

**James H. Lash**  
Site Vice President

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July 14, 2006  
L-06-104

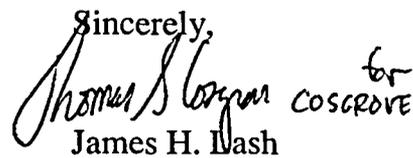
U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

**Subject: Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334, License No. DPR-66  
Seventeenth Refueling Outage Inservice Inspection Report**

Enclosed please find the Inservice Inspection (ISI) Ninety-Day report on American Society of Mechanical Engineers (ASME) Class 1, 2, 3 and MC components examined during the seventeenth refueling outage (1R17) at Beaver Valley Power Station Unit No. 1 (BVPS-1). The ASME Boiler and Pressure Vessel Code, Section XI, Article IWA-6230 requires that an inservice inspection report be submitted to the enforcement and regulatory authority having jurisdiction at the plant site within ninety days after completion of an inservice inspection. The recent inservice inspection term at BVPS-1 ended on April 19, 2006.

The Class 1, 2, 3 and MC examinations are part of Interval 3, Period 3 of the Unit 1 ISI schedule, and were performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code, 1989 Edition.

No new regulatory commitments are contained in this submittal. If there are any questions or if additional information is required, please contact Mr. Gregory A. Dunn, Manager, FENOC Fleet Licensing, at (330) 315-7243.

Sincerely,  
  
James H. Lash

Enclosure

c: Mr. T. G. Colburn, Project Manager  
Mr. P. C. Cataldo, Sr. Resident Inspector  
Mr. S. J. Collins, NRC Region I Administrator  
Mr. J. Payton, Commonwealth of Pennsylvania

A047

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

Outage 17, Year 2006

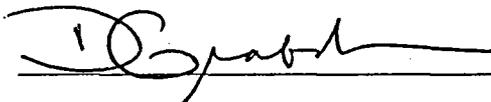
Inspection Term: 11/14/2004 to 4/19/2006

Issue date: 7-10-06

Owner: FirstEnergy  
76 South Main St.  
Akron, OH 44308

NRC Docket Number: 50-334

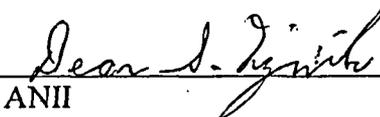
Reactor Supplier: Westinghouse Electric Corporation  
Commercial Service Date: September 30, 1976

Prepared by: 

Date: 7-5-06

Reviewed by:   
Supv, Nuclear Programs JEFF SWENSON

Date: 7-7-06

Reviewed by:   
ANII

Date: 7-10-06

Approved by:   
D.C. Reeves  
Manager, Technical Services Engineering

Date: 7-10-06

**90-DAY REPORT**  
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**FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS**  
**As required by the Provisions of the ASME Code Rules**

1. Owner FirstEnergy Nuclear Operating Company, Route 168, Shippingport, PA 15077  
(Name and Address of Owner)

2. Plant Beaver Valley Power Station, Route 168, Shippingport, PA 15077  
(Name and Address of Plant)

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

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

7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Vessel	Combustion Engineering	69103	105642B	21011
Pressurizer	Westinghouse	1311	434676V	68-50
1A Steam Generator	Westinghouse	NP030651/1MB2	591601V	82
1B Steam Generator	Westinghouse	NP030651/2MB2	591602V	83
1C Steam Generator	Westinghouse	NP030651/3MB2	591603V	84
1A Reactor Coolant Pump	Westinghouse	1-618J931G01	N/A	N/A
Reactor Coolant Piping	Southwest Fabricating	N/A	N/A	N/A
Auxiliary Piping	Schneider Power	N/A	N/A	N/A
Loop Stop Valve MOV-IRC-595	Rockwell International	7517	N/A	N/A
Relief Valve RV-IRC-551C	Target Rock	69C	N/A	N/A
Valve MOV-1RH-700	Copes – Vulcan	1832	N/A	N/A
Boron Injection Tank SI-TK-2	Struthers Wells	109890	434783V	13314
RHR Heat Exchanger RH-E-1A	Joseph Oat	1832-1	434682V	368
Low Head Safety Injeciton Pump SI-P-1A	Ingersoll – Dresser	0671-140	N/A	N/A
Charging Pump CH-P-1B	Pacific Pumps	46352	N/A	N/A
Quench Spray Pump QS-P-1A	Bingham Willamette	200044	N/A	N/A
Recirc Spray Pump RS-P-2A	Bingham Willamette	2900596	N/A	N/A
Containment	N/A	N/A	4630	N/A

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

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

FORM NIS-1 (Back)

8. Examination Dates 11/14/2004 to 4/19/2006
9. Inspection Period Identification: 12/3/2004 to 3/31/2008
10. Inspection Interval Identification: 9/21/1997 to 3/31/2008
11. Applicable Edition of Section XI 1989 Addenda None
12. Date/Revision of Inspection Plan: 1/2-ADM-2039, Revision 3
13. Abstract of Examination and Tests. Include a list of examinations and tests and a statement concerning status of work required for the Inspection Plan. See Appendix I (Code Exams) for exams performed during 1R17. 1R17 was the first outage in the 3<sup>rd</sup> Period of the 3<sup>rd</sup> Ten-Year Interval. This was the first outage in this period. The Reactor Vessel Head and all three Steam Generators were replaced during this outage. The required pre-service examinations associated with these replacements were completed, either at the fabrication shop, or at BVPS.
14. Abstract of Results of Examination and Tests. See text of summary report.
15. Abstract of Corrective Measures. No Corrective measures resulting from NDE ISI examinations were required in 1R17

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 7-7-06 Signed FirstEnergy Nuclear Operating Co. By [Signature]  
 (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 HSB CT of Connecticut have inspected the components described in this Owner's Report during the period 11/14/2004 to 4/19/2006 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.

[Signature] Commissions NB 9428 ANIB, PA 2384  
 Inspector's Signature National Board, State, Province and Endorsements  
 Date 7-10-06

## OUTAGE SUMMARY

During the Seventeenth Refueling Outage (1R17) at the Beaver Valley Power Station, Unit 1, Inservice Inspection (ISI) examinations were performed on Class 1, 2, 3 and MC components. This was the first outage in the third period of the third ten year interval. The Class 1, 2 and 3 examinations were based on ASME Section XI, 1989 Edition; Class MC examinations were based on ASME Section XI, 1992 Edition, 1992 Addenda.

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

1. One Hundred eighty-six (186) Class 1 exams were performed and are divided as follows:

- a. Welds (vessels, piping, and attachments)
  - Ultrasonic Exams - 24
  - Penetrant Exams - 11
  - Mag-Particle Exams - 3
  - Visual Exams - 9
- b. Class 1 bolting
  - Ultrasonic Exams - 21
  - Visual Exams - 55
- c. Visual Examinations (VT-3)
  - Pipe Supports - 30
  - Vessel Supports - 25
- d. RI-ISI piping VT-2 exams - 8

2. One Hundred ninety-five (195) Class 2 exams were performed and are divided as follows:

- a. Welds (vessels, pumps, piping, and attachments)
  - Ultrasonic Exams - 72
  - Penetrant Exams - 7
  - Mag-Particle Exams - 21
  - Visual Exams - 2
- b. Bolting (UT) - 6
- c. Supports, visual exams - 59
- d. RI-ISI piping VT-2 exams - 28

3. Fifty-eight (58) visual exams of Class 3 supports were performed and are divided as follows:

- a. Supports, visual exams - 45
- b. Attachments, visual exams - 13

4. Four (4) Class MC exams were performed as follows:

- a. Liner plate - General Visual
- b. New Concrete patch - VT-1C (baseline)
- c. Moisture Barrier - VT-3
- d. Equipment Hatch bolting - VT-1

Examinations were performed by FirstEnergy Nuclear Operating Company (FENOC) NDE Technicians, supplemented with contracted NDE technicians from Integrated Technologies, Inc. (iTi). Appendix I compiles the examinations that have been credited toward fulfilling the Ten Year Plan requirements.

### **Pressure Testing**

The Class 1 piping System Leakage Test was performed prior to plant start-up from 1R17. All Class 1 bolted connections were examined during 1R17. Also, Class 2 and 3 system functional and system inservice tests were performed in accordance with 40-month pressure testing requirements.

### **Deficiency Resolution**

There were no recorded ISI NDE deficiencies in 1R17.

### **Steam Generator Tube Examination**

The three steam generators were replaced during 1R17. The summary of the pre-service inspection of the steam generator tubes is contained in Appendix II.

### **NIS-2 Forms**

Included as Appendix III are the NIS-2 Forms associated with repairs and replacements. Code Case N-416-1 or N-416-2, Alternative Pressure Test Requirement for Welded Repairs or Installation of Replacement Items by Welding, Class 1, 2 and 3, was used. The NIS-2 specifies when the Case was implemented and which revision was used.

### **IWE Examinations**

During 1R17 the IWE examinations were performed to meet the 2<sup>nd</sup> Period examination requirements of the initial IWE Interval. Also, during creation of a temporary construction opening to allow steam generator and reactor vessel head replacements, three areas of corrosion were identified on the outside surface of the liner. The outside surface is the surface typically covered by concrete. These areas were identified and resolved in Condition Report 06-01122. See Appendix III for additional details.

