FENOC™
FirstEnergy Nuclear Operating Company

Beaver Valley Power Station
P.O. Box 4
Shippingport, PA 15077

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Site Vice President

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January 22, 2016
L-16-019

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. 2
Docket No. 50-412, License No. NPF-73
Eighteenth 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 eighteenth refueling outage at Beaver Valley Power Station, Unit No. 2 (BVPS-2).

Class 1, 2, 3, and IWE component inservice inspection examinations addressed in the report are part of the BVPS-2 third period of the third 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-2 covered by this report includes the period from May 25, 2014 to October 30, 2015.

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. 2, Eighteenth Refueling Outage Inservice Inspection Summary Report

cc: Nuclear Regulatory Commission (NRC) Region I Administrator
NRC Resident Inspector
NRC Project Manager
Director BRP/DEP
Site BRP/DEP Representative

Enclosure
L-16-019

Beaver Valley Power Station, Unit No. 2,
Eighteenth Refueling Outage Inservice Inspection Summary Report
(181 Pages Follow, Including 3 Blank Pages)

BEAVER VALLEY POWER STATION UNIT 2
Route 168, Shippingport, PA

Inservice Inspection Summary Report

Outage 18, Year 2015

Inspection Term: 5/25/2014 to 10/30/2015

Issue date: 1-7-16

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

NRC Docket Number: 50-412

Reactor Supplier: Westinghouse Electric Corporation
Commercial Service Date: November 17, 1987

Reviewed by: C. O'Neill
Supervisor, Nuclear Programs
Date: 1/5/16

Reviewed by: Dean A. Zwick
ANII
Date: 1-6-16

Approved by: Pat Parmelee
Manager, Technical Services Engineering
Date: 1/7/16

90-DAY REPORT
TABLE OF CONTENTS

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, PO Box 4, Shippingport, PA 15077
(Name and Address of Plant)

3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N/A

5. Commercial Service Date 11/17/87 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 Coolant Piping	Southwest Fabricating	N/A	N/A	N/A
Auxiliary Piping	Schneider Power	N/A	N/A	N/A
2RCS-REV21	Combustion Engineering	CE-9071	160591B	21669
2RCS-SG21B	Westinghouse Electric Corp	DMGT-1962	485066V	W-16599
2RCS-PRE21	Westinghouse Electric Corp	1911	485064V	W18695
2RSS-E21A	Joseph Oat Corp	2189-1A	485070V	890
2RSS-P-21A	Bingham-Willamette	23049	N/A	N/A
2CHS-P21A	Pacific Pumps / Dresser Ind.	49190	N/A	N/A
2RHS-E21A	Atlas Industrial	3483	485068V	2853
2RHS-E21B	Atlas Industrial	3484	485069V	2854

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 though 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 5/25/2014 to 10/30/2015

9. Inspection Period Identification: 4/30/2015 to 8/28/2018

10. Inspection Interval Identification: 8/29/2008 to 8/28/2018

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 examinations performed during Cycle 18 and Refueling Outage 2R18. 2R18 was the first outage in the 3rd Period of the 3rd Ten-Year Interval. Examination of Exam Category B-D components were completed during 2R18 to satisfy the percentage requirements for the previous 40-Month Period as allowed in IWA-2430(c)(2). 2R18 occurred 5 months following the end of the 2nd 40-month Period. ~~Eighteen (18)~~ Nineteen (19) examinations were limited in that 90% of the required coverage was not obtained. These examinations have a status of 'L' in Appendix I and will be identified in relief requests for submittal to the NRC. The ASME XI completion percentage requirements are on schedule to be completed for the 3rd Ten-Year Interval, which includes the next refueling outage 2R19.**

14. Abstract of Results of Examination and Tests. **See text of summary report for results details. One item of particular interest was the eddy current examination performed on reactor vessel head penetration 41 (See Code Cases N-770-1 and N-729-1 Examinations).**

15. Abstract of Corrective Measures. **See the Deficiency Resolution Section on page 6.**

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 12/15/2015 Signed FENOC By

(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, CT have inspected the components described in this Owner's Report during the period 5/25/2014 to 10/30/2015 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 S. Lynch Commissions NB 9428 ANIB, PA 2384

Inspector's Signature National Board, State, Province and Endorsements

Date 1-6-16

OUTAGE SUMMARY

ASME XI Vessel, Piping and Support Examinations

During the Eighteenth Refueling Outage (2R18) at the Beaver Valley Power Station, Unit No. 2 (BVPS-2), Inservice Inspection (ISI) examinations were performed on Class 1, 2, 3 and IWE components. This was the first outage in the third period of the 3rd Ten-Year Interval. Also included in this report are examinations performed prior to 2R18 during plant operation. The Class 1, 2, 3 and IWE examinations were based on ASME Section XI, 2001 Edition, 2003 Addenda.

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

1. One-hundred, thirty-five (135) Class 1 exams were performed using volumetric, surface and visual examination methods. See Appendix I for the specific components and examinations methods.
2. One-hundred, eighty-three (183) Class 2 exams were performed using volumetric, surface and visual examination methods. See Appendix I for the specific components and examinations methods.
3. Sixty-two (62) Class 3 exams were performed using visual examination methods. See Appendix I for the specific components and examination methods.
4. Three (3) IWE examinations were performed using UT thickness and visual examination methods. See Appendix I for the specific components and examination methods.

Examinations were performed by FirstEnergy Nuclear Operating Company (FENOC) and contracted NDE Technicians. Appendix I compiles the examinations that have been credited toward fulfilling the Ten Year Plan requirements.

Code Cases N-770-1 and N-729-1 Examinations

The examinations required by 10CFR50.55a associated with Code Cases N-770-1 and N-729-1 were completed during 2R18. Bare metal visual examinations were performed on four Reactor Vessel hot and cold leg nozzle dissimilar metal welds per N-770-1. UT examinations were performed on the RV Head penetrations; no repairs were required. A bare metal visual examination was completed on the RV Head outside diameter surface, and penetrant examinations were performed on the inside diameter surface of the RV Head for all previously repaired penetrations in accordance with N-729-1.

On September 11, 2015, during preparation for the 2R18 reactor vessel head examinations, it was discovered that following the 2R17 repair of Penetration 41, that the dye penetrant and ultrasonic examinations were performed as required by Table 1 of ASME Code Case N-729-1, but the eddy current examination required by Relief Request 2-TYP-3-RV-03 was not performed. During 2R18 the eddy current examination was performed on Penetration 41. The examination was SAT.

IWE Examination

During 2R18, a reexamination of Random Location RN-063 on the inside surface of the containment liner was completed. The thickness examination of this location in 2R15 exceeded the statistical screening criteria. The 2R18 examination confirmed that the thickness is essentially unchanged since the original 2R15 examination.

Pressure Testing

The Class 1 piping System Leakage Test was performed prior to plant start-up. All Class 1 bolted connections subject to the examination requirements of IWA-5242, "Insulated Components" were examined during 2R18. Also, Class 2 and 3 system functional and system inservice tests were performed on various systems to fulfill the current 40-month pressure testing requirement.

Deficiency Resolution

There were eight UNSAT examinations during 2R18. All eight were boric acid related that were evaluated and resolved by the Boric Acid Team.

Steam Generator Tube Examination

One hundred percent of the in-service tubes were examined in the three steam generators. Results of the examinations are submitted to regulatory authorities in accordance with Technical Specification requirements.

NIS-2 Forms

Included as Appendix II are the NIS-2 Forms associated with ASME XI repairs and replacements.

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
001100	2CHS-PSR038	SUPPORT	1	F-A	F1.10R	VT-3	107404-2	c
002000	2CHS-PSST037	SUPPORT	1	F-A	F1.10T	VT-3	107404-2	c
004600	2CHS-PSSH658X	SUPPORT	1	F-A	F1.10S	VT-3	107408-2	c
005700	2CHS-490-1C	PIPE WELD	1	R-A	R1.11	UT	107408-2	c
017850	CHS-047	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	107419	c
026600	2CHS-PSSH050	SUPPORT	1	F-A	F1.10S	VT-3	107424-2	c
027400	2CHS-PSR049	SUPPORT	1	F-A	F1.10R	VT-3	107424-2	c
029400	2CHS-PSST044	SUPPORT	1	F-A	F1.10T	VT-3	107425-3	c
033500	107425-MJ-04-B-1 TO 4	PIPE BOLTING STUD BOLTS	1	B-G-2	B7.50	VT-1	107425-3	c
034200	2CHS-PSR653X	SUPPORT	1	F-A	F1.10R	VT-3	107428-2	c
034500	2CHS-PSR654X	SUPPORT	1	F-A	F1.10R	VT-3	107428-2	c
037700	2CHS-PSR067A	SUPPORT	1	F-A	F1.10R	VT-3	110733-2	c
038200	2CHS-PSR066X	SUPPORT	1	F-A	F1.10R	VT-3	110733-2	c
049500	2CHS-PSST072	SUPPORT	1	F-A	F1.10T	VT-3	110739-2	c
050000	2CHS-PSR073	SUPPORT	1	F-A	F1.10R	VT-3	110739-2	c
050500	2CHS-PSST052	SUPPORT	1	F-A	F1.10T	VT-3	110739-2	c
062500	2DGS-PSR104	SUPPORT	1	F-A	F1.10R	VT-3	110771-2	c
062900	2DGS-PSR103	SUPPORT	1	F-A	F1.10R	VT-3	110771-2	c
063200	2DGS-PSSP879	SNUBBER	1	F-A	F1.10N	VT-3	110772-3	c
063300	2DGS-PSR053	SUPPORT	1	F-A	F1.10R	VT-3	110772-3	c
066100	2DGS-PSR101	SUPPORT	1	F-A	F1.10R	VT-3	110772-3	c
066200	2DGS-PSA102	SUPPORT	1	F-A	F1.10A	VT-3	110772-3	c
100163	2RN-063	RANDOM LINER 63	MC	IWE	E4.12	UTT	Plate O7	B
106350	RCS-018	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	107009-3	B
127600	2RCS-PSR089X	SUPPORT	1	F-A	F1.10R	VT-3	107014-4	c
129100	2RCS-PSSP035	SNUBBER	1	F-A	F1.10N	VT-3	107014-4	c
129800	2RCS-PSSH052X	SUPPORT	1	F-A	F1.10S	VT-3	107014-4	c
131950	RCS-089	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	107015-2	B
133700	107015-MJ-01-B-1 TO 8	2RCS-FE482 STUD BOLTS	1	B-G-2	B7.50	VT-1	107015-2	c
138900	2RCS-009-F01	PIPE WELD	1	R-A	R1.11	UT	110228-4	L
139200	2RCS-009-F02	PIPE WELD	1	R-A	R1.11	UT	110228-4	c
139400	2RCS-MOV595-B-1 TO 24	2RCS-MOV595 STUDS	1	B-G-1	B6.210	UT	110228-4	c
139500	2RCS-MOV595-B-1 TO 24	2RCS-MOV595 BOLTING	1	B-G-1	B6.230	VT-1	110228-4	c
143800	2RCS-007-F03	PIPE WELD	1	R-A	R1.11	UT	110231-4	c
144100	2RCS-007-F04	SAFE-END TO ELBOW	1	R-A	R1.11	UT	110231-4	c
148500	2RCS-008-3A-2	PIPE WELD	1	R-A	R1.11	UT	110234-3	c

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
153200	2RCS-061-F503	PIPE WELD	1	R-A	R1.11	UT	110238-3	c
154300	2RCS-060-2B-2	PIPE WELD	1	R-A	R1.11	UT	110238-3	c
158100	2RCS-PSR115	SUPPORT	1	F-A	F1.10R	VT-3	1107140-3	c
159250	RCS-086	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	110901-2	B
162000	2RCS-PSST024	SUPPORT	1	F-A	F1.10T	VT-3	110902-3	c
166400	2RCS-PSR006	SUPPORT	1	F-A	F1.10R	VT-3	110904-2	c
173300	2RCS-PSSH032X	SUPPORT	1	F-A	F1.10S	VT-3	110908-3	c
174000	2RCS-PSR033	SUPPORT	1	F-A	F1.10R	VT-3	110908-3	c
180950	2RCS-RV551A-SUP	VALVE SUPPORT	1	F-A	F1.40X	VT-3	RV-43A-11	c
182500	110911-MJ1-B-01 TO 12	BOLTING FOR 2RCS*RV551C	1	B-G-2	B7.70	VT-1	110911-4	E
187550	2RCS*PRE21-HTR-SLEEVES	HEATER PENETRATION SLEEVES	1	WCAP	0G09140	VT-2	E-1D-1	B
190100	2RCS*PRE21-C-7	CIRCUMFERENTIAL WELD	1	B-B	B2.11	UT	E-1D-1	c
190500	2RCS*PRE21-L-6	LONGITUDINAL WELD	1	B-B	B2.12	UT	E-1D-1	c
190800	2RCS*PRE21-N-10	NOZZLE-TO-VESSEL WELD	1	B-D	B3.110	UT	E-1D-1	L
191000	2RCS*PRE21-N-11	NOZZLE-TO-VESSEL WELD	1	B-D	B3.110	UT	E-1D-1	L
191200	2RCS*PRE21-N-12	NOZZLE-TO-VESSEL WELD	1	B-D	B3.110	UT	E-1D-1	L
194900	2RCS*P21A(S)-B01 TO B12	SEAL HOUSING BOLT	1	B-G-2	B7.60	VT-1	E-1C-1	c
200003	BC-2CHS-E24	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	E-2D	c
200004	BC-2CHS-HCV137	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	110312	c
200006	BC-110312-MJ-1	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	110312	c
200007	BC-110312-MJ-2	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	110312	c
200037	BC-2RHS-FE607B-MJ-2	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	107115	c
200040	BC-2RHS-MOV750A	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	110240	c
200041	BC-2RHS-MOV750B	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	110241	c
200042	BC-2RHS-E21A	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	E-2P	c
200043	BC-2RHS-E21B	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	E-2P	c
200044	BC-2RCS-FE480-MJ-1	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	107005	B
200045	BC-2RCS-FE481-MJ-1	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	107010	B
200046	BC-2RCS-FE482-MJ-1	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	107015	B
200047	BC-2RCS-SG21A-MNWYS	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	E-1B	B
200048	BC-2RCS-SG21B-MNWYS	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	E-1B	B
200049	BC-2RCS-SG21C-MNWYS	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	E-1B	B
200088	BC-2RCS-REV21-Flg Bolts	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	E-1A	B
200089	BC-2RCS-PRE21-Manway	BOLTED CONNECTION	1	BoltCon	Bolt1	VT-2	E-1D-1	B
200091	BC-2RHS-FE607A-MJ-2	BOLTED CONNECTION	2	BoltCon	Bolt2	VT-2	107105	c
200092	PT-2-Leakage Package 2	Leakage during RHS "A" Train	2	Press	Test	VT-2	RM-410-1	c

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
200093	PT-2-Leakage Package 3	Leakage during RHS "B" Train	2	Press	Test	VT-2	RM-410-1	c
200098	PT-2-Leakage Package 8	Terry Turbine OST	3	Press	Test	VT-2	RM-421-2	c
200099	PT-2-Leakage Package 9	2OST-11.14B High Head Full Flow	2	Press	Test	VT-2	RM-411-1	c
200102	PT-2-Leakage Package 11	2OST-11.14A Low Head SI Full Flow	2	Press	Test	VT-2	RM-411-1	B
200106	PT-2-Leakage Package 14	LETDOWN INSERVICE	2	Press	Test	VT-2	RM-410-1	c
200110	PT-2-Leakage Package 18	Cavity Fill 2OM-11.4C	2	Press	Test	VT-2	RM-411-1	c
200112	PT-2-Leakage Package 20	2BVT-13.5 2RSSP21A Pump run	2	Press	Test	VT-2	RM-414C-1	c
200113	PT-2-Leakage Package 21	2BVT-13.5 2RSSP21B Pump run	2	Press	Test	VT-2	RM413-1	c
200114	PT-2-Leakage Package 22	2BVT-13.5 2RSSP21C Pump run	2	Press	Test	VT-2	RM413-1	c
200115	PT-2-Leakage Package 23	2BVT-13.5 2RSSP21D Pump run	2	Press	Test	VT-2	RM413-1	c
200120	PT-2-Leakage Package 29	Mode 3 walkdown	1	Press	Test	VT-2	N/A	c
200130	PT-2-Leakage Package 39	Leakage during 2OST-13.1	2	Press	Test	VT-2	RM-413-2	c
200131	PT-2-Leakage Package 40	Leakage during 2OST-13.2	2	Press	Test	VT-2	RM-413-2	c
203300	2RCS*P21C(S)-B01 TO B12	SEAL HOUSING BOLT	1	B-G-2	B7.60	VT-1	E-1C-1	c
205700	2RCS*REV21-CAVLIN-A	CAVITY LINER LUGS	1	F-A	F1.40E	VT-3	E-1A-2	c
205800	2RCS*REV21-CAVLIN-B	CAVITY LINER LUGS	1	F-A	F1.40E	VT-3	E-1A-2	c
205900	2RCS*REV21-CAVLIN-C	CAVITY LINER LUGS	1	F-A	F1.40E	VT-3	E-1A-2	c
206000	2RCS*REV21-CAVLIN-D	CAVITY LINER LUGS	1	F-A	F1.40E	VT-3	E-1A-2	c
206100	2RCS*REV21-CAVLIN-E	CAVITY LINER LUGS	1	F-A	F1.40E	VT-3	E-1A-2	c
206200	2RCS*REV21-CAVLIN-F	CAVITY LINER LUGS	1	F-A	F1.40E	VT-3	E-1A-2	c
206950	2REV-HEAD-OD	VESSEL HEAD OD SURFACE	1	N-729	B4.10	VE	E-1A-2	B
206960	2REV-HEAD-PENE-ID	VESSEL HEAD PENETRATIONS	1	N-729	B4.20	UT	E-1A-2	B
206970	2REV-HEAD-PENE-16	PENE 16 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
206971	2REV-HEAD-PENE-51	PENE 51 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
206972	2REV-HEAD-PENE-56	PENE 56 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
206973	2REV-HEAD-PENE-61	PENE 61 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
206974	2REV-HEAD-PENE-49	PENE 49 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
206975	2REV-HEAD-PENE-57	PENE 57 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
206976	2REV-HEAD-PENE-44	PENE 44 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
206977	2REV-HEAD-PENE-41	PENE 41 REPAIR AREA	1	N-729	B4.20	PT	E-1A-2	B
207800	2RCS*REV21-CRDM-54	CRDM HOUSING WELD	1	B-O	B14.10	PT	E-1A-2	c
208200	2RCS*REV21-CRDM-58	CRDM HOUSING WELD	1	B-O	B14.10	PT	E-1A-2	c
208900	2RCS*REV21-CRDM-65	CRDM HOUSING WELD	1	B-O	B14.10	PT	E-1A-2	c
208910	2RCS*REV21-SHRD-SUP-1	COOLING SHROUD SUP LUG	1	F-A	F1.40E	VT-3	E-1A-2	c
208920	2RCS*REV21-SHRD-SUP-2	COOLING SHROUD SUP LUG	1	F-A	F1.40E	VT-3	E-1A-2	c
208930	2RCS*REV21-SHRD-SUP-3	COOLING SHROUD SUP LUG	1	F-A	F1.40E	VT-3	E-1A-2	c

