25/2016 and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owner's Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer make any warranty, expressed or implied, concerning the examinations, tests, and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean J. Irish Commissions NB 9428 ANIB, PA 2384  
 Inspector's Signature National Board, State, Province and Endorsements  
 Date 12-14-16

## OUTAGE SUMMARY

During the Twenty-fourth Refueling Outage (1R24) at the Beaver Valley Power Station Unit 1, Inservice Inspection (ISI) examinations were performed on Class 1, 2, 3 and the containment components. This was the second outage in the third period of the fourth ten-year interval.

### ASME XI Class 1, 2, 3 and IWE Credited Exams (See Appendix I)

1. Sixty-four (64) Class 1 exams were performed and are divided as follows:
  - a. Vessels and Welds
    - Visual Exams - 9
    - Ultrasonic Exams - 2
  - b. Class 1 bolting
    - Visual Exams - 36
    - Ultrasonic Exams - 4
  - c. Pipe Supports (VT-3) - 3
  - d. RI-ISI piping VT-2 Exams - 10
2. Thirty-two (32) Class 2 exams were performed and are divided as follows:
  - a. Welded Attachments (PT) - 3
  - b. Pipe Supports (VT-3) - 7
  - c. RI-ISI piping VT-2 exams - 22
3. Two (2) visual exams of Class 3 Supports:
  - a. Supports, (VT-3) - 2
4. Five (5) IWE/IWL exams were performed as follows:
  - a. Liner/Moisture Barrier (GV) - 2
  - b. Liner UTT exam follow-up - 2
  - c. Containment Concrete (GV) - 1

Examinations were performed by FirstEnergy Nuclear Operating Company (FENOC) NDE Technicians, supplemented with contracted NDE technicians from IDDEAL Concepts, International Quality Consultants (IQC), and Wesdyne. Appendix I compiles the examinations that have been credited toward fulfilling the Ten-Year Plan requirements.



### **IWE/IWL Examinations**

The 1R24 IWE/IWL examinations included a general visual of the accessible areas of the liner plate, penetrations, moisture barrier and the concrete containment. All of the reported deficiencies were documented and resolved in the corrective action program. None of the reported deficiencies challenged the structural integrity of the containment. No liner plate repairs were necessary.

### **Pressure Testing**

The Class 1 piping System Leakage Test was performed prior to plant start-up from 1R24. All Class 1 and 2 bolted connections associated with insulated components were examined during 1R24. Boric Acid leakage was evident on eleven components. See deficiency resolution paragraph below. Also, Class 2 and 3 system functional and system inservice tests were performed in accordance with 40-month pressure testing requirements. One Class 3 pressure test resulted in replacement of a section of piping in the River Water System due to a through-wall leak.

### **Deficiency Resolution**

As noted above, river water piping replacement was necessary due to through-wall leak discovered during a Class 3 pressure test. The boric acid deficiencies associated with the pressure testing of bolted connections were documented on Condition Reports and evaluated and resolved by the Boric Acid Corrosion Control Team.

### **NIS-2 Forms**

Included as Appendix II are the NIS-2 Forms associated with ASME XI repairs and replacements performed since the last 90-Day ISI Summary Report.

APPENDIX I  
1R24 COMPLETED CODE EXAMS

Sum No.	Component ID	Description	Class	Category	Item No.	Method	Iso No.
<b>Class 1 Vessels and Welds</b>							
151050	1RV-BMI-PENE-OD	RV LOWER HEAD BMI NOZZLES	1	N-722	B15.80	VE	E-001D-2
151060	1RV-BMI-TUBE-WELDS	BMI TUBE WELDS	1	N-722	B15.100	VE	E-001D-2
162000	RC-R-1-ACC-INT	INTERIOR	1	B-N-1	B13.10	VT-3	E-001F-3
186100	RC-E-1B-RADIUS(2H)	NOZZLE INSIDE RADIUS	1	B-D	B3.140	VT-1	E-001M-3
186200	RC-E-1B-RADIUS(2C)	NOZZLE INSIDE RADIUS	1	B-D	B3.140	VT-1	E-001M-3
189600	RC-E-1C-RADIUS(3H)	NOZZLE INSIDE RADIUS	1	B-D	B3.140	VT-1	E-001M-3
189700	RC-E-1C-RADIUS(3C)	NOZZLE INSIDE RADIUS	1	B-D	B3.140	VT-1	E-001M-3
193100	RC-TK-1-RADIUS-6	NOZZLE INSIDE RADIUS	1	B-D	B3.120	VT-2	E-001P-3
193150	RC-TK-1-HTR-SLEEVES	PZR HEATER SLEEVE	1	WCAP	OG09140	VT-2	E-001P-3
318000	SI-30-5-S-02	BUTT WELD	1	R-A	R1.11	UT	0223B-5
189640	RC-E-1C-N-11	NOZZLE TO SAFE END (HOT LEG)	1	R-A	R1.11	UT	E-001M-3
<b>Class 1 Bolting</b>							
100010	BC-MOV-1RH-700	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	074A-3
100012	BC-FE-1RC-480	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0354A-1
100013	BC-FE-1RC-481	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0354B-1
100014	BC-FE-1RC-482	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0354C-1
100015	BC-MOV-1RC-590	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	L-001A-5
100016	BC-MOV-1RC-591	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	L-001A-5
100017	BC-MOV-1RC-592	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	L-002A-5
100018	BC-MOV-1RC-593	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	L-002A-5
100019	BC-MOV-1RC-594	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	L-003A-5
100020	BC-MOV-1RC-595	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	L-003A-5
100021	BC-1SI-20	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0222B-5
100022	BC-1SI-21	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0220C-5
100023	BC-1SI-22	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0223B-5
100024	BC-1SI-23	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0375E-5
100025	BC-1SI-24	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0375F-7
100026	BC-1SI-25	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0375C-5
100030	BC-LCV-1CH-460A	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0242A-3
100031	BC-LCV-1CH-460B	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0242A-3
100032	BC-1CH-32	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0253A-4

APPENDIX I  
1R24 COMPLETED CODE EXAMS

Sum No.	Component ID	Description	Class	Category	Item No.	Method	Iso No.
100033	BC-RC-E-1A-Pri Manways	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	E-001N-5
100034	BC-RC-E-1B-Pri Manways	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	E-001N-5
100035	BC-RC-E-1C-Pri Manways	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	E-001N-5
100038	BC-1SI-51	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0106A-5
100039	BC-1SI-52	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0107B-3
100040	BC-1SI-53	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0108B-5
100052	BC-RV-1RC-551A	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350B-4
100053	BC-RV-1RC-551B	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350B-4
100054	BC-RV-1RC-551C	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350B-4
100055	BC-MOV-1RC-535	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350A-3
100056	BC-MOV-1RC-536	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350A-3
100057	BC-MOV-1RC-537	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350A-3
100058	BC-PCV-1RC-456	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350A-3
100059	BC-PCV-1RC-455C	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350A-3
100060	BC-PCV-1RC-455D	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	0350A-3
100061	BC-PZR Manway bolts	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	E-001P-3
100062	BC-RV Main Flg Bolts	BOLTED CONNECTION	1	Boltcon	Bolt1	VT-2	E-001L-1
154800	RC-R-1-LIG-01 TO 19	THREADS IN FLG.	1	B-G-1	B6.40	UT	E-001B-2
156700	RC-R-1-LIG-20 TO 38	THREADS IN FLG.	1	B-G-1	B6.40	UT	E-001B-2
158600	RC-R-1-LIG-39 TO 58	THREADS IN FLG.	1	B-G-1	B6.40	UT	E-001B-2
221700	MOV-RC-595-B3-25 TO 48	BOLTING	1	B-G-1	B6.210	UT	E-002A-1
<b>Class 1 Pipe Supports (VT-3)</b>							
144900	DLW-LOOP2-8-HSS-103	SNUBBER	1	F-A	F1.10N	VT-3	0999B-2
145000	DLW-LOOP2-8-HSS-104	SNUBBER	1	F-A	F1.10N	VT-3	0999B-2
152900	RC-ES-1	NEUTRON SHIELD TANK/SKIRT	1	F-A	F1.40E	VT-3	E-001A-3
<b>Class 1 RI-ISI Piping VT-2 Exams</b>							
020650	CH-047	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0242A-3
033350	CH-102	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0246A-3
036750	CH-103	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0247A-3
040050	CH-104	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0248A-4
069650	CH-043	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0254A-4
085450	RC-056	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0348D-1

APPENDIX I  
1R24 COMPLETED CODE EXAMS

Sum No.	Component ID	Description	Class	Category	Item No.	Method	Iso No.
136450	RC-017	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0375A-5
137250	RC-018	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0358A-5
138650	RC-019	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	0359A-5
267350	RC-057	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	L-003A-5
<b>Class 2 Welded Attachments (PT)</b>							
398000	SI-82-2-A-04	WELDED ATT SUPPORT PS-R-10	2	C-C	C3.20	PT	0192A-6
587500	CH-P-1B-A-01	WELDED ATT SUPPORT WS-4	2	C-C	C3.30	PT	E-003H-4
899320	QS-2-3B-A-01	WELDED ATT SUPPORT R-230	2	C-C	C3.20	PT	0111C-3
<b>Class 2 Pipe Supports (VT-3)</b>							
371200	WFPD-23-3-HSS-208A	SNUBBER	2	F-A	F1.20N	VT-3	0062B-6
371500	WFPD-23-3-HSS-208	SNUBBER	2	F-A	F1.20N	VT-3	0062B-6
398100	SI-82-PS-R-10	SUPPORT	2	F-A	F1.20R	VT-3	0192A-6
401600	SI-83-PS-R-20	SUPPORT	2	F-A	F1.20R	VT-3	0192A-6
421400	CH-79-PS-R-12	SUPPORT	2	F-A	F1.20R	VT-3	0265A-7
614500	SI-2-R-170	SUPPORT	2	F-A	F1.20R	VT-3	0083C-6
686500	RC-E-1A-SUP-1	UPPER RESTR ASSEMBLY	2	F-A	F1.40E	VT-3	E-001N-5
<b>Class 2 RI-ISI piping (VT-2)</b>							
397750	SI-051A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0192A-6
420150	CH-021C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0265A-7
420250	CH-021B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0265A-7
422650	CH-020B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0265A-7
422750	CH-020C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0265A-7
425050	CH-019B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0265A-7
425250	CH-019C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0265A-7
436050	CH-121	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0267A-5
440050	CH-122	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0267A-5
443850	CH-123	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0267A-5
470350	CH-130	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0268A-5
509250	CH-028	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0273A-3
707550	RH-009	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0075A-5
709250	RH-004	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0075A-5

APPENDIX I  
1R24 COMPLETED CODE EXAMS

Sum No.	Component ID	Description	Class	Category	Item No.	Method	Iso No.
711650	RH-13-1-F-02	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0075B-3
713850	RH-024	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0207A-3
913870	CH-120	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	0170B-3
914850	CH-051	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	1254A-4
916250	CH-050A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	1254A-4
929500	CH-095	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	1518A-1
929600	CH-096	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	1538A-1
929700	CH-097	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	1510A-1
<b>Class 3 Supports (VT-3)</b>							
875500	WR-9-HSS-313	SNUBBER	3	F-A	F1.30N	VT-3	0068A-4
893760	WR-P-1A-RSTR-2	PUMP SUPPORT	3	F-A	F1.40P	VT-3	E-010A-1
<b>IWE/IWL Exams</b>							
930000	1CNMT-LINER	CONTAINMENT LINER	MC	E-A	E1.11	GV	
930100	1CNMT-MOISTBARR	MOISTURE BARRIER	MC	E-A	E1.30	GV	
930010	1CNMT-LINER-AREA-3	CONTAINMENT LINER	MC	E-A	E1.11	UTT	
930020	1CNMT-LINER-1R22	1R22 THROUGH WALL	N/A	N/A	N/A	UTT	
930400	1CNMT-CONCRETE	CONTAINMENT CONCRETE	CC	L-A	L1.10	GV	

**APPENDIX II**

**REPAIR / REPLACEMENT ABSTRACT**  
**AND**  
**NIS-2 FORMS**

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## REPAIR / REPLACEMENT ABSTRACT

<u>FORM NO.</u>	<u>FUNCTIONAL LOCATION</u>	<u>ORDER NO.</u>	<u>COMMENTS</u>
3253	1RW-128	200666536	Corrected
3554	1RC-E-1A	47623378	Installed
3555	1RC-E-1B	47623378	Installed
3556	1RC-E-1C	47623378	Installed
3562	1RC-58	200398414	Removed
3564	1RC-238	200482469	Removed
3585	1WR-P-1A	200530365	Corrected
3799	2.5"QS-85-153A-Q3	200589774	Installed
3799	4"QS-92-153A-Q3	200589774	Installed
3799	1QS-210	200589774	Installed
3866	2"CH-42-153W-Q3	200590731	Corrected
3866	2"CH-40-153W-Q3	200590731	Installed
3866	1CH-117	200590731	Installed
3873	CH-41	200590730	Corrected
3873	CH-36	200590730	Installed
3873	1CH-113	200590730	Installed
3885	RV-1CH-257	200589721	Corrected
3889	HCV-1CH-105	200638196	Corrected
3890	RC-150	200643802	Corrected
3897	1RW-185	200553517	Installed
3898	1RW-186	200584866	Installed
3899	WR-66	200454935	Removed
3900	WR-8	200589778	Corrected
3900	WR-111	200589778	Installed
3900	WR-112	200589778	Installed
3900	WR-114	200589778	Installed
3900	1RW-971	200589778	Installed
3900	1RW-973	200589778	Installed
3900	1RW-970	200589778	Installed
3900	1RW-972	200589778	Installed
3902	1RS-E-1A	200645626	Corrected
3904	1RS-E-1C	200645628	Corrected
3907	1RC-12	200398396	Removed
3910	1RC-38	200398407	Removed
3915	MOV-1RW-102C2	200418391	Installed
3917	SV-1MS-101A	200646446	Installed
3918	SV-1MS-102A	200646694	Installed
3919	SV-1MS-103A	200646447	Installed
3920	SV-1MS-104A	200646448	Installed
3921	SV-1MS-105A	200646449	Installed
3922	RV-1CH-203	200647290	Installed
3923	VS-357-1	200648689	Installed
3924	SI-HSS-522	200648678	Installed
3925	SI-HSS-523A	200648679	Installed