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
001800	CH-98-PS-17	1	F-A	F01.10A	SUPPORT	VT-3	ISI
003400	CH-98-R-PS-10	1	F-A	F01.10R	SUPPORT	VT-3	ISI
003600	CH-98-VS-PS-8	1	F-A	F01.10V	SUPPORT	VT-3	ISI
004600	CH-98-R-PS-3	1	F-A	F01.10R	SUPPORT	VT-3	ISI
028600	CH-141-PS-4	1	F-A	F01.10V	SUPPORT	VT-3	ISI
033300	CH-96-9-F-13	1	B-J	B09.040	SOCKET WELD	VT-2	ISI
034900	CH-97-PS-3	1	F-A	F01.10R	SUPPORT	VT-3	ISI
036700	CH-97-7-S-07	1	B-J	B09.040	SOCKET WELD	VT-2	ISI
038000	CH-98-PS-1	1	F-A	F01.10A	SUPPORT	VT-3	ISI
040000	CH-98-9-S-06	1	B-J	B09.040	SOCKET WELD	VT-2	ISI
044800	CH-23-PS-5	1	F-A	F01.10S	SUPPORT	VT-3	ISI
045200	CH-23-PS-4	1	F-A	F01.10R	SUPPORT	VT-3	ISI
046500	CH-23-PS-8	1	F-A	F01.10R	SUPPORT	VT-3	ISI
051500	DG-50-R-PS-26	1	F-A	F01.10R	SUPPORT	VT-3	ISI
052600	DG-50-PS-20	1	F-A	F01.10R	SUPPORT	VT-3	ISI
053400	DG-50-5D-A-02	1	B-K	B10.020	WELDED ATT SUPPORT A-PS-18	PT	ISI
054100	DG-50-R-PS-14	1	F-A	F01.10R	SUPPORT	VT-3	ISI
055500	DG-50-VS-PS-9	1	F-A	F01.10V	SUPPORT	VT-3	ISI
055600	DG-50-R-PS-8	1	F-A	F01.10R	SUPPORT	VT-3	ISI
056800	DG-50-A-PS-3	1	F-A	F01.10A	SUPPORT	VT-3	ISI
058700	DG-56-3-F-03	1	B-J	B09.040	SOCKET WELD	PT	ISI
077900	RC-71-8-S-02	1	B-J	B09.011	BUTT WELD	UT	ISI
078600	RC-71-9-S-06	1	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
085400	RC-72-4E-S-06	1	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
091300	RC-107-SH-45	1	F-A	F01.10S	SUPPORT	VT-3	ISI
091400	RC-107-R-45A	1	F-A	F01.10R	SUPPORT	VT-3	ISI
092150	RC-107-2-F-3A	1	B-J	B09.021	BUTT WELD	UT	ISI
099100	RC-99-H-40	1	F-A	F01.10A	VALVE SUPPORT	VT-3	ISI
151600	RC-R-1-CRDM-WS-E	1	F-A	F01.40E	CRDM SEISMIC SUPPORT "E"	VT-3	PSI
151700	RC-R-1-CRDM-WS-A	1	F-A	F01.40E	CRDM SEISMIC SUPPORT "A"	VT-3	PSI
151800	RC-R-1-CRDM-WS-B	1	F-A	F01.40E	CRDM SEISMIC SUPPORT "B"	VT-3	PSI
151900	RC-R-1-CRDM-WS-F	1	F-A	F01.40E	CRDM SEISMIC SUPPORT "F"	VT-3	PSI
152000	RC-R-1-CRDM-WS-C	1	F-A	F01.40E	CRDM SEISMIC SUPPORT "C"	VT-3	PSI
152100	RC-R-1-CRDM-WS-D	1	F-A	F01.40E	CRDM SEISMIC SUPPORT "D"	VT-3	PSI
152200	RC-R-1-CRDM-SUPP-1	1	F-A	F01.40E	CRDM SHROUD HOUSING SUPPORT	VT-3	PSI
152210	RC-R-1-CRDM-SUPP-2	1	F-A	F01.40E	CRDM SHROUD HOUSING SUPPORT	VT-3	PSI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
152220	RC-R-1-CRDM-SUPP-3	1	F-A	F01.40E	CRDM SHROUD HOUSING SUPPORT	VT-3	PSI
152300	RC-R-1-CAVLIN-A	1	F-A	F01.40E	PLATE TO CAVITY LINER ANCHOR LUG A	VT-3	ISI
152400	RC-R-1-CAVLIN-E	1	F-A	F01.40E	PLATE TO CAVITY LINER ANCHOR LUG E	VT-3	ISI
152500	RC-R-1-CAVLIN-C	1	F-A	F01.40E	PLATE TO CAVITY LINER ANCHOR LUG C	VT-3	ISI
152600	RC-R-1-CAVLIN-F	1	F-A	F01.40E	PLATE TO CAVITY LINER ANCHOR LUG F	VT-3	ISI
152700	RC-R-1-CAVLIN-B	1	F-A	F01.40E	PLATE TO CAVITY LINER ANCHOR LUG B	VT-3	ISI
152800	RC-R-1-CAVLIN-D	1	F-A	F01.40E	PLATE TO CAVITY LINER ANCHOR LUG D	VT-3	ISI
152900	RC-ES-1	1	F-A	F01.40E	NEUTRON SHIELD TANK/SKIRT	VT-3	ISI
153000	RC-R-1-S1	1	F-A	F01.40E	LOOP 1 INLET NOZZLE SADDLE	VT-3	ISI
153200	RC-R-1-S3	1	F-A	F01.40E	LOOP 2 INLET NOZZLE SADDLE	VT-3	ISI
153400	RC-R-1-S5	1	F-A	F01.40E	LOOP 3 INLET NOZZLE SADDLE	VT-3	ISI
163200	CONTROL ROD DRIVES	1	B-E	B04.012	NOZZLE PARTIAL PENETRATION WELDS	VT-2	ISI
163201	RC-R-1-CRD-PERIPH	1	B-O	B14.010	CRD HOUSING WELDS (PERIPHERALS)	PT	PSI
163202	RC-R-1-CRD-43	1	B-O	B14.010	CRD HOUSING WELD	PT	PSI
163203	RC-R-1-CRD-49	1	B-O	B14.010	CRD HOUSING WELD	PT	PSI
163204	RC-R-1-CRD-61	1	B-O	B14.010	CRD HOUSING WELD	PT	PSI
167400	RC-R-1-STUD-39	1	B-G-1	B06.030	BOLTING	UT	ISI
167500	RC-R-1-STUD-40	1	B-G-1	B06.030	BOLTING	UT	ISI
167600	RC-R-1-STUD-41	1	B-G-1	B06.030	BOLTING	UT	ISI
167700	RC-R-1-STUD-42	1	B-G-1	B06.030	BOLTING	UT	ISI
167800	RC-R-1-STUD-43	1	B-G-1	B06.030	BOLTING	UT	ISI
167900	RC-R-1-STUD-44	1	B-G-1	B06.030	BOLTING	UT	ISI
168000	RC-R-1-STUD-45	1	B-G-1	B06.030	BOLTING	UT	ISI
168100	RC-R-1-STUD-46	1	B-G-1	B06.030	BOLTING	UT	ISI
168200	RC-R-1-STUD-47	1	B-G-1	B06.030	BOLTING	UT	ISI
168300	RC-R-1-STUD-48	1	B-G-1	B06.030	BOLTING	UT	ISI
168400	RC-R-1-STUD-49	1	B-G-1	B06.030	BOLTING	UT	ISI
168500	RC-R-1-STUD-50	1	B-G-1	B06.030	BOLTING	UT	ISI
168600	RC-R-1-STUD-51	1	B-G-1	B06.030	BOLTING	UT	ISI
168700	RC-R-1-STUD-52	1	B-G-1	B06.030	BOLTING	UT	ISI
168800	RC-R-1-STUD-53	1	B-G-1	B06.030	BOLTING	UT	ISI
168900	RC-R-1-STUD-54	1	B-G-1	B06.030	BOLTING	UT	ISI
169000	RC-R-1-STUD-55	1	B-G-1	B06.030	BOLTING	UT	ISI
169100	RC-R-1-STUD-56	1	B-G-1	B06.030	BOLTING	UT	ISI
169200	RC-R-1-STUD-57	1	B-G-1	B06.030	BOLTING	UT	ISI
169300	RC-R-1-STUD-58	1	B-G-1	B06.030	BOLTING	UT	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
173200	RC-R-1-NUT-39	1	B-G-1	B06.010	BOLTING	VT-1	ISI
173300	RC-R-1-NUT-40	1	B-G-1	B06.010	BOLTING	VT-1	ISI
173400	RC-R-1-NUT-41	1	B-G-1	B06.010	BOLTING	VT-1	ISI
173500	RC-R-1-NUT-42	1	B-G-1	B06.010	BOLTING	VT-1	ISI
173600	RC-R-1-NUT-43	1	B-G-1	B06.010	BOLTING	VT-1	ISI
173700	RC-R-1-NUT-44	1	B-G-1	B06.010	BOLTING	VT-1	ISI
173800	RC-R-1-NUT-45	1	B-G-1	B06.010	BOLTING	VT-1	ISI
173900	RC-R-1-NUT-46	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174000	RC-R-1-NUT-47	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174100	RC-R-1-NUT-48	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174200	RC-R-1-NUT-49	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174300	RC-R-1-NUT-50	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174400	RC-R-1-NUT-51	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174500	RC-R-1-NUT-52	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174600	RC-R-1-NUT-53	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174700	RC-R-1-NUT-54	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174800	RC-R-1-NUT-55	1	B-G-1	B06.010	BOLTING	VT-1	ISI
174900	RC-R-1-NUT-56	1	B-G-1	B06.010	BOLTING	VT-1	ISI
175000	RC-R-1-NUT-57	1	B-G-1	B06.010	BOLTING	VT-1	ISI
175100	RC-R-1-NUT-58	1	B-G-1	B06.010	BOLTING	VT-1	ISI
179000	RC-R-1-WASHER-39	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179100	RC-R-1-WASHER-40	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179200	RC-R-1-WASHER-41	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179300	RC-R-1-WASHER-42	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179400	RC-R-1-WASHER-43	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179500	RC-R-1-WASHER-44	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179600	RC-R-1-WASHER-45	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179700	RC-R-1-WASHER-46	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179800	RC-R-1-WASHER-47	1	B-G-1	B06.050	BOLTING	VT-1	ISI
179900	RC-R-1-WASHER-48	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180000	RC-R-1-WASHER-49	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180100	RC-R-1-WASHER-50	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180200	RC-R-1-WASHER-51	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180300	RC-R-1-WASHER-52	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180400	RC-R-1-WASHER-53	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180500	RC-R-1-WASHER-54	1	B-G-1	B06.050	BOLTING	VT-1	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
180600	RC-R-1-WASHER-55	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180700	RC-R-1-WASHER-56	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180800	RC-R-1-WASHER-57	1	B-G-1	B06.050	BOLTING	VT-1	ISI
180900	RC-R-1-WASHER-58	1	B-G-1	B06.050	BOLTING	VT-1	ISI
181000	RC-E-1A-AH-1 TO 16	1	B-G-2	B07.030	BOLTING	VT-1	PSI
182600	RC-E-1A-RADIUS(1H)	1	B-D	B03.140	NOZZLE INSIDE RADIUS	VT-1	PSI
182640	RC-E-1A-N-11	1	B-F	B05.070	NOZZLE TO SAFE END (HOT LEG)	UT	PSI
182660	RC-E-1A-N-12	1	B-F	B05.070	NOZZLE TO SAFE END (COLD LEG)	UT	PSI
182700	RC-E-1A-RADIUS(1C)	1	B-D	B03.140	NOZZLE INSIDE RADIUS	VT-1	PSI
182800	RC-E-1A-AC-1 TO 16	1	B-G-2	B07.030	BOLTING	VT-1	PSI
184400	RC-E-1A-SUPP	1	F-A	F01.40E	LOWER SUPPORT STRUCTURE	VT-3	PSI
184500	RC-E-1B-BH-1 TO 16	1	B-G-2	B07.030	BOLTING	VT-1	PSI
186100	RC-E-1B-RADIUS(2H)	1	B-D	B03.140	NOZZLE INSIDE RADIUS	VT-1	PSI
186140	RC-E-1B-N-11	1	B-F	B05.70	NOZZLE TO SAFE END (HOT LEG)	UT	PSI
186160	RC-E-1B-N-12	1	B-F	B05.70	NOZZLE TO SAFE END (COLD LEG)	UT	PSI
186200	RC-E-1B-RADIUS(2C)	1	B-D	B03.140	NOZZLE INSIDE RADIUS	VT-1	PSI
186300	RC-E-1B-BC-1 TO 16	1	B-G-2	B07.030	BOLTING	VT-1	PSI
187900	RC-E-1B-SUPP	1	F-A	F01.40E	LOWER SUPPORT STRUCTURE	VT-3	PSI
188000	RC-E-1C-CH-1 TO 16	1	B-G-2	B07.030	BOLTING	VT-1	PSI
189600	RC-E-1C-RADIUS(3H)	1	B-D	B03.140	NOZZLE INSIDE RADIUS	VT-1	PSI
189640	RC-E-1C-N-11	1	B-F	B05.070	NOZZLE TO SAFE END (HOT LEG)	UT	PSI
189660	RC-E-1C-N-12	1	B-F	B05.070	NOZZLE TO SAFE END (COLD LEG)	UT	PSI
189700	RC-E-1C-RADIUS(3C)	1	B-D	B03.140	NOZZLE INSIDE RADIUS	VT-1	PSI
189800	RC-E-1C-CC-1 TO 16	1	B-G-2	B07.030	BOLTING	VT-1	PSI
191400	RC-E-1C-SUPP	1	F-A	F01.40E	LOWER SUPPORT STRUCTURE	VT-3	PSI
191500	RC-E-1A-C-1	1	B-B	B02.040	CIRCUMFERENTIAL WELD	UT	PSI
191600	RC-E-1B-C-1	1	B-B	B02.040	CIRCUMFERENTIAL WELD	UT	PSI
191700	RC-E-1C-C-1	1	B-B	B02.040	CIRCUMFERENTIAL WELD	UT	PSI
192900	RC-TK-1-RADIUS-4	1	B-D	B03.120	NOZZLE INSIDE RADIUS	UT	ISI