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
209700	2RCS*REV21-INT	VESSEL INTERIOR	1	B-N-1	B13.10	VT-3	E-1A-2	c
210900	2RCS*REV21-LIG-01 TO 19	THREADS IN FLANGE	1	B-G-1	B6.40	UT	E-1A-2	c
212800	2RCS*REV21-LIG-20 TO 38	THREADS IN FLANGE	1	B-G-1	B6.40	UT	E-1A-2	c
214700	2RCS*REV21-LIG-39 TO 58	THREADS IN FLANGE	1	B-G-1	B6.40	UT	E-1A-2	c
218000	2RCS*REV21-N-24	NOZZLE-TO-SAFE-END WELD	1	R-A	R1.11	UT	E-1A-2	B
218200	2RCS*REV21-N-26	NOZZLE-TO-SAFE-END WELD	1	R-A	R1.11	UT	E-1A-2	B
218300	2RCS*REV21-N-27	NOZZLE-TO-SAFE-END WELD	1	R-A	R1.11	UT	E-1A-2	c
218400	2RCS*REV21-N-28	NOZZLE-TO-SAFE-END WELD	1	R-A	R1.11	UT	E-1A-2	B
218560	2RCS*REV21-NUT-39 TO 58	BOLTING	1	B-G-1	B6.10	VT-1	E-1A-2	c
224360	2RCS*REV21-STUD-39 TO 58	BOLTING	1	B-G-1	B6.20	VT-1	E-1A-2	c
226700	2RCS*REV21-STUD-25	BOLTING	1	B-G-1	B6.20	UT	E-1A-2	c
227900	2RCS*REV21-STUD-37	BOLTING	1	B-G-1	B6.30	UT	E-1A-2	c
229300	2RCS*REV21-STUD-51	BOLTING	1	B-G-1	B6.20	UT	E-1A-2	c
230160	2RCS*REV21-WASHER-39 - 58	BOLTING	1	B-G-1	B6.50	VT-1	E-1A-2	c
235831	2RCS*REV21-SUP-SAD-1	A LOOP OUTLET NOZZLE SADDLE	1	F-A	F1.40E	VT-3	E-1A-2	L
235832	2RCS*REV21-SUP-SAD-2	A LOOP INLET NOZZLE SADDLE	1	F-A	F1.40E	VT-3	E-1A-2	L
235833	2RCS*REV21-SUP-SAD-3	B LOOP OUTLET NOZZLE SADDLE	1	F-A	F1.40E	VT-3	E-1A-2	L
235835	2RCS*REV21-SUP-SAD-5	C LOOP OUTLET NOZZLE SADDLE	1	F-A	F1.40E	VT-3	E-1A-2	c
242800	2RCS*SG21B-N-2AIR	NOZZLE INSIDE RADIUS	1	B-D	B3.140	UT	E-1B-1	c
242900	2RCS*SG21B-N-2BIR	NOZZLE INSIDE RADIUS	1	B-D	B3.140	UT	E-1B-1	c
247100	2RHS-PSSP521X	SNUBBER	1	F-A	F1.10N	VT-3	107120-3	c
250400	2RHS-MOV701B-B-1 TO 18	2RHS-MOV701B STUDS AND NUTS	1	B-G-2	B7.70	VT-1	107120-3	E
250600	2SIS-142-B-1 TO 18	2SIS-142 STUDS AND NUTS	1	B-G-2	B7.70	VT-1	108202-4	c
252300	2SIS-PSST608	SUPPORT	1	F-A	F1.10T	VT-3	108202-4	c
253200	2SIS-PSSH012A	SUPPORT	1	F-A	F1.10S	VT-3	108202-4	c
253400	2SIS-069-F804	WELDED ATT FOR 2SIS-PSSH012A	1	B-K	B10.20	PT	108202-4	c
253500	2SIS-069-F805	WELDED ATT FOR 2SIS-PSSH012A	1	B-K	B10.20	PT	108202-4	c
254600	2SIS-287-1A	PIPE WELD	1	R-A	R1.11	UT	108202-4	c
255500	2SIS-148-B-1 TO 18	2SIS-148 STUDS AND NUTS	1	B-G-2	B7.70	VT-1	108204-4	E
259800	2SIS-147-B-1 TO 18	2SIS-147 STUDS AND NUTS	1	B-G-2	B7.70	VT-1	108207-3	E
266250	SIS-045B	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	1107107-3	B
266650	SIS-044B	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	1107121-2	B
269250	SIS-046B	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	1107123-3	B
272150	SIS-090B	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	110777-2	B
275250	SIS-085B	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	110785-2	B
277250	SIS-087B	RI-ISI SEGMENT	1	R-A	R1.12	VT-2	110789-2	B

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
283900	2SIS-PSR536	SUPPORT	1	F-A	F1.10R	VT-3	110791-2	C
284500	2SIS-PSR553X	SUPPORT	1	F-A	F1.10R	VT-3	110791-2	C
291950	2SIS-006-15-1	LOOP B C/L INJECTION	1	MRP	146	UT	110801-3	B
295350	2SIS-006-24-1	LOOP B H/L INJECTION	1	MRP	146	UT	110802-3	B
298650	2SIS-006-12-1	LOOP A C/L INJECTION	1	MRP	146	UT	110818-3	C
301650	2SIS-006-26-1	LOOP A H/L INJECTION	1	MRP	146	UT	110819-3	B
302900	2SIS-271-F04	PIPE WELD	1	R-A	R1.11	UT	110829-3	C
303400	2SIS-PSSH100	SUPPORT	1	F-A	F1.10S	VT-3	110829-3	C
303600	2SIS-PSR101X	SUPPORT	1	F-A	F1.10R	VT-3	110829-3	C
304300	2SIS-271-F06A	PIPE WELD	1	R-A	R1.11	UT	110829-3	C
305200	2SIS-PSA103X	SUPPORT	1	F-A	F1.10A	VT-3	110830-3	C
306200	2SIS-PSR105X	SUPPORT	1	F-A	F1.10R	VT-3	110830-3	C
307350	2SIS-006-25-1	LOOP C H/L INJECTION	1	MRP	146	UT	110830-3	B
307500	2SIS-025-1B	PIPE WELD	1	R-A	R1.11	UT	110830-3	C
307680	2BDG-009-F04	BUTT WELD	2	R-A	R1.11	UT	1107108-4E	C
307685	BDG-004	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110-399	B
307690	BDG-005	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110-447	B
307695	BDG-006	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110-404	B
314070	CHS-028B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108301-4	B
317470	CHS-028C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108302-4	B
318900	2CHS-070-F06	BUTT WELD	2	R-A	R1.11	UT	108302-4	C
319800	2CHS-072-F03	BUTT WELD	2	R-A	R1.11	UT	108302-4	L
322400	2CHS-072-F06	BUTT WELD	2	R-A	R1.11	UT	108303-4	L
324670	CHS-028A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108304-4	B
325850	CHS-026E	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108304-4	B
332270	CHS-028D	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108306-4	B
336000	2CHS-PSR144	SUPPORT	2	F-A	F1.20R	VT-3	108308-4	C
338100	2CHS-PSR073Y	SUPPORT	2	F-A	F1.20R	VT-3	108308-4	C
339600	2CHS-PSR068Y	SUPPORT	2	F-A	F1.20R	VT-3	108309-4	C
342550	CHS-026F	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108313-4	B
342800	2CHS-PSR315F	SUPPORT	2	F-A	F1.20R	VT-3	108313-4	C
344300	2CHS-PSR372F	SUPPORT	2	F-A	F1.20R	VT-3	108313-4	C
371900	2CHS-PSR203	SUPPORT	2	F-A	F1.20R	VT-3	108342-4	C
373870	CHS-010	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108342-4	B
380900	2CHS-067-2A	BUTT WELD	2	R-A	R1.11	UT	108344-6	C
381300	2CHS-PSR813	SUPPORT	2	F-A	F1.20R	VT-3	108344-6	C

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
389450	CHS-016C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108396-6	B
389650	CHS-019A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108396-6	B
391009	2CHS-357-F-13-C	BUTT WELD	2	R-A	R1.11	UT	263020-1	L
391010	2CHS-357-F-12-C	BUTT WELD	2	R-A	R1.11	UT	263020-1	L
392900	2CHS-070-F512	BUTT WELD	2	R-A	R1.11	UT	108397-7	c
393550	CHS-018C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108397-7	B
393750	CHS-021A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108397-7	B
394400	2CHS-276-F502A	BUTT WELD	2	R-A	R1.11	UT	108397-7	c
397750	CHS-017C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108398-4	B
397950	CHS-020A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108398-4	B
434750	CHS-050A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110298-4	c
461900	2CHS*P21A-A-1	WELDED ATTACHMENT FOR WS-4	2	C-C	C3.30	PT	E-2H-1	L
462000	2CHS*P21A-A-2	WELDED ATTACHMENT FOR WS-3	2	C-C	C3.30	PT	E-2H-1	L
462100	2CHS*P21A-A-3	WELDED ATTACHMENT FOR WS-2	2	C-C	C3.30	PT	E-2H-1	L
462200	2CHS*P21A-A-4	WELDED ATTACHMENT FOR WS-1	2	C-C	C3.30	PT	E-2H-1	L
466200	2FWS-PSSH002	SUPPORT	2	F-A	F1.20S	VT-3	101702-4	c
472770	2FNC-112-F500	BUTT WELD	2	R-A	R1.11	UT	109936-1H	c
472780	2FNC-112-F502	BUTT WELD	2	R-A	R1.11	UT	1107106-1E	c
478400	2MSS-171-F01	BUTT WELD	2	R-A	R1.11	UT	100208-6	c
479350	2MSS-AOV101C STUD1 TO 24	VALVE BOLTING	2	C-D	C4.40	UT	100208-6	c
484200	2MSS-PSR003	SUPPORT	2	F-A	F1.20R	VT-3	100210-4	c
486000	2MSS-PSSH005A	SUPPORT	2	F-A	F1.20S	VT-3	100211-4	c
495750	MSS-056	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	510206-3	B
495850	MSS-054	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	510207-3	B
496050	MSS-055	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	510207-3	B
500200	2QSS-PSST734	SUPPORT	2	F-A	F1.20T	VT-3	107932-4	c
500300	2QSS-PSR727	SUPPORT	2	F-A	F1.20R	VT-3	107932-4	c
500700	2QSS-PSST176A	SUPPORT	2	F-A	F1.20T	VT-3	107933-3	c
500770	QSS-016	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	520-118	B
500900	2QSS-001-F506	BUTT WELD	2	R-A	R1.11	UT	107933-3	c
501600	2QSS-1 -4AC	BUTT WELD	2	R-A	R1.11	UT	107933-3	c
502970	2QSS*P21B-SUP	PUMP SUPPORT	2	F-A	F1.40P	VT-3	107933-3	c
505460	QSS-015	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	520-114	B
505500	2QSS-2 -3AA	BUTT WELD	2	R-A	R1.11	UT	107934-3	c
507460	QSS-020	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	107935-5	B
511015	QSS-019	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	107938-5	B

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532100	2RHS-6 -4C	BUTT WELD	2	R-A	R1.11	UT	107103-5	c
532200	2RHS-6 -5A	BUTT WELD	2	R-A	R1.11	UT	107103-5	c
532300	2RHS-6 -5B	BUTT WELD	2	R-A	R1.11	UT	107103-5	c
533700	2RHS-18 -3CR1	BUTT WELD	2	R-A	R1.11	UT	107104-5	c
533800	2RHS-18 -4A	BUTT WELD	2	R-A	R1.11	UT	107104-5	c
533900	2RHS-18 -4B	BUTT WELD	2	R-A	R1.11	UT	107104-5	c
540300	2RHS-016-F03	BUTT WELD	2	R-A	R1.11	UT	107110-5	c
550800	2RHS-PSR003	SUPPORT	2	F-A	F1.20R	VT-3	107115-4	c
551500	2RHS-010-3-C	BUTT WELD	2	R-A	R1.11	UT	107116-4	c
551700	2RHS-010-3-D	BUTT WELD	2	R-A	R1.11	UT	107116-4	c
563500	2RHS-PSST506X	SUPPORT	2	F-A	F1.20T	VT-3	108208-4	c
569500	2RHS-PSR798X	SUPPORT	2	F-A	F1.20R	VT-3	110727-4	c
573400	2RHS*E21A-C-2	HEAD CIRCUMFERENTIAL WELD # 2	2	C-A	C1.20	VT-2	E-2P-1	c
573700	2RHS*E21A-N-3	NOZZLE-TO-SHELL WELD # 3	2	C-B	C2.21	VT-2	E-2P-1	c
573800	2RHS*E21A-N-4	NOZZLE-TO-SHELL WELD # 4	2	C-B	C2.21	VT-2	E-2P-1	c
573900	2RHS*E21A-C-1	SHELL CIRCUMFERENTIAL WELD # 1	2	C-A	C1.10	VT-2	E-2P-1	c
574200	2RHS*E21B-C-2	HEAD CIRCUMFERENTIAL WELD # 2	2	C-A	C1.20	VT-2	E-2P-1	B
574500	2RHS*E21B-N-3	NOZZLE-TO-SHELL WELD # 3	2	C-B	C2.21	VT-2	E-2P-1	B
574600	2RHS*E21B-N-4	NOZZLE-TO-SHELL WELD # 4	2	C-B	C2.21	VT-2	E-2P-1	B
574700	2RHS*E21B-C-1	SHELL CIRCUMFERENTIAL WELD # 1	2	C-A	C1.10	VT-2	E-2P-1	B
581100	2RSS-PSSH454A	SUPPORT	2	F-A	F1.20S	VT-3	107950-4	c
581200	2RSS-004-F830	WELDED ATT FOR 2RSS-PSSH454A	2	C-C	C3.20	PT	107950-4	c
581300	2RSS-PSSH454B	SUPPORT	2	F-A	F1.20S	VT-3	107950-4	c
581400	2RSS-004-F831	WELDED ATT FOR 2RSS-PSSH454B	2	C-C	C3.20	PT	107950-4	c
586100	2RSS-PSR108	SUPPORT	2	F-A	F1.20R	VT-3	107952-4	c
586560	2RSS-019-F02	BUTT WELD	2	R-A	R1.11	UT	107959-3E	c
586580	2RSS-020-F2A	BUTT WELD	2	R-A	R1.11	UT	107960-2A	c
597400	2RSS-PSSH122Y	SUPPORT	2	F-A	F1.20S	VT-3	107968-3	c
597500	2RSS-009-F801	WELDED ATT FOR 2RSS-PSSH122Y	2	C-C	C3.20	PT	107968-3	c
597600	2RSS-009-F802	WELDED ATT FOR 2RSS-PSSH122Y	2	C-C	C3.20	PT	107968-3	c
597700	2RSS-009-F803	WELDED ATTT FOR 2RSS-PSSH122Y	2	C-C	C3.20	PT	107968-3	c
597800	2RSS-009-F804	WELDED ATT FOR 2RSS-PSSH122Y	2	C-C	C3.20	PT	107968-3	c
613400	2RSS*E21A-WS-1	MECHANICAL RESTRAINT	2	F-A	F1.40E	VT-3	E-2L-2	c
613600	2RSS*E21A-WS-3	MECHANICAL RESTRAINT	2	F-A	F1.40E	VT-3	E-2L-2	c
613850	2RSS*E21A-N-12A	NOZZLE TO SHELL REINF PAD WELD	2	C-B	C2.11	VT-2	E-2L-2	c
613950	2RSS*E21A-N-13A	NOZZLE TO SHELL REINF PAD WELD	2	C-B	C2.11	VT-2	E-2L-2	c

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
614000	2RSS*E21A-WS-2	STRUCTURAL SUPPORT	2	F-A	F1.40E	VT-3	E-2L-2	c
617100	2RSS*E21A-C-1	TUBESHEET TO SHELL WELD # 1	2	C-A	C1.30	VT-2	E-2L-2	L
617200	2RSS*E21A-C-11	TUBESHEET TO SHELL WELD # 11	2	C-A	C1.30	VT-2	E-2L-2	L
621120	2RSS*P21A-A-2	WELDED ATT - GUSSET PLATE	2	C-C	C3.30	PT	E-2M-2	c
623800	2RSS*P21A-WS-1	PUMP SUPPORT NO. 1 - SEISMIC LUG	2	F-A	F1.40P	VT-3	E-2M-2	c
623900	2RSS*P21A-WS-2	PUMP SUPPORT NO. 2 - SEISMIC LUG	2	F-A	F1.40P	VT-3	E-2M-2	c
624000	2RSS*P21A-WS-3	PUMP SUPPORT NO. 3	2	F-A	F1.40P	VT-3	E-2M-2	c
640693	2SIS-PSSH330Y	SUPPORT	2	F-A	F1.20S	VT-3	108102-1	c
641650	2SIS-PSST682A	SUPPORT	2	F-A	F1.20T	VT-3	108103-5	c
642150	2SIS-PSST682B	SUPPORT	2	F-A	F1.20T	VT-3	108103-5	c
646100	2SIS-047-F-06	BUTT WELD	2	R-A	R1.11	UT	108104-6	L
646400	2SIS-047-F-07	BUTT WELD	2	R-A	R1.11	UT	108104-6	L
649970	SIS-036B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108105-5	B
662950	SIS-037B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108109-5	B
667400	2SIS-011-F500	BUTT WELD	2	R-A	R1.11	UT	108110-4	c
674350	SIS-065B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108307-4	B
674900	2SIS-PSR017	SUPPORT	2	F-A	F1.20R	VT-3	108307-4	c
676100	2SIS-PSR012	SUPPORT	2	F-A	F1.20R	VT-3	108307-4	c
676650	SIS-064B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	108310-4	B
680200	2SIS-PSR083Y	SUPPORT	2	F-A	F1.20R	VT-3	108311-4	c
681370	SIS-062B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	410-548	B
681600	2SIS-PSR020	SUPPORT	2	F-A	F1.20R	VT-3	108311-4	c
685100	2SIS-PSR049	SUPPORT	2	F-A	F1.20R	VT-3	108346-4	c
685200	2SIS-005-2-B	BUTT WELD	2	R-A	R1.11	UT	108346-4	c
692300	2SIS-PSR064	SUPPORT	2	F-A	F1.20R	VT-3	108347-4	c
697200	2SIS-PSA004	SUPPORT	2	F-A	F1.20A	VT-3	108350-4	c
697210	2SIS-094-F-803	WELDED ATT FOR 2SIS-PSA004	2	C-C	C3.20	PT	108350-4	c
697700	2SIS-PSR002	SUPPORT	2	F-A	F1.20R	VT-3	108350-4	c
715200	2SIS-PSR137Y	SUPPORT	2	F-A	F1.20R	VT-3	109931-4	c
717070	SIS-060B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	109932-4	B
720500	2SIS-PSR155	SUPPORT	2	F-A	F1.20R	VT-3	109933-4	c
722600	2SIS-PSST159	SUPPORT	2	F-A	F1.20T	VT-3	109934-4	c
725100	2SIS-102-3A1D	BUTT WELD	2	R-A	R1.11	UT	109935-4	c
727050	SIS-081A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110140-4	B
728150	SIS-080A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110141-4	B
732250	SIS-079A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110144-4	B

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735100	2SIS-PSR089R	SUPPORT	2	F-A	F1.20R	VT-3	110155-4	c
736700	2SIS-PSA282X	SUPPORT	2	F-A	F1.20A	VT-3	110165-4	c
741100	2SIS-PSR642	SUPPORT	2	F-A	F1.20R	VT-3	110174-4	c
750350	SIS-056A	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110255-4	B
751470	SIS-056B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110274-4	B
759100	2SIS-11 -2A	BUTT WELD	2	R-A	R1.11	UT	1107124-4	c
759800	2SIS-011-F04	BUTT WELD	2	R-A	R1.11	UT	1107124-4	c
763100	2SIS-PSA030	SUPPORT	2	F-A	F1.20A	VT-3	1107126-4	c
765000	2SIS-010-F01	BUTT WELD	2	R-A	R1.11	UT	1107129-4	c
767400	2SIS-PSST037B	SUPPORT	2	F-A	F1.20T	VT-3	1107129-4	c
768100	2SIS-PSR038A	SUPPORT	2	F-A	F1.20R	VT-3	1107130-4	c
768300	2SIS-PSR039	SUPPORT	2	F-A	F1.20R	VT-3	1107130-4	c
770100	2SIS-PSA220	SUPPORT	2	F-A	F1.20A	VT-3	1107131-4	c
773850	SIS-070B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110774-4	B
775350	SIS-072B	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110775-4	B
781300	2SIS-PSR371X	SUPPORT	2	F-A	F1.20R	VT-3	110793-4	c
781400	2SIS-009-F802	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
781500	2SIS-009-F803	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
781600	2SIS-009-F804	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
781700	2SIS-009-F805	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
781800	2SIS-009-F806	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
781900	2SIS-009-F807	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
782000	2SIS-009-F808	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
782100	2SIS-009-F809	WELDED ATT FOR 2SIS-PSR371X	2	C-C	C3.20	PT	110793-4	c
787770	SIS-056C	RI-ISI SEGMENT	2	R-A	R1.12	VT-2	110798-4	B
790900	2SIS-PSR237S	SUPPORT	2	F-A	F1.20R	VT-3	111104-4	c
791200	2SIS-PSR256S	SUPPORT	2	F-A	F1.20R	VT-3	111104-4	c
792080	2IAC-049-F513	BUTT WELD	2	R-A	R1.11	UT	1107176-0D	c
795800	2SVS-PSR019	SUPPORT	2	F-A	F1.20R	VT-3	100203-5	c
798200	2SVS-044-F502	BUTT WELD	2	N/A	B.E.Z.	UT	100204-5	c
806400	2SVS-PSSH661	SUPPORT	2	F-A	F1.20S	VT-3	100217-5	c
808950	2CCP*P21B-CS-1,-2	PUMP SUPPORTS	3	F-A	F1.40P	VT-3	E-3J-1	c
817900	2CCP-PSST094Y	SUPPORT	3	F-A	F1.30T	VT-3	107210-3	c
818900	2CCP-PSR112	SUPPORT	3	F-A	F1.30R	VT-3	107210-3	c
819400	2CCP-PSR104	SUPPORT	3	F-A	F1.30R	VT-3	107211-3	c
820800	2CCP-PSR089	SUPPORT	3	F-A	F1.30R	VT-3	107212-2	c