## REPAIR / REPLACEMENT ABSTRACT

<u>FORM NO.</u>	<u>FUNCTIONAL LOCATION</u>	<u>ORDER NO.</u>	<u>COMMENTS</u>
3926	SI-HSS-523B	200648677	Installed
3928	PS-244-VS-1	200648690	Installed
3929	3"-SI-321-153A-Q2	200648689	Corrected
3929	1SI-88	200648689	Installed
3930	TV-1MS-105A	200579805	Installed
3936	TV-1MS-105B	200579830	Installed
3942	WR-HSS-309	200648706	Installed
3943	RC-HSS-1	200648692	Installed
3944	RC-HSS-2	200648693	Installed
3945	RH-HSS-113	200648699	Installed
3948	SI-HSS-512	200477725	Installed
3952	RV-1RC-551B	200643912	Installed
3959	WAPD-64	200571938	Installed
3959	1FW-83	200571938	Installed
3968	1RH-E-1A	200646202	Corrected
3974	PCV-1RC-455A	200651450	Corrected
3975	WR-20	200692196	Corrected
3976	WR-20	200692287	Corrected
3977	AOV-1EE-217	200687690	Installed
3977	INJ-1EE-2A	200687690	Installed
3977	1.5"-ASC-230-MFR-Q3	200687690	Corrected
3977	ASC-229-PSR-3	200687690	Corrected
3977	ASC-230-PSR-1	200687690	Corrected
3978	AOV-1EE-218	200687688	Installed
3978	INJ-1EE-2B	200687688	Installed
3978	1.5"-ASC-235-MFG-Q3	200687688	Corrected
3978	ASC-234-PSR-3	200687688	Corrected
3978	ASC-235-PSR-1	200687688	Corrected
3983	REJ-1RW-27A	200643918	Installed
3985	RV-1FW-155	200643946	Corrected

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3253

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date November 10, 2016Sheet 1 of 1Unit No. 1Order #200666536

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Ball Valve	BNL Industries	B021016-1-2	N/A	1RW-128	2003	Corrected	No
End Piece	BNL Industries	N/A	N/A	Trace Code: D4729	2010	Installed	No
Pipe, 6" NPS	Energy & Process	N/A	N/A	Ht. #811818M01	2004	Installed	No
Flange, 6" NPS	Energy & Process	N/A	N/A	Ht. #857B	2002	Installed	No

7. Description of Work Replaced valve end pieces, pipe, and flange8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3253

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Previous NIS-2 Data Report No. 1571.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/AExpiration Date N/ASigned Thomas White

Owner or Owner's Designee, Title

Engineer V Date November 10<sup>th</sup>, 20 16**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean S. Trill  
Inspector's Signature

Commission

NB9428 A-1B

National Board Number and Endorsement

Date 11-15-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 35541. Owner First Energy Nuclear Operating Company  
(NAME)76 South Main Street - Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By Technical Services Engineering  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-16Sheet 1 of 1Unit No. 1Westinghouse PO 47623378

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant5. (a) Applicable Construction Code ASME Section III 89 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition, 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1A	Westinghouse	NP030651/ 1MB2	82	N/A	2005	Installed	Yes

7. Description of Work: Installed welded insert plates into the 4.0" inspection ports in lieu of gaskets2 locations per SG (ECP-15-0347). No tubes required plugging.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-6703-02 Rev. 02

Report Number **3554**

\*Record test pressure and temperature

9. Remarks: Primary side work orders - 200504313, 200504323. Installed two primary manway gaskets  
Applicable Manufacturer's Data Reports to be attached  
Secondary side work orders - 200643885 & 200643831. Installed four 6" hand hole gaskets and welded two  
insert plates into the 4" inspection ports.

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned: G. D. Alberti, SG Project Mgr. *G. D. Alberti* Date 10/12, /2016  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-13-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

*Dean S. Smith*  
Inspector's SignatureCommission 189428 A-158  
National Board Number and EndorsementDate 10-13-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 35551. Owner First Energy Nuclear Operating Company  
(NAME)Date 10-12-1676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Westinghouse PO 47623378  
Repair/Replacement Organization P.O. No., Job No., etc.3. Work Performed By Technical Services Engineering  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant5. (a) Applicable Construction Code ASME Section III 89 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition, 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1B	Westinghouse	NP030651/ 2MB2	83	N/A	2005	Installed	Yes

7. Description of Work: Replaced primary manway hot leg nut #4, hot leg studs #5 and #11. Installed welded insert plates into the 4.0" inspection ports in lieu of gaskets. 2 locations per SG (ECP-15-0347). No tubes required plugging.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3555

\*Record test pressure and temperature

9. Remarks: Primary side work orders - 200504319, 200509019. Installed two primary manway gasketsApplicable Manufacturer's Data Reports to be attachedSecondary side work orders - 200643892, 200643928, & 200643832. Installed four 6" hand hole gaskets,two secondary manway gaskets & welded two insert plates into the 4" inspection ports.**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned: G. D. Alberti, SG Project Mgr. Date 10/12, /2016  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of  
Hartford, CT have inspected the components described in this Owner's Report during the period  
5-22-15 to 10-13-16, and state that to the best of my knowledge and belief, the  
Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance  
with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean D. D'Amico  
Inspector's SignatureCommission NB 9428 A N I I  
National Board Number and EndorsementDate 10-13-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 35561. Owner First Energy Nuclear Operating Company  
(NAME)Date 10-12-1676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Westinghouse PO 47623378

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Technical Services Engineering  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant5. (a) Applicable Construction Code ASME Section III 88 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition, 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1C	Westinghouse	NP030651/ 3MB2	84	N/A	2005	Installed	Yes

7. Description of Work: Replaced primary manway hot leg stud #8 and cold leg stud #2. Installed welded insert plates into the 4.0" inspection ports in lieu of gaskets. 2 locations per SG (ECP-15-0347). No tubes required plugging.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3556

\*Record test pressure and temperature

9. Remarks: Primary side work orders - 200504321, 200509020. Installed two primary manway gaskets  
Applicable Manufacturer's Data Reports to be attached  
Secondary side work orders - 200643893 & 200643833. Installed four 6" hand hole gaskets and welded two  
insert plates into the 4" inspection ports.

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned: G. D. Alberti, SG Project Mgr. Date 10/12, /2016  
Owner or Owner's Designee, Title [Signature]**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of  
Hartford, CT have inspected the components described in this Owner's Report during the period  
5-22-15 to 10-13-16, and state that to the best of my knowledge and belief, the  
Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance  
with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's SignatureCommission NB9428 A-IB  
National Board Number and EndorsementDate 10-13-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 35621. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 21, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200398414

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant (Q1)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case --(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components ---

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Rockwell International	N/A	N/A	1RC-58	1976*	Removed	No
Pipe, 3/4" NPS	Energy & Process	N/A	N/A	Ht. #539092	2016	Installed	No
Cap, 3/4" NPS	Energy & Process	N/A	N/A	Ht. #JXR	2015	Installed	No

7. Description of Work Removed valve and installed pipe and cap.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3562

\*Record test pressure and temperature

9. Remarks No Code Data Report available. \*Year placed in service.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No.

N/A

Expiration Date

N/ASigned Thomas M Calko, Engineer III

Owner or Owner's Designee, Title

Date October 21<sup>st</sup>, 20 16**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-21-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Jean S. Zick  
Inspector's Signature

Commission

NB9428 ANIB

National Board Number and Endorsement

Date 10-21-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3564

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date October 20, 2016Sheet 1 of 1Unit No. 1Order #200482469

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant (Q1)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case --(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Rockwell International	N/A	N/A	1RC-238	1976*	Removed	No
Cap, 3/4" NPS	Energy & Process	N/A	N/A	Ht. #258999	2016	Installed	No

7. Description of Work Removed valve and installed cap.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 35649. Remarks No Code Data Report available. \*Year placed into service.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

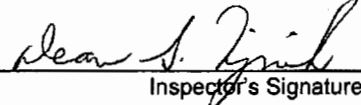
Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White  Engineer V Date October 21<sup>st</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-21-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission 189428 A-VIS  
National Board Number and Endorsement

Date 10-21-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 35851. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date February 24, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 42 *pgs 2/15/16*Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Work Order 200530365

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pump	Johnston Pump	01JC1702S	N/A	1WR-P-1A	2001	Corrected	No
Suction Bell	Johnston Pump	N/A	N/A	Mtl. #100057354, P/N 504600604001	2002	Installed	No
Discharge Bowl	Johnston Pump	N/A	N/A	Mtl. #100057354, P/N 504600605001	2002	Installed	No
Bottom Column	Johnston Pump	N/A	N/A	Mtl. #100089717	2002	Installed	No
Intermediate Columns	Johnston Pump	N/A	N/A	Mtl. #100089720	2002	Installed	No
Top Column	Johnston Pump	N/A	N/A	Mtl. #100089718	2002	Installed	No

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3585

Seal Box	Sulzer Pump	10896009	N/A	Ht. #9115	2015	Installed	No
Seal Gland	Sulzer Pump	N/A	N/A	Ht. #33029	2015	Installed	No
½" x 1-1/2" Capscrew	Nova Machine	N/A	N/A	CR206060	2011	Installed	No
1" Nut	Nova Machine	N/A	N/A	Ht. Code 05S4	2014	Installed	No
1" x 2-3/4" Bolt	Nova Machine	N/A	N/A	Ht. #87071- RRT	2000	Installed	No
1" x 4" Bolt	Nova Machine	N/A	N/A	Ht. #0F17	2013	Installed	No
7/8" x 2-1/2" Bolt	Trust Manufacturing	N/A	N/A	Ht. #M37482	2012	Installed	No
1" Stud	Nova Machine	N/A	N/A	Trace Code 9S60	2014	Installed	No
¾" x 2-1/2" Bolt	Nova Machine	N/A	N/A	Trace Code 05X8	2014	Installed	No
¾" Nut	Nova Machine	N/A	N/A	5Y02	2011	Installed	No

7. Description of Work Overhauled pump by replacing: Suction Bell, Discharge Bowl, Columns, Seal Box, Studs and Nuts.

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure --- psi Test Temp. --- °F

\*Record test pressure and temperature

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 3163. The Suction Bell, Discharge Bowl, and the Columns (Top, Intermediate, Bottom) were removed from the 1WR-P-1C location (work Order #200395849) and re-used on 1WR-P-1A. The Discharge Bowl was weld repaired by Sulzer Pumps under PO 45448328. The bottom and intermediate pump columns were weld repaired by BVPS under work Orders 200594284 & 200594285 (see NIS-2 #3726).

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

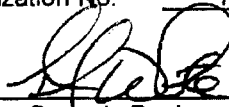
As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3585

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned T. White  Engineer V Date February 25<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 2-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean S. Gail Commission 189428ANIB  
Inspector's Signature National Board Number and Endorsement

Date 2-25-, 20 16



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**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3799

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date November 30, 2016Sheet 1 of 2Unit No. #1Order #200589774

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Containment Depressurization System, BV-1-13-System (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S '71 Addenda, Code Case --(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipe Cap	Energy & Process	N/A	N/A	Heat # 247870	2008	Removed	No
Pipeline	First Energy	N/A	N/A	2.5"QS-85-153A-Q3	2016	Installed	No
Reducer	Taylor Forge Stainless	N/A	N/A	Heat # NADG-2	2016	Installed	No
Pipeline	First Energy	N/A	N/A	4"QS-92-153A-Q3	2016	Installed	No
Ball Valve	BNL Industries	A141009-20-1	N/A	Valve ID 1QS-210	2015	Installed	Yes

7. Description of Work Removed pipe cap and installed reducer and ball valve for Flex Mod piping.

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3799

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

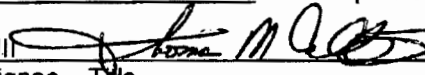
9. Remarks Code Data Report for the ball valve is attached to this NIS-2. Prior NIS-2 report #3405. This ASME Section III valve is installed into a B31.1 line.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Nov 30, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 12-2-, 20 16



FORM NPV-1 (Back — Pg. 2 of 2 )

Certificate Holder's Serial No. A141008-20-(1)

8. Design conditions \_\_\_\_\_ (pressure) \_\_\_\_\_ (temperature) or valve pressure class ANSI 150#
9. Cold working pressure 275 PSIG @100°F
10. Hydrostatic test 425 PSIG Disk differential test pressure 320 PSIG
11. Remarks

**CERTIFICATION OF DESIGN**

Design Specification certified by John W. Dingler P.E. State IL Reg. no. 062-038953

Design Report certified by \_\_\_\_\_ P.E. State \_\_\_\_\_ Reg. no. \_\_\_\_\_

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2882 Expires 11/10/2016

Date 3/20/15 Name BNL INDUSTRIES, INC. Signed [Signature]  
(N Certificate Holder) (Authorized representative)

**CERTIFICATE OF INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by ONCIS INSURANCE COMPANY

of LYNN, MA have inspected the pump, or valve, described in this Data Report on 3/20/15, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/20/15 Signed [Signature] Commission NB10961AN  
(Authorized Nuclear Inspector) (National Board Number and Endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 38661. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 8-9-2016Sheet 1 of 2Unit No. #1Order #200590731

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Chemical Volume and Control System, BV-1-7-System, Q35. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipe line	Stone and Webster	N/A	N/A	Pipe Line 2"CH-42-153W-Q3	1978	Corrected	No
Pipe line	First Energy	N/A	N/A	Pipe Line 2"CH-40-153W-Q3	2016	Installed	No
Tee, SS, 2", Sch 40S	Valbruna Stainless	N/A	N/A	Heat: G86	2008	Installed	No
Pipe, SS, 2", Sch 40S	Pexco	N/A	N/A	Heat 542230	2015	Installed	No
Valve, SS, 2"	BNL Industries	A141009-7-1	N/A	1CH-117	2015	Installed	Yes

7. Description of Work Installed tee into existing line 2"CH-42-153W-Q3, created new pipe line 2"CH-40-153W-Q3, and installed new FLEX piping components as identified above.