193000	RC-TK-1-RADIUS-5	1	B-D	B03.120	NOZZLE INSIDE RADIUS	UT	ISI
193100	RC-TK-1-RADIUS-6	1	B-D	B03.120	NOZZLE INSIDE RADIUS	VT-2	ISI
194800	RC-TK-1-HTR PENTS	1	B-E	B04.020	PARTIAL PENETRATION WELDS	VT-2	ISI
197300	RC-P-1A-B(F)-1 TO 24	1	B-G-1	B06.180	BOLTING	UT	ISI
199700	RC-P-1A-LIG	1	B-G-1	B06.190	FLANGE SURFACE	VT-1	ISI
224100	MOV-RC-595-FLG	1	B-G-1	B06.220	FLANGE SURFACE	VT-1	ISI
224200	MOV-RC-595-NUTS	1	B-G-1	B06.230	NUTS,BUSHINGS,WASHERS	VT-1	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
233900	RV-RC-551C-B-1 TO 6	1	B-G-2	B07.070	VALVE BOLTING	VT-1	ISI
252300	ORIFICE (15)-B-1 TO 8	1	B-G-2	B07.050	BOLTING	VT-1	ISI
254050	DLW-LOOP1-2-F-4A	1	B-J	B09.011	BUTT WELD	UT	PSI
254150	DLW-LOOP1-3-F-5A	1	B-J	B09.011	BUTT WELD	UT	PSI
260050	DLW-LOOP2-2-F-16A	1	B-J	B09.011	BUTT WELD	UT	PSI
260150	DLW-LOOP2-3-F-17A	1	B-J	B09.011	BUTT WELD	UT	PSI
266050	DLW-LOOP3-2-F-28A	1	B-J	B09.011	BUTT WELD	UT	PSI
266150	DLW-LOOP3-3-F-29A	1	B-J	B09.011	BUTT WELD	UT	PSI
272300	RH-1-2-S-02	1	B-J	B09.011	BUTT WELD	UT	ISI
276200	MOV-RH-700-B-1 TO 16	1	B-G-2	B07.070	VALVE BOLTING	VT-1	ISI
290500	SI-101-4-A-01 TO 10	1	B-K	B10.020	WELDED ATTACHMENT SUPPORT R-22	PT	ISI
290600	SI-101-R-22	1	F-A	F01.10R	SUPPORT	VT-3	ISI
294300	SI-111-4-A-03	1	B-K	B10.020	WELDED ATTACHMENT SUPPORT A-15	PT	ISI
294400	SI-111-A-15	1	F-A	F01.10A	SUPPORT	VT-3	ISI
296300	SI-111-5-S-06	1	B-J	B09.011	BUTT WELD	UT	ISI
298000	SI-102-2A-F-1A	1	B-J	B09.040	SOCKET WELD	VT-2	ISI
300300	SI-106-1C-S-02	1	B-J	B09.040	SOCKET WELD	VT-2	ISI
308300	SI-29-R-213	1	F-A	F01.10R	SUPPORT	VT-3	ISI
308500	SI-29-R-214	1	F-A	F01.10R	SUPPORT	VT-3	ISI
309900	SI-20-DS-1	1	F-A	F01.10D	SUPPORT	VT-3	ISI
310600	SI-20-R-72A	1	F-A	F01.10R	SUPPORT	VT-3	ISI
311400	SI-20-VS-74A	1	F-A	F01.10V	SUPPORT	VT-3	ISI
311700	SI-20-8-A-03 TO 04	1	B-K	B10.020	WELDED ATTACHMENT SUPPORT R-75A	PT	ISI
311800	SI-20-R-75A	1	F-A	F01.10R	SUPPORT	VT-3	ISI
315700	SI-30-3-A-01 TO 04	1	B-K	B10.020	WELDED ATTACHMENT SUPPORT R49	PT	ISI
315800	SI-30-R-49	1	F-A	F01.10R	SUPPORT	VT-3	ISI
316200	SI-30-3-A-05	1	B-K	B10.020	WELDED ATT SUPPORT SH-52A	PT	ISI
316300	SI-30-SH-52A	1	F-A	F01.10S	SUPPORT	VT-3	ISI
316400	SI-30-3-S-01	1	B-J	B09.011	BUTT WELD	UT	ISI
318000	SI-30-5-S-02	1	B-J	B09.011	BUTT WELD	UT	ISI
322500	SI-74-6-S-01	1	B-J	B09.011	BUTT WELD	UT	ISI
327000	SI-73-R-305A	1	F-A	F01.10R	SUPPORT	VT-3	ISI
332300	SI-104-1-F-02	1	B-J	B09.040	SOCKET WELD	VT-2	ISI
336700	1SI-48-B-1 TO 16	1	B-G-2	B07.070	VALVE BOLTING	VT-1	ISI
354700	1SI-22-B-1 TO 12	1	B-G-2	B07.070	VALVE BOLTING	VT-1	ISI
363500	ORIFICE (14)-B-1 TO 4	1	B-G-2	B07.050	BOLTING	VT-1	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
363900	RVCH-LUG-A	1	B-K	B10.010	RV HEAD LIFTING LUG	MT	PSI
364000	RVCH-LUG-B	1	B-K	B10.010	RV HEAD LIFTING LUG	MT	PSI
364100	RVCH-LUG-C	1	B-K	B10.010	RV HEAD LIFTING LUG	MT	PSI
686550	RC-E-1A-SUP-2	1	F-A	F01.40E	LOWER SUPPORT	VT-3	PSI
687850	RC-E-1B-SUP-2	1	F-A	F01.40E	LOWER SUPPORT	VT-3	PSI
689250	RC-E-1C-SUP-2	1	F-A	F01.40E	LOWER SUPPORT	VT-3	PSI
365600	WFPD-22-1-F-03	2	C-F-2	C05.051	PIPE WELD	UT, MT	AUG
369350	WFPD-24-7A-F-17	2	C-F-2	C05.051	PIPE WELD	UT	PSI
369715	WFPD-24-81-F-11A	2	C-F-2	C05.051	PIPE WELD	UT	PSI
369925	WFPD-24-81-F-1C	2	C-F-2	C05.051	PIPE WELD	UT	PSI
372650	WFPD-23-6A-F-16	2	C-F-2	C05.051	PIPE WELD	UT	PSI
372915	WFPD-23-82-F-10A	2	C-F-2	C05.051	PIPE WELD	UT	PSI
373115	WFPD-23-82-F-1B	2	C-F-2	C05.051	PIPE WELD	UT	PSI
375400	WFPD-24-SH-12	2	F-A	F01.20S	SUPPORT	VT-3	ISI
375800	WFPD-24-5-A-03 TO 06	2	C-C	C03.020	WELDED ATT SUPPORT R11,209,210	MT	ISI
375900	WFPD-24-R-11	2	F-A	F01.20R	SUPPORT	VT-3	ISI
376750	WFPD-22-8A-F-17	2	C-F-2	C05.051	PIPE WELD	UT	PSI
376950	WFPD-22-8D-F-9CA	2	C-F-2	C05.051	PIPE WELD	UT	PSI
377150	WFPD-22-8D-S-2A	2	C-F-2	C05.051	PIPE WELD	UT	PSI
377215	WFPD-22-83-F-9DB	2	C-F-2	C05.051	PIPE WELD	UT	PSI
377325	WFPD-22-83-S-1A	2	C-F-2	C05.051	PIPE WELD	UT	PSI
377425	WFPD-22-83-F-1C	2	C-F-2	C05.051	PIPE WELD	UT	PSI
382200	SI-164-R-36	2	F-A	F01.20R	SUPPORT	VT-3	ISI
391500	SI-81-11-S-01	2	C-F-1	C05.021	PIPE WELD	UT	ISI
397700	SI-82-1-S-01	2	C-F-1	C05.030	SOCKET WELD	VT-2	ISI
420100	CH-79-2B-S-07	2	C-F-1	C05.030	SOCKET WELD	VT-2	ISI
420200	CH-79-2B-S-10	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
420500	CH-79-PS-R-10	2	F-A	F01.20R	SUPPORT	VT-3	ISI
422600	CH-78-2B-S-10	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
422700	CH-78-2B-S-06	2	C-F-1	C05.030	SOCKET WELD	VT-2	ISI
422900	CH-78-PS-R-6	2	F-A	F01.20R	SUPPORT	VT-3	ISI
423100	CH-78-2B-F-1A-A	2	C-F-1	C05.021	PIPE WELD	UT	ISI
425000	CH-77-2B-S-10	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
425200	CH-77-2B-S-05	2	C-F-1	C05.030	SOCKET WELD	VT-2	ISI
425300	CH-77-PS-R-2	2	F-A	F01.20R	SUPPORT	VT-3	ISI
436000	CH-69-1-S-07	2	C-F-1	C05.021	PIPE WELD	VT-2	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
439400	CH-70-1-S-03	2	C-F-1	C05.021	PIPE WELD	UT	ISI
440000	CH-70-1-F-1X-A	2	C-F-1	C05.030	SOCKET WELD	VT-2	ISI
440900	CH-74-1-S-08	2	C-F-1	C05.021	PIPE WELD	UT	ISI
443800	CH-71-1-S-07	2	C-F-1	C05.021	PIPE WELD	VT-2	ISI
470350	CH-131-1-F-4X	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
495100	SI-75-R-66	2	F-A	F01.20R	SUPPORT	VT-3	ISI
495800	SI-75-R-67	2	F-A	F01.20R	SUPPORT	VT-3	ISI
496100	SI-75-R-68	2	F-A	F01.20R	SUPPORT	VT-3	ISI
496700	SI-75-SH-230	2	F-A	F01.20S	SUPPORT	VT-3	ISI
498800	SI-60-R-230A	2	F-A	F01.20R	SUPPORT	VT-3	ISI
502800	SI-60-R-71	2	F-A	F01.20R	SUPPORT	VT-3	ISI
504000	CH-124-PS-2	2	F-A	F01.20R	SUPPORT	VT-3	ISI
509200	CH-124-10-F-09B	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
509900	CH-140-1B-PS-1	2	F-A	F01.20R	SUPPORT	VT-3	ISI
519800	SI-81-R-304	2	F-A	F01.20R	SUPPORT	VT-3	ISI
521300	SI-81-R-303A	2	F-A	F01.20R	SUPPORT	VT-3	ISI
527000	SI-130-R-265	2	F-A	F01.20R	SUPPORT	VT-3	ISI
530600	SI-140-R-97	2	F-A	F01.20R	SUPPORT	VT-3	ISI
531600	SI-140-R-99	2	F-A	F01.20R	SUPPORT	VT-3	ISI
532200	SI-140-R-100	2	F-A	F01.20R	SUPPORT	VT-3	ISI
533100	SI-40-R-20	2	F-A	F01.20R	SUPPORT	VT-3	ISI
540100	SI-44-R-32	2	F-A	F01.20R	SUPPORT	VT-3	ISI
544500	CH-15-R-10	2	F-A	F01.20R	SUPPORT	VT-3	ISI
554700	SI-40-R-10	2	F-A	F01.20R	SUPPORT	VT-3	ISI
570500	SI-133-A-103	2	F-A	F01.20A	SUPPORT	VT-3	ISI
571500	SI-133-7-A-01	2	C-C	C03.020	WELDED ATT SUPPORT SH-101A	PT	ISI
571600	SI-133-SH-101A	2	F-A	F01.20S	SUPPORT	VT-3	ISI
578900	SI-PSR-006	2	F-A	F01.20R	SUPPORT	VT-3	ISI
587101	BN52799-01-WS-1	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
587111	BN52799-01-WS-2	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
587121	BN52799-01-WS-3	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
587131	BN52799-01-WS-4	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
587400	CH-P-1B-A-02	2	C-C	C03.030	WELDED ATTACHMENT SUPPORT WS-3	MT	ISI
587500	CH-P-1B-A-01	2	C-C	C03.030	WELDED ATTACHMENT SUPPORT WS-4	MT	ISI
588300	SI-TK-2-C-2	2	C-A	C01.020	CIRCUMFERENTIAL BUTT WELD	UT	ISI
588500	SI-TK-2-N-4	2	C-B	C02.021	NOZZLE-TO-VESSEL WELD	UT, MT	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
588650	SI-TK-2-WS-1	2	F-A	F01.40E	SUPPORT	VT-3	ISI
588750	SI-TK-2-WS-2	2	F-A	F01.40E	SUPPORT	VT-3	ISI
588850	SI-TK-2-WS-3	2	F-A	F01.40E	SUPPORT	VT-3	ISI
588900	SI-TK-2-A-4	2	C-C	C03.010	WELDED ATTACHMENT WS-4	PT	ISI
588950	SI-TK-2-WS-4	2	F-A	F01.40E	SUPPORT	VT-3	ISI
590000	SI-TK-2-STUD-11	2	C-D	C04.010	BOLTING	UT	ISI
590100	SI-TK-2-STUD-12	2	C-D	C04.010	BOLTING	UT	ISI
590200	SI-TK-2-STUD-13	2	C-D	C04.010	BOLTING	UT	ISI
590300	SI-TK-2-STUD-14	2	C-D	C04.010	BOLTING	UT	ISI
590400	SI-TK-2-STUD-15	2	C-D	C04.010	BOLTING	UT	ISI
590500	SI-TK-2-STUD-16	2	C-D	C04.010	BOLTING	UT	ISI
593150	SI-7-1-L-26	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
593200	SI-7-1-S-02	2	C-F-1	C05.011	PIPE WELD	UT	ISI
593250	SI-7-1-L-25	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
596350	SI-8-1-L-29	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
596400	SI-8-1-S-02	2	C-F-1	C05.011	PIPE WELD	UT	ISI
596450	SI-8-1-L-28	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
623950	SI-16-6-L-81	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
624300	SI-16-7-F-34	2	C-F-1	C05.011	PIPE WELD	UT	ISI
624500	SI-16-8-F-22	2	C-F-1	C05.011	PIPE WELD	PT	ISI
624600	SI-16-8-F-09	2	C-F-1	C05.011	PIPE WELD	UT	ISI
630700	SI-26-3-S-10	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
631300	SI-26-3-S-02	2	C-F-1	C05.011	PIPE WELD	UT	ISI
635300	SI-16-3-S-11	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
637400	SI-32-R-103	2	F-A	F01.20R	SUPPORT	VT-3	ISI
640600	SI-29-VS-1	2	F-A	F01.20V	SUPPORT	VT-3	ISI
640900	SI-29-R-3D-4	2	F-A	F01.20R	SUPPORT	VT-3	ISI
641400	SI-29-2A-DS-1	2	F-A	F01.20D	SUPPORT	VT-3	ISI
641600	SI-29-R-6D-4	2	F-A	F01.20R	SUPPORT	VT-3	ISI
642300	SI-29-R-10D-4	2	F-A	F01.20R	SUPPORT	VT-3	ISI
648620	SI-37-1-F-19	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
648630	SI-37-1-F-23	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
648650	SI-36-1-F-26	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
648660	SI-36-1-F-29	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