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
824300	2CCP-PSR008	SUPPORT	3	F-A	F1.30R	VT-3	107216-2	c
831400	2CCP-PSR058	SUPPORT	3	F-A	F1.30R	VT-3	107221-2	c
834600	2CCP-PSR081	SUPPORT	3	F-A	F1.30R	VT-3	107226-2	c
844200	2CCP-PSR438X	SUPPORT	3	F-A	F1.30R	VT-3	110710-3	c
854700	2CCP-PSR048	SUPPORT	3	F-A	F1.30R	VT-3	120722-2	c
860640	2FNC-PSSH178	SUPPORT	3	F-A	F1.30S	VT-3	107707-2	c
860641	2FNC-004-F-800	WELDED ATT FOR 2FNC-PSSH178	3	D-A	D1.20	VT-1	107707-2	c
860642	2FNC-004-F-801	WELDED ATT FOR 2FNC-PSSH178	3	D-A	D1.20	VT-1	107707-2	c
860643	2FNC-004-F-802	WELDED ATT FOR 2FNC-PSSH178	3	D-A	D1.20	VT-1	107707-2	c
860644	2FNC-004-F-803	WELDED ATT FOR 2FNC-PSSH178	3	D-A	D1.20	VT-1	107707-2	c
860680	2FNC-PSR161	SUPPORT	3	F-A	F1.30R	VT-3	107708-1	c
862100	2FWE-PSR059Y	SUPPORT	3	F-A	F1.30R	VT-3	101602-3	c
862800	2FWE-PSR024Y	SUPPORT	3	F-A	F1.30R	VT-3	101604-3	c
864350	2FWE*P22-CS-1 TO CS-4	PUMP SUPPORTS	3	F-A	F1.40P	VT-3	E-3K-1	c
868850	2FWE*P23B-CS-1 TO CS-4	PUMP SUPPORTS	3	F-A	F1.40P	VT-3	E-3K-1	c
873100	2FWE-PSST349X	SUPPORT	3	F-A	F1.30T	VT-3	101625-2	c
873322	2FWE-PSSH017	SUPPORT	3	F-A	F1.20S	VT-3	101707-3	c
873323	2FWE-108-F-804	WELDED ATT FOR 2FWE-PSSH017	3	D-A	D1.20	VT-1	101707-3	c
873324	2FWE-108-F-805	WELDED ATT FOR 2FWE-PSSH017	3	D-A	D1.20	VT-1	101707-3	c
873325	2FWE-108-F-806	WELDED ATT FOR 2FWE-PSSH017	3	D-A	D1.20	VT-1	101707-3	c
873326	2FWE-108-F-807	WELDED ATT FOR 2FWE-PSSH017	3	D-A	D1.20	VT-1	101707-3	c
873331	2FWE-PSR012A	SUPPORT	3	F-A	F1.20R	VT-3	101707-3	c
873341	2FWE-PSR021	SUPPORT	3	F-A	F1.20R	VT-3	101708-3	c
873346	2FWE-PSA028	SUPPORT	3	F-A	F1.20A	VT-3	101708-3	c
873361	2FWE-PSR340X	SUPPORT	3	F-A	F1.20R	VT-3	101617-2	c
873365	2FWE-PSST362X	SUPPORT	3	F-A	F1.20T	VT-3	101618-2	c
873367	2FWE-PSR053Y	SUPPORT	3	F-A	F1.20R	VT-3	101618-2	c
873371	2FWE-PSR048Y	SUPPORT	3	F-A	F1.20R	VT-3	101619-2	c
874100	2FWE-PSR004C	SUPPORT	3	F-A	F1.30R	VT-3	520043-1	c
874900	2FWE-PSA002C	SUPPORT	3	F-A	F1.30A	VT-3	520147-1	c
875500	2HVC*REF24A-SPT-1	SUPPORT	3	F-A	F1.40E	VT-3		c
875600	2HVC*REF24A-W-1	INTEGRAL ATTACHMENT	3	D-A	D1.10	VT-1		c
876900	2HVC-PSR007	SUPPORT	3	F-A	F1.30R	VT-3	173901-2	c
877500	2MSS-PSST491	SUPPORT	3	F-A	F1.30T	VT-3	101614-2	c
879952	2SWS*P21A-MS-1	PUMP SUPPORT	3	F-A	F1.40P	VT-3	E-3L-1	c
879954	2SWS*P21A-MS-2	PUMP SUPPORT	3	F-A	F1.40P	VT-3	E-3L-1	c

Sum_No	Component_ID	Description	Class	Category	Item	Method	Iso	Status
880100	2SWS-PSSH760A	SUPPORT	3	F-A	F1.30S	VT-3	100403-2	c
881100	2SWS-PSR023	SUPPORT	3	F-A	F1.30R	VT-3	101902-2	c
884100	2SWS-PSR004	SUPPORT	3	F-A	F1.30R	VT-3	101906-2	c
885400	2SWS-PSA140	SUPPORT	3	F-A	F1.30A	VT-3	101908-2	c
885500	2SWS-188-F-504	WELDED ATT FOR 2SWS-PSA140	3	D-A	D1.20	VT-1	101908-2	c
886700	2SWS-PSA139	SUPPORT	3	F-A	F1.30A	VT-3	101909-2	c
886800	2SWS-185-F-504	WELDED ATT FOR 2SWS-PSA139	3	D-A	D1.20	VT-1	101909-2	c
889400	2SWS-PSR076	SUPPORT	3	F-A	F1.30R	VT-3	101912-2	c
889900	2SWS-PSA072	SUPPORT	3	F-A	F1.30A	VT-3	101912-2	c
890000	2SWS-201-F-517	WELDED ATT FOR 2SWS-PSA072	3	D-A	D1.20	VT-1	101912-2	c
894600	2SWS-PSR130Y	SUPPORT	3	F-A	F1.30R	VT-3	101921-2	c
895600	2SWS-PSR123Y	SUPPORT	3	F-A	F1.30R	VT-3	101922-2	c
907000	2SWS-PSR210	SUPPORT	3	F-A	F1.30R	VT-3	109915-2	c
907100	2SWS-188-F-803	WELDED ATT FOR 2SWS-PSR210	3	D-A	D1.20	VT-1	109915-2	c
907200	2SWS-188-F-804	WELDED ATT FOR 2SWS-PSR210	3	D-A	D1.20	VT-1	109915-2	c
907300	2SWS-188-F-806	WELDED ATT FOR 2SWS-PSR210	3	D-A	D1.20	VT-1	109915-2	c
907400	2SWS-188-F-812	WELDED ATT FOR 2SWS-PSR210	3	D-A	D1.20	VT-1	109915-2	c
927900	2SWS-PSST657T	SUPPORT	3	F-A	F1.30T	VT-3	120731-2	c
928000	2SWS-PSR656T	SUPPORT	3	F-A	F1.30R	VT-3	120731-2	c
931000	2SWS-R283	SUPPORT	3	F-A	F1.30H	VT-3	311002-2	c
932700	RC PUMP MOTOR LIFT RIG	LIFT RIG	1	N/A	NR0612	MT		c
999985	2CNMT-BLDFLG	FUEL CANAL BLIND FLANGE BOLTING	MC	E-A	E1.11	VT-1		B
999986	2CNMT-EQUHATCH	EQUIPMENT HATCH BOLTING	MC	E-A	E1.11	VT-1		B

STATUS LEGEND:

c = Complete, for code credit
B = Complete, mutliple examinations in Interval
E = Complete, extra, no code credit
L = Limited examination

APPENDIX II

REPAIR-REPLACEMENT ABSTRACT
AND
NIS-2 FORMS

NIS-2 ABSTRACT

FORM NO.	FUNCTIONAL LOCATION	ORDER NO.	COMMENTS
3109	2MSS-SV101A	200249111, 55107889	Installed
3110	2MSS-SV102A	200249112, 55107889	Installed
3111	2MSS-SV103A	200249113	Installed
3112	2MSS-SV104A	200249114	Installed
3113	2MSS-SV105A	200249115, 55107889	Installed
3176	2-CHS-150-670-2	200174665	Corrected
3176	2-CHS-150-687-2	200174665	Corrected
3317	2CHS-152	200413166	Corrected
3424	2SSR-RV134	200451462	Installed
3439	2SIS-366	200457431	Corrected
3514	2SWS-692	200504119	Corrected
3517	2SWS-MOV102A	200418384	Installed
3744	2CHS-50	200518568	Corrected
3745	2CHS-54	200568664	Corrected
3804	2RCS-SG21A	47553320	Corrected
3805	2RCS-SG21B	47553320	Corrected
3806	2RCS-SG21C	47553320	Corrected
3811	2-FWE-006-007-3	200585202, 200585206	Corrected
3811	2-FWE-003-174-3	200585202, 200585206	Installed
3811	2FWE-384	200585202, 200585206	Installed
3811	2SIS-PSR790	200585202, 200585206	Corrected
3811	2SIS-PSR791	200585202, 200585206	Corrected
3811	2FWE-PSR471	200585202, 200585206	Installed
3812	2-FWE-003-219-3	200584748	Corrected
3812	2FWE-382	200584748	Installed
3816	2-FWE-006-004-3	200585204	Corrected
3816	2-FWE-004-184-3	200585204	Installed
3816	2FWE-387	200585204	Installed
3833	2-CHS-003-041-3	200591497	Corrected
3833	2CHS-102	200591497	Installed
3834	2-CHS-003-042-3	200591498	Corrected
3834	2-CHS-002-046-3	200591498	Installed
3834	2CHS-105	200591498	Installed
3836	2RHS-E21B	200607932	Corrected
3837	2RHS-E21A	200607933	Corrected
3838	2SIS-319	200450831	Corrected
3839	2QSS-PSSP138Y	200613933	Installed
3841	2SWS-MOV103A	200539066	Installed
3844	2SWS-188	200242782	Installed
3845	2SWS-185	200539622	Installed
3846	2SWS-MOV116A	200555096	Installed
3851	2RSS-PSSP465X	200613934	Installed
3852	2FWS-PSSP002A	200613893	Installed
3853	2FWS-PSSP002B	200613894	Installed
3854	2FWS-PSSP003A	200613895	Installed

NIS-2 ABSTRACT

FORM NO.	FUNCTIONAL LOCATION	ORDER NO.	COMMENTS
3855	2FWS-PSSP003B	200613896	Installed
3856	2FWS-PSSP006	200613897	Installed
3857	2FWS-PSSP012	200613898	Installed
3862	2SWS-106	200607563	Installed
3865	2-SWS-008-779-3	200584749	Corrected
3865	2-SWS-006-780-3	200584749	Installed
3865	2SWS-733	200584749	Installed
3865	2SWS-734	200584749	Installed
3865	2-SWS-006-781-3	200584749	Installed
3865	2SWS-741	200584749	Installed
3865	2SWS-742	200584749	Installed
3865	2SWS-PSR1230	200584749	Installed
3865	2SWS-PSR1231	200584749	Installed
3865	2SWS-PSR1232	200584749	Installed
3867	2-SWS-020-114-3	200585208	Corrected
3867	2-SWS-008-922-3	200585208	Installed
3867	2-SWS-006-923-3	200585208	Installed
3867	2SWS-332	200585208	Installed
3867	2SWS-333	200585208	Installed
3867	2-SWS-006-926-3	200585208	Installed
3867	2SWS-334	200585208	Installed
3867	2SWS-335	200585208	Installed
3867	2SWS-PSR1233	200585208	Installed
3867	2SWS-PSR1234	200585208	Installed
3867	2SWS-PSR1235	200585208	Installed
3869	2-SWS-004-192-3	200625314	Corrected
3871	2-FNC-002-128-3	200585209	Corrected
3871	2-FNC-002-184-3	200585209	Installed
3871	2FNC-200	200585209	Installed
3872	2-SWS-003-052-3	200630254	Corrected
3872	2-SWS-004-044-3	200630254	Corrected
3876	2RSS-E21C	200459075	Corrected
3877	2SIS-66	200655260	Corrected
3879	2RCS-REV21	200655277	Corrected
3883	2-EGS-150-016-3	200468198	Corrected
3883	2-EGS-150-017-3	200468198	Corrected
3886	2CHS-E24	200663970	Corrected
3887	2RCS-RV551C	200465407	Installed

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 3109

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 10/28/2015

Sheet 1 of 2

Unit No. 2

Order Nos. 200249111, 55107889
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, S'73 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)
Safety Valve	Crosby Valve	N57636-00-0001	718	2MSS-SV101A	1977	Removed	Yes
Safety Valve	Crosby Valve	N57636-00-0002	719	2MSS-SV101A	1977	Installed	Yes
Disc Insert	Crosby Valve	N91124-34-0083	N/A	N/A	1977	Removed	Yes
Disc Insert	Crosby Valve	N91124-64-0377	N/A	N/A	1987	Installed	Yes
1-3/8" Nut	Nova Machine	N/A	N/A	Trace #14M4	2015	Installed	No

7. Description of Work Replaced valve and nuts with spare.

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 3109

9. Remarks Code Data Report for replacement valve attached to previous NIS-2 Data Report No. 2078. No Code Data Report available for nuts. Disc insert was replaced by Crosby Valve under purchase Order 55107889, N-2 Data Report 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/A

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

Signed Thomas White Engineer V Date December 4, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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. Tyrrell Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 12-7-, 20 15

CROSBY

CROSBY VALVE & GAGE COMPANY
WRENTHAM, MASS

QC-392
Form N-2

FORM N-2 N OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III, Division 1
Not To Exceed One Day's Production

Pg 1 of 1

1. Manufactured and certified by Crosby Valve & Gage Company, 43 Kendrick St, Wrentham, MA 02093
(name and address of certificate holder)

2. Manufactured for Duquesne Light Co., Pittsburgh PA
(name and address of purchaser)

3. Location of installation Beaver Valley - Unit 1, Shippingport, PA
(name and address)

4. Type DS-C-57636 (drawing no.) | ASTM-A182 F316 (part spec. no.) | 84,100 (tensile strength) | -- (CRN) | 1987 (year built)

5. ASME Code, Section III: 1971 (edition) | Summer 1973 (addenda) | 2 (class) | -- (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) -- (no.) Revision -- Date --

7. Remarks: N/A

8. Nom. thickness (in.) -- Min. design thickness (in.) -- Dia. ID (ft. & in.) -- Length overall (ft. & in.) --

9. When applicable, Certificate Holders' data reports are attached for each item of this report:

	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1)	N91124-64-0377	
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
(36)		
(37)		
(38)		
(39)		
(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design pressure -- psi Temp. -- °F. Hydro. test pressure -- (when applicable) at temp. °F.

Form N-2

FORM N-2 (back)

Mfr. Serial No. _____

CERTIFICATE OF DESIGN

Design specifications certified by Partho Ravsicar (when applicable) P. E. state PA Reg. no. 28246-E

Design report* certified by _____ (when applicable) P. E. state _____ Reg. no. _____

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Disc Insert conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-1877 Expires 9/30/89

Date 9-11-87 Name Crosby Valve & Gage Co. (NPT Certificate Holder) Signed _____ (Authorized representative)

CERTIFICATE OF SHOP 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 Massachusetts and employed by Arkwright Mutual Insurance Company of Norwood, MA have inspected these items described in this data report on SEPT. 11, 1987 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment 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 loss of any kind arising from or connected with this inspection. FACTORY MUTUAL SYSTEM

Date 9-11-87 Signed _____ (Authorized Inspector) Commissions NB 9792-N MA 1375 PAM 3327 (State or Prov. and 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 3110

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 10/28/2015

Sheet 1 of 1

Unit No. 2

Order Nos. 200249112, 55107889
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, S'73 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)
Safety Valve	Crosby Valve	N57636-00-0004	737	2MSS-SV102A	1977	Removed	Yes
Safety Valve	Crosby Valve	N57636-00-0005	738	2MSS-SV102A	1977	Installed	Yes
Disc Insert	Crosby Valve	N91124-34-0091	N/A	N/A	1977	Removed	No
Disc Insert	Crosby Valve	N91124-79-0416	N/A	Ht. No. C/C:E2LF	2011	Installed	No
1-3/8" Nut	Nova Machine	N/A	N/A	Trace #14M4	2015	Installed	No

7. Description of Work Replaced valve with spare and 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 3110

9. Remarks Code Data Report for replacement valve attached to previous NIS-2 Data Report No. 2079. No Code Applicable Manufacturer's Data Reports to be attached Data Report available for nuts. Disc insert was replaced by Crosby Valve under purchase Order 55107889.

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 29th, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-29-15, 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. Zink Commission NB9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 10-29-, 20 15

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 3111

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 11/04/2015

Sheet 1 of 1

Unit No. 2

Order Nos. 200249113
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, S'73 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)
Safety Valve	Crosby Valve	N57636-00-0007	743	2MSS-SV103A	1977	Removed	Yes
Safety Valve	Crosby Valve	N57636-00-0008	740	2MSS-SV103A	1977	Installed	Yes
1-3/8" Nut	Nova Machine	N/A	N/A	Trace Code: 15SO	2015	Installed	No

7. Description of Work Replaced valve and 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 3111

9. Remarks Code Data Report for replacement valve attached to previous NIS-2 Data Report No. 2080. No Code Data Report available for nuts.

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 November 4th, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 L. Lynch Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-4-, 20 15

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 3112

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 10/28/2015

Sheet 1 of 1

Unit No. 2

Order Nos. 200249114
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, S'73 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)
Safety Valve	Crosby Valve	N57636-00-0010	743	2MSS-SV104A	1977	Removed	Yes
Safety Valve	Crosby Valve	N57636-00-0011	744	2MSS-SV104A	1977	Installed	Yes
1-3/8" Nut	Nova Machine	N/A	N/A	Trace Code: 15SO	2015	Installed	No

7. Description of Work Replaced valve with spare and 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 3112

9. Remarks Code Data Report for replacement valve attached to previous NIS-2 Data Report No. 2081. No Code Data Report available for nuts.

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 29th, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 Commission NB9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-2-, 20 15

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 3113

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 11/4/2015

Sheet 1 of 1

Unit No. 2

Order Nos. 200249115, 55107889
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, S'73 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)
Safety Valve	Crosby Valve	N57636-00-0013	746	2MSS-SV105A	1977	Removed	Yes
Safety Valve	Crosby Valve	N57636-00-0014	747	2MSS-SV105A	1977	Installed	Yes
Disc Insert	Crosby Valve	N91124-35-0095	N/A	N/A	1977	Removed	No
Disc Insert	Crosby Valve	N91124-79-0417	N/A	Ht. No. C/C:E2LF	2011	Installed	No
1-3/8" Nut	Nova Machine	N/A	N/A	Trace #15S0	2015	Installed	No

7. Description of Work Replaced valve and 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 3113

9. Remarks Code Data Report for replacement valve attached to previous NIS-2 Data Report No. 2082. No Code Data Report available for nuts. Disc insert was replaced by Crosby Valve under purchase Order 55107889.

(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 November 4th, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 L. Lynk Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-4-, 20 15

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 3176

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 11-6-2015

Sheet 1 of 1

Unit No. #2

Order # 200174665
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Chemical and Volume Control System, BV-2-07-System (Class 2)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W'72 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 & Webster	N/A	N/A	Pipe Line 2-CHS-150-670-2	1987	Corrected	No
Pipe Cap, SS, 1.5"	CGP Mfg	N/A	N/A	Heat #246543	2009	Installed	No
Pipe Line	Stone & Webster	N/A	N/A	Pipe Line 2-CHS-150-687-2	1987	Corrected	No
Relief Valve	Crosby Valve	N66785-00-0008	1026	2CHS-RV450B	1984	Removed	Yes
Blind Flange, SS, 1.5"	Newman Flange & Fitting	N/A	N/A	Heat # G-572	2009	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 3176

Nuts, 1"	Nova Machine Products	N/A	N/A	Heat # 49990-0016	2000	Installed	No

7. Description of Work Pipe line 2-CHS-150-670-2 was cut and a pipe cap was installed. Relief valve 2CHS-RV450B was removed from pipe line 2-CHS-150-687-2 and a blind flange was installed.

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

*Record test pressure and temperature

9. Remarks Piping Isometric 2806.258-920-727 (410-312) shows pipe line 2-CHS-150-670-2 (item #1), pipe line 2-CHS-150-687-2 (item #6), and relief valve 2SCH-RV450B as item 34. The N5 Code Data Report for this valve and piping is part of System 07 package 15 (ID: 2-SR-07-15-CHS). N5 Code Data Report is on Film Number S1403 and starts on slide #778. Prior NIS-2 report for 2CHS-RV450B is #017.

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 6, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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. Lich Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-11-, 20 15

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 3317

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 Mechanical Maintenance (NAME)

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

Date 11/6/2015

Sheet 1 of 2

Unit No. #2

Order #200413166
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Chemical and Volume Control (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, W'72 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)
Check Valve	Kerotest	LA2-16	9440	2CHS-152	1976	Corrected	Yes
Cover	Kerotest	NLG1-5	N/A	N/A	1993	Installed	Yes

7. Description of Work Replaced valve cover.

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 3317

9. Remarks Code Data Report for cover attached. Copy of Data Report for valve attached to N-5 #2-SR-7-14-CHS.
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 6, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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. Zinck Commission NB9428 A NI B
Inspector's Signature National Board Number and Endorsement

Date 11-11-, 20 15

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III

Not To Exceed One Day's Production

1. Manufactured and certified by Kerotest Mfg. Corp., 2525 Liberty Ave., Pgh, Pa 15222 (C191980)
(name and address of NPT Certificate Holder)

2. Manufactured for Duquesne Light Company, 301 Grant Street, Pittsburgh, PA 15279
(name and address of purchaser)

3. Location of installation Beaver Valley Power Station, Beaver Valley Storeroom, Shippingport, PA 15077
(name and address)

4. Type				
9911-2-(1)	SA182, F316	75,000	N/A	1993
(drawing no.)	(mat'l. spec. no.)	(tensile strength)	(CRN)	(year built)

5. ASME Code, Section III:				
1971	Winter 1972	1	N/A	
(edition)	(addenda date)	(class)	(Code Case no.)	

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A

7. Remarks: P.O. #D117786, Item #2

8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) N/A Length overall (ft & in.) N/A

9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1)	NLG1-5	N/A
(2)	NLG1-6	N/A
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Part or Appurtenance Serial Number	National Board Number in Numerical Order
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
(36)		
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(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design pressure 2580 psi. Temp. 650 °F. Hydro. test pressure N/A (when applicable) at temp. °F

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

(12/86)

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (back)

Mfr. Serial No. See No. 9

CERTIFICATION OF DESIGN

Design specifications certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

Design report* certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Spare Part Cover conforms to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization No. 1903 Expires 4-25-95

Date 1/28/93 Name Kerotest Manufacturing Corp. (NPT Certificate Holder) Signed Gen Sheridan (Authorized representative)

CERTIFICATE OF SHOP 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 Hartford Steam Boiler I&I Co. of Hartford, CT have inspected these items described in this Data Report on 1-28-93, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment 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 loss of any kind arising from or connected with this inspection.