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3866

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

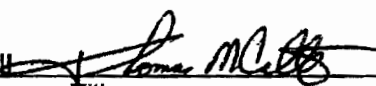
9. Remarks Code data report attached for ball valve 1CH-117. No prior NIS-2 reports. ASME Section III Class 3 valve installed into an ANSI B31.1 system.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

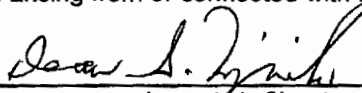
Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Aug 9, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 8-11-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 8-11-, 20 16

~~CORRECTED COPY 2/2/13~~

**FORM NPV-1 CERTIFICATE HOLDER'S DATA REPORT FOR NUCLEAR PUMPS OR VALVES\***  
As Required by the Provisions of the ASME Code, Section III, Division 1

**Pg. 1 of 2**

1. Manufactured and certified by BNL INDUSTRIES INC., 30 INDUSTRIAL PARK ROAD, VERNON, CT 06068  
(name and address of N Certificate Holder)

2. Manufactured for FIRST ENERGY SERVICE COMPANY, 76 SOUTH MAIN STREET, AKRON, OH 44308  
(name and address of Purchaser)

3. Location of installation BEAVER VALLEY NUCLEAR POWER PLANT, 1 ROUTE 168, SHIPPINGPORT, PA, 16077  
(name and address)

4. Model No., Series No., or Type VALVE Drawing HBV-A2-20-0113 Rev. B CRN \_\_\_\_\_

5. ASME Code, Section III, Division 1 1971 W72 3 \_\_\_\_\_  
(edition) (Addenda (if applicable) (date)) (class) (Code Case no.)

6. Pump or valve VALVE Nominal inlet size 2" Outlet size 2"

7. Material  
(a) valve Body SA-478 TY 304 Bonnet SA-478 TY 304 Disk SA-478 TY 304 Bolting SA-453 GR 660  
(b) pump Casing \_\_\_\_\_ Cover \_\_\_\_\_ Bolting \_\_\_\_\_

[illegible]

\*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ x 11; (2) information in Items 1 through 4 on this Data Report is included on each sheet; and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.



FORM NPV-1 (Back — Pg. 2 of 2)

CORRECTED COPY 2/2/15  
56 3/25/15

Certificate Holder's Serial No. A141009-7-(1 THRU 2)

8. Design conditions \_\_\_\_\_ (pressure) \_\_\_\_\_ (temperature) or valve pressure class \_\_\_\_\_ ANSI 150#
8. Cold working pressure 275 PSIG @100°F
10. Hydrostatic test 425 PSIG Disk differential test pressure 320 PSIG
11. Remarks

CERTIFICATION OF DESIGN

Design Specification certified by John W. Dinger P.E. State IL Reg. no. 062-038953

Design Report certified by \_\_\_\_\_ P.E. State \_\_\_\_\_ Reg. no. \_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2882 Expires 11/10/2018

Date 3/12/15 Name BNL INDUSTRIES, INC. Signed Steven Brown (Authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by ONECIS INSURANCE COMPANY

of LYNN, MA have inspected the pump, or valve, described in this Data Report on 3/12/15, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/12/2015 Signed Charles E. Ward Commission NB 9241 (N, NS) (Authorized Nuclear Inspector) (National Board Number and Endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3873

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date July 20, 2016Sheet 1 of 2Unit No. 1Work Order #200590730

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Chemical and Volume Control (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Piping	Stone & Webster	N/A	N/A	CH-41	1976	Corrected	No
Piping	FirstEnergy	N/A	N/A	CH-36	2016	Installed	No
Tee, 2" NPS	Energy & Process	N/A	N/A	Ht. Code G86	2008	Installed	No
Pipe, 2" NPS	Energy & Process	N/A	N/A	Ht. #542230	2015	Installed	No
Ball Valve	BNL Industries	A141009-7-2	N/A	1CH-113	2015	Installed	Yes

7. Description of Work Modified piping by adding tee, pipe and valve.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3873

\*Record test pressure and temperature

9. Remarks Code Data Report attached. ASME Section III Class 3 valve installed into an ANSI B31.1 system.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed T. White [Signature] Engineer V Date July 20<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 7-22-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 7-22-, 20 16

~~CORRECTED COPY 2/2/15~~

**FORM NPV-1 CERTIFICATE HOLDER'S DATA REPORT FOR NUCLEAR PUMPS OR VALVES\***  
As Required by the Provisions of the ASME Code, Section III, Division 1

50 3/25/15

**Pg. 1 of 2**

1. Manufactured and certified by BNL INDUSTRIES INC., 30 INDUSTRIAL PARK ROAD, VERNON, CT 06066  
(name and address of N Certificate Holder)

2. Manufactured for FIRST ENERGY SERVICE COMPANY, 76 SOUTH MAIN STREET, AKRON, OH 44308  
(name and address of Purchaser)

3. Location of installation BEAVER VALLEY NUCLEAR POWER PLANT, 1 ROUTE 168, SHIPPINGPORT, PA, 15077  
(name and address)

4. Model No., Series No., or Type VALVE Drawing HBV-A2-20-0113 Rev. B CRN         

5. ASME Code, Section III, Division 1 1971 W72 3  
(edition) (Addenda (if applicable) (date)) (class) (Code Case no.)

6. Pump or valve VALVE Nominal inlet size 2" Outlet size 2"

## 7. Material

(a) valve Body SA-479 TY 304 Bonnet SA-479 TY 304 Disk SA-479 TY 304 Bolting SA-453GR 660

(b) pump Casing \_\_\_\_\_ Cover \_\_\_\_\_ Bolting \_\_\_\_\_

(a)  
Certificate  
Holder's  
Serial No.

(b)  
National  
Board  
No.

(c)  
Body/Casing  
Serial  
No.

(d)  
Bonnet/Cover  
Serial  
No.

(e)  
Disk  
Serial  
No.

[illegible]

\*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ x 11; (2) information in items 1 through 4 on this Data Report is included on each sheet; and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

## FORM NPV-1 (Back — Pg. 2 of 2)

CORRECTED COPY 2/2/15  
SB 3/25/15

Certificate Holder's Serial No. A141009-7-(1 THRU 2)

8. Design conditions \_\_\_\_\_ (pressure) \_\_\_\_\_ (temperature) or valve pressure class \_\_\_\_\_ ANSI 150#
9. Cold working pressure 275 PSIG @100°F
10. Hydrostatic test 425 PSIG . Disk differential test pressure 320 PSIG
11. Remarks

## CERTIFICATION OF DESIGN

Design Specification certified by \_\_\_\_\_ John W. Dingler \_\_\_\_\_ P.E. State IL Reg. no. 062-038953

Design Report certified by \_\_\_\_\_ P.E. State \_\_\_\_\_ Reg. no. \_\_\_\_\_

## CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2882 Expires 11/10/2018

Date 3/12/15 Name BNL INDUSTRIES, INC. Signed Steven R. Brown  
(N Certificate Holder) (authorized representative)

## CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by ONECIS INSURANCE COMPANY

of LYNN, MA have inspected the pump, or valve, described in this Data Report on 3/12/15, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/12/2015 Signed Charles J. W... Commission NB 9241 (N, NS)  
(Authorized Nuclear Inspector) (National Board Number and Endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 38851. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Mechanical Maintenance  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-22-2016Sheet 1 of 1Unit No. #1Order #200589721

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Chemical and Volume Control System, BV-1-07-System (Q2)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'72 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Relief	Crosby	51036 M2	N/A	RV-1CH-257	1976	Corrected	No
Nozzle	Consolidated Power Supply	N94952-48-0030	N/A	Heat # 412736 C/C C9FK	2004	Installed	No

7. Description of Work Replaced nozzle in relief valve.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Reports available. Prior NIS-2 data report #1855.

Applicable Manufacturer's Data Reports to be attached

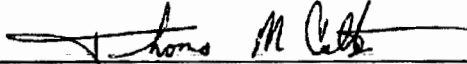
**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3885**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas M Calko, Engineer III  Date Oct 22, 20 16  
Owner or Owner's Designee, Title**~~CERTIFICATE OF INSERVICE INSPECTION~~**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-24-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's SignatureCommission NB 9428 A NIB  
National Board Number and EndorsementDate 10-24-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3889

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Maintenance  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date March 30, 2016Sheet 1 of 1Unit No. 1Work Order #200638196

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Chemical and Volume Control (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A

(c) Applicable Section XI Code Case(s):

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Masoneilan	H-40684-1-4	N/A	HCV-1CH-105	1976	Corrected	No
Nut, 5/8"	Nova Machine	N/A	N/A	Trace Code: 25P6	2016	Installed	No

7. Description of Work Replaced body/bonnet nuts8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 38899. Remarks No Code Data Report available.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White [Signature] Engineer V Date March 30, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 3-31-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 3-31-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3890

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date November 1, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200643802

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant (Q1)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipeline	Stone & Webster	N/A	N/A	RC-150	1976*	Corrected	No
Flange, 3/4" NPS	Energy & Process	N/A	N/A	Ht. #6421ANE4	2016	Installed	No
Fitting, 3/4"x1/2" NPS	Energy & Process	N/A	N/A	Ht. Nos.: EV7, GW2, EK2, DK4	2016	Installed	No

7. Description of Work Replaced flange and fitting.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3890

\*Record test pressure and temperature

**9. Remarks** No Code Data Report available.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White [Signature] Engineer V Date November 1<sup>st</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commission NB9428A NIB  
National Board Number and Endorsement

Date 11-7-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3897

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 15, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200553517

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Butterfly Valve	Allis Chalmers	N/A	N/A	1RW-185	1976	Removed	No
Butterfly Valve	Velan Valve	607802-1	N/A	1RW-185	2015	Installed	No
1-1/8" Stud	Nova Machine	N/A	N/A	Trace Code 0B14	2013	Installed	No
1-1/8" Stud	Nova Machine	N/A	N/A	Trace Code 9R09	2014	Installed	No
1-1/8" Nut	Nova Machine	N/A	N/A	Trace Code 0K12	2014	Installed	No
1-1/8" Nut	Nova Machine	N/A	N/A	Trace Code 7N06	2013	Installed	No

7. Description of Work Replaced valve, and flange studs and nuts.

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3897

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

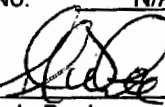
\*Record test pressure and temperature

9. Remarks No Code Data Report available. Previous NIS-2 Data Report #495. Year built of original valve is year  
placed into service.  
Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

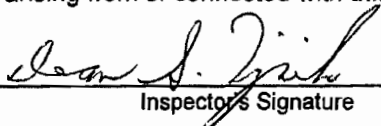
Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas J White  Nuclear Engineer V Date October 16, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-21-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 A1IB  
National Board Number and Endorsement

Date 10-21-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3898

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 15, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200584866

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case —(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Butterfly Valve	Allis Chalmers	N/A	N/A	1RW-186	1976	Removed	No
Butterfly Valve	Velan Valve	640755-1	N/A	1RW-186	2016	Installed	No
1-1/8" Stud	Nova Machine	N/A	N/A	Trace Code 0B14	2013	Installed	No
1-1/8" Stud	Nova Machine	N/A	N/A	Trace Code 9R09	2014	Installed	No
1-1/8" Nut	Nova Machine	N/A	N/A	Trace Code 0K12	2014	Installed	No
1-1/8" Nut	Nova Machine	N/A	N/A	Trace Code 7N06	2013	Installed	No

7. Description of Work Replaced valve, and flange studs and nuts.

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3898

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Previous NIS-2 Data Report #496. Year built of original valve is year  
placed into service.  
Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas J White [Signature] Nuclear Engineer V Date October 16, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-21-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Commission NB9428 ANIB  
Inspector's Signature National Board Number and Endorsement

Date 10-21-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3899

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date October 17, 2016Sheet 1 of 1Unit No. 1Order #200454935

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipeline	Stone & Webster	N/A	N/A	WR-66	1976*	Removed	No
Pipe, 2" NPS	Energy & Process	N/A	N/A	Ht. #00A115309	2011	Installed	No
Cap, 2" NPS	Dubose National Energy	N/A	N/A	Ht. #9182	1998	Installed	No

7. Description of Work Removed section of pipe and installed two pipe caps.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3899

\*Record test pressure and temperature

9. Remarks No Code Data Report available. \*Year built for original piping was year placed into service. Previous  
NIS-2 Data Report No. 1173.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White [Signature] Engineer V Date October 18<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 10-18-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3900

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 17, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 4Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200589778

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipeline	Stone & Webster	N/A	N/A	WR-8	1976*	Corrected	No
Pipeline	FirstEnergy	N/A	N/A	WR-111	2016	Installed	No
Pipeline	FirstEnergy	N/A	N/A	WR-112	2016	Installed	No
Pipeline	FirstEnergy	N/A	N/A	WR-114	2016	Installed	No
Weldolet, 8" NPS	Energy & Process	N/A	N/A	Ht. #7247ANF	2014	Installed	No
Pipe, 8" NPS	Energy & Process	N/A	N/A	Ht. #X05072 PC 2	2011	Installed	No
Reducer, 8"x6" NPS	Energy & Process	N/A	N/A	Ht. #J2L6204 PC2	2016	Installed	No