648680	SI-145-1-F-01	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
654750	SI-P-1A-SUP	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
657050	SHP-56-1-F-1A	2	C-F-2	C05.051	PIPE WELD	UT	PSI
657470	SHP-56-1A-F-14-R1	2	C-F-2	C05.051	PIPE WELD	UT	PSI
662650	SHP-57-1-F-1A-R1	2	C-F-2	C05.051	PIPE WELD	UT	PSI
663030	SHP-57-1A-F-14	2	C-F-2	C05.051	PIPE WELD	UT	PSI
663070	SHP-57-1A-F-10	2	C-F-2	C05.051	PIPE WELD	UT	PSI
665950	SHP-58-1-F-1A	2	C-F-2	C05.051	PIPE WELD	UT	PSI
666330	SHP-58-1A-F-16	2	C-F-2	C05.051	PIPE WELD	UT	PSI
666370	SHP-58-1A-F-12	2	C-F-2	C05.051	PIPE WELD	UT	PSI
671000	SHP-56-10-F-12	2	C-F-2	C05.051	PIPE WELD	UT	ISI
671100	SHP-56-10-S-44	2	C-C	C03.020	LOWER SADDLE WELD (UPSTRM)	MT	AUG
671200	SHP-56-10-S-49	2	C-C	C03.020	LOWER SADDLE WELD (DWNSTRM)	MT	AUG
671300	SHP-56-10-S-16	2	C-C	C03.020	UPPER SADDLE WELD (OUTER)	MT	AUG
671400	SHP-56-10-S-15	2	C-F-2	C05.081	UPPER SADDLE (INNER) BRANCH CONN	MT	AUG
671800	SHP-56-10-S-48	2	C-F-2	C05.051	PIPE WELD	UT, MT	AUG
671900	SHP-56-10-S-13	2	C-F-2	C05.081	INNER SADDLE / BRANCH CONN. WELD	MT	AUG
672000	SHP-56-10-S-14	2	C-C	C03.020	OUTER SADDLE WELD	MT	AUG
685305	SDHV-1-1-F-5A	2	R-A	RI-ISI	PIPE WELD	UT	ISI
685320	SDHV-2-1-F-5A	2	R-A	RI-ISI	PIPE WELD	UT	ISI
685330	SDHV-3-1-F-5B	2	R-A	RI-ISI	PIPE WELD	UT	ISI
685331	SDHV-3-1-F-10A	2	R-A	RI-ISI	PIPE WELD	UT	ISI
685332	SDHV-3-1-F-6A	2	R-A	RI-ISI	PIPE WELD	UT	ISI
685400	RC-E-1A-C-2	2	C-A	C01.030	CIRCUMFERENTIAL BUTT WELD	UT	PSI
686000	RC-E-1A-C-8	2	C-A	C01.020	CIRCUMFERENTIAL BUTT WELD	UT	PSI
686100	RC-E-1A-N-9	2	C-B	C02.021	NOZZLE-TO-VESSEL WELD	UT, MT	PSI
686200	RC-E-1A-N-9IR	2	C-B	C02.022	NOZZLE INSIDE RADIUS	UT	PSI
686500	RC-E-1A-SUP-1	2	F-A	F01.40E	UPPER RESTR ASSEMBLY	VT-3	PSI
686650	RC-E-1A-A-1	2	C-C	C03.010	TRUNNION WELD	MT	PSI
686750	RC-E-1A-A-2	2	C-C	C03.010	TRUNNION WELD	MT	PSI
686800	RC-E-1B-C-2	2	C-A	C01.030	CIRCUMFERENTIAL BUTT WELD	UT	PSI
687400	RC-E-1B-C-8	2	C-A	C01.020	CIRCUMFERENTIAL BUTT WELD	UT	PSI
687500	RC-E-1B-N-9	2	C-B	C02.021	NOZZLE-TO-VESSEL WELD	UT, MT	PSI
687800	RC-E-1B-SUP-1	2	F-A	F01.40E	UPPER RESTRAINT ASSEMBLY	VT-3	PSI
687950	RC-E-1B-A-1	2	C-C	C03.010	TRUNNION WELD	MT	PSI
688050	RC-E-1B-A-2	2	C-C	C03.010	TRUNNION WELD	MT	PSI
688100	RC-E-1C-C-2	2	C-A	C01.030	CIRCUMFERENTIAL BUTT WELD	UT	PSI
688700	RC-E-1C-C-8	2	C-A	C01.020	CIRCUMFERENTIAL BUTT WELD	UT	PSI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
688800	RC-E-1C-N-9	2	C-B	C02.021	NOZZLE-TO-VESSEL WELD	UT, MT	PSI
688900	RC-E-1C-N-9IR	2	C-B	C02.022	NOZZLE INSIDE RADIUS	UT	PSI
689200	RC-E-1C-SUP-1	2	F-A	F01.40E	UPPER RESTR ASSEMBLY	VT-3	PSI
689350	RC-E-1C-A-1	2	C-C	C03.010	TRUNNION WELD	MT	PSI
689450	RC-E-1C-A-2	2	C-C	C03.010	TRUNNION WELD	MT	PSI
689500	RC-E-1B-N-9IR	2	C-B	C02.022	NOZZLE INSIDE RADIUS	UT	PSI
689700	RH-18-1-A-01	2	C-C	C03.020	WELDED ATT SNUBBER HSS107,105	PT	ISI
704400	RH-10-2-S-04	2	C-F-1	C05.011	PIPE WELD	UT	ISI
704450	RH-10-2-L-41	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
705900	RH-9-1-S-12	2	C-F-1	C05.011	PIPE WELD	UT	ISI
705950	RH-9-1-L-44	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
706400	RH-9-1-S-07	2	C-F-1	C05.011	PIPE WELD	UT	ISI
706450	RH-9-1-L-47	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
706800	RH-9-R-25A	2	F-A	F01.20R	SUPPORT	VT-3	ISI
707500	RH-9-1-S-14	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
708100	RH-9-A-27	2	F-A	F01.20A	SUPPORT	VT-3	ISI
709200	RH-12-2-S-09	2	R-A	RI-ISI	BRANCH CONN. WELD	VT-2	ISI
710500	RH-12-R-5	2	F-A	F01.20R	SUPPORT	VT-3	ISI
719000	RH-16-1-A-01	2	C-C	C03.020	WELDED ATTACHMENT SUPPORT A-1	PT	ISI
719100	RH-16-A-1	2	F-A	F01.20A	SUPPORT	VT-3	ISI
719300	RH-16-R-1A	2	F-A	F01.20R	SUPPORT	VT-3	ISI
720700	RH-16-VS-10	2	F-A	F01.20V	SUPPORT	VT-3	ISI
721600	RH-E-1A-N-3	2	C-B	C02.033	NOZZLE-TO-VESSEL WELD	VT-2	ISI
721700	RH-E-1A-N-4	2	C-B	C02.033	NOZZLE-TO-VESSEL WELD	VT-2	ISI
742850	RS-12-6-L-70	2	R-A	RI-ISI	LONG WELD	UT	ISI
742900	RS-12-6-S-01	2	R-A	RI-ISI	PIPE WELD	UT	ISI
742950	RS-12-6-L-71	2	R-A	RI-ISI	LONG WELD	UT	ISI
766350	RS-26-2G-L-169	2	R-A	RI-ISI	LONG WELD	UT	ISI
766400	RS-26-2G-S-04	2	R-A	RI-ISI	PIPE WELD	UT	ISI
766450	RS-26-2G-L-168	2	R-A	RI-ISI	LONG WELD	UT	ISI
792700	RS-9-2-F-01	2	C-F-1	C05.011	PIPE WELD	UT	ISI
793650	RS-10-1-L-06	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
793700	RS-10-1-S-07	2	C-F-1	C05.011	PIPE WELD	UT	ISI
793750	RS-10-1-L-07	2	C-F-1	C05.012	LONGITUDINAL WELD	UT	ISI
800850	RS-P-2A-SUP	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
903910	QS-4-11C-A-01 TO 02	2	C-C	C03.020	WELDED ATT SUPPORT RH-406	PT	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
903915	QS-4-RH-406	2	F-A	F01.20H	SUPPORT	VT-3	ISI
903980	0S-4-10E-A-01 TO 02	2	C-C	C03.020	WELDED ATTACHMENT SUPPORT A-10	PT	ISI
903985	QS-4-A-10	2	F-A	F01.20A	SUPPORT	VT-3	ISI
907220	QS-1-RH-49	2	F-A	F01.20H	SUPPORT	VT-3	ISI
908110	QS-P-1A-MS-1	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
908120	QS-P-1A-MS-2	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
908130	QS-P-1A-MS-3	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
908140	QS-P-1A-MS-4	2	F-A	F01.40E	PUMP SUPPORT	VT-3	ISI
913870	CH-57-1-S-22	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
913885	CH-123-1-F-01	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
914850	CH-149-1-S-22	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
916200	CH-149-1-S-17	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
929500	CH-99-1-S-48	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
929600	CH-100-1-S-42	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
929700	CH-101-1-S-38	2	R-A	RI-ISI	SOCKET WELD	VT-2	ISI
802750	FW-P-2-CS-1	3	F-A	F01.40E	SUPPORT	VT-3	ISI
802751	FW-P-2-CS-2	3	F-A	F01.40E	SUPPORT	VT-3	ISI
802752	FW-P-2-CS-3	3	F-A	F01.40E	SUPPORT	VT-3	ISI
802753	FW-P-2-CS-4	3	F-A	F01.40E	SUPPORT	VT-3	ISI
804420	FW-P-3A-CS-1	3	F-A	F01.40E	SUPPORT	VT-3	ISI
804421	FW-P-3A-CS-2	3	F-A	F01.40E	SUPPORT	VT-3	ISI
804422	FW-P-3A-CS-3	3	F-A	F01.40E	SUPPORT	VT-3	ISI
804423	FW-P-3A-CS-4	3	F-A	F01.40E	SUPPORT	VT-3	ISI
809800	CC-83-4-A-06	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT SH-122	VT-1	ISI
809900	CC-470-SH-122	3	F-A	F01.30S	SUPPORT	VT-3	ISI
810200	CC-323-3A-A-05	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT A-95	VT-1	ISI
810300	CC-323-A-95	3	F-A	F01.30A	SUPPORT	VT-3	ISI
811300	CC-102-2-A-08 TO 13	3	D-A	D01.020	WELDED ATT SUPPORT VS-15B	VT-1	ISI
811400	CC-102-VS-15B	3	F-A	F01.30V	SUPPORT	VT-3	ISI
813700	CC-35-1B-A-06 TO 09	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT R-111	VT-1	ISI
814200	CC-513-RH-48	3	F-A	F01.30H	SUPPORT	VT-3	ISI
815450	CC-P-1A-CS-1	3	F-A	F01.40E	SUPPORT	VT-3	ISI
815451	CC-P-1A-CS-2	3	F-A	F01.40E	SUPPORT	VT-3	ISI
815452	CC-P-1A-CS-3	3	F-A	F01.40E	SUPPORT	VT-3	ISI
815453	CC-P-1A-CS-4	3	F-A	F01.40E	SUPPORT	VT-3	ISI
815600	CC-1-VS-71	3	F-A	F01.30V	SUPPORT	VT-3	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
816100	CC-2-RH-70A	3	F-A	F01.30H	SUPPORT	VT-3	ISI
816500	CC-2-R-68	3	F-A	F01.30R	SUPPORT	VT-3	ISI
817900	CC-3-1B-A-08	3	D-A	D01.020	WELDED ATT SUPPORT SH-65A	VT-1	ISI
818000	CC-3-SH-65A	3	F-A	F01.30S	SUPPORT	VT-3	ISI
818400	CC-58-6B-A-05 TO 06	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT R-43	VT-1	ISI
818500	CC-58-R-43	3	F-A	F01.30R	SUPPORT	VT-3	ISI
821100	CC-48-1-A-03 TO 06	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT R-35	VT-1	ISI
821200	CC-46-R-35	3	F-A	F01.30R	SUPPORT	VT-3	ISI
826800	CC-130-R-7C-4	3	F-A	F01.30R	SUPPORT	VT-3	ISI
827300	CC-130-8-A-12 TO 15	3	D-A	D01.020	WELDED ATT SUPPORT R-12C-4	VT-1	ISI
827400	CC-130-R-12C-4	3	F-A	F01.30R	SUPPORT	VT-3	ISI
830200	CC-116-LST-405A	3	F-A	F01.30L	SUPPORT	VT-3	ISI
839600	CC-265-VS-8C-3	3	F-A	F01.30V	SUPPORT	VT-3	ISI
839900	CC-259-R-11C-3	3	F-A	F01.30R	SUPPORT	VT-3	ISI
859000	WD-22-4A-A-01	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT SH-14	VT-1	ISI
859100	WD-22-SH-14	3	F-A	F01.30S	SUPPORT	VT-3	ISI
860200	WD-23-4-A-09	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT R-21	VT-1	ISI
860300	WD-23-R-21	3	F-A	F01.30R	SUPPORT	VT-3	ISI
861200	WD-24-RH-33	3	F-A	F01.30H	SUPPORT	VT-3	ISI
865150	FC-P-1A-CS-1	3	F-A	F01.40E	SUPPORT	VT-3	ISI
865151	FC-P-1A-CS-2	3	F-A	F01.40E	SUPPORT	VT-3	ISI
865810	FC-E-1A-A-01	3	D-A	D01.010	WELDED ATTACHMENT SUPPORT WS-1	VT-1	ISI
865811	FC-E-1A-WS-1	3	F-A	F01.40E	SUPPORT	VT-3	ISI
865812	FC-E-1A-A-02	3	D-A	D01.010	WELDED ATTACHMENT SUPPORT WS-2	VT-1	ISI
865813	FC-E-1A-WS-2	3	F-A	F01.40E	SUPPORT	VT-3	ISI
867300	FC-1-SH-25A	3	F-A	F01.30S	SUPPORT	VT-3	ISI
873500	WR-19-VS-29A	3	F-A	F01.30V	SUPPORT	VT-3	ISI
888100	WR-53-RH-94	3	F-A	F01.30H	SUPPORT	VT-3	ISI
892835	WR-670-PSST-3	3	F-A	F01.30T	SUPPORT	VT-3	ISI
892850	WR-P-1C-RSTR-1	3	F-A	F01.40E	SUPPORT	VT-3	ISI
892860	WR-P-6A-MS-1	3	F-A	F01.40E	SUPPORT	VT-3	ISI
893000	WR-5-R-298	3	F-A	F01.30R	SUPPORT	VT-3	ISI
893900	WR-1-R-294	3	F-A	F01.30R	SUPPORT	VT-3	ISI
894500	WR-99-R-291	3	F-A	F01.30R	SUPPORT	VT-3	ISI
895030	WR-172-1-A-06	3	D-A	D01.020	WELDED ATTACHMENT SUPPORT R-275	VT-1	ISI
895031	WR-172-R-275	3	F-A	F01.30R	SUPPORT	VT-3	ISI