Date 1-28-93 Signed [signature] (Authorized Inspector) Commissions NB8591, PA-2277 (Nat'l. Bd. (incl. endorsements) state or prov. and 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 3424

1. Owner FirstEnergy Nuclear Operating Company (NAME)

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

Date 11/11/2015

Sheet 1 of 2

Unit No. #2

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

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

Order #200451462
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance (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 Reactor Plant Sample System, BV-2-14A-System (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, W'72 Addenda, Code Case ---

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

(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	Dresser Industrial	TG-36571	N/A	2SSR-RV134	1984	Removed	Yes
Relief Valve	Farris Engineering	577474-1-KE	N/A	2SSR-RV134	2014	Installed	Yes
3/4" Stud	Trust Manufacturing	N/A	N/A	Heat # 560241	2011	Installed	No
3/4" Nut	Trust Manufacturing	N/A	N/A	Heat # G16375R07	2011	Installed	No

7. Description of Work Replaced valve, studs, and 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 3424

9. Remarks Valve Code Data Report for new Farris relief valve attached to this NIS-2 report.

Prior NIS-2 reports for old Dresser relief valve are: 249, 1203, 1338. Valve Code Data Report attached to NIS-2 #249, N-2 data report attached to NIS-2 #1203.

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 Calko, Engineer III Date Nov 11, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 L. Lynch Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-11-, 20 15

FORM NV-1 CERTIFICATE HOLDER'S DATA REPORT FOR PRESSURE OR VACUUM RELIEF VALVES*

As Required by the Provisions of the ASME Code, Section III, Division 1

1. Manufactured and certified by Farris Engineering Division of Curtiss-Wright Flow Control Corporation 15 Shaver Street Brantford, Ontario Canada N3T 5T3
(name and address of NV Certificate Holder)

2. Manufactured for First Energy Beaver Valley NPP Route PO Box 6100 Shippingport PA USA 15077
(name and address of Purchaser)

3. Location of installation Beaver Valley Power Station
(name and address)

4. Valve 27FA45-341/S4/SP (model no., series no.) Orifice size F Nom. inlet size 1 1/2 Outlet size 2

5. ASME Code, Section III, Division 1 | 1989 (edition) | 1991 (Addenda (if applicable) (date)) | 2 (class) | N/A (Code Case no.)

6. Type Spring (spring, pilot, or power operated) | 685 PSIG (set pressure) | N/S PSI (blowdown) | 200 °F (rated temp.) | 1050 PSIG (hydro. test., inlet) at 68 °F

7. Identification 577474-1-KE (Cert. Holder's serial no.) | — (CRN) | 26952x11 REV B (drawing no.) | N/A (National Bd. no.) | 2014 (year built)

8. Control ring settings N/A

9. Pressure retaining items

	Serial No. or Identification	Material Spec., Including Type or Grade	Tensile Strength (KSI)
Body	E32751A-1-3	SA-479 TYPE 316	75
Bonnet or Yoke	W950-2	SA-351 GRADE CF8M	70
Support Rods	N/A	N/A	N/A
Nozzle	N/A	N/A	N/A
Disk	737706-1-96	SA-479 TYPE 316	75
Spring Washers	728908-1-76 728908-1-77	SA-479 TYPE 316	75
Adjusting Screws	736161-1-122	SA-479 TYPE 316	75
Spindle	734438-2-102	SA-479 TYPE 316	75
Spring	322206	A 313 Type 316 STAINLESS STEEL	130
Bolting	N/A	N/A	N/A
Other Items	See Pg. 2		

10. Relieving capacity 247 USGPM (steam or fluid) WATER @ 10% overpressure as certified by the National Board 23/10/2012 (date)

11. Remarks

CERTIFICATION OF DESIGN

Design Specification certified by J. Ramundi P.E. State ON Reg. no. 38080503

Design Report certified by Jang Sun Ahn P.E. State ON Reg. no. 100052462

CERTIFICATE OF COMPLIANCE

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

NV Certificate of Authorization No. N-3061 Expires 02/11/2016

Date 4/24/14 Name Farris Engineering, Division of Curtiss-Wright Flow Control Corporation (NV Certificate Holder) Signed (authorization representative)

* Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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.

(07/10)

Certificate Holder's Serial No. 577474-1-KE

CERTIFICATE OF 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 ONTARIO and employed by TECHNICAL STANDARDS AND SAFETY AUTHORITY (TSSA) of ONTARIO have inspected the valve described in this Data Report on Apr. 25, 2014 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this 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 Apr. 25, 2014 Signed _____ (Authorized Nuclear Inspector) Commissions NB13011ABN: ON902 (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

9. Pressure retaining items continued:

	Serial No. or Identification	Mat'l. Spec., Including Type or Grade	Tensile Strength
Body Flange Lap Jo	K-659	SA182 Gr F316/F316L	75
Disc Holder	56457-2-283	SA-479 TYPE 316	75
Body Lap Joint Stub	E32751A-1-1	SA182 Gr F316/F316L	75

The above noted items are included in the list of pressure retaining items as referenced on page 1, line item 9, other items:

Apr. 25, 2014
Date

ANI Initials

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 3439

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 10-30-2015

Sheet 1 of 2

Unit No. #2

Order # 200457431
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Safety Injection System, BV-2-11-System (Class 2)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W'72 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)
Globe Valve	Kerotest	OK-9-3	6081	2SIS-366	1975	Corrected	Yes
Bonnet	Flowserve	719973	N/A	N/A	2005	Installed	Yes
Yoke	Flowserve	N/A	N/A	Traceability # 20913-2	2004	Installed	No

7. Description of Work Valve was overhauled; new bonnet and yoke were also installed.

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 3439

9. Remarks Code Data Report for the bonnet is attached to this NIS-2 report.

Piping Isometric 2806.258-920-625 (110-676) shows valve 2SIS-366 as item #5. The N5 Code Data Report for this valve is part of System 11 package 07 (ID: 2-SR-11-07-SIS-1). N5 Code Data Report is on Film Number S1407, the valve is identified on slide #95.

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 30, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 A. Lynch Commission NB 9428 AWIB

Inspector's Signature National Board Number and Endorsement

Date 11-4-, 20 15

2/3

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

1. Manufactured and certified by Flowserve Corp., 1900 S. Saunders St., Raleigh, NC 27603 (Name and Address of NPT Certificate Holder)
2. Manufactured for First Energy Corp / PO Box 6100 Johnstown, PA 15907-6100 (Name and Address of Purchaser)
3. Location of Installation First Energy Nuclear / Beaver Valley Nuclear Plt. Route 168 Shippingport , PA 15077 (Name and Address)
4. Type: SW-D-9909-(2) Rev. A (drawing no.) | SA479 T316 (mat'l. spec. no.) | N/A (tensile strength) | N/A (CRN) | 2005 (year built)
5. ASME Code, Section III, Division 1: 1971 (edition) | Summer, 1973 (addenda date) | 2 (class) | N/A (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: Bonnnct for Kerotest 2" 1500# Globe Valve

SALES ORDER: 32441

8. Nom. Thickness (in.) N/A Min. design thickness PER#4 Dia. ID (ft & in.) N/A Length overall (ft & N/A
9. When applicable, Certificate Holder's Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1)	719973-3	N/A
(2)	719973-4	N/A
(3)	719973-5	N/A
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
(36)		
(37)		
(38)		
(39)		
(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design pressure ------- psi. Temp. ------- °F. Hydro. Test pressure N/A At temp. °F

*Supplemental information in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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1.
2/3

FORM N-2 (Back-Pg. 2 of 2)

Certificate Holder's Serial Nos. 719973-3 thru 5

CERTIFICATION OF DESIGN

Design specification certified by _____ P.E. State _____ Reg. no. _____

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 (these) **PARTS** Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N1563 Expires 11/26/2006

Date 2/24/05 Name Flowserve, Corp Signed _____
(NPT 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 the State or Province of North Carolina and employed by HSB-CT of Hartford Connecticut have inspected these items described in this Data Report on 2/24/05, and state that, to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment 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 loss of any kind arising from or connected with this inspection.

Date 2/24/05 Signed _____ Commissions NC1424
(Authorized Inspector) (Nat'l. Bd. (incl. Endorsements) and state, prov. and no.)

5237

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. 01 Report Number 3514

1. Owner FirstEnergy Nuclear Operating Co. (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 02/16/2015

Sheet 1 of 1

Unit No. 2

Order #200504119
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date "

4. Identification of System Service Water (Class 3)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, S'73 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)
Ball Valve	Anchor-Darling	EZ776-6-2	N/A	2SWS-692	1996	Corrected	Yes
Ball	Flowserve	N/A	N/A	Ht. #500326 V-78	2000	Installed	No

7. Description of Work Replaced valve 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. 01 Report Number 3514

9. Remarks No Code Data Report. Previous NIS-2 Data Report No. 1563.
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 T. White Engineer V Date February 19, 20 15
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 the State or Province of Pennsylvania and employed by HSB Global Standards of HARTFORD, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 2-19-15, 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 L. Zink Commissions NB9428 ANIB PA 2384
Inspector's Signature National Board, State, Province, and Endorsements

Date 2-19-, 20 15

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 3517

1. Owner FirstEnergy Nuclear Operating Company (NAME)

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

Date 10/27/2015

Sheet 1 of 2

Unit No. 2

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

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

Order #200418384
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 Service Water (Class 3)

5. (a) Applicable Construction Code Section III 1971 Edition, W'72 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	Henry Pratt	D-0014-1-1	N/A	2SWS-MOV102A	2015	Removed	Yes
Butterfly Valve	Weir Valves	1-01365-10	N/A	2SWS-MOV102A	1978	Installed	Yes
1-1/4" Screw	Nova Machine	N/A	N/A	Trace Code: 7M12	2012	Installed	No

7. Description of Work Replaced valve, and screws.

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 3517

*Record test pressure and temperature

9. Remarks Code Data Report 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/A

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

Signed Thomas White Engineer V Date October 29th, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 Commission NB 9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 11-2-, 20 15

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

1. Manufactured and certified by: Weir Valves and Controls USA Inc., 29 Old Right Road Ipswich, MA 01938
(name and address of N Certificate Holder)

2. Manufactured for First Energy Corporation, Route 168, Shippingport, PA 15077
(name and address of Purchaser)

3. Location of installation Beaver Valley Power Station, Route 168, Shippingport, PA 15077
(name and address)

4. Model No., Series No., or Type TCBV Drawing 10001365-10 Rev. 01 CRN N/A

5. ASME Code, Section III, Division 1: 1971 (edition) Winter 1972 (addenda date) 3 (class) N/A (Code Case no.)

6. Pump or Valve Valve Nominal inlet size 30 (in.) Outlet size 30 (in.)

7. Material: Body SA351 CF8M Bonnet SA240 316 L Disk SA351 CF8M Bolting See Remarks

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
1-01365-10	N/A	HT. #:14354 S/N.#: AG306	HT.#:H2P7 TR# 47080 S/N# 3	HT. #: 14359 S/N.#: AG305

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form

(12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

Certificate Holder's Serial No. 1-01365-10

8. Design conditions 275 (pressure) psi 100 (temperature) °F or valve pressure class 150

9. Cold working pressure 275 psi at 100°F

10. Hydrostatic test 425 psi. Disk differential test pressure 165 psi

11. Remarks: Hex Cap Screw SA 193 Gr B8M Cl. 1 HT# : 253388 TR# 304C

CERTIFICATION OF DESIGN

Design specification certified by Francis W. Gardner (when applicable) P.E. State PA Reg. no. 036614-E

Design report certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

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

N Certificate of Authorization No. N-2606 Expires 6-13-16

Date 10/6/15 Name WEIR VALVES & CONTROLS USA INC. (N Certificate Holder) Signed (authorized representative)

CERTIFICATE OF 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 ME and employed by HSBCT of Hartford, CT have inspected the pump, or valve, described in this Data Report on 10-6-2015, 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 equipment 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 loss of any kind arising from or connected with this inspection.

Date 10-6-2015 Signed (Authorized Inspector) Commission NB 12715 A,B,I,E, ME800 (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

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. 01

Report Number 3744

1. Owner FirstEnergy Nuclear Operating Co.
(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 11/19/2014

Sheet 1 of 1

Unit No. 2

Order #200518568
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date "

4. Identification of System Chemical and Volume Control (Class 3)

5. (a) Applicable Construction Code Section III 1971 Edition, S'73 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	Contromatics	84038-8-9	N/A	2CHS-50	1976	Corrected	Yes
Ball	Flowserve	N/A	N/A	Trace Code 22198	2006	Installed	No

7. Description of Work Replaced valve 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. 01 Report Number 3744

9. Remarks Valve original Data Report with N-5 #2-SR-7-03-CHS. No previous 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 T White Nuclear Engineer V Date November 19, 20 14
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 the State or Province of Pennsylvania and employed by HSB Global Standards of HARTFORD, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 11-24-14, 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 L. Zinck Commissions NB 9428 ANIB PA 2384
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-24-, 20 14

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. 01

Report Number 3745

1. Owner FirstEnergy Nuclear Operating Co. (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 11/26/2014

Sheet 1 of 1

Unit No. 2

Order #200568664
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date "

4. Identification of System Chemical and Volume Control (Class 3)

5. (a) Applicable Construction Code Section III 1971 Edition, S'73 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	Contromatics	84038-8-3	N/A	2CHS-54	1976	Corrected	Yes
Ball	Flowserve	N/A	N/A	Trace Code 22198	2006	Installed	No

7. Description of Work Replaced valve 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. 01 Report Number 3745

9. Remarks Valve original Data Report with N-5 #2-SR-7-03-CHS. No previous 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 T. White Nuclear Engineer V Date December 01, 20 14
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 the State or Province of Pennsylvania and employed by HSB Global of Hartford, CT. have inspected the components described in this Owner's Report during the period 5-24-14 to 12-16-14, 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 Commissions NB9428 ANIB PA2384
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-16-, 20 14

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 **3804**

1. 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 10-21-15

Sheet 1 of 1

Unit No. 2

Westinghouse PO #47553320 (See Remarks)
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ASME Section III 1971 Edition, Summer 1972 Addenda, See N-1 Code Case ____

(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)
Steam Generator	Westinghouse	DMGT-1961	W-16598	2RCS-SG21A	1977	CORRECTED	YES

7. Description of Work Installed 42 Inconel 690 plugs in 21 tubes.

Replaced a bolt on secondary side hand hole opening #2, bolt location #8.

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure N/A psi Test Temp. N/A °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 **3804**

9. Remarks Primary side orders: 200607906 & 200607043. Installed 2 primary manway gaskets.
Applicable Manufacturer's Data Reports to be attached
Secondary side order: 200607907. Installed 4 inspection port gaskets and 2 hand hole gaskets.

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 Gary Alberti/SG Project Manager Gary Alberti Date Oct 21, 2015
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 HSB GLOBAL STANDARDS of HARTFORD, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-23-15, 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 Commission NB9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 10-23-, 20 15

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 3805

1. 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 10-21-15

Sheet 1 of 1

Unit No. 2

Westinghouse PO #47553320 (See Remarks)
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ASME Section III 1971 Edition, Summer 1972 Addenda, See N-1 Code Case ____

(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)
Steam Generator	Westinghouse	DMGT-1962	W-16599	2RCS-SG21B	1977	CORRECTED	YES

7. Description of Work Installed 36 Inconel 690 plugs in 18 tubes.

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure N/A psi Test Temp. N/A °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 **3805**

9. Remarks Primary side orders: 200607909 & 200607042. Installed 2 primary manway gaskets.
Applicable Manufacturer's Data Reports to be attached
Secondary side order: 200607910. Installed 4 inspection port gaskets and 2 hand hole gaskets.

In-situ tested 1 tube using the EPRI Guidelines as guidance. No leakage was reported at any of the target pressures.

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 Gary Alberti/SG Project Manager Date Oct 21, 2015
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-23-15, 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. Finch Commission NB9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 10-23-, 20 15

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 3806

1. Owner First Energy Nuclear Operating Company (NAME)

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

Date 10-21-15

Sheet 1 of 1

Unit No. 2

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

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

Westinghouse PO #47553320 (See Remarks)
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Technical Services Engineering (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 Reactor Coolant

5. (a) Applicable Construction Code ASME Section III 1971 Edition, Summer 1972 Addenda, See N-1 Code Case ____

(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)
Steam Generator	Westinghouse	DMGT-1963	W-16600	2RCS-SG21C	1977	CORRECTED	YES

7. Description of Work Installed 60 Inconel 690 plugs in 30 tubes. 12 of the 60 hot leg plugs were "leak limiting" (sentinel) plugs.

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure N/A psi Test Temp. N/A °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 **3806**

9. Remarks Primary side orders: 200607913 & 200607041. Installed 2 primary manway gaskets.
Applicable Manufacturer's Data Reports to be attached
Secondary side order: 200607914. Installed 4 inspection port gaskets and 2 hand hole gaskets.

pressures.

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 Gary Alberti/SG Project Manager Gary Alberti Date Oct 21, 2015
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 HSB GLOBAL STANDARDS of HARTFORD, CT. have inspected the components described in this Owner's Report during the period 5-24-14 to 10-23-15, 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. Zink Commission NB 9428 AND B
Inspector's Signature National Board Number and Endorsement

Date 10-23-, 20 15

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 3811

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 10-28-2015

Sheet 1 of 3

Unit No. #2

Order # 200585202, 200585206 11/2/15
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Steam Generator Feedwater System, BV-2-24-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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)
Spool (FWE-7-6)	Power Piping	N-1141-4130	N/A	Pipe Line 2-FWE-006-7-3	1980	Corrected	Yes
Tee, 6"x6"x3"	Weld Bend	N/A	N/A	Heat # 14225 Pc 2	2015	Installed	No
Pipe Line	First Energy	N/A	N/A	2-FWE-003-174-3	2015	Installed	No
Pipe, CS, 3", Sch 80	TMK IPSCO	N/A	N/A	Heat # 490731	2015	Installed	No
Elbow, 90 deg	Weld Bend	N/A	N/A	Heat # 486368	2015	Installed	No
Elbow, 90 deg	Weld Bend	N/A	N/A	Heat # 486368	2015	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 3811

Elbow, 90 deg	Weld Bend	N/A	N/A	Heat # 486368	2015	Installed	No
Elbow, 90 deg	Weld Bend	N/A	N/A	Heat # 486368	2015	Installed	No
Ball Valve, 3"	BNL Industries	A141009-12-3	N/A	Valve ID: 2FWE-384	2015	Installed	Yes
Pipe Support	First Energy	N/A	N/A	Support ID: 2SIS-PSR790, 2SIS-PSR791	2015	Corrected	No
Pipe Support	First Energy	N/A	N/A	Support ID: 2FWE-PSR471	2015	Installed	No
Strap, Pipe	Anvil International	N/A	N/A	Heat # 63136150	2015	Installed	No
Plate, CS, 1/2" thick	Nucor (Olympic Steel)	N/A	N/A	Heat # A4S2521-01	2014	Installed	No
Plate, CS, 1/4" thick	Nucor (Kloeckner Metals)	N/A	N/A	Heat # B4V8687-04	2014	Installed	No
Tube Steel, 4"x4"x3/8"	Hanna Steel	N/A	N/A	Heat # B416002	2015	Installed	No

7. Description of Work Pipe line 2-FWE-006-7-3 (spool FWE-7-6) was corrected by adding a reducing tee and installing Flex Mod piping. Pipe support 2FWE-PSR471 supports Flex Mod pipe line 2-FWE-003-174-3. Support 2FWE-PSR471 is connected to support 2SIS-PSR790, 2SIS-PSR791.

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 3811

9. Remarks Piping Isometric 10080-2806.263-920-035 (101607) shows pipe line 2-FWE-006-7-3 and spool FWE-7-6. The N5 Code Data Report for this spool is part of System 24 package 04 (ID: 2-SR-24-04-FWE). N5 Code Data Report is on Film Number S1403, this spool is identified on slide #276.

The code data report for valve 2FWE-384 is attached to this NIS-2 report. Support 2SIS-PSR790, 2SIS-PSR791 is installed on NIS-2 report #3870.