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3900

90° Elbows, 8" NPS	Energy & Process	N/A	N/A	Ht. E20158	2016	Installed	No
90° Elbow, 8" NPS	Energy & Process	N/A	N/A	Ht. #BX0379 PC 6	2014	Installed	No
Reducing Tee, 8"x8"x6" NPS	Energy & Process	N/A	N/A	Ht. # 15050 PC 2	2016	Installed	No
Pipe, 6" NPS	Energy & Process	N/A	N/A	Ht. #E10254 PC 2	2016	Installed	No
90° Elbow, 6" NPS	Energy & Process	N/A	N/A	Ht. DF0216 PC 24	2016	Installed	No
Check Valve	BNL Industries	A141009-22-6	N/A	1RW-971	2015	Installed	Yes
Check Valve	BNL Industries	A141009-22-8	N/A	1RW-973	2015	Installed	Yes
Ball Valve	BNL Industries	A141009-23-1	N/A	1RW-970	2015	Installed	Yes
Ball Valve	BNL Industries	A141009-23-2	N/A	1RW-972	2015	Installed	Yes
Anchor bolt, ½"	Hilti Incorporated	N/A	N/A	N/A	2015	Installed	No
Plate, ¾"	Energy & Process	N/A	N/A	Ht. #5500980-04 PC X2N	2015	Installed	No
Tube-steel, 4"x4"x 3/8"	Energy & Process	N/A	N/A	Ht. #531685	2016	Installed	No
Plate, ¼"	Energy & Process	N/A	N/A	Ht. #B4P6321-03 PC C	2014	Installed	No

7. Description of Work Installed new weldolet branch connection, pipe, fittings, and valves.

8. Tests Conducted: Hydrostatic\* ☒ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure 149 psi Test Temp. Ambient °F

Sheet 2 of 4  
12/20/16

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3900

\*Record test pressure and temperature

9. Remarks Code Data Reports attached. Previous NIS-2 Data Report No. 3670. \*Year placed in service is 1976.

Applicable Manufacturer's Data Reports to be attached

## CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White  Engineer V Date October 18<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title

## CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-21-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Dean S. Smith Commission JB9428ANIB  
Inspector's Signature National Board Number and Endorsement

Date 10-21-, 20 16

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FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. A141009-22-(3 thru 8)

8. Design conditions \_\_\_\_\_ (pressure) \_\_\_\_\_ (temperature) or valve pressure class ANSI 150#
9. Cold working pressure 275 PSIG @100°F
10. Hydrostatic test 450 PSIG Disk differential test pressure 320 PSIG
11. Remarks

CERTIFICATION OF DESIGN

Design Specification certified by John W. Dingle P.E. State IL Reg. no. 062-038953

Design Report certified by \_\_\_\_\_ P.E. State \_\_\_\_\_ Reg. no. \_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2882 Expires 11/10/2016

Date 4/8/15 Name BNL INDUSTRIES, INC. Signed Steven Brown  
(N Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by ONECIS INSURANCE COMPANY

of LYNN, MA have inspected the pump, or valve, described in this Data Report on 4/8/15, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 4/8/2015 Signed Charles E. Ward Commission NB 9241 (N, N5)  
(Authorized Nuclear Inspector) (National Board Number and Endorsement)

Sheet 4 of 4

\_\_\_\_\_

3. Location of installation BEAVER VALLEY NUCLEAR POWER PLANT, 1 ROUTE 168, SHIPPINGPORT, PA 15077  
(name and address)

5. ASME Code, Section III, Division 1 1971 W72 3  
(edition) (Addenda (if applicable) data) (class) (Code Case No.)

6. Pump or valve VALVE Nominal inlet size 6" Outlet size 6"

7. Material

(a) valve	Body <u>SA-105</u>	Bonnet <u>SA-105</u>	Disk <u>SA-479 TY-316</u>	Bolting <u>SA-453OR-660</u>
(b) pump	Casing _____	Cover _____	Bolting _____	

[illegible]

(07/10)



FORM NPV-1 (Back — Pg. 2 of 2 )

Certificate Holder's Serial No. A141009-23-(1 thru 4)

8. Design conditions \_\_\_\_\_ (pressure) \_\_\_\_\_ (temperature) or valve pressure class ANSI 150#
9. Cold working pressure 275 PSIG @100°F
10. Hydrostatic test 450 PSIG . Disk differential test pressure 320 PSIG
11. Remarks

CERTIFICATION OF DESIGN

Design Specification certified by John W. Dingle P.E. State IL Reg. no. 062-038953  
 Design Report certified by \_\_\_\_\_ P.E. State \_\_\_\_\_ Reg. no. \_\_\_\_\_

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2882 Expires 11/10/2018  
 Date 3/31/15 Name BNL INDUSTRIES, INC. Signed John Blum  
 (N Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by ONECIS INSURANCE COMPANY

of LYNN, MA have inspected the pump, or valve, described in this Data Report on 3/31/15, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3/31/15 Signed Charles F. Ward Commission NB9241 (N.N.S.)  
 (Authorized Nuclear Inspector) (National Board Number and Endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39021. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date November 22, 2016Sheet 1 of 1Unit No. 1Order #200645626

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Recirculation Spray (Class C)5. (a) Applicable Construction Code ASME Section III 1968 Edition, W'68 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition – 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Heat Exchanger	Industrial Process Eng.	6301-1	3179	1RS-E-1A	1971	Corrected	Yes

7. Description of Work Replaced seal welded diaphragms after cleaning and inspection of the HX tubes.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02


Report Number 39029. Remarks Copy of original Data Report in NIS-2 # 1577. Previous NIS-2 Data Report # 3768.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/AExpiration Date N/A

Signed Thomas White  Engineer V Date November 22<sup>nd</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 ASIB  
National Board Number and Endorsement

Date 11-22-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3904

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date November 23, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)

Order #200645628

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Recirculation Spray (Class C)5. (a) Applicable Construction Code ASME Section III 1968 Edition, W'68 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Heat Exchanger	Industrial Process Eng.	6301-3	3181	1RS-E-1C	1971	Corrected	Yes
Tube Plug	Joseph Oat Corporation	N/A	N/A	Heat # 6464	2003	Installed	No

7. Description of Work Replaced seal welded diaphragms, and seal welded tube plugs.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3904

9. Remarks Copy of original Data Report in NIS-2 # 1577. Previous NIS-2 Data Report # 3770.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/AExpiration Date N/ASigned Thomas White

Engineer V

Date December 5<sup>th</sup>, 20 16

Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean S. Irish  
Inspector's Signature

Commission NB9428A NIB  
National Board Number and Endorsement

Date 12-5-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3907

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 21, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200398396

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant (Q1)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Rockwell International	N/A	N/A	1RC-12	1976*	Removed	No
Pipe, 3/4" NPS	Energy & Process	N/A	N/A	Ht. #533033	2014	Installed	No
Cap, 3/4" NPS	Energy & Process	N/A	N/A	Ht. #421388	1989	Installed	No

7. Description of Work Removed valve and installed pipe and cap.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3907

\*Record test pressure and temperature

9. Remarks No Code Data Report available. \*Year placed in service.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White Engineer V Date October 21<sup>st</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-21-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean S. Zick  
Inspector's Signature

Commission NB 9428 A NIB  
National Board Number and Endorsement

Date 10-21-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3910

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date October 20, 2016Sheet 1 of 1Unit No. #1Order #200398407

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant System, BV-1-06-System, Q15. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Rockwell International	N/A	N/A	1RC-38	1976*	Removed	No
Pipe, 3/4" NPS	Energy & Process	N/A	N/A	Heat # 539092	2015	Installed	No
Cap, 3/4" NPS	Energy & Process	N/A	N/A	Heat # JXR	2016	Installed	No

7. Description of Work Removed valve and installed pipe and cap.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3910

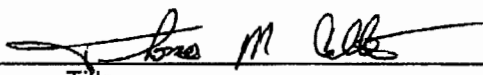
9. Remarks No Code Data Report available. \*Year placed in service.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 20, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-20-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Commission NB9428 ANIB  
Inspector's Signature National Board Number and Endorsement

Date 10-20-, 20 16

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3915

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)

Date October 21, 2016

76 South Main Street – Akron, OH 44308  
(ADDRESS)

Sheet 1 of 1

Unit No. #1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)

P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)

Order #200418391

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)

P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System River Water System, BV-1-30-System, Q3

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case ---

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda

(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Butterfly	Allis Chalmers	92361-1	N/A	MOV-1RW-102C2	N/A	Removed	No
Valve, Butterfly	Velan Valve	611035-1	N/A	MOV-1RW-102C2	2013	Installed	No
Spacer Plate	Velan Valve	N/A	N/A	Heat # 54311	2015	Installed	No
Stud	Nova Machine	N/A	N/A	Trace # 8B30	2013	Installed	No
Stud	Nova Machine	N/A	N/A	Trace # 0B14	2013	Installed	No
Stud	Trust Mfg.	N/A	N/A	Trace # SS15	2012	Installed	No
Stud	Trust Mfg.	N/A	N/A	Trace # HH04	2010	Installed	No
Nut	Nova Machine	N/A	N/A	Trace # 7N06	2013	Installed	No

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev, 02

Report Number 3915

Nut	Nova Machine	N/A	N/A	Trace # 4H71	2010	Installed	No
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7. Description of Work Replaced Allis Chalmers valve with Velan Valve; installed new studs and nuts.

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

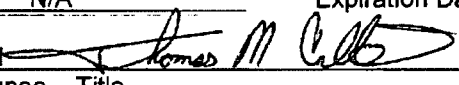
9. Remarks No Code Data Report available for Velan Valve. Prior NIS-2 Report #1035.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 21, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-24-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission 189428 ANIB  
National Board Number and Endorsement

Date 10-24-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3917

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)Date 10-19-201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 2Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200646446

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/APO Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Main Steam System, BV-1-21-System (Q1 or Class A)5. (a) Applicable Construction Code ASME Section III 1968 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Safety	Consolidated Dresser	BY89642	N/A	SV-1MS-101A	Repaired 2007	Removed	Yes
Valve, Safety	Consolidated Dresser	BM07758	N/A	SV-1MS-101A	Repaired 2016	Installed	Yes
Studs	Nova Machine	N/A	N/A	Heat # 34A6	2016	Installed	No
Studs	Nova Machine	N/A	N/A	Heat # 15K4	2015	Installed	No
Nuts	Nova Machine	N/A	N/A	Heat # 25N4	2016	Installed	No

7. Description of Work Replaced valve and inlet studs and nuts. Prior to installation, NWS Technologies overhauled valve; no parts were replaced.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3917

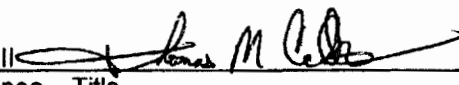
9. Remarks Code Data Report attached for valve BM07758. Code Data Report for valve BY89642 attached to prior NIS-2 data report #1805.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 19, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB 9428 ANIA  
National Board Number and Endorsement

Date 10-19-, 20 16

3917 sheet 2 of 2  
 12/20/14



NB-160, Rev. 7, (09/23/15)

## FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR PRESSURE RELIEF DEVICES

0020  
 (form "NVR" registration no.)  
 47663606  
 (P.O. no., job no., etc.)

CATEGORY OF ACTIVITY: 1 ☐ 2 ☒ 3 ☐

REPAIR ☒ REPLACEMENT ☐ RERATING ☐

1. WORK PERFORMED BY: NWS Technologies, LLC  
(name of "NVR" authorized organization)  
131 Venture Boulevard, Spartanburg, SC 29306  
(address)

2. WORK PERFORMED FOR: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)

3. OWNER: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)

4. NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR POWER PLANT: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)  
Unit 1  
(identification)

5. a: REPAIRED PRESSURE RELIEF DEVICE: Main Steam Safety Valve

b: NAME OF MANUFACTURER: Consolidated / Dresser

c: IDENTIFYING NOS.: 3787A BM07758 n/a steam 6" n/a  
(type) (mfg. serial no.) (Nat'l Bd No.) (service) (size) (year built)

d: CONSTRUCTION CODE: ASME / III / 1 1968 n/a n/a A, Article 9  
(name/section/division) (edition) (addenda) (code case(s)) (code class)

6. ASME CODE SECTION XI APPLICABLE FOR INSERVICE INSPECTION: 2001 2003 n/a  
(edition) (addenda) (code case(s))

7. ASME CODE SECTION XI USED FOR REPAIR/REPLACEMENT/RERATE: 2001 2003 n/a  
(edition) (addenda) (code case(s))

8. CONSTRUCTION CODE USED FOR REPAIR/REPLACEMENT/RERATE: 1968 n/a n/a  
(edition) (addenda) (code case(s))

9. DESIGN RESPONSIBILITY: n/a

10. OPENING PRESSURE: 1075 BLOWDOWN (if applicable): n/a

SET PRESSURE AND BLOWDOWN ADJUSTMENT MADE AT: NWS Technologies, LLC USING steam

11. DESCRIPTION OF WORK: (include name and identifying number of replacement parts): Disassembled. Components cleaned and inspected. Disc oxidized and nozzle seat passivated. Wear areas buffed and lubricated as required. Valve reassembled. Certified set-pressure and seat tightness using steam.

12. REMARKS: NWS Traveler #: 16-225. No parts replaced.



0020

(form "NVR" registration no.)

47663606

(P.O. no., job no., etc.)

### CERTIFICATE OF COMPLIANCE

I, Jason C. Gibson, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, replacement, or rerate of the pressure relief devices described above conform to Section XI of the ASME Code and the *National Board Inspection Code "VR" & "NR" rules*.