# APPENDIX I - 1R17 CODE EXAMINATIONS

SUMMARY	COMPONENT ID	CLASS	CATEGORY	ITEM NO	DESCRIPTION	NDE METHOD	CODE REQ'T
895125	WR-676-PSR-4	3	F-A	F01.30R	SUPPORT	VT-3	ISI
930000	1CNMT-LINER	MC	E-A	E01.011	CONTAINMENT LINER	GV	ISI
930100	1CNMT-MOISTBARR	MC	E-D	E05.030	MOISTURE BARRIER	VT-3	ISI
930300	1CNMT-EQUHATCH	MC	E-G	E08.010	EQUIPMENT HATCH BOLTING	VT-1	ISI
930400	1CNMT-CONCRETE	MC	L-A	L01.010	CONTAINMENT CONCRETE	VT-1C, 3C	PSI

## PRE-SERVICE EDDY CURRENT INSPECTION OF THE BVPS UNIT 1 REPLACEMENT STEAM GENERATORS

First Energy Nuclear Operating Company (FENOC) has recently replaced the three steam generators (SG's) at its Beaver Valley Power Station, Unit 1 facility. The replacement SG's are Westinghouse Model 54F and utilize the latest in degradation resistant materials. Each replacement SG contains 3,592 tubes that are fabricated from thermally treated Inconel 690 material. The tube support plates (TSP's) are Type 405 stainless steel and have quatrefoil holes to improve axial flow within the tube bundle. Three sets of anti-vibration bars (AVB's) provide for a more stable tube bundle and limit the potential for wear and high cycle fatigue of the tubes.

A preservice inspection (PSI) was performed on the replacement SG's at the vessel manufacturing facility, ENSA, located in Maliaño, Spain and is summarized below.

### Procedures and Personnel

The eddy current examinations and data analysis performed during the PSI were in compliance with the Beaver Valley Unit #1 Technical Specifications, NRC Regulatory Guide 1.83, EPRI PWR SG Examination Guidelines, Volume 1 (Rev. 6) and FENOC Procedure PSI RSG-1, "Preservice Inspection Guidelines for the Unit 1 Replacement Steam Generators". Personnel evaluating the data were Qualified Data Analysts (QDA) in accordance with Appendix "G" of the EPRI PWR SG Examination Guidelines. All analysts were required to pass a performance demonstration prior to analyzing the data from the PSI. All data from the PSI underwent an independent second party review prior to final acceptance.

### Eddy Current Examination

One hundred percent of the tubes in Rows 3 through 47 from replacement SG's 1RC-E-1A, 1RC-E-1B and 1RC-E-1C were examined full length with bobbin coil probes. Tubes in Rows 1 and 2 were examined with bobbin coil probes to the upper most TSP in each leg. The U-bend regions of the tubes in Rows 1 and 2 were examined with magnetically biased Plus Point probes.

Plus Point probes were also utilized to examine the following in each replacement SG:

One hundred percent of the tubes assigned a bobbin coil probe "I-Code"

Twenty percent of the tubes assigned a bobbin coil probe "bulge" (BLG) or "over-expansion" (OXP) in the tubesheet region of either leg

Four tubes in 1RC-E-1A in the area where a hydraulic mandrel broke during the tubesheet expansion process

No degradation was reported from any of the examinations, thus no tubes were required to be plugged. Also, no damage was reported from the area of the broken mandrel.

In addition, tubesheet profilometry was performed using a single absolute channel frequency (400 kHz) from the bobbin coil probe. This examination was performed to assess the consistency of the hydraulic expansions within the tubesheet from the hot and cold legs. The reporting threshold for the bulges and over-expansions was based on experience from another plant.

## APPENDIX II

### Examination Results

The tubing manufacturer, Sandvik Steel, located in Sandviken, Sweden, performed eddy current examinations of the tubing prior to shipping the tubing to ENSA. The results from the Sandvik examinations were compiled into a database for comparison to the results from the PSI. All in all, the PSI indications matched up well with those indications reported during the examinations at Sandvik. Exceptions to this are (a) BLG's and OXP's in the tubesheet expansions (The expansion was not present at Sandvik), (b) DINGS near Anti-Vibration Bar (AVB) locations (The dings were caused during tube insertion into the bundle) and (c) the lone non-quantifiable indication (NQI). (The NQI could not be located in the Sandvik data.) Indication reporting thresholds remained the same for both the eddy current examinations performed at Sandvik and the PSI performed at ENSA.

The NQI was located in the free-span region above the 5<sup>th</sup> cold leg TSP. It was subsequently re-examined with a Plus Point probe and reported as having no degradation found (NDF).

The following table summarizes the number of indications that were reported during the PSI in each replacement SG.

INDICATION	1RC-E-1A	1RC-E-1B	1RC-E-1C	TOTAL
BLG's in Freespan $\geq$ 0.5 Volts	11	11	20	42
BLG's in Tubesheet $\geq$ 15 Volts	177	268	98	543
DENT's @ TSP's $\geq$ 0.5 Volts	7	2	13	22
DING's in Freespan $\geq$ 0.5 Volts	94	151	109	354
MBM's In Freespan	41	22	46	109
NQI's in Freespan $\geq$ 0.5 Volts	1	0	0	1
OSP's in Tubesheet $\geq$ 1.5 mils	335	625	249	1209
PDS's in Freespan $\geq$ 2.0 Volts	4	13	13	30

MBM - Manufacturer Burnish Mark

PDS - Pilgered Drift Signal

### Examination Summary

The following table summarizes the number of tubes examined and the number of tubes removed from service.