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 Thomas M Calko Date Oct 28, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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. Tyrie Commission NB9428 A N I B

Inspector's Signature National Board Number and Endorsement

Date 11-2-, 20 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

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 GBV-B2-30-0115 Rev. C CRN

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

6. Pump or valve VALVE Nominal inlet size 3" Outlet size 3"

7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-12-(1 THRU 3)		89G	462G	392G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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. A141009-12-(1 thru 3)

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. 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. (N Certificate Holder) Signed Steven Braun (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 3/20/15, 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 _____ (Authorized Nuclear Inspector) Commission NB10961 A N (National Board Number and Endorsement)

(07/11)

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 3812

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 10-28-2015

Sheet 1 of 2

Unit No. #2

Order # 200584748
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Steam Generator Feedwater System, BV-2-24-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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	First Energy	N/A	N/A	Pipe Line 2-FWE-003-219-3	2014	Corrected	No
Flange, blind	Energy & Process Corp	N/A	N/A	Trace Code WPW	2014	Removed	No
Flange, weld neck	Coffer	N/A	N/A	Heat # ZPG Pc 2	2015	Installed	No
Pipe, CS, 3", Sch 80	TMK IPSCO	N/A	N/A	Heat # 484187	2014	Installed	No
Valve, ball	BNL Industries	A141009-12-2	N/A	Valve ID: 2FWE-382	2015	Installed	Yes

7. Description of Work Pipe line 2-FWE-003-219-3 was added to 2-FWE-006-8-3 by First Energy in 2014. The blind flange on this line was removed and Flex Mod piping was installed.

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 3812

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

*Record test pressure and temperature

9. Remarks Pipe line 2-FWE-003-219-3 was added to 2-FWE-006-8-3 by First Energy in 2014, see NIS # 3722. Code Data Report for 2FWE-382 is attached to this report.

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 Thomas M Calko Date Oct 28, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-28-15, 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 L. Zinck Commission NB 9428 ANI B

Inspector's Signature National Board Number and Endorsement

Date 10-28-, 20 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

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 GBV-B2-30-0115 Rev. C CRN
5. ASME Code, Section III, Division 1 1971 (edition) W'72 (Addenda (if applicable) (date)) 3 (class) (Code Case no.)
6. Pump or valve VALVE Nominal inlet size 3" Outlet size 3"
7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-12-(1 THRU 3)		89G	462G	392G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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. A141009-12-(1 thru 3)

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. 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. (N Certificate Holder) Signed Steven Braun (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 3/20/15, 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 _____ (Authorized Nuclear Inspector) Commission NB10961 A N (National Board Number and Endorsement)

(07/11)

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 3816

1. Owner FirstEnergy Nuclear Operating Co. (NAME)

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

Date 10-17-2015

Sheet 1 of 3

Unit No. #2

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

PO Box 4, Shippingport, PA 15077 (ADDRESS)

Order # 200585204
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/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Steam Generator Feedwater System, BV-2-24-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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)
Spool (FWE-4-1)	Power Piping	N-1141-4148	N/A	Pipe Line 2-FWE-006-4-3	1986	Corrected	Yes
Pipe Line	First Energy	N/A	N/A	Pipe Line 2-FWE-004-184-4	2015	Installed	No
Weld-olet, 4"	WFI	N/A	N/A	Heat # 6063ANR	2011	Installed	No
Elbow, 90-deg, 4"	Weld Bend	N/A	N/A	Heat # 489778	2015	Installed	No
Pipe, 4", CS, Sch 40	TMK IPSCO	N/A	N/A	Heat # 488905	2015	Installed	No
Elbow, 90-deg, 4"	Weld Bend	N/A	N/A	Heat # 489778	2015	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 3816

Elbow, 90-deg, 4"	Weld Bend	N/A	N/A	Heat # 489778	2015	Installed	No
Valve, ball,	BNL Industries	A141009-17	N/A	Functional Location: 2FWE-387	2015	Installed	Yes

7. Description of Work Pipe line 2-FWE-006-4-3 (spool FWE-4-1) was corrected by adding a weld-olet and installing Flex mod piping.

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure _____ psi Test Temp. _____ °F

*Record test pressure and temperature

9. Remarks Piping Isometric 10080.263-920-116 (101602-7) shows pipe line 2-FWE-006-4-3 and spool FWE-4-1. The N5 Code Data Report for this spool is part of System 24 package 04 (ID: 2-SR-24-04-FWE). N5 Code Data Report is on Film Number S1403, this spool is identified on slide #278.

The code data report for valve 2FWE-387 is attached to this NIS-2 report. There are no prior NIS-2 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 17, 20 15

Owner or Owner's Designee, Title

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 3816

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-21-15, 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. Zink
Inspector's Signature

Commission NB 9428 ANI B
National Board Number and Endorsement

Date 10-21-, 20 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

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-B2-40-0112 Rev. A CRN
5. ASME Code, Section III, Division 1 1971 (edition) W'72 (Addenda (if applicable) (date)) 3 (class) (Code Case no.)
6. Pump or valve VALVE Nominal inlet size 4" Outlet size 4"
7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-17-(1 THRU 2)		462G	544G	416G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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. A141009-17-(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 450 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. (N Certificate Holder) Signed Steven Braun (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 3/20/15, 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 _____ (Authorized Nuclear Inspector) Commission NB10961 A N (National Board Number and Endorsement)

(07/11)

50748

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 3833

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 7-16-2015

Sheet 1 of 2

Unit No. #2

Order # 200591497
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Chemical and Volume Control System, BV-2-07-System (Class 3)

5. (a) Applicable Construction Code ASME Section III Edition, 1971 Addenda, W '72 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)
Spool	Stone and Webster	N/A	N/A	Pipe Line 2-CHS-003-41-3	1987	Corrected	No
Sockolet, 3"x2", 3000 lb	WFI Nuclear Products	N/A	N/A	Heat # 4411ANA	2015	Installed	No
Pipe, 2", Sch 40S	Pexco	N/A	N/A	Heat # 539575	2015	Installed	No
Elbow, 2", 3000 lb	Alloy Stainless Products	N/A	N/A	Heat # G85	2008	Installed	No
Ball Valve, 2"	BNL Industries	A141009-6-2	N/A	2CHS-102	2015	Installed	Yes

7. Description of Work Pipe line 2-CHS-003-41-3 was corrected by adding Flex Mod piping in accordance with ECP 13-0624-003.

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 3833

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 this valve is attached to this NIS-2 report.

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 July 16, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 7-17-15, 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 A. Lynch Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 7-17-, 20 15

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

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 (edition) W72 (Addenda (if applicable) (date)) 3 (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.
A141009-6-(1 THRU 3)		469G	470G	468G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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.

(07/10)

CORRECTED COPY 2/2/15

FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. A141009-6-(1 THRU 3)

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 2/2/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) Signed _____ (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 _____ (Authorized Nuclear Inspector) Commission NB8342 A, B, N, US (National Board Number and Endorsement)

(07/11)

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 3834

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 10-26-2015

Sheet 1 of ~~3~~ 2 D.Mc. 1-11-16

Unit No. #2

Order # 200591498
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Chemical Volume and Control System, BV-2-07-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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)
Spool (CHS-42-4D)	Power Piping	N-1141-3544	N/A	Pipe Line 2-CHS-003-042-3	1978	Corrected	Yes
Pipe Line	First Energy	N/A	N/A	Pipe Line 2-CHS-002-046-3	2015	Installed	No
Sockolet, 2"	WFI	N/A	N/A	Heat # 4411ANA	2015	Installed	No
Pipe, 2", SS, Sch 40S	Pexco (Ta Chen)	N/A	N/A	Heat # 539575	2015	Installed	No
Elbow, 90 deg	Alloy Stainless Products	N/A	N/A	Heat # G85	2008	Installed	No
Valve, Ball	BNL Industries	A141009-6-2	N/A	Valve ID: 2CHS-105	2015	Installed	Yes

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 3834

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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 NB9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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

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 (edition) W72 (Addenda (if applicable) (date)) 3 (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.
A141009-6-(1 THRU 3)		469G	470G	468G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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.

(07/10)

CORRECTED COPY 2/2/15

FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. A141009-6-(1 THRU 3)

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 2/2/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) Signed _____ (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 _____ (Authorized Nuclear Inspector) Commission NB8342 A, B, N, NS (National Board Number and Endorsement)

(07/11)

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 3836

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 10/24/2015

Sheet 1 of 1

Unit No. 2

200607932
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Residual Heat Removal (Class 2)

5. (a) Applicable Construction Code Section III 1974 Edition, S'74 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)
Vertical Heat Exchanger	Atlas Industrial Mfg.	3484	2854	2RHS-E21B	1978	Corrected	Yes
1-1/8" Nut	Nova Machine	N/A	N/A	Trace Code 7N06	2013	Installed	No
1-1/8" Stud	Nova Machine	N/A	N/A	Trace Code 9R09	2014	Installed	No

7. Description of Work Replaced stud and 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 3836

*Record test pressure and temperature

9. Remarks Code Data Report attached to previous NIS-2 Data Report No. 1132. Most previous NIS-2 Report No. 3528. No Code Data Report available for studs and nuts.

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 24th, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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 10-26-, 20 15

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 3837

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 Mechanical Maintenance (NAME)

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

Date 10/30/2015

Sheet 1 of 1

Unit No. 2

Order #200607933
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Residual Heat Removal (Class 2)

5. (a) Applicable Construction Code Section III 1974 Edition, S'74 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)
Heat Exchanger	Atlas Industrial Mfg.	3483	2853	2RHS-E21A	1978	Corrected	Yes
Stud, 1-1/8"	Nova Machine	N/A	N/A	Trace Code #9R09	2014	Installed	No
Nut, 1-1/8"	Nova Machine	N/A	N/A	Trace Code #7N06	2013	Installed	No

7. Description of Work Replaced stud and 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 3837

*Record test pressure and temperature

9. Remarks Code Data Report attached to previous NIS-2 #1133. No Data Report available for stud and nuts.
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 30, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 L. Yniel Commission NB 9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 11-2-, 20 15

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 3838

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 Mechanical Maintenance (NAME)

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

Date 11/12/2015

Sheet 1 of 2

Unit No. 2

Order #200450831
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Safety Injection (Class 2)

5. (a) Applicable Construction Code Section III 1977 Edition, S'77 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	Kerotest	DAP8-13	N/A	2SIS-319	1981	Corrected	Yes
Yoke	Flowserve	6	N/A	Trace Code: 07209	2012	Installed	No
Bonnet	Flowserve	719973-x	N/A	Trace Code: 71193	2005	Installed	Yes

7. Description of Work Replaced Yoke and Bonnet.

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 3838

9. Remarks NPV-1 Data Report attached to previous NIS-2 Data Report No. 400. No Code Data Report available
Applicable Manufacturer's Data Reports to be attached
for Yoke. Code Data Report for bonnet attached but the last digit of the serial number was not recorded during installation.

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 November 18, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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. Zink Commission NB 9428 ANEB
Inspector's Signature National Board Number and Endorsement

Date 12-1-, 20 15

CORRECTED COPY 3/17/05

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

1. Manufactured and certified by Flowserve Corp., 1900 S. Saunders St., Raleigh, NC 27603 (Name and Address of NPT Certificate Holder)
2. Manufactured for First Energy Corp / PO Box 6100 Johnstown, PA 15907-6100 (Name and Address of Purchaser)
3. Location of Installation First Energy Nuclear / Beaver Valley Nuclear Plt. Route 168 Shippingport , PA 15077 (Name and Address)
4. Type: SW-D-9909-(2) Rev. A (drawing no.) | SA479 T316 (mat'l. spec. no.) | N/A (tensile strength) | N/A (CRN) | 2005 (year built)
5. ASME Code, Section III, Division 1: 1971 (edition) | Summer, 1973 (addenda date) | 2 (class) | N/A (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A
7. Remarks: Bonnet for Kerotest 2" 1500# Globe Valve

SALES ORDER: 32441

8. Nom. Thickness (in.) N/A Min. design thickness PER#4 Dia. ID (ft & in.) N/A Length overall (ft & N/A
9. When applicable, Certificate Holder's Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1)	719973-3	N/A
(2)	719973-4	N/A
(3)	719973-5	N/A
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
(36)		
(37)		
(38)		
(39)		
(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design pressure ------ psi. Temp. -------- °F. Hydro. Test pressure N/A At temp. °F

*Supplemental information in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

CORRECTED COPY 3/17/05

FORM N-2 (Back-Pg. 2 of 2)

Certificate Holder's Serial Nos. 719973-3 thru 5

CERTIFICATION OF DESIGN

Design specification certified by _____ P.E. State _____ Reg. no. _____

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 (these) PARTS Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N1563 Expires 11/26/2006

Date 3/17/05 Name Flowserve, Corp Signed _____
(NPT 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 the State or Province of North Carolina and employed by HSB-CT of Hartford Connecticut have inspected these items described in this Data Report on 2/24/05, and state that, to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment 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 loss of any kind arising from or connected with this inspection.

Date 3/17/05 Signed _____ Commissions NC 1921
(Authorized Inspector) (Nat'l Bd. (incl. Endorsements) and state, prov. and 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 3839

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 10/20/2015

Sheet 1 of 1

Unit No. 2

200613933
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Quench Spray (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Paul Munroe	1653	N/A	2QSS-PSSP138Y	1976	Removed	No
Snubber	Lisega	31500123/045	N/A	2QSS-PSSP138Y	2015	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

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 3839

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A.
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 Nuclear Engineer V Date 10/20/2015, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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 Commission NB9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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 3841

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 11-17-2015

Sheet 1 of 2

Unit No. #2

Order # 200539066
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water System, BV-2-30-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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, Butterfly	Henry Pratt	A-0027-8-1	N/A	2SWS-MOV-103A	1978	Removed	Yes
Valve, Butterfly	Weir Valves & Controls	1-00859-10	N/A	2SWS-MOV-103A	2014	Installed	Yes
Studs, 1-1/4"	Nova Machine Products	N/A	N/A	Heat # 16J9	2015	Installed	No
Nuts, 1-1/4"	Nova Machine Products	N/A	N/A	Heat # 15H6	2015	Installed	No

7. Description of Work Replaced old valve with new design valve to provide better shutoff.

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 3841

9. Remarks Piping Isometric 2806.263-920-090 (120727) shows valve 2SWS-MOV103A as item 4. The N5 Code Data Report for this valve is part of System 30 package 10 (ID: 2-SR-30-10-A-SWS-3). N5 Code Data Report is on Film Number S1400; valve is given on slide #661.

The code data report for valve 2SWS-MOV103A is attached to this NIS-2 report. There are no prior NIS-2 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 17, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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. Zinck Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-18-, 20 15

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

1. Manufactured and certified by: Weir Valves & Controls USA, Inc., 29 Old Right Road, Ipswich MA 01938-1119
(name and address of N Certificate Holder)

2. Manufactured for First Energy Corporation, Route 168, Shippingport, PA 15077
(name and address of Purchaser)

3. Location of Installation Beaver Valley Power Station, Route 168, Shippingport, PA 15077
(name and address)

4. Model No., Series No., or Type TCBV Drawing 10000859-10 Rev. 5 CRN N/A

5. ASME Code, Section III, Division 1: 1971 (edition) Winter 1972 [Addenda (if applicable) (date)] 3 (class) N/A (Code Case no.)

6. Pump or Valve Valve Nominal inlet size 24 (in.) Outlet size 24 (in.)

7. Material:
(a) valve Body SA351-CF8M Bonnet SA240-316 Disk SA351-CF8M Bolting See Remarks
(b) pump Casing _____ Cover _____ Bolting _____

(a) Certificate Holder's Serial No.	(b) National Board No.	(c) Body/Casting Serial No.	(d) Bonnet/Cover Serial No.	(e) Disk Serial No.
1-00859-10	N/A	HT#: 13223 S/N: AF177	HT #: F9K0 S/N: 1	HT#: 13223 S/N: AF176

* Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8 ½ x 11; (2) information in items 1 through 4 on this Data Report is included on each sheet; (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/10)

Certificate Holder's Serial No. 1-00859-10

8. Design conditions Body 275 / Disc 150 (pressure) psi 100 / 120 (temperature) °F or valve pressure class 150

9. Cold working pressure 275 psi at 100F

10. Hydrostatic test 425 psi . Disk differential test pressure 165 psi

11. Remarks:
H.H Cap Screws SA 193 Grade B8M CL 1 HT#: E111912 TR# 288C

CERTIFICATION OF DESIGN

Design specification certified by Francis W. Gardner P.E. State PA Reg. no. 036814-E

Design report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATION 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-2606 Expires 06/13/2016

Date 12/1/14 Name WEIR VALVES AND CONTROLS USA, INC. (N Certificate Holder) Signed (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 HSB GLOBAL STANDARDS of Hartford, CT have inspected the pump, or valve, described in this Data Report on 12-2-2014, 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 loss of any kind arising from or connected with this inspection.

Date 12-2-2014 Signed (Authorized Inspector) Commission NB 12715 ABCE [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 3844

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 10-28-2015

Sheet 1 of 2

Unit No. #2

Order # 200242782
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water System, BV-2-30-System (Class 3)

5. (a) Applicable Construction Code ASME Section III _____ Edition, 1971 Addenda, W '72 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, Butterfly	Henry Pratt	A-0034-1-9	N/A	2SWS-188	1978	Removed	Yes
Valve, Butterfly	Weir Valves & Controls	1-01480-20	N/A	2SWS-188	2015	Installed	Yes
Studs, 1-1/8"	Nova Machine Products	N/A	N/A	Heat # 9R09	2014	Installed	No
Nuts, 1-1/8"	Nova Machine Products	N/A	N/A	Heat # 0K12	2014	Installed	No

7. Description of Work Replaced old valve with new design valve to provide better shutoff.

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 3844

9. Remarks Piping Isometric 2806.262-920-623 (101904) shows valve 2SWS-188 as item 29. The N5 Code Data Report for this valve is part of System 30 package 01 (ID: 2-SR-30-01). N5 Code Data Report is on Film Number S1099; valve is given on slide #4.

The code data report for valve 2SWS-18 is attached to this NIS-2 report. There are no prior NIS-2 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 28, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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. Zinck Commission NB9428 ANI B

Inspector's Signature National Board Number and Endorsement

Date 11-2-, 20 15

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

1. Manufactured and certified by: Weir Valves and Controls USA Inc., 29 Old Right Road Ipswich, MA 01938
(name and address of N Certificate Holder)

2. Manufactured for First Energy Corporation, Route 168, Shippingport, PA 15077
(name and address of Purchaser)

3. Location of installation Beaver Valley Power Station, Route 168, Shippingport, PA 15077
(name and address)

4. Model No., Series No., or Type TCBV Drawing 10001480-10 Rev. 02 CRN N/A

5. ASME Code, Section III, Division 1: 1971 (edition) Winter 1972 (addenda date) 3 (class) N/A (Code Case no.)

6. Pump or Valve Valve Nominal inlet size 20 (in.) Outlet size 20 (in.)

7. Material: Body SA351 CF8M Bonnet SA479 316 Disk SA351 CF8M Bolting See Remarks

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
1-01480-20	N/A	HT. #:15166 S/N.#: AH53	HT.#:261695 TR# 47870 S/N# 2	HT. #: 15178 S/N.#: AH53

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form

(12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

Certificate Holder' s Serial No. 1-01480-20

8. **Design conditions** 275 (pressure) psi 100 (temperature) °F **or valve pressure class** 150

9. **Cold working pressure** 275 psi at 100°F

10. **Hydrostatic test** 425 psi. **Disk differential test pressure** 165 psi

11. **Remarks:** Hex Cap Screw SA 453 Gr 660 CL A HT# : 55979-6V TR# T60

CERTIFICATION OF DESIGN

Design specification certified by Jay A. Crawford (when applicable) P.E. State PA Reg. no. 35192-E

Design report certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

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

N Certificate of Authorization No. N-2606 Expires 6-13-16

Date 9/29/15 Name WEIR VALVES & CONTROLS USA INC. (N Certificate Holder) Signed (authorized representative)

CERTIFICATE OF 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 ME and employed by HSBCT of Hartford, CT have inspected the pump, or valve, described in this Data Report on 9-29-15, 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 equipment 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 loss of any kind arising from or connected with this inspection.

Date 9-29-15 Signed (Authorized Inspector) Commission NB 12315 A,B,L,E, ME800 (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

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 3845

1. Owner FirstEnergy Nuclear Operating Co. (NAME)

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

Date 10-26-2015

Sheet 1 of 2

Unit No. #2

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

PO Box 4, Shippingport, PA 15077 (ADDRESS)

Order # 200539622
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/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water System, BV-2-30-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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, Butterfly	Henry Pratt	A-0034-1-7	N/A	2SWS-185	1978	Removed	Yes
Valve, Butterfly	Weir Valves & Controls	1-01480-10	N/A	2SWS-185	2015	Installed	Yes
Studs, 1-1/8"	Nova Machine Products	N/A	N/A	Heat # 9R09	2014	Installed	No
Nuts, 1-1/8"	Nova Machine Products	N/A	N/A	Heat # 0K12	2014	Installed	No

7. Description of Work Replaced old valve with new design valve to provide better shutoff.

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 3845

9. Remarks Piping Isometric 2806.262-920-919 (101902) shows valve 2SWS-185 as item 23. The N5 Code Data Report for this valve is part of System 30 package 04 (ID: 2-SR-30-04-SWS). N5 Code Data Report is on Film Number S1261; valve is given on slide #238.