National Board Certificate of Authorization No. 632

to use the "VR" stamp expires April 03, 2018

National Board Certificate of Authorization No. 81

to use the "NR" stamp expires April 09, 2018

Date 8/11/16

Signed

[Signature]  
(authorized representative)

QA Manager

(title)

### CERTIFICATE OF INSPECTION

I, Charles F. Toegel, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of North Carolina and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT

have inspected the repair, replacement, and/or rerate described in this report on 11 August 2016 and state that to the best of my knowledge and belief, this repair or replacement has been completed in accordance with the Code specified and the *National Board Inspection Code "VR" & "NR" rules*.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the repair or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Date 8/11/16

Signed

[Signature]  
(Inspector)

NB # 6462, A, N, I NC# 1073

(National Board and endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3918

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)Date 10-19-2016Sheet 1 of 2Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)

Order #200646694

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Main Steam System, BV-1-21-System (Q1 or Class A)5. (a) Applicable Construction Code ASME Section III 1968 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Safety	Consolidated Dresser	BY89643	N/A	SV-1MS-102A	Repaired 2007	Removed	Yes
Valve, Safety	Consolidated Dresser	BM07761	N/A	SV-1MS-102A	Repaired 2016	Installed	Yes
Studs	Nova Machine	N/A	N/A	Heat # 15K4	2015	Installed	No
Nuts	Nova Machine	N/A	N/A	Heat # 25N4	2016	Installed	No

7. Description of Work Replaced valve and inlet studs and nuts. Prior to installation, NWS Technologies overhauled valve; no parts were replaced.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3918

9. Remarks Code Data Report attached for valve BM07761. Code Data Report for valve BY89643 attached to prior NIS-2 data report #1806.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III Date Oct 19, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean D. Grib  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 10-19-, 20 16

3918 Sheet 2 of 2  
Rev 12/30/14

## FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR PRESSURE RELIEF DEVICES

0013

(form "NVR" registration no.)

47663606

(P.O. no., job no., etc.)

CATEGORY OF ACTIVITY: 1 ☐ 2 ☒ 3 ☐

REPAIR ☒ REPLACEMENT ☐ RERATING ☐

1. WORK PERFORMED BY: NWS Technologies, LLC  
(name of "NVR" authorized organization)

131 Venture Boulevard, Spartanburg, SC 29306

(address)

2. WORK PERFORMED FOR: First Energy Corporation / Beaver Valley Power Station  
(name)

Route 168, Shippingport, PA 15077

(address)

3. OWNER: First Energy Corporation / Beaver Valley Power Station  
(name)

Route 168, Shippingport, PA 15077

(address)

4. NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR POWER PLANT: First Energy Corporation / Beaver Valley Power Station  
(name)

Route 168, Shippingport, PA 15077

(address)

Unit 1

(identification)

5. a: REPAIRED PRESSURE RELIEF DEVICE: Main Steam Safety Valve

b: NAME OF MANUFACTURER: Consolidated / Dresser

c: IDENTIFYING NOS.: 3707R BM07761 n/a steam 6" n/a  
(type) (mfg. serial no.) (Nat'l Bd No.) (service) (size) (year built)

d: CONSTRUCTION CODE: ASME / III / 1 1968 n/a n/a A, Article 9  
(name/section/division) (edition) (addenda) (code case(s)) (code class)

6. ASME CODE SECTION XI APPLICABLE FOR INSERVICE INSPECTION: 2001 2003 n/a  
(edition) (addenda) (code case(s))

7. ASME CODE SECTION XI USED FOR REPAIR/REPLACEMENT/RERATE: 2001 2003 n/a  
(edition) (addenda) (code case(s))

8. CONSTRUCTION CODE USED FOR REPAIR/REPLACEMENT/RERATE: 1968 n/a n/a  
(edition) (addenda) (code case(s))

9. DESIGN RESPONSIBILITY: n/a

10. OPENING PRESSURE: 1085 BLOWDOWN (if applicable): n/a

SET PRESSURE AND BLOWDOWN ADJUSTMENT MADE AT: NWS Technologies, LLC USING steam

11. DESCRIPTION OF WORK: (Include name and identifying number of replacement parts): Disassembled. Components cleaned and inspected. Disc oxidized and nozzle seat passivated. Wear areas buffed and lubricated as required. Valve reassembled. Certified set-pressure and seat tightness using steam.

12. REMARKS: NWS Traveler #: 16-226. No parts replaced.

0013

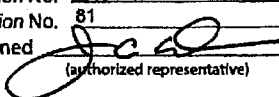
(form "NVR" registration no.)

47663606

(P.O. no., job no., etc.)

### CERTIFICATE OF COMPLIANCE

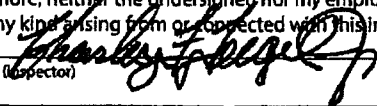
I, Jason C. Gibson, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, replacement, or rerate of the pressure relief devices described above conform to Section XI of the ASME Code and the *National Board Inspection Code "VR" & "NR"* rules.

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 03, 2018  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 08, 2018  
Date 8/10/16 Signed  QA Manager  
(authorized representative) (title)

### CERTIFICATE OF INSPECTION

I, Charles F. Toegel, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of North Carolina and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the repair, replacement, and/or rerate described in this report on 10 Aug. 2016 and state that to the best of my knowledge and belief, this repair or replacement has been completed in accordance with the Code specified and the *National Board Inspection Code "VR" & "NR"* rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the repair or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Date 8/10/16 Signed  NB # 8462, A, N, I NC# 1073  
(Inspector) (National Board and endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3919

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-19-2016Sheet 1 of 2Unit No. #1Order #200646447

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Main Steam System, BV-1-21-System (Q1 or Class A)5. (a) Applicable Construction Code ASME Section III 1968 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Safety	Consolidated Dresser	BY89644	N/A	SV-1MS-103A	Repaired 2007	Removed	Yes
Valve, Safety	Consolidated Dresser	BM07764	N/A	SV-1MS-103A	Repaired 2016	Installed	Yes
Studs	Nova Machine	N/A	N/A	Heat # 15K4	2015	Installed	No
Nuts	Nova Machine	N/A	N/A	Heat # 25N4	2016	Installed	No

7. Description of Work Replaced valve and inlet studs and nuts. Prior to installation, NWS Technologies overhauled valve; no parts were replaced.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3919

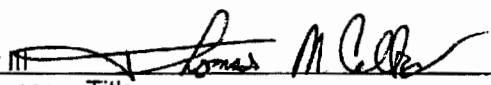
9. Remarks Code Data Report attached for valve BM07764. Code Data Report for valve BY89644 attached to prior NIS-2 data report #1807.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 19, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB 9428 A NIB  
National Board Number and Endorsement

Date 10-19-, 20 16

3918 3919 sheet 2 of 2  
8/20/14

## FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR PRESSURE RELIEF DEVICES

0017

(form "NVR" registration no.)

47863606

(P.O. no., job no., etc.)

CATEGORY OF ACTIVITY: 1 ☐ 2 ☒ 3 ☐

REPAIR ☒ REPLACEMENT ☐ RERATING ☐

1. WORK PERFORMED BY: NWS Technologies, LLC  
(name of "NVR" authorized organization)

131 Venture Boulevard, Spartanburg, SC 29306

(address)

2. WORK PERFORMED FOR: First Energy Corporation / Beaver Valley Power Station  
(name)

Route 168, Shippingport, PA 15077

(address)

3. OWNER: First Energy Corporation / Beaver Valley Power Station  
(name)

Route 168, Shippingport, PA 15077

(address)

4. NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR POWER PLANT: First Energy Corporation / Beaver Valley Power Station  
(name)

Route 168, Shippingport, PA 15077

(address)

Unit 1

(identification)

5. a: REPAIRED PRESSURE RELIEF DEVICE: Main Steam Safety Valve

b: NAME OF MANUFACTURER: Consolidated / Dresser

c: IDENTIFYING NOS.: 3707R BM07764 n/a steam 6" n/a  
(type) (mfg. serial no.) (Nat'l Bd No.) (service) (size) (year built)

d: CONSTRUCTION CODE: ASME / III / 1 1968 n/a n/a A, Article 9  
(name/section/division) (edition) (addenda) (code case(s)) (code class)

6. ASME CODE SECTION XI APPLICABLE FOR INSERVICE INSPECTION: 2001 2003 n/a  
(edition) (addenda) (code case(s))

7. ASME CODE SECTION XI USED FOR REPAIR/REPLACEMENT/RERATE: 2001 2003 n/a  
(edition) (addenda) (code case(s))

8. CONSTRUCTION CODE USED FOR REPAIR/REPLACEMENT/RERATE: 1968 n/a n/a  
(edition) (addenda) (code case(s))

9. DESIGN RESPONSIBILITY: n/a

10. OPENING PRESSURE: 1095 BLOWDOWN (if applicable): n/a

SET PRESSURE AND BLOWDOWN ADJUSTMENT MADE AT: NWS Technologies, LLC USING steam

11. DESCRIPTION OF WORK: (Include name and identifying number of replacement parts): Disassembled. Components cleaned and inspected. Disc oxidized and nozzle seat passivated. Wear areas buffed and lubricated as required. Valve reassembled. Certified set-pressure and seat tightness using steam.

12. REMARKS: NWS Traveler #: 16-227. No parts replaced.

0017  
(form "NVR" registration no.)  
47863608  
(P.O. no., job no., etc.)

### CERTIFICATE OF COMPLIANCE

I, Jason C. Gibson, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, replacement, or rerate of the pressure relief devices described above conform to Section XI of the ASME Code and the National Board Inspection Code "VR" & "NR" rules.

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 03, 2018  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 09, 2018  
Date 8/11/16 Signed [Signature] QA Manager  
(authorized representative) (title)

### CERTIFICATE OF INSPECTION

I, Charles F. Toegel, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of North Carolina and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the repair, replacement, and/or rerate described in this report on 11 AUGUST 2016 and state that to the best of my knowledge and belief, this repair or replacement has been completed in accordance with the Code specified and the National Board Inspection Code "VR" & "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the repair or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Date 8/11/16 Signed [Signature] NB # 8482, A, N, I NC# 1073  
(Inspector) (National Board and endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3920

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)Date 10-19-201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 2Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200646448

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/APO Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Main Steam System, BV-1-21-System (Q1 or Class A)5. (a) Applicable Construction Code ASME Section III 1968 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Safety	Consolidated Dresser	BY89645	N/A	SV-1MS-104A	Repaired 2007	Removed	Yes
Valve, Safety	Consolidated Dresser	BM07767	N/A	SV-1MS-104A	Repaired 2016	Installed	Yes
Studs	Nova Machine	N/A	N/A	Heat # 15K4	2015	Installed	No
Nuts	Nova Machine	N/A	N/A	Heat # 25N4	2016	Installed	No

7. Description of Work Replaced valve and inlet studs and nuts. Prior to installation, NWS Technologies overhauled valve; no parts were replaced.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature



# FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3920

9. Remarks Code Data Report attached for valve BM07767. Code Data Report for valve BY89645 attached to prior NIS-2 data report #1808.

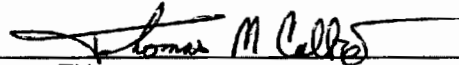
Applicable Manufacturer's Data Reports to be attached

## CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 19, 20 16  
Owner or Owner's Designee, Title

## CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428A NIB  
National Board Number and Endorsement

Date 10-19-, 20 16

392D sheet 2 of 2  
Dec 12/10/14



NB-160, Rev. 7, (09/23/15)

## FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR PRESSURE RELIEF DEVICES

0018

(form "NVR" registration no.)

47883806

(P.O. no., job no., etc.)

CATEGORY OF ACTIVITY: 1 ☐ 2 ☒ 3 ☐

REPAIR ☒ REPLACEMENT ☐ RERATING ☐

1. WORK PERFORMED BY: NWS Technologies, LLC  
(name of "NVR" authorized organization)

131 Venture Boulevard, Spartanburg, SC 29306

(address)

2. WORK PERFORMED FOR: First Energy Corporation / Beaver Valley Power Station

(name)

Route 168, Shippingport, PA 15077

(address)

3. OWNER: First Energy Corporation / Beaver Valley Power Station

(name)

Route 168, Shippingport, PA 15077

(address)

4. NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR POWER PLANT: First Energy Corporation / Beaver Valley Power Station

(name)

Route 168, Shippingport, PA 15077

(address)

Unit 1

(identification)

5. a: REPAIRED PRESSURE RELIEF DEVICE: Main Steam Safety Valve

b: NAME OF MANUFACTURER: Consolidated / Dresser

c: IDENTIFYING NOS.: 3707R BM07767 n/a steam 6" n/a  
(type) (mfg. serial no.) (Nat'l Bd No.) (service) (size) (year built)

d: CONSTRUCTION CODE: ASME / III / 1 1968 n/a n/a A, Article 9  
(name/section/division) (edition) (addenda) (code case(s)) (code class)

6. ASME CODE SECTION XI APPLICABLE FOR INSERVICE INSPECTION: 2001 2003 n/a  
(edition) (addenda) (code case(s))

7. ASME CODE SECTION XI USED FOR REPAIR/REPLACEMENT/RERATE: 2001 2003 n/a  
(edition) (addenda) (code case(s))

8. CONSTRUCTION CODE USED FOR REPAIR/REPLACEMENT/RERATE: 1968 n/a n/a  
(edition) (addenda) (code case(s))

9. DESIGN RESPONSIBILITY: n/a

10. OPENING PRESSURE: 1110 BLOWDOWN (if applicable): n/a

SET PRESSURE AND BLOWDOWN ADJUSTMENT MADE AT: NWS Technologies, LLC USING steam

11. DESCRIPTION OF WORK: (Include name and identifying number of replacement parts): Disassembled. Components cleaned and inspected. Disc oxidized and nozzle seat passivated. Wear areas buffed and lubricated as required. Valve reassembled. Certified set-pressure and seat tightness using steam.