	1RC-E-1A	1RC-E-1B	1RC-E-1C
TUBES EXAMINED (BOBBIN COIL)	3592	3592	3592
TUBES REMOVED FROM SERVICE	0	0	0

## APPENDIX III – CONTAINMENT LINER CORROSION

### Executive Summary of the Containment Liner Corrosion Report

During the creation of a temporary construction opening in the Beaver Valley Power Station Unit 1 containment structure for the replacement of the steam generators and reactor vessel head in 1R17, three areas of corrosion were identified on the containment liner plate. These areas are on the outside of the liner, i.e. on the side in contact with the concrete. Loss of material was identified for all three areas of corrosion. Ultrasonic Testing (UT) measurements were performed at each location. Test results indicated spots below nominal wall thickness for the liner plate on two of the three areas. The same two areas also contained evidence of pitting. The third area evidenced minor material loss but remained at or above the nominal plate thickness with minimal pitting.

Laboratory examination was performed on the two areas with significant material loss. The laboratory examination characterized the corrosion as general pitting corrosion (rusting). Laboratory examination was also performed on concrete samples removed from the construction opening. The lab analysis did not identify a probable cause for the corrosion.

The sections of the liner removed for analysis were replaced with new plate material. The process and procedures, including inspection and NDE, were the same as those used for reinstallation of the liner plate cut from the construction opening.

A structural evaluation of the liner has been prepared by Stone & Webster Engineering, the original Architect / Engineering firm for the containment structure. The Stone and Webster Report has concluded that the design basis for the containment liner is not adversely affected by the as-found conditions. The thickness of the remaining sound metal is adequate to maintain the design safety function of the liner as a leak tight membrane.

Since there is reasonable assurance that the corrosion occurred early in plant life and has likely abated, monitoring the liner surface in accordance with the ASME Section XI program ensures the leak tight function of the liner.

Included in the restoration of the construction opening was a scheduled Type "A" Integrated Leak Rate Test following restoration. The Type "A" test results were satisfactory.

It is therefore concluded that the as-found condition was acceptable and that the liner plate remains capable of performing its design basis function.

The Root Cause of the corrosion was indeterminate. The Probable Cause was that the corrosion of the liner occurred during the construction phase due to exposure to oxygen and water that has since abated.

Further details are contained in the Containment Liner Corrosion Report.

**APPENDIX IV**

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

## NIS-2 ABSTRACT

<u>FORM NO.</u>	<u>ASSET NUMBER</u>	<u>ORDER NO.</u>	<u>COMMENTS</u>
1717	MOV-1RW-104C	200016684	Installed
1718	REJ-1RW-26R2	200074186	Installed
1742	1RW-200	200017255	Installed
1781	1CH-P-1A	200111342	Corrected
1803	WR-19	200155744	Corrected
1811	1MS-80	200133972	Installed
1812	1MS-81	200133973	Installed
1813	1MS-82	200133977	Installed
1817	NRV-1MS-101A	200015444	Installed
1818	1RS-E-1A	200124615	Corrected
"	1RS-E-1A	200134341	Corrected
1819	1RS-E-1C	200124617	Corrected
"	1RS-E-1C	200133623	Corrected
1820	1CCR-289	200122997	Installed
1824	1RC-E-1A	200136930	Installed
"	1RC-E-1A	200137070	Installed
"	1RC-E-1A	200137091	Installed
"	1RC-E-1A	200137113	Installed
"	1RC-E-1A	200110778	Installed
"	1RC-E-1A	200136665	Installed
1825	1RC-E-1B	200136931	Installed
"	1RC-E-1B	200137071	Installed
"	1RC-E-1B	200137096	Installed
"	1RC-E-1B	200137237	Installed
"	1RC-E-1B	200110785	Installed
"	1RC-E-1B	200136666	Installed
"	1RC-E-1B	200203122	Installed
1826	1RC-E-1C	200136934	Installed
"	1RC-E-1C	200137072	Installed
"	1RC-E-1C	200137108	Installed
"	1RC-E-1C	200137238	Installed
"	1RC-E-1C	200110794	Installed
"	1RC-E-1C	200136667	Installed
"	1RC-E-1C	200202266	Installed
1827	1-RCBX	200133608	Installed
"	1-RCBX	200133612	Installed
"	1-RCBX	200133613	Installed
"	1-RCBX	200133630	Installed
1828	WR-19	200156046	Installed
1829	1CH-1	200144326	Installed
1830	WR-1	200123823	Corrected
1831	SI-PSSP-2	200166559	Replacement
1832	1RW-125	200172969	Installed
1833	1RW-126	200172968	Installed

## NIS-2 ABSTRACT

<u>FORM NO.</u>	<u>ASSET NUMBER</u>	<u>ORDER NO.</u>	<u>COMMENTS</u>
1834	1RW-129	200172898	Installed
1835	1RW-130	200172967	Installed
1839	WR-HSS-311	200014091	Replacement
1840	1RC-R-1	200138272	Installed
"	1RC-R-1	200152706	Installed
"	1RC-R-1	200124578	Installed
1842	1RS-HSS-210A	200078051	Corrected
1843	REJ-1RW-4A2	200135467	Installed
1845	RV-1RC-551B	200136721	Installed
1847	REJ-1RW-7A	200135468	Installed
1848	REJ-1RW-7C	200074191	Installed
1849	REJ-1RW-8C	20074192	Installed
1855	RV-1CH-257	200059463	Corrected
1857	WR-15	200074143	Corrected
1858	WR-14	200074214	Corrected
1859	FCV-1FW-478	200081163	Corrected
1860	FCV-1FW-488	200081407	Corrected
1861	FCV-1FW-498	200081416	Corrected
1864	TV-1BD-101A1	200134037	Corrected
1867	RV-1CH-382B	200136735	Installed
1868	RV-1RH-721	200136737	Installed
1869	MOV-1RW-114A	200135760	Corrected
1871	SV-1MS-101C	200197587	Installed
1872	SV-1MS-102C	200197606	Installed
1873	SV-1MS-103C	200197607	Installed
1874	SV-1MS-104C	200197608	Installed
1875	SV-1MS-105C	200197609	Installed
1876	MOV-1RW-116A	200133678	Corrected
1877	MOV-1RW-116B	200133679	Corrected
1878	MOV-1RW-104A	200019661	Corrected
1879	WR-16	200074215	Corrected
1880	1RW-189	200027896	Corrected
1881	1RW-190	200027882	Corrected
1882	1FW-34	200135794	Corrected
1883	1FW-35	200135795	Corrected
1884	1RW-131	200200122	Corrected
1886	MOV-1CH-115E	200199909	Corrected
1887	1CH-18	200199762	Corrected
1888	TV-1BD-100C	200200257	Corrected
"	TV-1BD-100C	200201075	Corrected
1889	1RH-3	200201585	Corrected
1890	LCV-1CH-460B	200197600	Corrected
1891	1RC-R-1	200194444	Installed
1892	TV-1BD-101A2	200118580	Corrected

## NIS-2 ABSTRACT

<u>FORM NO.</u>	<u>ASSET NUMBER</u>	<u>ORDER NO.</u>	<u>COMMENTS</u>
1911	1RC-E-1A	200124554	Installed
"	1RC-E-1A	200124555	Installed
1912	1RC-E-1B	200124558	Installed
"	1RC-E-1B	200124559	Installed
1913	1RC-E-1C	200124561	Installed
"	1RC-E-1C	200124562	Installed
1916	RC-HC-9A	200137020	Installed
1917	RC-HC-9B	200165992	Installed
1918	RC-HC-10B	200165996	Installed
1919	RC-HC-10C	200165997	Installed
1920	RC-1HC-11A	200165998	Installed
1921	RC-HC-12C	200165999	Installed
1922	RC-HSS-104	200136727	Installed
1923	CC-HSS-1A	200136732	Installed
1924	WGCB-PSSP-200D	200136989	Installed
1925	WGCB-H-47A	200136988	Installed

Form No. 1717

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05-17-2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200016684  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	A/C Services	B1707	N/A	MOV-IRW-104C	1976	Removed	No
Butterfly Valve	Sigma, Inc.	04072-1	N/A	MOV-IRW-104C	2004	Installed	No

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

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Replacement 1" Studs: Ht. #R596, P.O 47085718;

Applicable Manufacturer's Data Reports to be attached

Nuts: Ht. #P915 P.O. 47082958.

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] Senior Specialist Date May 30, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, d, P 42384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1718

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 06/09/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200074186  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built*	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Expansion Joint	Garlock	N/A	N/A	REJ-1RW-26R2	2006	Installed	No

7. Description of Work Replaced rubber expansion joint with spare and flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 628. \*Year installed.

Applicable Manufacturer's Data Reports to be attached

Replacement 1-1/4" Studs: Ht. #P918, P.O. 47082958; Nuts: Ht. #A201, P.O. 47030430.

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] Senior Specialist Date June 09, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-12-, 20 06

Form No. 1742

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200017255  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Serv. Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Butterfly Valve	Allis-Chalmers	N/A	N/A	IRW-200	1976*	Removed	No
Butterfly Valve	Sigma Inc.	0406-1	N/A	IRW-200	2004	Installed	No

7. Description of Work Replaced valve and flange bolts/nuts with spare. Rebuilt pipe support.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Replaced 1-1/4" Nuts: Ht. #P921, P.O. 47082958;  
Applicable Manufacturer's Data Reports to be attached  
Capscrew bolts: 75683, P.O. 104336-102. Rebuilt support H-77. \*Year installed.

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] Senior Specialist Date April 21, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IN, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-24-, 20 06

Form No. 1781

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date May 17, 2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200111342  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Chemical and Volume Control (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Buik	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Pump	Pacific Pumps	BN-52799-01	N/A	1CH-P-1A	1985	Corrected	No

7. Description of Work Cut-out and re-welded section of lube oil pipe.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Report available. Previous NIS-2 Data Report Nos: 1393 and 1215.  
Applicable Manufacturer's Data Reports to be attached

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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] Date May 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-19-, 20 06

Form No. 1803

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05-30-2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200155744  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Piping	Schneider Power	N/A	N/A	WR-19	1976	Corrected	No

7. Description of Work Added pipette, pipe, and cap to encapsulate a pinhole leak.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Added a 2" Pipette: Ht. #15128, P.O. 7080857; Pipe: Ht. #710144, P.O. 7073640; Cap: Ht. #9258, P.O. 7099495096. This repair was not successful due to additional leakage after installation within 1/4" of the branch connection weld. Permanent repairs were made per NIS-2 No. 1828.

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] Senior Specialist Date May 31, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IN, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1811

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date May 16, 2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200133972  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, 1971 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

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	Crane	N/A	N/A	IMS-80	1976	Removed	No
Check Valve	Enertech	11496	N/A	IMS-80	2006	Installed	Yes

7. Description of Work Replaced valve and installed flanges with studs/nuts to pipe.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Code Data Report attached. Previous NIS-2 Data Report Nos: 1726, 1557, 1406, 1209,  
Applicable Manufacturer's Data Reports to be attached  
1018, 601, and 144. New 3" Flanges: Ht. #3M40774, P.O. 45157569. New 3/4" Studs: Ht. #X256,  
P.O. 45168676; Nuts: Ht. #X392, P.O. 45173478, Ht. #X269, P.O. 45168603.

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

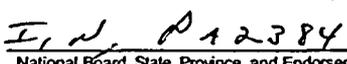
Certificate of Authorization No. N/A Expiration Date N/A

Signed  Senior Specialist Date July 7, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06 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.