The code data report for valve 2SWS-185 is attached to this NIS-2 report. There are no prior NIS-2 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 26, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 Commission NB 7428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-2-, 20 15

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

1. Manufactured and certified by: Weir Valves and Controls USA Inc., 29 Old Right Road Ipswich, MA 01938
(name and address of N Certificate Holder)

2. Manufactured for First Energy Corporation, Route 168, Shippingport, PA 15077
(name and address of Purchaser)

3. Location of Installation Beaver Valley Power Station, Route 168, Shippingport, PA 15077
(name and address)

4. Model No., Series No., or Type TCBV Drawing 10001480-10 Rev. 02 CRN N/A

5. ASME Code, Section III, Division 1: 1971 (edition) Winter 1972 (addenda date) 3 (class) N/A (Code Case no.)

6. Pump or Valve Valve Nominal inlet size 20 (in.) Outlet size 20 (in.)

7. Material: Body SA351 CF8M Bonnet SA479 316 Disk SA351 CF8M Bolting See Remarks

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
1-01480-10	N/A	HT. #:15166 S/N.#: AH51	HT.#:261695 TR# 47870 S/N# 1	HT. #: 15178 S/N.#: AH50

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form

(12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM NPV-1 (Back – Pg. 2 of 2)

Certificate Holder' s Serial No. 1-01480-10

8. Design conditions 275 (pressure) psi 100 (temperature) °F or valve pressure class 150

9. Cold working pressure 275 psi at 100°F

10. Hydrostatic test 425 psi. Disk differential test pressure 165 psi

11. Remarks: Hex Cap Screw SA 453 Gr 660 CL A HT# : 55979-6V TR# T60

CERTIFICATION OF DESIGN

Design specification certified by Jay A. Crawford (when applicable) P.E. State PA Reg. no. 35192-E

Design report certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

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

N Certificate of Authorization No. N-2606 Expires 6-13-16

Date 9/25/15 Name WEIR VALVES & CONTROLS USA INC. (N Certificate Holder) Signed (authorized representative)

CERTIFICATE OF 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 ME and employed by HSBCT of Hartford, CT have inspected the pump, or valve, described in this Data Report on 9-25-2015, 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 equipment 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 loss of any kind arising from or connected with this inspection.

Date 9-25-2015 Signed (Authorized Inspector) Commission NB 13715 ABLE, ME 600 (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

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 3846

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 11-24-2015

Sheet 1 of 2

Unit No. #2

Order # 200555096
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water System, BV-2-30-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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, Butterfly	Henry Pratt	D-0014-4-1	N/A	2SWS-MOV-116A	1978	Removed	Yes
Valve, Butterfly	Weir Valves & Controls	1-01365-30	N/A	2SWS-MOV-116A	2015	Installed	Yes
Studs, 1-1/4"	Nova Machine Products	N/A	N/A	Heat # 9N44	2014	Installed	No
Nuts, 1-1/4"	Trust Manufacturing	N/A	N/A	Heat # NN16	2012	Installed	No

7. Description of Work Replaced old valve with new design valve to provide better shutoff.

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 3846

9. Remarks Piping Isometric 2806.263-920-090 (120727) shows valve 2SWS-MOV116A as item 2. The N5 Code Data Report for this old valve is part of System 30 package 10 (ID: 2-SR-30-10-SWE-4). N5 Code Data Report for the old valve is on Film Number S1357; valve is given on slide #869.

The code data report for the new valve is attached to this NIS-2 report. There are no prior NIS-2 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 24, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 A. Lynch Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 12-1-, 20 15

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

1. Manufactured and certified by: Weir Valves and Controls USA Inc., 29 Old Right Road Ipswich, MA 01938
(name and address of N Certificate Holder)

2. Manufactured for First Energy Corporation, Route 168, Shippingport, PA 15077
(name and address of Purchaser)

3. Location of Installation Beaver Valley Power Station, Route 168, Shippingport, PA 15077
(name and address)

4. Model No., Series No., or Type TCBV Drawing 10001365-30 Rev. 01 CRN N/A

5. ASME Code, Section III, Division 1: 1971 (edition) Winter 1972 (addenda date) 3 (class) N/A (Code Case no.)

6. Pump or Valve Valve Nominal inlet size 30 (in.) Outlet size 30 (in.)

7. Material: Body SA351 CF8M Bonnet SA240 316 L Disk SA351 CF8M Bolting See Remarks

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body Serial No.	(d) Bonnet Serial No.	(e) Disk Serial No.
1-01365-30	N/A	HT. #:1522 S/N.#: AG310	HT.#:H2P7 TR# 47080 S/N# 2	HT. #: 14359 S/N.#: AG309

* Supplemental information in form of lists, sketches, or drawings may be used provided (1) size 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form

(12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

Certificate Holder' s Serial No. 1-01365-30

8. Design conditions 275 (pressure) psi 100 (temperature) °F or valve pressure class 150

9. Cold working pressure 275 psi at 100°F

10. Hydrostatic test 425 psi. Disk differential test pressure 165 psi

11. Remarks: Hex Cap Screw SA 193 Gr B8M CL 1 HT# : 253388 TR# 304C

CERTIFICATION OF DESIGN

Design specification certified by Francis W. Gardner (when applicable) P.E. State PA Reg. no. 036614-E

Design report certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

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

N Certificate of Authorization No. N-2606 Expires 6-13-16

Date 9/18/15 Name WEIR VALVES & CONTROLS USA INC.. (N Certificate Holder) Signed (authorized representative)

CERTIFICATE OF 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 ME and employed by HSBCT of Hartford, CT have inspected the pump, or valve, described in this Data Report on 9-18-2015, 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 equipment 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 loss of any kind arising from or connected with this inspection.

Date 9-18-2015 Signed (Authorized Inspector) Commission NB 10715 ABLI (Nat'l. Bd. (Incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

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 3851

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 10/20/2015

Sheet 1 of 1

Unit No. 2

200613934
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Recirculation Spray (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Paul Munroe	1669	N/A	2RSS-PSSP465X	1976	Removed	No
Snubber	Lisega	31500156/004	N/A	2RSS-PSSP465X	2015	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

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 3851

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A.
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 Nuclear Engineer V Date 10/20/2015, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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. Ziel Commission NB 9428 A NI B
Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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 3852

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 10/19/2015

Sheet 1 of 1

Unit No. 2

200613893
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Feedwater (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Lisega	61265/14	N/A	2FWS-PSSP002A	1993	Removed	No
Snubber	Lisega	31500150/006	N/A	2FWS-PSSP002A	2015	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

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 3852

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A. Previous NIS-2 Data Report #518.

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 Nuclear Engineer V Date 10/19/2015, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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.

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Dean A. Ignell Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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 3853

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 10/19/2015

Sheet 1 of 1

Unit No. 2

200613894
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Feedwater (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Lisega	61265/15	N/A	2FWS-PSSP002B	1993	Removed	No
Snubber	Lisega	31500150/001	N/A	2FWS-PSSP002B	2015	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

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 3853

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A. Previous NIS-2 Data Report #517.

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 Nuclear Engineer V Date 10/19/2015, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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. Zink Commission NB 9428 A NI B

Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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 3854

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 10/19/2015

Sheet 1 of 1

Unit No. 2

200613895
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Feedwater (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Lisega	61256/24	N/A	2FWS-PSSP003A	1993	Removed	No
Snubber	Lisega	31500156/003	N/A	2FWS-PSSP003A	2015	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

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 3854

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A. Previous NIS-2 Data Report #552.

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 Nuclear Engineer V Date 10/19/2015, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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.

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Dean A. Lynch Commission NB9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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 3855

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 10/24/2015

Sheet 1 of 1

Unit No. 2

200613896
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Feedwater (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Lisega	61256/25	N/A	2FWS-PSSP003B	1993	Removed	No
Snubber	Lisega	31500156/002	N/A	2FWS-PSSP003B	2015	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

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 3855

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A. Previous NIS-2 Data Report #551.

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 Nuclear Engineer V Date 10/26/2015, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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.

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Dean S. Zink Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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 3856

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 10/24/2015

Sheet 1 of 1

Unit No. 2

200613897
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Feedwater (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Lisega	61254/108	N/A	2FWS-PSSP006	1993	Removed	No
Snubber	Lisega	31500039/003	N/A	2FWS-PSSP006	2015	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

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 3856

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A. Previous NIS-2 Data Report #515.

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 Nuclear Engineer V Date 10/26/2015, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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. Zwirk Commission NB9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 10-26- , 20 15

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 3857

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 10/20/2015

Sheet 1 of 1

Unit No. 2

200613898
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Feedwater (Class 2)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, W'72 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)
Snubber	Lisega	61256/26	N/A	2FWS-PSSP012	1993	Removed	No
Snubber	Lisega	31500156/009	N/A	2FWS-PSSP012	2015	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

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 3857

9. Remarks No Code Data Report available. Snubber supplied to ANSI B31.1 1967E-S'73A. Previous NIS-2 Data Report #519.

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 Nuclear Engineer V Date 10/20/2015, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-26-15, 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. Zirk Commission NB 9428 ANEB

Inspector's Signature National Board Number and Endorsement

Date 10-26-, 20 15

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 3862

1. Owner FirstEnergy Nuclear Operating Company (NAME)

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

Date 12/07/2015

Sheet 1 of 2

Unit No. 2

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

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

Order #200607563
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance (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 Service Water (Class 3)

5. (a) Applicable Construction Code Section III 1974 Edition, S'74 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)
Duo-Check Valve	Crane Nuclear	E0301	N/A	2SWS-106	2011	Removed	Yes
Duo-Check Valve	Crane Nuclear	E5950	N/A	2SWS-106	2015	Installed	Yes

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 3862

9. Remarks Code Data Report attached. Previous NIS-2 Data Report No. 3429.
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 December 7th, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-14-14 to 10-30-15, 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 L. Lynch Commission NB 9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 12-9-, 20 15

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

1. Manufactured and certified by CRANE Nuclear, Inc., 860 Remington Boulevard, Bolingbrook, IL 60440
(name and address of N Certificate Holder)

2. Manufactured for First Energy 1003 Broat Street, Suite 100 Johnstown, PA 15906-2445
(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 15 SEF-X04 Drawing CB02839 Rev. C CRN N/A

5. ASME Code, Section III, Division 1: 1974 (edition) Summer 1974 (addenda date) 3 (class) N/A (Code Case no.)

6. Pump or valve Valve Nominal inlet size 30" Outlet size 30"

7. Material:

(a) valve Body SA216 WCB Bonnet N/A Disk SA216 WCB Bolting See Page 2
(b) pump Casting Cover Bolting

(a) Cert. Holder's Serial No.	(b) Nat'l Board No.	(c) Body/Casing Serial No.	(d) Bonnet/Cover Serial No.	(e) Disk Serial No.
E5950	N/A	E5951	N/A	E5952 & E5953

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 ½ x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

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FORM NPV-1 (Back) --- Pg. 2 of 2

Certificate Holder's Serial No. E5950

8 Design conditions 200 (pressure) 300 (temperature) or valve pressure class ---

9. Cold working pressure 285

10. Hydrostatic test 450 Disk differential test pressure 315

11. Remarks: Stop Pin Retainer – SA479 Type 316 Heat Number 12140, Heat Code CBW
Hinge Pin Retainer-SA479 Type 316 1 pc. Heat# E81115, Heat Code BWP & 1 pc. Heat# 239527, Heat Code AUH

CNI SO# 44923-01

CERTIFICATION OF DESIGN

Design Specifications certified by Walter Joseph Parker Jr. P.E. State PA Reg. no. 29003-E

Design Report certified by N/A P.E. State N/A Reg. no. N/A

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-2899 Expires September 9, 2017

Date 06/29/15 Name CRANE Nuclear, Inc. (N Certificate Holder) Signed (authorized representative) Jennifer Bregovy – QA Engineer

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel and employed by HSB Global Standards of Hartford, CT have inspected the pump, or valve, described in this Data Report on 06/29/15 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 06/29/15 Signed (Authorized Nuclear Inspector) Michael Haydon Commissions 10989 ANIC (National Board Number and Endorsement)

(07/11)

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 3865

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 10-22-2015

Sheet 1 of 5

Unit No. #2

Order # 200584749
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water System, BV-2-30-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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	First Energy	N/A	N/A	Pipe Line 2-SWS-008-779-3	2014	Corrected	No
Flange, blind, 8"	Energy & Process	N/A	N/A	Heat # SEV	2014	Removed	No
Flange, weld neck, 8"	Coffer Mfg	N/A	N/A	Heat # YVF PC6	2014	Installed	No
Elbow, 90 deg, 8"	Weld Bend	N/A	N/A	Heat # DY0105	2015	Installed	No
Pipe, CS, Sch 40, 8"	US Steel	N/A	N/A	Heat # C47012	2012	Installed	No
Elbow, 90 deg, 8"	Weld Bend	N/A	N/A	Heat # BX0379	2015	Installed	No

Elbow, 90 deg, 8"	Weld Bend	N/A	N/A	Heat # D80339	2014	Installed	No
Tee, Reducing, 8"x8"x6"	Weld Bend	N/A	N/A	Heat # J3L6330	2015	Installed	No
Reducer, 8"x6"	Tube Forgings of America	N/A	N/A	Heat # 55LN	2014	Installed	No
Pipe line	First Energy	N/A	N/A	Pipe Line 2-SWS-006-780-3	2015	Installed	No
Pipe, CS, Sch 40, 6"	US Steel	N/A	N/A	Heat # C47012	2012	Installed	No
Elbow, 90 deg, 6"	Weld Bend	N/A	N/A	Heat # C20151	2014	Installed	No
Valve, Ball, 6"	BNL Industries	A141009-23-5	N/A	Functional Location: 2SWS-733	2015	Installed	Yes
Valve, Check, 6"	BNL Industries	A141009-22-3	N/A	Functional Location: 2SWS-734	2015	Installed	Yes
Pipe line	First Energy	N/A	N/A	Pipe Line 2-SWS-006-781-3	2015	Installed	No
Pipe, CS, Sch 40, 6"	US Steel	N/A	N/A	Heat # C47012	2012	Installed	No
Elbow, 90 deg, 6"	Weld Bend	N/A	N/A	Heat # C20151	2014	Installed	No
Elbow, 90 deg, 6"	Weld Bend	N/A	N/A	Heat # C20151	2014	Installed	No
Valve, Ball, 6"	BNL Industries	A141009-23-8	N/A	Functional Location: 2SWS-741	2015	Installed	Yes

Valve, Check, 6"	BNL Industries	A141009-22-7	N/A	Functional Location: 2SWS-742	2015	Installed	Yes
Pipe Support	First Energy	N/A	N/A	2SWS-PSR-1230	2015	Installed	No
Pipe Support	First Energy	N/A	N/A	2SWS-PSR-1231	2015	Installed	No
Pipe Support	First Energy	N/A	N/A	2SWS-PSR-1232	2015	Installed	No
Plate, 1/4"	Nucor (Kloeckner Metals)	N/A	N/A	Heat # B4V8687	2015	Installed	No
Plate, 3/4"	Nucor (Kloeckner Metals)	N/A	N/A	Heat # A4S2236-01	2014	Installed	No
Plate, 1"	Nucor (Kloeckner Metals)	N/A	N/A	Heat # 5502707-02	2015	Installed	No
Anchor, 1/2"	Hilti Inc.	N/A	N/A	N/A	2014	Installed	No
Anchor, 3/4"	Hilti Inc.	N/A	N/A	N/A	2014	Installed	No
Tube Steel, 4"x4"x3/8"	Hanna Steel	N/A	N/A	Heat # B416002	2015	Installed	No
Tube Steel, 4"x4"x3/8"	Hanna Steel	N/A	N/A	Heat # SE1086	2015	Installed	No
Bar, 1"x2"	Lukens Steel	S/N: 2	N/A	Heat # R3182	1991	Installed	No

7. Description of Work Pipe line 2SWS-008-779-3 was added to 2SWS-030-142-3 by First Energy in 2014. The blind flange on this line was removed and Flex Mod piping was installed.

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 3865

8. Tests Conducted: Hydrostatic* ☒ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 150 psi Test Temp. 77 °F

*Record test pressure and temperature

9. Remarks Pipe line 2SWS-008-779-3 was added to 2SWS-030-142-3 by First Energy in 2014, see NIS-2 # 3723. Code Data Reports for ball valves 2SWS-733, 2SWS-742 and check valves 2SWS-734, 2SWS-741 are attached to this NIS-2 Report.

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 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-22-15, 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 Commission NB9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 10-22-, 20 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

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 CBV-B5-60-0112 Rev. B CRN
5. ASME Code, Section III, Division 1 1971 (edition) W72 (Addenda (if applicable) (date)) 3 (class) (Code Case no.)
6. Pump or valve VALVE Nominal inlet size 6" Outlet size 6"
7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-22-(3 THRU 6)		545G	546G/546G-1	549G
A141009-22-(7)		479G-2	546G/546G-1	549G
A141009-22-(8)		479G-2	546G-1	549G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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.

(07/10)

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. 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 4/8/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) Signed Steven Braun (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 _____ (Authorized Nuclear Inspector) Commission NB 9241 (N,NS [National Board Number and Endorsement]

(07/11)

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

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 GBV-B2-60-0112 Rev. C CRN

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

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

7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-23-(5)		479G-2	547G-1	27H
A141009-23-(6)		479G-2	547G/547G-1	27H-1

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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. A141009-23-(5 thru 6)

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. 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 4/8/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) Signed Steven Braun (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 _____ (Authorized Nuclear Inspector) Commission NB9241(N,N5) (National Board Number and Endorsement)

(07/11)

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

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 GBV-B2-60-0112 Rev. C CRN
5. ASME Code, Section III, Division 1 1971 (edition) W'72 (Addenda (if applicable) (date)) 3 (class) (Code Case no.)
6. Pump or valve VALVE Nominal inlet size 6" Outlet size 6"
7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-23-(7)		479G-2	547G	27H
A141009-23-(8)		479G-2	547G/122H	27H

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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.

(07/10)

FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. A141009-23-(7 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. 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 4/14/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) 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 4/14/15, 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 4/14/15 Signed _____ (Authorized Nuclear Inspector) Commission NB 10961 N [National Board Number and Endorsement]

(07/11)

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 3867

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 11-5-2015

Sheet 1 of 5

Unit No. #2

Order # 200585208
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water System, BV-2-30-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W'72 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)
Spool (SWS-114-1A)	Power Piping	2-SWS-101902-2	N/A	Pipe Line 2-SWS-020-114-3	1977	Corrected	Yes
Weldolet, 20"x8"	WFI Nuclear Products	N/A	N/A	Heat # 7241ANF1	2014	Installed	No
Pipe Line	First Energy	N/A	N/A	2-SWS-008-922-3	2015	Installed	No
Elbow, 90 deg, 8"	Weld Bend	N/A	N/A	Heat # D80339	2014	Installed	No
Elbow, 90 deg, 8"	Weld Bend	N/A	N/A	Heat # BX0379	2014	Installed	No
Pipe, CS, 8", Sch 40	US Steel	N/A	N/A	Heat # C47012	2012	Installed	No

Elbow, 90 deg, 8"	Weld Bend	N/A	N/A	Heat # D80339	2014	Installed	No
Elbow, 90 deg, 8"	Weld Bend	N/A	N/A	Heat # DY0105	2015	Installed	No
Tee, Reducing, 8"x8"x6"	Weld Bend	N/A	N/A	Heat # J3L6330	2015	Installed	No
Pipe Line	First Energy	N/A	N/A	2-SWS-006-923-3	2015	Installed	No
Pipe, CS, 6", Sch 40	US Steel	N/A	N/A	Heat #C47012	2012	Installed	No
Elbow, 90 deg, 6"	Weld Bend	N/A	N/A	Heat # C40348	2014	Installed	No
Check Valve, 6"	BNL Industries	A141009-22-5	N/A	2SWS-332	2015	Installed	Yes
Ball Valve, 6"	BNL Industries	A141009-23-7	N/A	2SWS-333	2015	Installed	Yes
Pipe Line	First Energy	N/A	N/A	2-SWS-006-926-3	2015	Installed	No
Reducer, 8"x6"	Weld Bend	N/A	N/A	Heat # 688AN PC2	2015	Installed	No
Pipe, CS, 6", Sch 40	US Steel	N/A	N/A	Heat #C47012	2012	Installed	No
Check Valve, 6"	BNL Industries	A141009-22-4	N/A	2SWS-334	2015	Installed	Yes
Ball Valve, 6"	BNL Industries	A141009-23-6	N/A	2SWS-335	2015	Installed	Yes
Pipe Support	First Energy	N/A	N/A	2SWS-PSR1233	2015	Installed	No
Pipe Support	First Energy	N/A	N/A	2SWS-PSR1234	2015	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 3867

Pipe Support	First Energy	N/A	N/A	2SWS-PSR1235	2015	Installed	No
Plate, CS, 1/4"	Nucor (Kloeckner Metals)	N/A	N/A	Heat # B4V8687-04	2015	Installed	No
Plate, CS, 3/4"	Nucor (Kloeckner Metals)	N/A	N/A	Heat # 4S2236-01	2014	Installed	No
Anchor, 1/2"	Hilti Inc	N/A	N/A	N/A	2014	Installed	No
Anchor, 3/4"	Hilti Inc	N/A	N/A	N/A	2014	Installed	No
Tube Steel, 4"x4"x3/8"	Hanna Steel	N/A	N/A	Heat # B406590	2014	Installed	No
Tube Steel, 4"x4"x3/8"	Hanna Steel	N/A	N/A	Heat # B416002	2015	Installed	No
Plate, CS, 1"	Nucor (Kloeckner Metals)	N/A	N/A	Heat # 5502707-02	2015	Installed	No
Plate, CS, 1"	Nucor (Kloeckner Metals)	N/A	N/A	Heat # 3508746-01	2014	Installed	No
Bar, CS, 1"	Lukens Steel	2	N/A	Heat # R3182	1991	Installed	No

7. Description of Work Pipe line 2-SWS-020-114-3 (spool SWS-114-1A) was corrected by adding a weldolet and installing Flex Mod piping and pipe supports.