12. REMARKS: NWS Traveler #: 16-228. No parts replaced.



D018

(form "NVR" registration no.)

47683608

(P.O. no., job no., etc.)

### CERTIFICATE OF COMPLIANCE

I, Jason C. Gibson, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, replacement, or rerate of the pressure relief devices described above conform to Section XI of the ASME Code and the National Board Inspection Code "VR" & "NR" rules.

National Board Certificate of Authorization No. 632

to use the "VR" stamp expires April 03, 2018

National Board Certificate of Authorization No. 81

to use the "NR" stamp expires April 08, 2018

Date 8/11/16

Signed

[Signature]  
(authorized representative)

QA Manager

(title)

### CERTIFICATE OF INSPECTION

I, Charles F. Toegel, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of North Carolina and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT

have inspected the repair, replacement, and/or rerate described in this report on 11 AUGUST 2016 and state that to the best of my knowledge and belief, this repair or replacement has been completed in accordance with the Code specified and the National Board Inspection Code "VR" & "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the repair or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Date 8/11/16

Signed

[Signature]  
(Inspector)

NB # 8462, A, N, I NC# 1073

(National Board and endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3921

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-19-2016Sheet 1 of 2Unit No. #1Order #200646449

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Main Steam System, BV-1-21-System (Q1 or Class A)5. (a) Applicable Construction Code ASME Section III 1968 Edition, No Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Safety	Consolidated Dresser	BY89646	N/A	SV-1MS-105A	Repaired 2007	Removed	Yes
Valve, Safety	Consolidated Dresser	BM07770	N/A	SV-1MS-105A	Repaired 2016	Installed	Yes
Studs	Nova Machine	N/A	N/A	Heat # 15K4	2015	Installed	No
Nuts	Nova Machine	N/A	N/A	Heat # 25N4	2016	Installed	No

7. Description of Work Replaced valve and inlet studs and nuts. Prior to installation, NWS Technologies overhauled valve; no parts were replaced.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3921


9. Remarks Code Data Report attached for valve BM07770. Code Data Report for valve BY89646 attached to prior NIS-2 data report #1809.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 19, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 A NIB  
National Board Number and Endorsement

Date 10-19-, 20 16

**FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR  
NUCLEAR PRESSURE RELIEF DEVICES**

0019

(form "NVR" registration no.)

47663606

(P.O. no., job no., etc.)

CATEGORY OF ACTIVITY: 1 ☐ 2 ☒ 3 ☐REPAIR ☒ REPLACEMENT ☐ RERATING ☐

1. WORK PERFORMED BY: NWS Technologies, LLC  
(name of "NVR" authorized organization)  
131 Venture Boulevard, Spartanburg, SC 29306  
(address)
2. WORK PERFORMED FOR: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)
3. OWNER: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)
4. NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR POWER PLANT: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)  
Unit 1  
(identification)
5. a: REPAIRED PRESSURE RELIEF DEVICE: Main Steam Safety Valve  
b: NAME OF MANUFACTURER: Consolidated / Dresser  
c: IDENTIFYING NOS.: 3707R BM07770 n/a steam 6" n/a  
(type) (mfg. serial no.) (Nat'l Bd No.) (service) (size) (year built)  
d: CONSTRUCTION CODE: ASME / III / 1 1968 n/a n/a A, Article 9  
(name/section/division) (edition) (addenda) (code case(s)) (code class)
6. ASME CODE SECTION XI APPLICABLE FOR INSERVICE INSPECTION: 2001 2003 n/a  
(edition) (addenda) (code case(s))
7. ASME CODE SECTION XI USED FOR REPAIR/REPLACEMENT/RERATE: 2001 2003 n/a  
(edition) (addenda) (code case(s))
8. CONSTRUCTION CODE USED FOR REPAIR/REPLACEMENT/RERATE: 1968 n/a n/a  
(edition) (addenda) (code case(s))
9. DESIGN RESPONSIBILITY: n/a
10. OPENING PRESSURE: 1125 BLOWDOWN (if applicable): n/a  
SET PRESSURE AND BLOWDOWN ADJUSTMENT MADE AT: NWS Technologies, LLC USING steam
11. DESCRIPTION OF WORK: (include name and identifying number of replacement parts): Disassembled. Components cleaned and inspected. Disc oxidized, and nozzle seat passivated. Wear areas buffed and lubricated as required. Valve reassembled. Certified set-pressure and seat tightness using steam.
12. REMARKS: NWS Traveler #: 16-229. No parts replaced.



0018

(form "NVR" registration no.)

47663806

(P.O. no., job no., etc.)

### CERTIFICATE OF COMPLIANCE

I, Jason C. Gibson, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, replacement, or rerate of the pressure relief devices described above conform to Section XI of the ASME Code and the National Board Inspection Code "VR" & "NR" rules.

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 03, 2018  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 09, 2018  
Date 8/11/16 Signed [Signature] QA Manager  
(authorized representative) (title)

### CERTIFICATE OF INSPECTION

I, Charles F. Toegel, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of North Carolina and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the repair, replacement, and/or rerate described in this report on 11 August 2016 and state that to the best of my knowledge and belief, this repair or replacement has been completed in accordance with the Code specified and the National Board Inspection Code "VR" & "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the repair or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Date 8/11/16 Signed [Signature] NB # 8482, A, N, I NC# 1073  
(Inspector) (National Board and endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3922

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)Date 11-2-201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200647290

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance  
(NAME)Type Code Symbol Stamp N/APO Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Chemical Volume and Control System, BV-1-07-System (Q1)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Relief Valve	Crosby	N699721-00-0016	N/A	RV-1CH-203	2003	Removed	No
Relief Valve	Crosby	61680-003	N/A	RV-1CH-203	1990	Installed	No
Studs	Nova Machine	N/A	N/A	Trace # 25U9	2016	Installed	No
Nuts	Nova Machine	N/A	N/A	Trace # 25P6	2016	Installed	No

7. Description of Work Replaced valve with spare; installed new studs and nuts on the inlet side of the relief valve.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

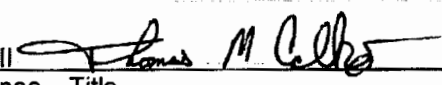
NOP-CC-5703-02 Rev. 02

Report Number 39229. Remarks No Code Data Reports available. Prior NIS-2 data reports #3576, 3303, 1622, 1554, 1016, 768, 757, 445, 318, 164.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas M Calko, Engineer III  Date Nov 2, 20 16  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's SignatureCommission NB 9428 A-1B  
National Board Number and EndorsementDate 11-7-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39231. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-2016Sheet 1 of 1Unit No. #1Order #200648689

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant System, BV-1-06-System, Q15. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	12175	N/A	VS-357-1	unknown	Removed	No
Snubber	Lisega	31501136-025	N/A	VS-357-1	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. No prior NIS-2 data reports.

Applicable Manufacturer's Data Reports to be attached

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

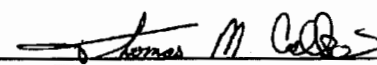
As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3923

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas M Calko, Engineer III  Date Oct 12, 20 16  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's SignatureCommission NB 9428 ANIB  
National Board Number and EndorsementDate 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39241. Owner FirstEnergy Nuclear Operating Co.  
(NAME)Date 10-12-201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200648678

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/APO Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Safety Injection System, BV-1-11-System, Q25. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	8806	N/A	SI-HSS-522	unknown	Removed	No
Snubber	Lisega	31501136-020	N/A	SI-HSS-522	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. Prior NIS-2 data report #1284.

Applicable Manufacturer's Data Reports to be attached

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

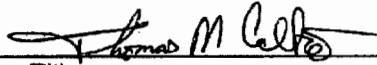
NOP-CC-5703-02 Rev. 02

Report Number 3924

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 12, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 AIFB  
National Board Number and Endorsement

Date 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3925

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-2016Sheet 1 of 1Unit No. #1Order #200648679

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Safety Injection System, BV-1-11-System, Q25. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	12174	N/A	SI-HSS-523A	unknown	Removed	No
Snubber	Lisega	31501136-017	N/A	SI-HSS-523A	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. Prior NIS-2 data report #1122.

Applicable Manufacturer's Data Reports to be attached

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**


As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3925**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 12, 2016  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Commission NB9428 ANIB  
Inspector's Signature National Board Number and Endorsement

Date 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3926

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)Date 10-12-201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)

Order #200648677

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/APO Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Safety Injection System, BV-1-11-System, 2T Q1  
*SMC 10-12-16*5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	VB-7466	N/A	SI-HSS-523B	unknown	Removed	No
Snubber	Lisega	31501136-019	N/A	SI-HSS-523B	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. Prior NIS-2 data report #1501.

Applicable Manufacturer's Data Reports to be attached



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

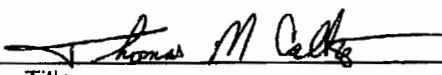
As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3926**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 12, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428ANIB  
National Board Number and Endorsement

Date 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3928

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-2016Sheet 1 of 1Unit No. #1Order #200648690

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant System, BV-1-06-System, Q15. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	VB-6821	N/A	PS-244-VS-1	unknown	Removed	No
Snubber	Lisega	31501136-026	N/A	PS-244-VS-1	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. No prior NIS-2 data reports.

Applicable Manufacturer's Data Reports to be attached

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

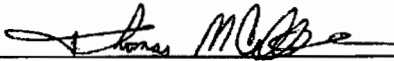
Report Number 3928

## CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 12, 20 16  
Owner or Owner's Designee, Title

## CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Commission JB9428 ASIB  
Inspector's Signature National Board Number and Endorsement

Date 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3929Owner FirstEnergy Nuclear Operating Co.  
(NAME)Date 10-14-201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200648689

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/APO Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Safety Injection System, BV-1-11-System, Q25. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipeline	FirstEnergy	N/A	N/A	Pipeline 3"-SI-321-153A-Q2	2016	Corrected	No
Flange, Blind	Energy & Process	N/A	N/A	Lot # 5774	2003	Removed	No
Flange, Weld Neck	Newman Flange & Fitting Co	N/A	N/A	Heat # H-595	2011	Installed	No
Valve, Ball	BNL Industries	A141009-15-1	N/A	Valve ID: 1SI-88	2015	Installed	No

7. Description of Work Removed blind flange and installed items identified above for FLEX piping.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3929

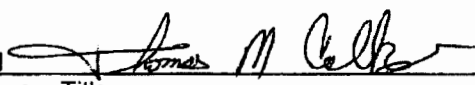
9. Remarks No Code Data Report available. Prior NIS-2 data report #3668.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 14, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-21-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB 9428 ANIB  
National Board Number and Endorsement

Date 10-21-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3930

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date October 26, 2016Sheet 1 of 1Unit No. 1Order #200579805

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Main Steam (Q2)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case —(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Masoneilan	H-49378-103-1	N/A	TV-1MS-105A	1976*	Removed	No
Globe Valve	Dresser Inc. Masoneilan	A-15-785504-J001-2	N/A	TV-1MS-105A	2016	Installed	No

7. Description of Work Replaced valve.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39309. Remarks No Code Data Report available. Previous NIS-2 Data Report No. 586. \*Year placed in service.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

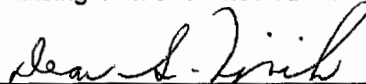
Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White  Engineer V Date October 26<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 A NIB  
National Board Number and Endorsement

Date 10-24-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3936

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 26, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200579830

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Main Steam (Q2)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case —(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Masoneilan	H-49378-103-2	N/A	TV-1MS-105B	1976*	Removed	No
Globe Valve	Dresser Inc. Masoneilan	A-15-791174-J001-2	N/A	TV-1MS-105B	2016	Installed	No
Pipe, 3" NPS	Energy & Process	N/A	N/A	Ht. #FA1076	2013	Installed	No
Support	Stone & Webster	N/A	N/A	SHP-SH-126	1976*	Corrected	No

7. Description of Work Replaced valve and section of pipe. Reworked pipe support.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3936Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Previous NIS-2 Data Report No. 587. \*Year placed in service.

Applicable Manufacturer's Data Reports to be attached

Pipe support SHP-SH-126 was cut and reassembled.**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas White  Engineer V Date October 26<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's SignatureCommission NB 9428 A-WIB  
National Board Number and EndorsementDate 10-27-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39421. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-2016Sheet 1 of 1Unit No. #1Order #200648706

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System River Water System, BV-1-30-System, Q35. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	12177	N/A	WR-HSS-309	unknown	Removed	No
Snubber	Lisega	31501136-018	N/A	WR-HSS-309	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. Prior NIS-2 data report #1496.

Applicable Manufacturer's Data Reports to be attached

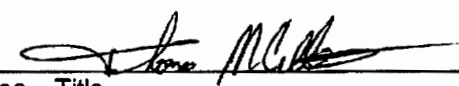
**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3942**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas M Calko, Engineer III  Date Oct 12, 20 16  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's SignatureCommission NB 9428 A NIB  
National Board Number and EndorsementDate 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3943

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-2016Sheet 1 of 1Unit No. #1Order #200648692

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant System, BV-1-06-System, Q15. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	VB-6683	N/A	RC-HSS-1	unknown	Removed	No
Snubber	Lisega	31500039-007	N/A	RC-HSS-1	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. No prior NIS-2 data reports.

Applicable Manufacturer's Data Reports to be attached

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

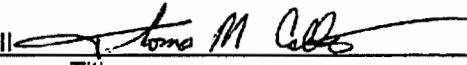
As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3943**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

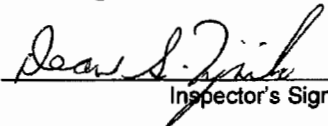
Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 12, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 A NIB  
National Board Number and Endorsement

Date 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39441. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-2016Sheet 1 of 1Unit No. #1Order #200648693

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant System, BV-1-06-System, Q15. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	11286	N/A	RC-HSS-2	unknown	Removed	No
Snubber	Lisega	31500039-008	N/A	RC-HSS-2	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. Prior NIS-2 data reports #1102 and #182.