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

Date 7-10-, 20 06



Certificate Holder's Serial No. 11496

8. Design conditions 1100 psi 560 °F or valve pressure class 600 (1)  
(pressure) (temperature)

9. Cold working pressure 1440 psi at 100°F

10. Hydrostatic test 2175 psi. Disk differential test pressure 1600 psi

11. Remarks: Qty. 1, Enertech Project Number 810118

**CERTIFICATION OF DESIGN**

Design Specification certified by Francis W. Gardner P.E. State PA Reg. no. 036614-E  
 Design Report certified by Ira J. Silverman P.E. State CA Reg. no. 23241

**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-2826 Expires 10/11/08  
 Date 2/22/06 Name Enertech, Curtiss-Wright Flow Control Corp., Commercial Power & Services Signed [Signature]  
(N Certificate Holder) (authorized representative)

**CERTIFICATE OF INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by HSB CT of Connecticut have inspected the pump, or valve, described in this Data Report on 2.22.06, 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 2.22.06 Signed [Signature] Commissions CA1526  
(Authorized Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no.]

(1) For manually operated valves only.

Form No. 1812

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C. Date May 16, 2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 3  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200133973  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date “

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, 1971 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

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	Crane	N/A	N/A	1MS-81	1976	Removed	No
Check Valve	Enertech	10549	N/A	1MS-81	1997	Installed	Yes

7. Description of Work Replaced valve, and installed flanges and studs/nuts to pipe.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Code Data Reports attached. Replacement valve was removed from 1MS-19 location per  
Applicable Manufacturer's Data Reports to be attached  
NIS-2 Data Report No. 952 and refurbished by replacing the disc under P.O. 55102535. New Disc  
S/N 12811. Previous NIS-2 Data Report Nos: 1727, 1558, 1407, 1210, 1158, 997, 907, 844, 665,  
537, and 168. New flange 3/4" Studs: Ht. #X256, P.O. 45168676; Nuts: Ht. #X269, P.O. 45168603.  
New 3" Flanges: Ht. #3M40774, P.O. 45157569.

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] Senior Specialist Date July 7, 2006  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-8-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions [Signature]  
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-10-, 2006

**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

1. Manufactured and certified by Enertech, A Div. of Curtiss-Wright Flow Control Corp. Commercial Power & Services; 2950 Birch St.; Brea, CA 92821  
(name and address of certificate holder)
2. Manufactured for First Energy Corp.; P.O. Box 3611; Akron, OH 44309-3611  
(name and address of purchaser)
3. Location of installation Beaver Valley Power Station; Route 168; Shippingport, PA 15077  
(name and address)
4. Type PC96339 SA564 Type 630 H1100 140,000 PSI N/A 2005  
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III: 1971 S72 3 N-62-7  
(edition) (addenda) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A  
(No.)
7. Remarks: Qty. 2 Disc for 3"-600# DRV-Z Nozzle Check Valve, PD98401, ENERTECH Project No.: 520016  
Due to size & configuration, Disc are identified with Material Heat Code (LDH), S/Ns (12810 & 12811) and  
Item No. (D1118N).
8. Nom. thickness (in.) 0.394 Min. design thickness (in.) 0.249 Dia. ID (ft. & in.) 2.717" Length overall (ft. & in.) 3.386"
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	Part or Appurtenance Serial Number	National Board Number In Numerical Order
(1) <u>12810</u>	<u>N/A</u>	(26)	
(2) <u>12811</u>	<u>N/A</u>	(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 1100 psi Temp. 560 °F. Hydro. test pressure N/A at temp. °F.  
(when applicable)

\*Supplemental Information in the 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.

CERTIFICATE OF DESIGN

Design specifications certified by Francis W. Gardner P. E. state PA Reg. no. 036614-E  
(when applicable)  
Design report\* certified by Ira J. Silverman P. E. state CA Reg. no. 23241  
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this (these) 3"-600# DRV-Z Disc  
conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2827 Expires October 11, 2008  
Date 12/27/05 Name Enertech, Curtiss-Wright Flow Control Corp.,  
Commercial Power & Services Signed [Signature]  
(NPT Certificate Holder) (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 California and employed by HSB CT  
of Connecticut have inspected these items described in this data report on 12-27-05, 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. 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 12/27/05 Signed [Signature] Commissions CA1494  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)



10548, 10549,  
10550, 10551

Certificate Holder's Serial No.

8. Design conditions 1100 (pressure) psi 560 (temperature) °F or valve pressure class 600 (1)
9. Cold working pressure 1440 psi at 100°F
10. Hydrostatic test 2175 psi. Disk differential test pressure -1600 psi
11. Remarks: QTY: 4, ENERTECH Job Number: 15334V

CERTIFICATION OF DESIGN

Design Specification certified by Alan J. Fiorente P.E. State PA Reg. no. 032366-E  
 Design Report certified by Ira J. Silverman P.E. State CA Reg. no. 23241

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-2826 Expires 10/26/99  
 Date 8/6/97 Name ENERTECH Signed [Signature]  
 (N Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by DOSH of California have inspected the pump, or valve, described in this Data Report on 8/6/97, 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 8/6/97 Signed [Signature] Commissions CA 1234  
 (Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

Form No. 1813

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date May 16, 2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 3  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200133977  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, 1971 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

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	Crane	N/A	N/A	IMS-82	1976	Removed	No
Check Valve	Enertech	10548	N/A	IMS-82	1997	Installed	Yes

7. Description of Work Replaced valve, and installed flanges and new pipe nipple.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Code Data Reports attached. Replacement valve was removed from 1MS-18 location per  
Applicable Manufacturer's Data Reports to be attached  
NIS-2 Data Report No. 953 and refurbished by replacing the disc under P.O. 55102535. New Disc  
S/N 12810. Previous NIS-2 Data Report Nos: 1728, 1559, 1408, 1211, 1019, 845, 666, and 148.  
New flange 3/4" Studs: Ht. #X256, P.O. 45168676; Nuts: Ht. #X269, P.O. 45168603.  
New 3" Flanges: Ht. #3M40774, P.O. 45157569; Elbow: Ht. #A, P.O. 7103463; Pipe: Ht. #A23811  
P.O. 7103463.

**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  Senior Specialist Date May 30, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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.

 Commissions E, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06



10548, 10549,  
10550, 10551

Certificate Holder's Serial No. \_\_\_\_\_

8. Design conditions 1100 (pressure) psi 560 (temperature) °F or valve pressure class 600 (1)
9. Cold working pressure 1440 psi at 100°F
10. Hydrostatic test 2175 psi. Disk differential test pressure 1600 psi
11. Remarks: QTY: 4, ENERTECH Job Number: 15334V

**CERTIFICATION OF DESIGN**

Design Specification certified by Alan J. Fiorente P.E. State PA Reg. no. 032366-E

Design Report certified by Ira J. Silverman P.E. State CA Reg. no. 23241

**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-2826 Expires 10/26/99

Date 8/6/97 Name ENERTECH Signed [Signature]  
(N Certificate Holder) (authorized representative)

**CERTIFICATE OF INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by DOSH of California have inspected the pump, or valve, described in this Data Report on 8/6/97, 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 8/6/97 Signed [Signature] Commissions CA, 1234  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

**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

1. Manufactured and certified by Enertech, A Div. of Curtiss-Wright Flow Control Corp. Commercial Power & Services; 2950 Birch St.; Brea, CA 92821  
(name and address of certificate holder)
2. Manufactured for First Energy Corp.; P.O. Box 3611; Akron, OH 44309-3611  
(name and address of purchaser)
3. Location of installation Beaver Valley Power Station; Route 168; Shippingport, PA 15077  
(name and address)
4. Type PC96339 SA564 Type 630 H1100 140,000 PSI N/A 2005  
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III: 1971 S72 3 N-62-7  
(edition) (addenda) (class) (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A  
(No.)
7. Remarks: Qty. 2 Disc for 3"-600# DRV-Z Nozzle Check Valve, PD98401, ENERTECH Project No.: 520016  
Due to size & configuration, Disc are identified with Material Heat Code (LDH), S/Ns (12810 & 12811) and  
Item No. (D1118N).
8. Nom. thickness (in.) 0.394 Min. design thickness (in.) 0.249 Dia. ID (ft. & in.) 2.717" Length overall (ft. & in.) 3.386"
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	Part or Appurtenance Serial Number	National Board Number In Numerical Order
(1) <u>12810</u>	<u>N/A</u>	(26)	
(2) <u>12811</u>	<u>N/A</u>	(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 1100 psi Temp. 560 °F. Hydro. test pressure N/A at temp. °F.  
(when applicable)

\*Supplemental information in the 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.

FORM N-2 (back)

12810 and  
12811

Mfr. Serial No.

CERTIFICATE OF DESIGN

Design specifications certified by Francis W. Gardner P. E. state PA Reg. no. 036614-E  
(when applicable)  
Design report\* certified by Ira J. Silverman P. E. state CA Reg. no. 23241  
(when applicable)

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that this (these) 3"-600# DRV-Z Disc  
conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2827 Expires October 11, 2008  
Date 12/27/05 Name Enertech, Curtiss-Wright Flow Control Corp.,  
Commercial Power & Services Signed [Signature]  
(NPT Certificate Holder) (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 California and employed by HSB CT  
of Connecticut have inspected these items described in this data report on 12-27-05, 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. 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 12/27/05 Signed [Signature] Commissions CA1494  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) state or prov. and no.)

Form No. 1817

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C  
(NAME)  
76 South Main Street – Akron, OH 44308  
(ADDRESS)

Date May 17, 2006

Sheet 1 of 1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1

Work Order #200015444  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date "

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Schutte & Koerting	N690566	N/A	NRV-IMS-101A	1976	Corrected	No
Disc	Flowserve	N/A	N/A	Ht. #82148	2004	Installed	No

7. Description of Work Replaced valve disc and cover nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report Nos: 1610 and 1217.  
Applicable Manufacturer's Data Reports to be attached.  
Replacement 1-7/8" Nuts: Ht. #F518, P.O. 104336-267; Ht. #103C, P.O. 47120555. Valve was  
manufactured to ANSI B16.5 1968E.

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] Senior Specialist Date May30, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IN, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1818

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/13/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200124615, 200134341  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Recirculation Spray (Class C)

5. (a) Applicable Construction Code Section III 1968 Edition, W'68 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

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

7. Description of Work Replaced flange studs/nuts and seal welded new diaphragms. Repaired upper and lower flanges. Removed a tube and plugged/seal welded tube-sheet.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Previous NIS-2 Data Report Nos: 1697, 1577, 1417, 1251, 945, 854, 697, 690, 595, 557,  
Applicable Manufacturer's Data Reports to be attached  
435, and 295. Copy of original Code Data Report in 1577. Upper and lower flanges were repaired  
to correct grinder marks. Installed two tube sheet plugs, 5/8", Ht. #C21326, P.O. D105650.  
Replaced 3/4" Studs: Ht. #R597, P.O. 47085718, and Nuts: Ht. #P933, P.O. 455155607.

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] Senior Specialist Date May 30, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions NB9428 ANIB PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1819

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/13/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200124617, 200133623  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Recirculation Spray (Class C)

5. (a) Applicable Construction Code Section III 1968 Edition, W'68 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Heat Exchanger	Industrial Processes	6301-3	3181	IRS-E-1C	1971	Corrected	Yes

7. Description of Work Replaced flange studs/nuts and seal welded new diaphragms. Repaired upper and lower flanges. Removed a tube and plugged/seal welded tube-sheet.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Previous NIS-2 Data Report Nos: 1698, 1578, 1418, 1252, 946, 855, 698, 596, 486, 288,  
Applicable Manufacturer's Data Reports to be attached  
156. Copy of original Code Data Report in 1578. Upper and lower flanges were repaired  
to correct grinder marks. Installed two tube sheet plugs, 5/8", Ht. #C21326, P.O. D105650.  
Replaced 3/4" Studs: Ht. #R597, P.O. 47085718, and Nuts: Ht. #P933, P.O. 455155607.