8. Tests Conducted: Hydrostatic* ☒ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure 150 psi Test Temp. 80 °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 3867

9. Remarks Piping Isometric 2806.262-920-919 (101902) shows pipe line 2-SWS-020-114-3 (spool SWS-114-1A). The N5 Code Data Report for this spool is part of System 30 package 04 (ID: 2-SR-30-04-SWS). N5 Code Data Report is on Film Number S1261 and the spool is given on slide #243.

Code data reports for the following valves are attached to this NIS-2 report: 2SWS-332, 2SWS-333, 2SWS-334, 2SWS-335.

Note: Hydrostatic pressure test completed on pipe section that will not be pressurized during in service leak test due to check valve location.

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 5, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 NB 9428 A N I B
Inspector's Signature National Board Number and Endorsement

Date 11-5-, 20 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

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 CBV-85-60-0112 Rev. B CRN

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

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

7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-22-(3 THRU 6)		545G	546G/546G-1	549G
A141009-22-(7)		479G-2	546G/546G-1	549G
A141009-22-(8)		479G-2	546G-1	549G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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. A141009-22-(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. 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 4/8/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) Signed _____ (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 _____ (Authorized Nuclear Inspector) Commission NB9241 (N,NS (National Board Number and Endorsement)

(07/11)

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

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 GBV-B2-60-0112 Rev. C CRN
5. ASME Code, Section III, Division 1 1971 (edition) W72 (Addenda (if applicable) (date)) 3 (class) (Code Case no.)
6. Pump or valve VALVE Nominal inlet size 6" Outlet size 6"
7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-23-(5)		479G-2	547G-1	27H
A141009-23-(6)		479G-2	547G/547G-1	27H-1

* Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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.

(07/10)

FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. A141009-23-(5 thru 6)

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. 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 4/8/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) Signed Steven Braun (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 _____ (Authorized Nuclear Inspector) Commission NB9241 (N, NS) (National Board Number and Endorsement)

(07/11)

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

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 GBV-B2-60-0112 Rev. C CRN
5. ASME Code, Section III, Division 1 1971 (edition) W'72 (Addenda (if applicable) (date)) 3 (class) (Code Case no.)
6. Pump or valve VALVE Nominal inlet size 6" Outlet size 6"
7. Material
(a) valve Body SA-105 Bonnet SA-105 Disk SA-479 TY.316 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.
A141009-23-(7)		479G-2	547G	27H
A141009-23-(8)		479G-2	547G/122H	27H

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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.

(07/10)

FORM NPV-1 (Back — Pg. 2 of 2)

Certificate Holder's Serial No. A141009-23-(7 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. 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 4/14/15 Name BNL INDUSTRIES, INC. (N Certificate Holder) 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 4/14/15, 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 4/14/15 Signed _____ (Authorized Nuclear Inspector) Commission NB10961 N (National Board Number and Endorsement)

(07/11)

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 3869

1. Owner FirstEnergy Nuclear Operating Co. (NAME)
   76 South Main Street – Akron, OH 44308 (ADDRESS)
   Date 9-24-2015
   Sheet 1 of 4
   Unit No. #2
2. Plant Beaver Valley Power Station (BVPS) (NAME)
   PO Box 4, Shippingport, PA 15077 (ADDRESS)
   Order # 200625314 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/A
   Authorization No. N/A
   Expiration Date N/A
4. Identification of System Service Water System, BV-2-30-System (Class 3)
5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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)
Spool	Stone and Webster	N-1141-5268	N/A	Spool SWS-192-10	1986	Removed	Yes
Spool	Stone and Webster	N/A	N/A	Pipe Line 2-SWS-004-192-3	1986	Corrected	Yes
Flange, Weld Neck, 4", Sch 40	Western Forge and Flange	N/A	N/A	WFF Code: IOH-2	2014	Installed	No
Pipe, 4", Sch 40	US Steel	N/A	N/A	Heat # A62935	2003	Installed	No
Elbow, 4", 45 deg, Sch 40	Weld Bend	N/A	N/A	Heat # 487275	2014	Installed	No
Stud, 5/8"	Nova Machine Products	N/A	N/A	Heat # 13W3	2015	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 3869

Nut, 5/8"	Nova Machine Products	N/A	N/A	Heat # 15D0	2015	Installed	No

7. Description of Work Pipe line 2-SWS-004-192-3 had a small pin hole leak and was corrected by removing a section of spool SWS-192-10 and replacing with the components identified above.

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure --- psi Test Temp. --- °F

*Record test pressure and temperature

9. Remarks N5 Code Data Report for 2-SR-30-05-SWS includes spool SWS-192-10 in Attachment 2 as Item No 35. Applicable section of Code Data Report attached; entire N5 Code Data Report on Film Number S1336-0647. Prior NIS-2 reports #521 and #356.

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 Thomas M Calko Date Sept 24, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 9-24-15, 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 L. Yuhl Commission NB9428 ANI B

Inspector's Signature National Board Number and Endorsement

Date 9-24- , 20 15

SERVICE WATER SYSTEM(SWS) CORRECTED COPY

FORM N-5 DATA REPORT FOR INSTALLATION OR SHOP ASSEMBLY OF NUCLEAR POWER PLANT COMPONENTS, COMPONENT SUPPORTS, AND APPURTENANCES* 2-SR-30-05-SWS

As Required by the Provisions of the ASME Code Rules, Section III, Division 1 Sheet 1 of 37

1. Installed by Schneider Power Corp., 125 Seventh Street, Pittsburgh, PA 15222
(Name and address of installer of component, component supports or appurtenances)
2. Installed for Duquesne Light Co., One Oxford Centre, 301 Grant Street., Pittsburgh, PA 15279
(Name and address of purchaser or owner)
3. N Certificate Holder having overall responsibility Stone & Webster Engineering Corporation
4. Location of Installation Beaver Valley Power Station Unit #2, Shippingport, PA 15077
5. System Identification 2-SR-30-05-SWS (Mfr. Serial No.) N/A (CRN) Att. 10 (Drawing No.) Nat'l Bd No. N/A Year Installed 1986
6. Nuclear Components and Appurtenances Installed in the Field by Welding (List each item and attach copies of N Certificate Holders' Data Reports and NPT Certificate Holders' Partial Data Reports) E7870119 0012

(a) Components, or Appurtenances	(b) Name of Certificate Holder	(c) Serial No.	(d) Canadian Reg. No.	(e) National Bd. No.	(f) Year Built
See Attachment (1) "Parts, Components & Appurtenances"					
	NO FURTHER ENTRIES				

Piping System Installation

(a) Piping Subassembly	(b) Name of Certificate Holder	(c) Serial No.	(d) Canadian Reg. No.	(e) National Bd. No.	(f) Year Built
See Attachment (2) "Shop Fabricated Large Bore Piping Subassemblies Installed"					
See Attachment (3) "Field Modified Large Bore Subassemblies Installed"					
See Attachment (4) "Shop Fabricated Small Bore Subassemblies Installed"				N/A	
See Attachment (5) "Field Modified Small Bore Subassemblies Installed"				N/A	
	NO FURTHER ENTRIES				

Component Support Installation

(a) Component Support No.	(b) Name of Certificate Holder	(c) Serial No.	(d) Design Rept. Load Capac. Data Sheet	(e) Canadian Reg. No.	(f) National Bd. No.	(g) Year Built
Component Supports are non-code, due to code effective date. SEE "Additional Material Excluding Welding Material" for "Component Support Integral Attachment Only."						
	NO FURTHER ENTRIES					

Additional Material Excluding Welding Material

(a) Name of Manufacturer	(b) Material Specification	(c) Dimensions
See Attachment(6)"Component Support Integral Attachment Only"		
See Attachment (7) "Additional Material"		
NO FURTHER ENTRIES		

Note: The following shortened company names are used in this report:
SWEC: Stone & Webster Engineering Corp.
SPC: Schneider Power Corp.
HSBI & I CO.: Hartford Steam Boiler Inspection & Insurance Company
PPC: Power Piping Company

7. (a) Installation in Accordance with:

Procedure or Drawing No. Prepared by

See Attachment (8) "Design Drawings & Revisions"
See Attachment (9) "Procedures & Specifications"
NO FURTHER ENTRIES

(b) Description of Installation Performed:
See Attachment (10) "Description Of Installation Performed"
NO FURTHER ENTRIES

(c) Hydrostatic Test # psi. System Working Pressure # psi and Temp. # F.

* Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8-1/2 in. x 11 in., (2) information in items 1 through 6 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 #SEE SHEET 2 of 37 "CERTIFICATION OF DESIGN..." footnote.

 This form (E00025) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FORM N-5 (Back)

CERTIFICATION OF DESIGN FOR PIPING SYSTEM INSTALLATION

Design information on file at Stone & Webster Engineering Corp., Boston, MA.

Design Report on file at A stress report is not required for Class 2 or 3 piping systems.

Design specifications certified by (1) J. R. Haslam PE State Pennsylvania

Reg. No. 035972-E

Design Report certified by (1) A stress report is not req'd PE State N/A

Reg. No. for Class 2 or 3 piping systems. # SEE ATTACHMENT(11) "System Working & Design, Pressure Temperature & Hydrostatic/ Pneumatic Tests"

(1) Signature not required. List name only.

Design Conditions of Piping # (Pressure) psi # (Temperature) F.

CERTIFICATE OF INSTALLATION COMPLIANCE

We certify that the statements made in this report are correct and that this installation conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Division 1, 1971 & * Edition. Addenda Date: Winter '72 & * Code Case No. * Class 3 and was performed in accordance with the documents listed in 7(a), above.

Our ASME Certificate of Authorization No. N-1824-1 to use the NA (N, NA) Symbol expires 8-12-89 (Date)

Refer to ATTACHMENT (7) for material responsibilities and ATTACHMENT (11) for pressure test responsibilities.

Date 12/10/86 Signed Schneider Power Corp. (Certificate Holder) by [signature]

* SEE ATTACHMENT(12) "Later Code Editions & Addendas Invoked and Code Cases Invoked"

CERTIFICATE OF INSTALLATION 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 HSBI & I Co. of Hartford, CT. have inspected the installation of the items described in this Data Report on 12/17 19 86 and state that, to the best of my knowledge and belief, the Certificate of Authorization Holder has performed this installation in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer make any warranty, expressed or implied, concerning the installation 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 th[illegible]spection.

Date 12/18 19 86 Signed [signature] (Inspector) Commissions PA-3000-N (Nat'l Board, State, Province and No.)

CERTIFICATE OF COMPLIANCE

Following completion of the above, the Certificate of Authorization Holder accepting overall responsibility for the piping system shall complete the following statement. Refer to ATTACHMENT (7) for material responsibilities and ATTACHMENT (11) for pressure test responsibilities.

We certify the statements made by this report are correct and that the piping system conforms to the rules of construction of the ASME Code Section III, Division 1.

Certificate of Authorization expires 6-18-88 Certificate of Authorization No. N-1513-2

Date 1/13/87 Signed Stone & Webster Engr. (N-Certificate Holder) by [signature]

CERTIFICATE OF 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 HSBI & I Co. of Hartford, Connecticut have inspected the piping described in this Data Report on 1-13 19 87 and state that to the best of my knowledge and belief, the Certificate of Authorization Holder has constructed this installation in accordance with the ASME Code for Nuclear Power Plant Components.

By signing this certificate, neither the Inspector nor his employer make any warranty, expressc or implied, concerning the piping 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 1-13 19 87

Signed [signature] (Inspector) Commissions PA 2052 N (Nat'l Board, State Province and No.)

2-SR-30-05-SWS

N-5 DATA REPORT
ATTACHMENT 2

Sheet 7 Of 37

INSTALLED BY: Schneider Power Corp., 125 Seventh Street, Pittsburgh, PA 15222
(Name and Address of Installer of Parts, Components, and Appurtenances)

INSTALLED FOR: DUQUESNE LIGHT COMPANY, ONE OXFORD CENTRE, 301 GRANT STREET, PITTSBURGH, PENNSYLVANIA 15279

N CERTIFICATE HOLDER HAVING OVERALL RESPONSIBILITY: Stone & Webster Engineering Corp.

LOCATION OF INSTALLATION: Beaver Valley Power Station, Unit-2, Shippingport, PA 15077

SYSTEM IDENTIFICATION Service Water System(SWS)2-SR-30-05-SWS (Mfr. Serial No.) YEAR INSTALLED 1986

Continued from Sheet 1

SHOP FABRICATED LARGE BORE PIPING SUBASSEMBLIES INSTALLED

(A) Item No.	(B) Piping Subassembly	(C) Name of Certificate Holder	(D) Serial No.	(E) Canadian Reg. No.	(F) National Bd. No.	(G) Year Built	(H) Isometric No.
1	SWS-72-2	Power Piping Co.	N-1141-5227	N/A	N/A	1982	101923
2	SWS-72-4	Power Piping Co.	N-1141-6529	N/A	N/A	1982	101923
3	SWS-545-1	Power Piping Co.	N-1141-5229	N/A	N/A	1980	101923
4	SWS-73-1	Power Piping Co.	N-1141-5230	N/A	N/A	1982	101924
5	SWS-73-2	Power Piping Co.	N-1141-5231	N/A	N/A	1980	101924
6	SWS-73-3	Power Piping Co.	N-1141-5232	N/A	N/A	1980	101924
7	SWS-73-4	Power Piping Co.	N-1141-6530	N/A	N/A	1982	101924
8	SWS-74-1	Power Piping Co.	N-1141-5234	N/A	N/A	1981	101925
9	SWS-74-3	Power Piping Co.	N-1141-5236	N/A	N/A	1980	101925
10	SWS-74-4	Power Piping Co.	N-1141-6531	N/A	N/A	1982	101925
11	SWS-78-1	Power Piping Co.	N-1141-5092	N/A	N/A	1981	101919
12	SWS-77-1	Power Piping Co.	N-1141-5096	N/A	N/A	1980	101919
13	SWS-78-3	Power Piping Co.	N-1141-5094	N/A	N/A	1981	101919
14	SWS-88-18	Power Piping Co.	N-1141-5095	N/A	N/A	1980	101919
15	* SWS-77-3A	Power Piping Co.	N-1141-5098	N/A	N/A	1980	101919

* The letter suffix indicates the welding of an attachment to the spool. No modification was made to the spool.

Continued on Sheet 8

Date 12/10/86 Schneider Power Corp. Signed [signature] 12-12-86
(N Certificate Holder)

Date 12/10/86 [signature] Commissions PA-3000-B
(ANI Signature) (Nat'l Board, State and No.)

Date 1/8/87 Stone&Webster Eng. Corp. Signed [signature]
(N Certificate Holder)

Date 1/12/87 [signature] Commissions PA 2052 N
(ANI Signature) (Nat'l Board, State and No.)

N-5 DATA REPORT
ATTACHMENT 2

1. INSTALLED BY: Schneider Power Corp., 125 Seventh Street, Pittsburgh, PA 15222
(Name and Address of Installer of Parts, Components, and Appurtenances)
2. INSTALLED FOR: DUQUESNE LIGHT COMPANY, ONE OXFORD CENTRE, 301 GRANT STREET, PITTSBURGH, PENNSYLVANIA 15279
3. N CERTIFICATE HOLDER HAVING OVERALL RESPONSIBILITY: Stone & Webster Engineering Corp.
4. LOCATION OF INSTALLATION: Beaver Valley Power Station, Unit-2, Shippingport, PA 15077
5. SYSTEM IDENTIFICATION Service Water System(SWS)2-SR-30-05-SWS YEAR INSTALLED 1986
(Mfr. Serial No.)

Continued from Sheet 7

SHOP FABRICATED LARGE BORE PIPING SUBASSEMBLIES INSTALLED

(A) Item No.	(B) Piping Subassembly	(C) Name of Certificate Holder	(D) Serial No.	(E) Canadian Reg. No.	(F) National Bd. No.	(G) Year Built	(H) Isometric No.
16	* P-119A	Power Piping Co.	N-1141-3420	N/A	N/A	1980	101919
17	SWS-77-5	Power Piping Co.	N-1141-5100	N/A	N/A	1980	101920
18	SWS-77-6	Power Piping Co.	N-1141-5101	N/A	N/A	1981	101920
19	SWS-89-18	Power Piping Co.	N-1141-5102	N/A	N/A	1980	101920
20	SWS-452-12	Power Piping Co.	N-1141-5247	N/A	N/A	1980	101928
21	SWS-452-13	Power Piping Co.	N-1141-5248	N/A	N/A	1980	101928
22	SWS-452-15	Power Piping Co.	N-1141-5250	N/A	N/A	1980	101928
23	SWS-452-16	Power Piping Co.	N-1141-5251	N/A	N/A	1980	101928
24	SWS-452-17	Power Piping Co.	N-1141-5252	N/A	N/A	1980	101928
25	SWS-564-1	Power Piping Co.	N-1141-5254	N/A	N/A	1980	101928
26	P-5059	Power Piping Co.	N-1141-3417	N/A	N/A	1978	101928
27	P-459	Power Piping Co.	N-1141-3278	N/A	N/A	1979	101929
28	SWS-193-7	Power Piping Co.	N-1141-5255	N/A	N/A	1980	101929
29	SWS-193-8	Power Piping Co.	N-1141-5256	N/A	N/A	1980	101929
30	SWS-193-9	Power Piping Co.	N-1141-5257	N/A	N/A	1980	101929

* The letter suffix indicates the welding of a temporary attachment to the spool. (I.E. hydro cap) no modification was made to the spool.

Continued on Sheet 9

Date 12/10/86 Schneider Power Corp. Signed [signature] 12-16-86
NA Certificate Holder

Date 12/16/86 [signature] Commissions PA-3000--N
ANI Signature (Nat'l Board, State and No.)

Date 1/13/87 Stone&Webster Eng. Corp. Signed [signature]
N Certificate Holder

Date 1/13/87 [signature] Commissions PA2052W
ANI Signature (Nat'l Board, State and No.)

N-5 DATA REPORT
ATTACHMENT 2

. INSTALLED BY: Schneider Power Corp., 125 Seventh Street, Pittsburgh, PA 15222
(Name and Address of Installer of Parts, Components, and Appurtenances)

. INSTALLED FOR: DUQUESNE LIGHT COMPANY, ONE OXFORD CENTRE, 301 GRANT STREET, PITTSBURGH, PENNSYLVANIA 15279

. N CERTIFICATE HOLDER HAVING OVERALL RESPONSIBILITY: Stone & Webster Engineering Corp.

. LOCATION OF INSTALLATION: Beaver Valley Power Station, Unit-2, Shippingport, PA 15077

. SYSTEM IDENTIFICATION Service Water System(SWS)2-SR-30-05-SWS YEAR INSTALLED 1986
(Mfr. Serial No.)

Continued from Sheet 8

SHOP FABRICATED LARGE BORE PIPING SUBASSEMBLIES INSTALLED

(A) Item No.	(B) Piping Subassembly	(C) Name of Certificate Holder	(D) Serial No.	(E) Canadian Reg. No.	(F) National Bd. No.	(G) Year Built	(H) Isometric No.
31	SWS-563-1	Power Piping Co.	N-1141-5258	N/A	N/A	1980	101929
32	SWS-563-2	Power Piping Co.	N-1141-5259	N/A	N/A	1980	101929
33	P-460	Power Piping Co.	N-1141-3279	N/A	N/A	1979	101931
34	SWS-192-9	Power Piping Co.	N-1141-5267	N/A	N/A	1980	101931
35	SWS-192-10	Power Piping Co.	N-1141-5268	N/A	N/A	1980	101931
36	SWS-192-11	Power Piping Co.	N-1141-5269	N/A	N/A	1980	101931
37	SWS-192-12	Power Piping Co.	N-1141-5270	N/A	N/A	1980	101931
38	SWS-192-13	Power Piping Co.	N-1141-5271	N/A	N/A	1980	101931
39	SWS-192-15	Power Piping Co.	N-1141-2737	N/A	N/A	1982	101931
40	SWS-192-5	Power Piping Co.	N-1141-5277	N/A	N/A	1980	101932
41	SWS-453-11	Power Piping Co.	N-1141-5280	N/A	N/A	1980	101933
42	SWS-453-12	Power Piping Co.	N-1141-5281	N/A	N/A	1980	101933
43	SWS-453-13	Power Piping Co.	N-1141-5282	N/A	N/A	1980	101933
44	SWS-453-15	Power Piping Co.	N-1141-5284	N/A	N/A	1980	101933
45	SWS-453-16	Power Piping Co..	N-1141-5285	N/A	N/A	1980	101933
46	SWS-453-17	Power Piping Co.	N-1141-5286	N/A	N/A	1980	101933

Continued on Sheet 10

Date 12/10/86 Schneider Power Corp. Signed [signature]
NA Certificate Holder
Date 12/18/86 [signature] Commissions PA-3000-D
ANI Signature (Nat'l Board, State and No.)
Date 1/13/87 Stone&Webster Eng. Corp. Signed [signature]
N Certificate Holder
Date 1/13/87 [signature] Commissions PA 2052 N
ANI Signature (Nat'l Board, State and No.)