Applicable Manufacturer's Data Reports to be attached

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

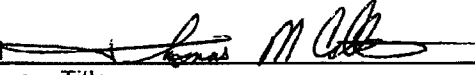
As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3944**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III  Date Oct 12, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Commission 289428 ABIB  
Inspector's Signature National Board Number and Endorsement

Date 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39451. Owner FirstEnergy Nuclear Operating Co.  
(NAME)Date 10-7-201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200648699

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/APO Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Residual Heat Removal System, BV-1-10-System, Q25. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	8407	N/A	RH-HSS-113	unknown	Removed	No
Snubber	Lisega	31500273/049	N/A	RH-HSS-113	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. No prior NIS-2 data reports.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME



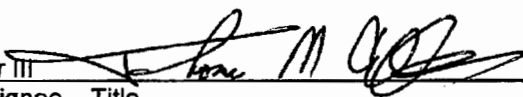
**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3945

Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas M Calko, Engineer III  Date Oct 7, 20 16  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-7-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Commission NB9428 ANIB  
Inspector's Signature National Board Number and Endorsement

Date 10-7-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39481. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Construction Services  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-12-2016Sheet 1 of 1Unit No. #1Order #200477725

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Safety Injection System, BV-1-11-System, Q25. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	VB-6810	N/A	SI-HSS-512	unknown	Removed	No
Snubber	Lisega	31501136-028	N/A	SI-HSS-512	2016	Installed	No

7. Description of Work Replaced snubber.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Replacement snubber supplied as ANSI B31.1 1967Ed to '73A. No prior NIS-2 data reports.

Applicable Manufacturer's Data Reports to be attached

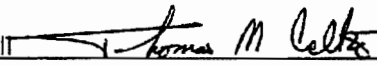
**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3948**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas M. Calko, Engineer III  Date Oct 12, 2016  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-12-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's SignatureCommission NB9428 ANIB  
National Board Number and EndorsementDate 10-12-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39521. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Mechanical Maintenance  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 11-1-2016Sheet 1 of 2Unit No. #1Order #200643912

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant System, BV-1-06-System (Q1 or Class A)5. (a) Applicable Construction Code ASME Section III 1968 Edition, S'68 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Safety Valve	Target Rock	0569C-001-7	N/A	RV-1RC-551B	2007	Removed	Yes
Pilot Valve	Target Rock	7	N/A	RV-1RC-551B	2007	Removed	Yes
Safety Valve	Target Rock	0569C-001-1	N/A	RV-1RC-551B	Repaired 2016	Installed	Yes
Pilot Valve	Target Rock	4	N/A	RV-1RC-551B	Repaired 2016	Installed	Yes
Stud	Nova Machine	N/A	N/A	Trace # 15K4	2015	Installed	No

7. Description of Work Replaced pilot valve and safety valve with spare. Replaced a couple studs. Prior to installation, NWS Technologies overhauled Main 1 and Pilot 4 valves; no ASME Section XI parts were replaced.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3952

9. Remarks Code Data Report for installed valves attached to this NIS-2. Code Data Report for removed valves attached to NIS-2 #3829. Prior NIS-2 data reports #3829, 3569, 3114, 1845, 1436, 280, 158.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III Thomas M Calko Date Nov 1, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean J. Smith  
Inspector's Signature

Commission NB9428 A NIB  
National Board Number and Endorsement

Date 11-7-, 20 16

# **FORM NVR-1, REPORT OF REPAIR/REPLACEMENT ACTIVITIES FOR NUCLEAR PRESSURE RELIEF DEVICES**

0025

(form "NVR" registration no.)  
47659688  
(P.O. no., job no., etc.)

CATEGORY OF ACTIVITY: 1 ☐ 2 ☒ 3 ☐

REPAIR ☒ REPLACEMENT ☐ RERATING ☐

1. WORK PERFORMED BY: NWS Technologies, LLC  
(name of "NVR" authorized organization)  
131 Venture Boulevard, Spartanburg, SC 29306  
(address)
2. WORK PERFORMED FOR: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)
3. OWNER: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)
4. NAME, ADDRESS, AND IDENTIFICATION OF NUCLEAR POWER PLANT: First Energy Corporation / Beaver Valley Power Station  
(name)  
Route 168, Shippingport, PA 15077  
(address)  
Unit 1  
(identification)
5. a: REPAIRED PRESSURE RELIEF DEVICE: Pressurizer Safety Valve  
b: NAME OF MANUFACTURER: Target Rock Corporation  
c: IDENTIFYING NOS.: 0569C Pilot 4 / Main 1 n/a steam 6x6 2005  
(type) (mfg. serial no.) (Nat'l Bd No.) (service) (size) (year built)  
d: CONSTRUCTION CODE: ASME / III / 1 1968 S'68 n/a A  
(name/section/division) (edition) (addenda) (code case(s)) (code class)
6. ASME CODE SECTION XI APPLICABLE FOR INSERVICE INSPECTION: 2001 2003 n/a  
(edition) (addenda) (code case(s))
7. ASME CODE SECTION XI USED FOR REPAIR/REPLACEMENT/RERATE: 2001 2003 n/a  
(edition) (addenda) (code case(s))
8. CONSTRUCTION CODE USED FOR REPAIR/REPLACEMENT/RERATE: 1968 S'68 n/a  
(edition) (addenda) (code case(s))
9. DESIGN RESPONSIBILITY: n/a
10. OPENING PRESSURE: 2485 BLOWDOWN (if applicable): n/a  
SET PRESSURE AND BLOWDOWN ADJUSTMENT MADE AT: NWS Technologies, LLC USING steam
11. DESCRIPTION OF WORK: (include name and identifying number of replacement parts): Disassembled. Components cleaned and inspected. Disc and seats lapped and polished. Wear areas buffed and lubricated as required. Valve reassembled. Certified set- pressure and seat tightness using steam. Jacked and lapped main to improve (continued in REMARKS)
12. REMARKS: NWS Traveler #: 13-313 and 15-217. No ASME Section XI parts replaced.

DESCRIPTION OF WORK (continued): seat tightness. Post certification N2 tightness and bellows integrity tests SAT.

3952 Sheet 2 of 2  
Rev 12/30/14



0025

(form "NVR" registration no.)

47659688

(P.O. no., job no., etc.)

### CERTIFICATE OF COMPLIANCE

I, Jason C. Gibson, certify that to the best of my knowledge and belief the statements made in this report are correct and the repair, replacement, or rerate of the pressure relief devices described above conform to Section XI of the ASME Code and the *National Board Inspection Code "VR" & "NR" rules*.

National Board Certificate of Authorization No. 632 to use the "VR" stamp expires April 03, 2018  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 08, 2018  
Date 8/31/16 Signed [Signature] QA Manager  
(authorized representative) (title)

### CERTIFICATE OF INSPECTION

I, Paul D. Seals, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency, where required, issued by the Jurisdiction of South Carolina and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the repair, replacement, and/or rerate described in this report on 8-31-16 and state that to the best of my knowledge and belief, this repair or replacement has been completed in accordance with the Code specified and the *National Board Inspection Code "VR" & "NR" rules*.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the repair or replacement described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspection.

Date 8/31/16 Signed [Signature] NB # 13104 (IS, A, N, I, C) SC# 263  
(Inspector) (National Board and endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3959

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date October 11, 2016Sheet 1 of 2Unit No. 1Order #200571938

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Auxiliary Feed Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipeline	FirstEnergy	N/A	N/A	WAPD-64	2013	Installed	No
Ball Valve	BNL Industries	A141009-11-(1)	N/A	1FW-83	2015	Installed	Yes
Pipe, 3" NPS	Energy & Process	N/A	N/A	Ht. #484187 PC 1	2014	Installed	No
Elbow, 3" NPS	Energy & Process	N/A	N/A	Ht. #48637 PC 18 & 19	2016	Installed	No
Flange, 3" NPS	Energy & Process	N/A	N/A	Ht. #ZPG PC 2	2016	Installed	No

7. Description of Work Installed new valve, pipe, and fittings.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3959

\*Record test pressure and temperature


9. Remarks Code Data Report for valve attached.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White  Engineer V Date October 11<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-11-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 10-11-, 20 16

CORRECTED COPY 2/2/15

**FORM NPV-1 CERTIFICATE HOLDER'S DATA REPORT FOR NUCLEAR PUMPS OR VALVES\***  
As Required by the Provisions of the ASME Code, Section III, Division 1

**Pg. 1 of 2**

[illegible]

\* Supplemental information in the form of tests, sketches, or drawings may be used provided: (1) size is 8½ x 11; (2) information in Items 1 through 4 on this Data Report is included on each sheet; and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

## FORM NPV-1 (Back — Pg. 2 of 2 )

Certificate Holder's Serial No. A141009-11-(1)

8. Design conditions \_\_\_\_\_ (pressure) \_\_\_\_\_ (temperature) or valve pressure class ANSI 900#
9. Cold working pressure 2160 PSIG @100°F
10. Hydrostatic test 3350 PSIG Disk differential test pressure 2460 PSIG
11. Remarks \_\_\_\_\_

## CERTIFICATION OF DESIGN

Design Specification certified by John W. Dingle P.E. State IL Reg. no. 062-038953

Design Report certified by \_\_\_\_\_ P.E. State \_\_\_\_\_ Reg. no. \_\_\_\_\_

## CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2882 Expires 11/10/2016

Date 2/2/15 Name BNL INDUSTRIES, INC. Signed Steven Braun  
(N Certificate Holder) (Authorized representative)

## CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by ONECIS INSURANCE COMPANY

of LYNN, MA have inspected the pump, or valve, described in this Data Report on 2/2/15, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2/2/15 Signed S. V. [Signature] Commission A168772 N.B.P.V.S.  
(Authorized Nuclear Inspector) (National Board Number and Endorsement)

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39681. Owner FirstEnergy Nuclear Operating Company  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Mechanical Maintenance  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Date October 26, 2016Sheet 1 of 2Unit No. 1Order #200646202

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System Residual Heat Removal (Class C)5. (a) Applicable Construction Code ASME Section III 1968 Edition, N/A Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A

(c) Applicable Section XI Code Case(s):

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Heat Exchanger	Joseph Oat Co.	1832-1	368	1RH-E-1A	1969	Corrected	Yes
Stud, 1-3/8"	Trust Manufacturing	N/A	N/A	Trace Code: PPI8	2012	Installed	No
Nut, 1-3/8"	Nova Machine	N/A	N/A	Trace Code: 6X20	2012	Installed	No

7. Description of Work Replaced one stud and two nuts.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3968

\*Record test pressure and temperature

9. Remarks No Code Data Report available. Previous NIS-2 Data Report No. 3676.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/AExpiration Date N/ASigned Thomas White  
Owner or Owner's Designee, TitleNuclear Engineer V Date November 21<sup>st</sup>, 20 16**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean S. Zich  
Inspector's SignatureCommission NB9428 ANEB  
National Board Number and EndorsementDate 11-21-, 20 16

FORM U-1 MANUFACTURERS' DATA REPORT FOR UNFIRED PRESSURE VESSELS  
As required by the Provisions of the ASME Code Rules

3968 sheet 2 of 2  
880 12/30/14

1. Manufactured by **JOSEPH OAT & SONS, INC., PHILADELPHIA, PENNA.**  
(Name and address of Manufacturer)  
2. Manufactured for **WESTINGHOUSE ELECTRIC CO., PITTSBURGH, PA.**  
(Name and address of Purchaser)

3. Type **Vert.** Kind **Heat Exch.** Vessel No. **(1832-1)** Natl. Bd. No. **368** Yr. Built **1970**  
(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.) (Mfr. Serial) (State & State No.)

Items 4-9 incl. to be completed for single wall vessels (such as air tanks), jackets of jacketed vessels, or shells of heat exchangers.

4. SHELL: Material **SA515 gr. 70** T.S. **70000** Nominal Thickness **7/16** Corrosion Allowance **1/8** In. Diam. **3** Ft. **1/8** Length **20** Ft. **9** In.  
(Kind and Spec. No.) (Fig. or P.B. & Spec. Min. T.S.)

5. SEAMS: Long **DBW** H.T. **no** X.R. **spot** Sectioned **no** Efficiency **85** %  
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe seams fully on reverse side of form.

Girth **DBW** H.T. **no** X.R. **spot** Sectioned **no** No. of Courses **1**

6. HEADS (a) Material **SA515 gr. 70** T.S. **70000** (b) Material **SA515 gr. 70** T.S. **70000**  
Location (Top, bottom, ends) Thickness **7/16** Crown Radius **36** Knuckle Radius **2 3/8** Elliptical Ratio **-** Conical Apex Angle **-** Hemispherical Radius **-** Flat Diameter **-** Side to Pressure (Convex or Concave) **concave**

(a) **Top** (b) **Bottom**  
If removable, bolts used **SA193-B7 1 3/8" 8 48** Other fastening **-**  
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

7. STAYBOLTS: **-** If hollow **-** Attachment **-** Pitch **-** X **-** Diam. **-**  
(Material) (Size of Hole) (Threaded, Welded) (Holes) (Vert.) (Nominal)

8. JACKET CLOSURE: **-**  
(Describe as ogee & weld, bar, etc. If hung give dimensions, if bolted, describe or sketch)

9. Constructed for max. allowable working press. **150** psi at max. temp. **200** °F. Min. temp. (when less than -20°) **-** Test **225** psi.  
Hydrostatic Pneumatic or T. Combination

Items 10 and 11 to be completed for tube sections.

10. TUBE SHEETS: Stationary. Material **SA240T304 CLAD ON SA515 gr. 70** Thickness **5 1/9** In. Attachment **bolted**  
(Kind and Spec. No.) (Subject to Pressure) (Welded, Bolted)

Floating. Material **SA515 gr. 70** Diam. **39 1/8** In. Thickness **5 1/9** In. Attachment **bolted**  
(Kind & Spec. No.)

11. TUBES: Material **SA213T304** O.D. **3/4** In. Thickness **18** Inches or Gage Number **592** Type **U**  
(Kind & Spec. No.) (Straight or U)

Items 12-15 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

12. SHELL: Material **SA240T304** T.S. **75000** Nominal Thickness **7/8** Corrosion Allowance **0** In. Diam. **3 3/4** Ft. **3/4** Length **2** Ft. **5** In. **7/16**"  
(Kind and Spec. No.) (Fig. or P.B. & Spec. Min. T.S.)

13. SEAMS: Long **DBW** H.T. **no** X.R. **complete** Sectioned **no** Efficiency **100** %  
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe seams fully on reverse side of form.

Girth **DBW** H.T. **no** X.R. **complete** Sectioned **no** No. of courses **1**

14. HEADS (a) Material **SA240T304** T.S. **75000** (b) Material **SA240T304** T.S. **75000** (c) Material **SA240T304** T.S. **75000**  
Location (Top, bottom, ends) Thickness **13/16** Crown Radius **-** Knuckle Radius **-** Elliptical Ratio **2:1** Conical Apex Angle **-** Hemispherical Radius **-** Flat Diameter **-** Side to Pressure (Convex or Concave) **concave**

(a) **Bottom** (b) **Channel** (c) **Floating**

If removable, bolts used (a) **-** (b) **-**  
(Material, Spec. No., T.S., Size, Number)

(c) **-** Other fastening **-**  
(Describe or Attach Sketch)

15. Constructed for max. allowable working press. **600** psi at max. temp. **400** °F. Min. temp. (when less than -20°) **-** Test **1130** psi.  
Hydrostatic Pneumatic or T. Combination

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number **-** Size **-** Location **-**

17. NOZZLES  
Purpose (Inlet, Outlet, Drain)  
Number **2** Diam. or Size **24** Type **pipe** Material **SA53GRB** Thickness **3/4** Reinforcement Material **none** How Attached **welded**  
**shell inlet and outlet**  
Number **2** Diam. or Size **10** Type **"** Material **SA312T304 sch 40** Thickness **SA240T304** Reinforcement Material **"** How Attached **"**  
**tubeside inlet and outlet**  
Number **3** Diam. or Size **3/4** Type **CPLG** Material **SA182F304 3000#** Thickness **NONE** Reinforcement Material **"** How Attached **"**  
**drain & vent**

<sup>1</sup> If postweld heat-treated.

<sup>2</sup> List under remarks other internal or external pressures with coincident temperature when applicable.

FORM U-1 (back)

18. INSPECTION Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 OPENINGS: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 19. SUPPORTS: Skirt \_\_\_\_\_ Legs \_\_\_\_\_ (Number) \_\_\_\_\_ Other \_\_\_\_\_ (Describe) \_\_\_\_\_ Attached \_\_\_\_\_  
 20. REMARKS: Vessel is a vertical residual heat exchanger built to Oat dwg's. 4957 and 4958 and the ASME Code Section VIII for Shell side and Section III Class C for tube side latest edition.  
 Westinghouse Co. Item No. SPIN: DWACAHRS-1

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooker, etc. State contents of each part.)

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Unfired Pressure Vessels.

Date 2/1 19 70 Signed JOS. OAT & SONS, INC. (Manufacturer) By J. J. J. J. J.

Certificate of Authorization Expires #184 Dec. 31, 1970

**CERTIFICATE OF SHOP INSPECTION**

VESSEL MADE BY Jos. Oat & Sons, Inc. at Philadelphia, Pa.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and of the State of Penna. and employed by Travelers Indemnity Co. of \_\_\_\_\_ have inspected the pressure vessel described in this manufacturer's data report on 2/5 1970, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2/5 19 70

Anthony L. McQuinn  
 Inspector's Signature

Commission NB6458 Pa. 2075 Ohio 2-4-69  
 T-560-7-70

**CERTIFICATE OF FIELD ASSEMBLY INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and of the State of \_\_\_\_\_ and employed by \_\_\_\_\_ have compared the statements in this manufacturer's data report with the described pressure vessel and state that parts referred to as data (qms) \_\_\_\_\_ not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2/5 19 70

Anthony L. McQuinn  
 Inspector's Signature

Commission NB6458 Pa. 2075 Ohio 2-4-69  
 T-560-7-70

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3974

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 22, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200651450

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Reactor Coolant (Q1)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case ---(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Ball Valve	Fisher Controls	5487946	N/A	PCV-1RC-455A	1976*	Corrected	No
Vee Ball	Fisher Controls	PA6839-1	N/A	Ht. #16508	2011	Installed	No

7. Description of Work Replaced Vee Ball.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3974

9. Remarks No Code Data Report available. \*Year placed in service was 1976.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White [Signature] Engineer V Date October 22<sup>nd</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-24-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]  
Inspector's Signature

Commission NB9428 A-JIB  
National Board Number and Endorsement

Date 10-24-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3975

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 19, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200692196

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case —(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipeline	Stone & Webster	N/A	N/A	WR-20	1976*	Corrected	No
Plate, 1/4"	Energy & Process	N/A	N/A	Ht. #A1Y4236-05	2012	Installed	No

7. Description of Work Installed reinforcing pad per Code Case N-789.3. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3975

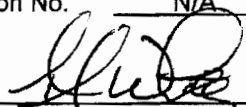
9. Remarks No Code Data Report available. Previous NIS-2 Data Report No. 3817. Reinforcing pad installed per  
Applicable Manufacturer's Data Reports to be attached  
ASME Code Case N-789 Rev. 0, which was evaluated per ECP 16-0434-001.

## CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White  Engineer V Date October 19<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title

## CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB 9428 ANIB  
National Board Number and Endorsement

Date 10-19-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

VOP-CC-5703-02 Rev. 02

Report Number 39761. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 19, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200692287

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Services  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, Code Case --(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

## 6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pipeline	Stone & Webster	N/A	N/A	WR-20	1976*	Corrected	No
Pipe, 20" NPS	Energy & Process	N/A	N/A	Ht. #140400585	2015	Installed	No

7. Description of Work Replaced section of pipe. Performed weld buildup of existing in area of welds..3. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39769. Remarks No Code Data Report available. Previous NIS-2 Data Report No. 3817.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White  Engineer V Date October 19<sup>th</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-19-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 10-19-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3977

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)76 South Main Street – Akron, OH 44308  
(ADDRESS)2. Plant Beaver Valley Power Station (BVPS)  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)3. Work Performed By BVPS Mechanical Maintenance  
(NAME)PO Box 4, Shippingport, PA 15077  
(ADDRESS)Date 10-22-2016Sheet 1 of 1Unit No. #1Order #200687690

Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/AAuthorization No. N/AExpiration Date N/A4. Identification of System 4kV Station Service System, BV-1-36-System (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'72 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve	Electro-Motive Diesel	N/A	N/A	AOV-1EE-217	1978	Removed	No
Lubricator	Electro-Motive Diesel	N/A	N/A	INJ-1EE-2A	1978	Removed	No
Valve	Engine System Inc.	N/A	N/A	AOV-1EE-217	2009	Installed	No
Lubricator	Engine System Inc.	N/A	N/A	INJ-1EE-2A	2016	Installed	No
Pipeline	Electro-Motive Diesel	N/A	N/A	Pipeline # 1.5"-ASC-230-MFR-Q3	1978	Corrected	No
Support	Electro-Motive Diesel	N/A	N/A	Support # ASC-229-PSR-3	1978	Corrected	No

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3977

Support	Electro-Motive Diesel	N/A	N/A	Support # ASC-230- PSR-1	1978	Corrected	No
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7. Description of Work Removed currently installed air start valve and air line lubricator and replaced with upgraded components. This required the pipeline and associated supports to be relocated a short distance away.

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Reports available. No prior NIS-2 data reports.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III Date Oct 22, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

John S. Zilib  
Inspector's Signature

Commission NB9428 A-IB  
National Board Number and Endorsement

Date 11-7-, 20 16

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3978

1. Owner FirstEnergy Nuclear Operating Co.  
(NAME)

Date 11-22-2016

76 South Main Street – Akron, OH 44308  
(ADDRESS)

Sheet 1 of 1

Unit No. #1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)

PO Box 4, Shippingport, PA 15077  
(ADDRESS)

Order #200687688

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance  
(NAME)

Type Code Symbol Stamp N/A

PO Box 4, Shippingport, PA 15077  
(ADDRESS)

Authorization No. N/A

Expiration Date N/A

4. Identification of System 4kV Station Service System, BV-1-36-System (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S72 Addenda, Code Case N/A

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda

(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve	Electro-Motive Diesel	N/A	N/A	AOV-1EE-218	1978	Removed	No
Lubricator	Electro-Motive Diesel	N/A	N/A	INJ-1EE-2B	1978	Removed	No
Valve	Engine System Inc.	N/A	N/A	AOV-1EE-218	2009	Installed	No
Lubricator	Engine System Inc.	N/A	N/A	INJ-1EE-2B	2016	Installed	No
Pipeline	Electro-Motive Diesel	N/A	N/A	Pipeline # 1.5"-ASC-235-MFG-Q3	1978	Corrected	No
Support	Electro-Motive Diesel	N/A	N/A	Support # ASC-234-PSR-3	1978	Corrected	No



**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3978

Support	Electro-Motive Diesel	N/A	N/A	Support # ASC-235- PSR-1	1978	Corrected	No
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7. Description of Work Removed currently installed air start valve and air line lubricator and replaced with upgraded components. This required the pipeline and associated supports to be relocated a short distance.

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

9. Remarks No Code Data Reports available. No prior NIS-2 data reports.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Thomas M Calko, Engineer III Date Nov 22, 20 16  
Owner or Owner's Designee, Title \_\_\_\_\_

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Dean S. Lynch  
Inspector's Signature

Commission NB9428 ANIB  
National Board Number and Endorsement

Date 11-29-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 3983

1. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date October 31, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. 12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200643918

Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System River Water (Q3)5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, Code Case N/A(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001E-2003A(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Expansion Joint	Garlock	04-1645-2	N/A	REJ-1RW-27A	2004	Removed	No
Expansion Joint	Garlock	16-2106685-01	N/A	REJ-1RW-27A	2016	Installed	No
Stud, 1-1/4"	Nova Machine	N/A	N/A	Trace Code: 27C2	2016	Installed	No
Nut, 1-1/4"	Nova Machine	N/A	N/A	Trace Code: 21F5	2015	Installed	No

7. Description of Work Replaced rubber expansion joint, and flange studs & nuts.8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☒ Exempt ☐  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

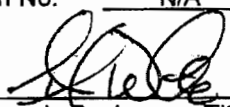
Report Number 39839. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 1724.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/A

Signed Thomas White  Engineer V Date October 31<sup>st</sup>, 20 16  
Owner or Owner's Designee, Title

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

 Commission NB9428 A-JIB  
Inspector's Signature National Board Number and Endorsement

Date 11-7-, 20 16

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

Report Number 39851. Owner FirstEnergy Nuclear Operating Company  
(NAME)Date November 2, 201676 South Main Street – Akron, OH 44308  
(ADDRESS)Sheet 1 of 1Unit No. #12. Plant Beaver Valley Power Station (BVPS)  
(NAME)P.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Order #200643946  
Repair/Replacement Organization P.O. No., Job No., etc.3. Work Performed By BVPS Mechanical Maintenance  
(NAME)Type Code Symbol Stamp N/AP.O. Box 4, Shippingport, PA 15077  
(ADDRESS)Authorization No. N/AExpiration Date N/A4. Identification of System Feed Water System (Q2)

5. (a) Applicable Construction Code ASME Section VIII 1968 Edition, No Addenda, Code Case ---  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 2001 Edition to 2003 Addenda  
(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Valve, Relief	Dresser	TE27783	N/A	RV-1FW-155	N/A	Corrected	No
Spring Assembly	Dresser	N/A	N/A	Heat # 23634 (Spring) F2872 (Washer)	1995	Installed	No
Disc	Dresser	N/A	N/A	See Note 1		Installed	No

7. Description of Work Inspected valve and replaced spring assembly and disc.

**Note 1:** Specific serial number installed not known; either ABC33, ABC35, or AAJ75 was installed. ABC33 and ABC 35 were manufactured in 1989; AAJ75 was manufactured in 1985. See note on RRP for more information.

8. Tests Conducted: Hydrostatic\* ☐ Pneumatic\* ☐ Nominal Operating Pressure ☐ Exempt ☒  
Other ☐ Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F

\*Record test pressure and temperature

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**

As Required by the Provisions of the ASME Code Section XI

NOP-CC-5703-02 Rev. 02

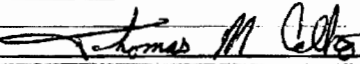
Report Number 3985

9. Remarks No Code Data Report available for valve. Prior NIS-2 report # 867.Valve is ASME Section VIII and installed replacement components meet ASME Section III, which meet/exceed ASME Section VIII requirements.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/ACertificate of Authorization No. N/A Expiration Date N/ASigned Thomas M Calko, Engineer III  Date Nov 2, 20 16  
Owner or Owner's Designee, Title**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by The Hartford Steam Boiler Inspection and Insurance Company of Connecticut of Hartford, CT have inspected the components described in this Owner's Report during the period 5-22-15 to 10-25-16, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

  
Inspector's SignatureCommission 189428 A-IB  
National Board Number and EndorsementDate 11-7-, 20 16