N-5 DATA REPORT
ATTACHMENT 2

. INSTALLED BY: Schneider Power Corp., 125 Seventh Street, Pittsburgh, PA 15222
(Name and Address of Installer of Parts, Components, and Appurtenances)

. INSTALLED FOR: DUQUESNE LIGHT COMPANY, ONE OXFORD CENTRE, 301 GRANT STREET, PITTSBURGH, PENNSYLVANIA 15279

. N CERTIFICATE HOLDER HAVING OVERALL RESPONSIBILITY: Stone & Webster Engineering Corp.

. LOCATION OF INSTALLATION: Beaver Valley Power Station, Unit-2, Shippingport, PA 15077

. SYSTEM IDENTIFICATION Service Water System(SWS)2-SR-30-05-SWS YEAR INSTALLED 1986
(Mfr. Serial No.)

Continued from Sheet 9

SHOP FABRICATED LARGE BORE PIPING SUBASSEMBLIES INSTALLED

(A) Item No.		(B) Piping Subassembly	(C) Name of Certificate Holder	(D) Serial No.	(E) Canadian Reg. No.	(F) National Bd. No.	(G) Year Built	(H) Isometric No.
17		P-5060	Power Piping Co.	N-1141-3418	N/A	N/A	1978	101933
~~18~~	~~*~~	~~SWS-452-5A~~	~~Power Piping Co.~~	~~N-1141-4692~~ #H 12-13-86	~~N/A~~	~~N/A~~	~~1981~~	~~111110~~
19	*	SWS-453-6A	Power Piping Co.	N-1141-4695	N/A	N/A	1980	111111
20		SWS-453-2	Power Piping Co.	N-1141-4300	N/A	N/A	1979	109947
21		SWS-452-2	Power Piping Co.	N-1141-4304	N/A	N/A	1979	109948
22	*	SWS-452-1A	Power Piping Co.	N-1141-4303	N/A	N/A	1979	109948
23		SWS-452-7	Power Piping Co.	N-1141-4972	N/A	N/A	1981	175903
24		SWS-453-7	Power Piping Co.	N-1141-4976	N/A	N/A	1981	175904
25		SWS-453-8	Power Piping Co.	N-1141-4977	N/A	N/A	1980	175904
26		SWS-75-1	Power Piping Co.	N-1141-6653	N/A	N/A	1982	101926
27		SWS-75-3	Power Piping Co.	N-1141-5240	N/A	N/A	1980	101926
28		SWS-75-4	Power Piping Co.	N-1141-6532	N/A	N/A	1983	101926
29	**	P-121A	Power Piping Co.	N-1141-3422	N/A	N/A	1980	101920

NO FURTHER ENTRIES

: The letter suffix indicates the welding of an attachment to the spool. No modification was made to the spool.

* The letter suffix indicates the welding of a temporary attachment to the spool. (I.E. hydro cap). No modification was made to the spool.

ontinued on Sheet N/A

Date ~~12/10/86~~ 12-4-86 Schneider Power Corp. Signed [signature]
NA Certificate Holder

Date ~~3/18/86~~ ANI Signature Commissions PA-3000-N
(Nat'l Board, State and No.)

Date 1/13/87 Stone&Webster Eng. Corp. Signed [signature]
N Certificate Holder

Date 4/13/87 [signature] Commissions PA 2052 N
ANI Signature (Nat'l Board, State and 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 3871

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 10-15-2015

Sheet 1 of 3

Unit No. #2

Order # 200585209
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Fuel Pool Cooling, BV-2-20-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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-FNC-002-128-3	1986	Corrected	Yes
Flange	Stone and Webster	N/A	N/A	Pipe Line 2-FNC-002-128-3	1986	Removed	No
Flange, socket weld, SS, 2 in, 150#	Western Forge and Flange	N/A	N/A	Heat # 248072	2015	Installed	No
Pipe, SS, 2 in, Sch 40S	Pexco (Ta Chen)	N/A	N/A	Heat # 539575	2015	Installed	No
Elbow, 90 deg, SS, 2 in, 3000#	Alloy Stainless Products	N/A	N/A	Heat # G85	2008	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 3871

Tee, SS, 2 in, 3000#	Alloy Stainless Products	N/A	N/A	Heat # G86	2008	Installed	No
Flange, socket weld, SS, 2 in, 150#	Western Forge and Flange	N/A	N/A	Heat # 248072	2015	Installed	No
Flange, blind, SS, 2 in, 150#	Newman Flange and Fitting	N/A	N/A	Heat # H-554	2010	Installed	No
Pipe Line	FirstEnergy	N/A	N/A	2-FNC-002-184-3	2015	Installed	No
Elbow, 90 deg, SS, 2 in, 3000#	Alloy Stainless Products	N/A	N/A	Heat # G85	2008	Installed	No
Elbow, 45 deg, SS, 2 in, 3000#	Alloy Stainless Products	N/A	N/A	Heat # K56	2014	Installed	No
Valve, ball, SS, 2 in	BNL Industries	A141009-9-1	N/A	Functional Location: 2FNC-200	2015	Installed	Yes
Studs, SS, 5/8 in	Trust Manufacturing	N/A	N/A	Heat # 557404	2011	Installed	No
Nuts, SS, 5/8 in	Nova Machine Products	N/A	N/A	Heat # 0B09	2006	Installed	No

7. Description of Work Existing pipe line 2-FNC-002-128-3 was modified to allow installation of Flex Mod 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 3871

9. Remarks Piping Isometric 2806.262-920-340 (107708) shows pipe line 2-FNC-002-128-3 was installed by Stone & Webster. N5 Code Data Report for this isometric is part of System 20 package 1 (ID: 2SR-20-01-FNC); N5 Code Data Report starts on Film Number S1469 slide #1339; this item is identified on slide #1349.

Code data report for new valve 2FNC-200 is attached to this NIS-2 report. There are no prior NIS-2 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 II Date Oct 15, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-27-15, 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. Wirth Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 10-27-, 20 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

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-A2-20-0115 Rev. D CRN
5. ASME Code, Section III, Division 1 1971 (edition) W'72 (Addenda (if applicable) (date)) 3 (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.
A141009-9-(1)		10H	561G	468G

*Supplemental information in the form of lists, sketches, or drawings may be used provided: (1) size is 8½ × 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. A141009-9-(1)

8. Design conditions _____ (pressure) _____ (temperature) or valve pressure class ANSI 600#

9. Cold working pressure 1440 PSIG @100°F

10. Hydrostatic test 2175 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. (N Certificate Holder) Signed _____ (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 3/20/15, 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 _____ (Authorized Nuclear Inspector) Commission NB10961 A N (National Board Number and Endorsement)

(07/11)

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 3872

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 10-13-2015

Sheet 1 of 1

Unit No. #2

Order # 200630254
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Area Ventilation System, BV-2-44A-System (Class 3)

5. (a) Applicable Construction Code ASME Section III ____ Edition, 1971 Addenda, W '72 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)
Spool SWS-44-3D	Power Piping	N-1141-5053	N/A	Pipe Line 2-SWS-003-52-3	1980	Corrected	Yes
Spool SWS-52-1A	Power Piping	N-1141-5057	N/A	Pipe Line 2-SWS-004-44-3	1980	Corrected	Yes
Reducer, 4"x3"	WeldBend	N/A	N/A	Heat # 865AN	2015	Installed	No
Pipe, 3"	US Steel	N/A	N/A	Heat # HA0533	2010	Installed	No

7. Description of Work Original reducer developed pinhole leak. Short section of 3" pipe and reducer were replaced with new components 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 3872

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☒ Exempt ☐

Other ☐ Pressure --- psi Test Temp. --- °F

*Record test pressure and temperature

9. Remarks Affected piping isometrics are 173001 (spool SWS-44-3D) and 173002 (spool SWS-52-1A); N5 Code Data Report for these spools is part of System 30 package 09 (ID: 2-SR-30-09A-SWS). N5 Code Data Report is on Film Number S1282, these spools are identified on slide #11 and 12.

Prior NIS-2 reports for 2-SWS-004-44-3 are #814 and #1191; prior NIS-2 report for 2-SWS-003-52-3 is #1190.

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 13, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-13-15, 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. Fish Commission NB9428 ANI B

Inspector's Signature National Board Number and Endorsement

Date 10-13-, 20 15

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 3876

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 Mechanical Maintenance (NAME)

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

Date 11/11/2015

Sheet 1 of 1

Unit No. #2

Order #200459075
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Containment Depressurization System, BV-2-13-System (Class 2)

5. (a) Applicable Construction Code Section III 1971 Edition, S'72 Addenda, Code Cases N/A

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

(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	Joseph Oat Corporation	2189-1C	892	2RSS-E21C	1976	Corrected	Yes
Tube Plug	Joseph Oat Corporation	N/A	N/A	Heat # 6464	2003	Installed	No

7. Description of Work Plugged and welded one tube.

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 heat exchanger 2RSS-E21C is attached to NIS-2 Report #243. Prior NIS-2 reports for this heat exchanger are: 243, 536, 1058, 1962.

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 3876

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 11, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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.

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Dean L. Yuhl Commission NB 9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 11-11-, 20 15

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 3877

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 10-30-2015

Sheet 1 of 2

Unit No. #2

Order # 200655260
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Safety Injection System, BV-2-11-System (Class 2)

5. (a) Applicable Construction Code ASME Section III _____ Edition, 1974 Addenda, S'75 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)
Globe Valve	Copes-Vulcan	7720-95387-290-3	1897	2SIS-66	1978	Corrected	Yes
Plug	SPX Process Equipment	0921-166545-1-1	N/A	N/A	2009	Installed	Yes

7. Description of Work Valve was disassembled, inspected, and reassembled with components from valve trim replacement kit.

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 plug installed from the valve trim replacement kit is attached to this NIS-2 report. Prior work done on this valve is documented in NIS-2 # 3013; the N5 Data Report for this valve is also attached to NIS-2 # 3013.

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 3877

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 30, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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 L. Yarish Commission NB 9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 11-2-, 20 15

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*
As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

1. Manufactured and certified by SPX Process Equipment, Copes-Vulcan Operation, 5620 West Road, McKean, PA
(name and address of NPT Certificate Holder)

2. Manufactured for First Energy Corp., Johnstow, PA
(name and address of purchaser)

3. Location of installation Beaver Valley Nuclear Power Plant, Shippingport, PA
(name and address)

4. Type D-391470 Rev. 0 (drawing no.) | A276 Type 316* (mat'l. spec. no.) | 88.2 ksi (tensile strength) | N/A (CRN) | 2009 (year built)

5. ASME Code, Section III, Division 1 | 1974 (edition) | Summer 75 (addenda date) | 2 (class) | N/A (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) (no.) N/A Revision N/A Date N/A

7. Remarks: Plug for 2" Class 1500 Valve per Assembly Drawing D-389327 Rev. 4

Customer PO 45308095 SPX Ref. Job 7710-95387

8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. ID (ft & in.) Length overall (ft & in.) N/A

9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Appurtenance Serial Number	National Board No. in Numerical Order
(1)	0921-166545-1-1 (0901)	N/A
(2)		
(3)		
(4)		
(5)		
(6)	*Acceptable per NC2121 for valve 2" or less	
(7)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		
(25)		

	Appurtenance Serial Number	National Board No. in Numerical Order
(26)		
(27)		
(28)		
(29)		
(30)		
(31)		
(32)		
(33)		
(34)		
(35)		
(36)		
(37)		
(38)		
(39)		
(40)		
(41)		
(42)		
(43)		
(44)		
(45)		
(46)		
(47)		
(48)		
(49)		
(50)		

10. Design Pressure 2485 psi. Temp. 650 f. Hydro. Test Pressure N/A (when applicable) at temp F

* Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 81/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back — Pg 2 of)

0921-166545-

Certificate Holder's 1-1 Serial Nos. through 1-1

CERTIFICATION OF DESIGN

Design specifications certified by N/A (when applicable) P.E. State _____ Reg. no. _____

Design report* certified by N/A (when applicable) P.E. State _____ Reg. no. _____

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Plug conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-3053 Expires 10/5/2010

Date 12-7-09 Name SPX Process Equipment (NPT Certificate Holder) Signed _____ (authorized representative)

CERTIFICATE OF 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 Penna and employed by OneBeacon America Insurance Company Of Lynn, MA have inspected these items described in this Data Report on 12-7-09, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment 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 loss of any kind arising from or connected with this inspection.

Date 12-7-09 Signed _____ Commissions 19227 4

(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(3)

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 3879

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 Westinghouse / PCI Energy (NAME)

Lake Bluff, IL 60044 (ADDRESS)

Date 11/2/2015

Sheet 1 of 1

Unit No. 2

Order 200655277
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Reactor Coolant (Class 1)

5. (a) Applicable Construction Code ASME Section III 1971 Edition, 1972 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)
Reactor Vessel	Combustion Engineering	CE-9071	21669	BV-2RCS-REV21	1975	Corrected	Yes

7. Description of Work Penetration 53 had a 1/16" rounded indication the 240° location – approximately 60° from the identified "Special Interest" ultrasonic reflector. The indication for this penetration was located in the j-groove weld and was acceptable per ASME Section III. Operating experience from both Beaver Valley Unit 2 and external utilities showed that while the indication was acceptable per ASME, it could be connected to the "Special Interest" ultrasonic reflector. The indication was removed by buffing and the area was re-examined using dye penetrant. The follow-up dye penetrant examination results were "PT White" – no indications.

8. Tests Conducted: Hydrostatic* ☐ Pneumatic* ☐ Nominal Operating Pressure ☐ Exempt ☒

Other ☐ Pressure _____ psi Test Temp. _____ °F

*Record test pressure and temperature

9. Remarks Penetration 53 had a 1/16" rounded dye penetrant indication which was removed by buffing. The follow-up dye penetrant examination results were "PT White" – no indications.

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 3879

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 [signature] ENGR IV Date Dec 4, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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.

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

Date 12-7-, 20 15

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 3883

1. Owner FirstEnergy Nuclear Operating Co. (NAME)

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

Date 11-3-2015

Sheet 1 of 1

Unit No. #2

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

PO Box 4, Shippingport, PA 15077 (ADDRESS)

Order # 200468198
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance (NAME)

PO Box 4, Shippingport, PA 15077 (ADDRESS)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Emergency Diesel Generator, BV-2-36-System (Class 3)

5. (a) Applicable Construction Code ASME Section III _____ Edition, 1971 Addenda, W'72 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 & Webster	N/A	N/A	Pipe Line 2-EGS-150-016-3	1987	Corrected	No
Pipe line	Stone & Webster	N/A	N/A	Pipe Line 2-EGS-150-017-3	1987	Corrected	No
Pipe, CS, 1.5", Sch 80	Michigan Seamless Tube	N/A	N/A	Heat # 00A106015	2011	Installed	No

7. Description of Work Replaced two short sections of pipe in order to complete replacement of two non-ASME flex hoses.

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 3883

9. Remarks Piping Isometric 2806.259-920-950 (730-042) shows the pipe that was replaced as item #20. The N5 Code Data Report for pipe lines 2-EGS-150-016-3 and 2-EGS-150-017-3 are part of System 36 package 02 (ID: 2-SR-36-02). N5 Code Data Report is on Film Number S1134, the replaced pipe is identified on slide #1738.

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 Thomas M Calko Date Nov 3, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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.

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Dean S. Zink Commission NB 9428 ANIB

Inspector's Signature National Board Number and Endorsement

Date 11-4-, 20 15

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 3886

1. Owner FirstEnergy Nuclear Operating Company (NAME) | Date 11/11/2015

76 South Main Street – Akron, OH 44308 (ADDRESS) | Sheet 1 of 1

Unit No. #2

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

P.O. Box 4, Shippingport, PA 15077 (ADDRESS) | Order #200663970 Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Mechanical Maintenance (NAME) | Type Code Symbol Stamp N/A

P.O. Box 4, Shippingport, PA 15077 (ADDRESS) | Authorization No. N/A

Expiration Date N/A

4. Identification of System Chemical and Volume Control System, BV-2-07-System, (Class 2)

5. (a) Applicable Construction Code Section III 1974 Edition, S'74 Addenda, Code Cases 1567, 1607, 1637

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

(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	Atlas Industrial Mfg Co.	3180	2558	2CHS-E24	1977	Corrected	Yes
Stud, 1-5/8"	Nova Machine Products	N/A	N/A	Heat # 2U99	2009	Installed	No
Nuts, 1-5/8"	Nova Machine Products	N/A	N/A	Heat # M738	2004	Installed	No

7. Description of Work Replaced stud and 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 3886

9. Remarks Piping isometric 2806.258-920-406 (110-312) shows heat exchanger 2CHS-E24. The N5 Code Data Report for this heat exchanger is part of System 7 package 04 (ID: 2-SR-7-04-CHS). N5 Code Data Report is on Film S1345 and starts on slide #642.

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 Thomas M Calko Date Nov 11, 20 15

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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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.

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Dean L. Zink Commission NB 9428 ANI B

Inspector's Signature National Board Number and Endorsement

Date 11-11-, 20 15

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 3887

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 Mechanical Maintenance (NAME)

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

Date 10/30/2015

Sheet 1 of 2

Unit No. 2

Order Nos.: 200465407
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System Reactor Coolant (Class 1)

5. (a) Applicable Construction Code Section III 1971 Edition, W'72 Addenda, Code Case ---

(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)
Relief Valve	Crosby	N56963-01-0010	N/A	2RCS-RV551C	1980	Removed	Yes
Relief Valve	Crosby	N56963-00-0007	N/A	2RCS-RV551C	1976	Installed	Yes
1-3/8" Stud	Nova Machine	N/A	N/A	Trace Code: 9N14	2014	Installed	No
1-3/8" Stud	Nova Machine	N/A	N/A	Trace Code: 05S0	2014	Installed	No
1-3/8" Nut	Nova Machine	N/A	N/A	Lot #50461626	2015	Installed	No

7. Description of Work Replaced valve, studs and 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 3887

*Record test pressure and temperature

9. Remarks Copy of NV-1 Form for replacement valve attached to previous NIS-2 Data Report No. 202. NVR-1
Applicable Manufacturer's Data Reports to be attached
Data Report of Repair attached for Order 55115381 by NWS Technologies. No Code Data Reports available for studs and nuts.

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 30th, 20 15
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 HSB Global Standards of Hartford, CT have inspected the components described in this Owner's Report during the period 5-24-14 to 10-30-15, 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.

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Dean S. Tyrie Commission NB 9428 ANIB
Inspector's Signature National Board Number and Endorsement

Date 11-4-, 20 15

FORM NVR-1 REPORT OF REPAIR ☒ REPLACEMENT ☐ OF NUCLEAR PRESSURE RELIEF DEVICES

1. Work performed by: **NWS Technologies, LLC** Purchase Order # 55115381
   131 Venture Boulevard, Spartanburg, SC 29306
2. Work performed for: First Energy Corporation, Beaver Valley Power Station
3/4. Owner - name, address and identification of nuclear power plant: Beaver Valley Power Station,
   P.O. Box 4, Shippingport, PA 15077
5. a: Repaired pressure relief device: Pressurizer Safety Valve
   b: Name of manufacturer: Crosby Valve & Gage Co.
   c: Identifying nos.

HB-86-BP	N56963-00-0007	n/a	steam	6 M1 6	1976
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

d: Construction Code: ASME / III / 1 (name/section/division) 1971 (edition) W '72 (addenda) n/a (Code Cases(s)) 1 (Code Class)

6. ASME Code Section XI applicable for inservice inspection: 2001 (edition) 2003 (addenda) n/a (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 2001 (edition) 2003 (addenda) n/a (Code Case(s))
8. Construction Code used for repairs, replacements: 1971 (edition) W ' 72 (addenda) n/a (Code Case(s))
9. Design responsibilities: n/a
10. Opening pressure: 2485 psig
    Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): As-found test SAT. Disassembled, inspected, VT-3 of valve body and components, VT-1 of bolting, lapped seats, cleaned, buffed, lubricated, assembled. Certified set-pressure using steam. Jacked and Lapped. Certified seat tightness using gaseous nitrogen. Bellows/gasket integrity tested SAT using gaseous nitrogen
12. Remarks: NWS Traveler #: 14-158. No parts replaced.

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, modification or replacement of the pressure relief devices described above conforms to Section XI of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

National Board Certificate of Authorization No. **632** to use the "VR" stamp expires April 3, 2015.
National Board Certificate of Authorization No. **81** to use the "NR" stamp expires April 9, 2015.

5/8/14 (Date) **NWS Technologies, LLC** (Repair Organization) _____ (Authorized representative) Manager, QA (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 issued by the jurisdiction of **North Carolina** and employed by **HSB Global Standards** of Hartford, CT have inspected the repair, modification or replacement described in this report on 8 May 2014 and state that to the best of my knowledge and belief, this repair, modification or replacement has been completed in accordance with Section XI of the of the ASME Code and the National Board Inspection Code "VR" and "NR" rules.

By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning this repair, modification 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.

5/8/14 (Date) _____ (Inspector's Signature) **NB # 8462, A, N, I NC# 1073** (Commissions (NB (incl endorsements), jurisdiction,& no.)