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] Senior Specialist Date May 30, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions 169428 ANIB PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1820

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date May 17, 2006  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200122997  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Component Cooling (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

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	Pacific Valve	N/A	N/A	ICCR-289	1976	Removed	No
Check Valve	Crane Nuclear	D4846	N/A	ICCR-289	2006	Installed	No

7. Description of Work Replaced valve 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 (Back)

9. Remarks No Code Data Reports available.

Applicable Manufacturer's Data Reports to be attached

**CERTIFICATE OF COMPLIANCE**

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

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Specialist Date May 26, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IBN, PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1824

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C. Date 4/18/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7)  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1A  
Various systems (Steam Generator Replacement)-RCS and support -Class 1; Remainder-Class 2
5. (a) Applicable Construction Code Piping- ANSI B31.1 1967 Edition, Summer 1971 Addenda, None Code Case  
SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2
- (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity: 1989 Edition No Addenda
- (c) Applicable Section XI Code Case(s) N-416-2

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)
IRC-E-1A	Westinghouse Electric Corp	1301	68-45	N/A	1971	Removed	Yes
IRC-E-1A	Westinghouse Electric Corp	NP030651/1MB2	82	N/A	2005	Installed	Yes

7. Description of Work Replaced "A" Steam Generator as identified on orders 200136930, 200137070,  
200137091, 200137113, 200110778, and 200136665.

8. Tests Conducted: Hydrostatic\*  Pneumatic\*  Nominal Operating Pressure  Exempt   
 Other  Pressure N/A psi Test Temp. N/A °F  
\*Record test pressure and temperature

9. Remarks Existing "A" Steam Generator was removed by severing at nozzles from existing piping. All  
Applicable Manufacturer's Data Reports to be attached  
large bore piping (Reactor Coolant, Main Steam, and Feedwater) was severed and the existing piping  
was subsequently reconnected to the new replacement steam generator. The main steam piping had  
one spool piece reinstalled, the Feedwater piping reinstallation consisted of two spool pieces.

(Continued on Supplementary Sheet Pg 3)

**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 Greg Kammerdeiner Principal Consultant Date April 20, 2006  
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 PA and employed by HSB CT of Hartford, CT have inspected the components described in this Owner's Report during the period November 13, 2004 to April 18, 2006 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. Zywick Commissions SB9428 ANIB PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date April 20, 2006

FORM ½-ADM-0801.F02 REV 2

RTL # A4.414-A  
FORM 1824

FORM NIS-2 (Supplementary Sheet)

1. Owner F.E.N.O.C. Date 4-18-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 3 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7).  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1A  
Various systems (Steam Generator Replacement)-RCS and support -Class 1; Remainder-Class 2
5. (a) Applicable Construction Code Piping - ANSI B31.1 1967 Edition, Summer 1971, Addenda, None, Code Case  
SG- ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2
- (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda
- (c) Applicable Section XI Code Case(s) N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1A	Westinghouse Electric Corp	1301	68-45	N/A	1971	Removed	Yes
1RC-E-1A	Westinghouse Electric Corp	NP030651/1MB2	82	N/A	2005	Installed	Yes

Reference Item

9

Reactor Coolant piping was severed and rewelded at the nozzle connection only. Temporary alignment attachments were welded to the main steam and feedwater piping and subsequently removed. Attachment material was identified as ¼" Plate (A36) Heat 4105241, 1" plate (A36) Heat 624050, 1" Diameter Bar (A36) Heat 756780, ½" Flatbar (A36) Heat JE3461 and 1" Plate (A516 Gr 70) Heat V02420. The main steam vent valve was removed and vent nipple was capped. Pipe Cap was identified as 1-1/2" 3000# (SA105) Heat 9122. A drain nipple was replaced on the feedwater elbow. Nipple is identified as 1" Diameter (A106 Gr B) Heat 601154. The feedwater thermal liner assembly RT port plug was replaced. Plug material is 1-1/4" diameter plug Heat 8991875. Additional RT Ports were installed in the feedwater and main steam piping. All new ports were plugged with RT plugs identified as 1"-8 UNC (SA105) Heat 8860857. Smallbore piping (Blowdown and shell drain) was replaced at the nozzle connections (3 total). A Reducing insert was welded to the drain nozzle. Reducer was identified as 2" x 1" (A105) Heat 9215. The blowdown nozzle piping was replaced with 2" Diameter Schedule 80 A106 Gr C pipe Heat A99847. A new upper lateral restraint (See Supplementary Sheet # 4)

FORM NIS-2 (Supplementary Sheet)

1. Owner F.E.N.O.C. Date 4-18-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 4 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7)  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1A  
Various systems (Steam Generator Replacement)-RCS and support -Class 1; Remainder-Class 2
5. (a) Applicable Construction Code Piping - ANSI B31.1 1967 Edition, Summer 1971 Addenda, None Code Case  
SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2
- (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda
- (c) Applicable Section XI Code Case(s) N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1A	Westinghouse Electric Corp	1301	68-45	N/A	1971	Removed	Yes
1RC-E-1A	Westinghouse Electric Corp	NP030651/1MB2	82	N/A	2005	Installed	Yes

Reference Item

9

restraint was installed with assembly manufactured by Penn State Tool and Die procured on FENOC PO 45135388. Additional material installed by site included bolt 1-8 UNC (A193 Gr B7) Heat 11665790 2-1/2"x 4 UNC Capscrew (A354 Gr BD) Heat 238190. The Lower Support had bolting replaced. Bolting was identified as 2"-8 UNC (A354 Gr BD) Heat 400765, 2"-8 UNC Hex Nut A563 Gr DH Heat 19699, 1-1/2"-12 UNF capscrew for generator footbolting SA 540 Gr B23 Heat 22118. The support consisted of parts Lubrite Plate (Alloy 424) Heat 05661, and Vertical Support Plate AISI 4340 Heat E42483 All work is referenced in orders identified in Description of Work (Item 7).

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**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS\***  
As Required by the Provisions of the ASME Code, Section III, Division 1

Manufactured and certified by Westinghouse Electric Company, LLC, Nuclear Systems Steam Generator Product Line, Waltz Mill, Madison, PA, 15663  
(name and address of N Certificate Holder)

2. Manufactured for FirstEnergy Nuclear Operating Company  
(name and address of Purchaser)

3. Location of installation Beaver Valley Power Station Unit 1 Shippingport, PA 15077  
(name and address)

4. Type Vertical Steam Generator NP030651/IMB2 N/A 6653E95 82 2005  
(part. or vert.) (tank, jacketed, heat ex.) (Cert. holder's serial no.) (CRN) (drawing no.) (Mat'l. Id. no.) (year built)

5. ASME Code, Section III, Division 1: 1989 no addenda 1 N-20.3, N-71-16, N-411-1, N-474-2  
(edition) (addenda desc) (class) (Code Case no.)

Items 6 - 10 Inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

6. Shell: 1" 1" 1" 1" 1" 54" 7.59"  
(nom'l. spec. no.) (nominal strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

7. Seams: --- --- --- --- --- ---  
(long.) (RT) (RT) (off. % (left)) (left) (RT) (RT) (no. of courses)

8. Heads: SA-508 Class 3 80 ksi N/A N/A  
(Mat'l. spec. no.) (nominal strength) (Mat'l. spec. no.) (nominal strength)

	Location (top, bottom, ends)	Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top	4.01"		N/A	N/A	2:1	N/A	N/A	N/A	Concave
(b)	-	-	-	-	-	-	-	-	-	-

If removable, bolts used N/A Other fastening N/A  
(mat'l. spec. no., dia., qty.) (describe or attach sketch)

9. Jacket Closure: N/A  
(Describe as open & weld, bar, etc. If bar give dimensions, describe, or sketch)

10. Design Pressure<sup>2</sup> 1085 at max. temp. 600 Min. pressure-test temp. 70 Pncu. hydro or comb. test pressure 1357  
(psi) (deg. F) (deg. F) (deg. F) (psi)

Items 11 and 12 to be completed for tube sections.

11. Tubesheets: SA-508 Class 3a 122.25" secondary/125.50" primary 21.28" Welded  
(nominary, mat'l. spec. no.) (dia. in. (subject to post.)) (thickness (in.)) (attachment (welded, bolted))

(floating, mat'l. spec. no.) (Mat'l. (in.)) (thickness (in.)) (attachment)

12. Tubes: SB-163 UNS N06690 0.875" 0.050" 3592 (J)  
(mat'l. spec. no.) (OD (in.)) (thickness (sheet or pipe)) (dia.) (type (straight or U))

Items 13 to 16 Inclusive to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

13. Shell: --- --- --- --- --- ---  
(nom'l. spec. no.) (nominal strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

14. Seams: --- --- --- --- --- ---  
(long. (welded, etc., sketch)) (RT) (yes or no) (RT) (off. % (left)) (left) (RT) (RT) (no. of courses)

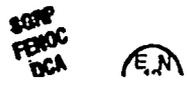
Heads: --- SA-508 Class 3 80 ksi ---  
(Mat'l. spec. no.) (nominal strength) (Mat'l. spec. no.) (nominal strength) (Mat'l. spec. no.) (nominal strength)

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top, bottom, ends	-	-	-	-	-	-	-	-
(b)	Channel	7.19"	N/A	N/A	N/A	N/A	62.81"	N/A	Concave
(c)	Floating	-	-	-	-	-	-	-	-

If removable, bolts used --- Other fastening ---  
(mat'l. spec. no., dia., qty.) (describe or attach sketch)

16. Design pressure<sup>3</sup> 2485 at 650 Min. pressure-test temp. 70 Pncu. hydro or comb. test pressure 3107  
(psi) (deg. F) (deg. F) (psi)

<sup>1</sup> If postweld heat treated.  
<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.  
<sup>3</sup> 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 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of this form.  
(7/78) This form (200978) may be obtained from the Order Dept., ASME, 22 La. Drive, Box 1300, Fairfield, NJ 07007-1300.



**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS**  
As Required by the Provisions of the ASME Code, Section III, Division 1

Certificate Holder's Serial No. NP030651/1MB2

279  
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7-7-6

7. Nozzles, inspection, and safety valve openings:

Purpose (inlet, outlet, drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Material	Thickness	Reinforcement Material	Location
2"	2	2"	2"	2"	2"	2"	2"	2"

18. Supports: Skirt no Lugs - Legs 4 Other - Attached Channel Head - Integral Forged  
(yes or no) (quantity) (quantity) (attached) (when not used)

19. Remarks: N-2 Data Report from Equinox Nuclear. SA attached  
The length (overall) shown on the N-2 form is the total vessel length based on ENSA shipping drawing OMB2 400.0.0 Rev. 2. The length (overall) shown on the N-1 form is the length of the vessel shell sections and does not include the upper head, channel head or tubesheet.

**CERTIFICATION OF DESIGN**

Design specification certified by John S. Rees P.E. State Florida Reg. no. 47713  
Design report certified by Robert F. Condrac P.E. State Pennsylvania Reg. no. PE41768E

**CERTIFICATE OF SHOP COMPLIANCE**

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

N Certificate of Authorization No. N-1149 Expires 11-24-07  
Date 8-31-05 Name Westinghouse Electric Co. LLC Signed [Signature]  
(N Certificate Holder) (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 HSB CT

of Hartford, CT have inspected the component described in this Data Report on 8-31-05, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component 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 8-31-05 Signed [Signature] Commissions NB 9428 ANIB PA 2384  
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

**CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE**

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_  
Date \_\_\_\_\_ Name \_\_\_\_\_ Signed \_\_\_\_\_  
(N Certificate Holder) (authorized representative)

**CERTIFICATE OF FIELD ASSEMBLY 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 \_\_\_\_\_ and employed by \_\_\_\_\_

of \_\_\_\_\_ have compared the statements in this Data Report with the described component and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me on \_\_\_\_\_ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component 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 \_\_\_\_\_ Signed \_\_\_\_\_ Commissions \_\_\_\_\_



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**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS**  
As Required by the Provisions of the ASME Code, Section III, Division 1

(Authorized Nuclear Inspector)

(Natl. Bd. (incl. endorsements) and state or prov. and no.)

- Manufactured and certified by Westinghouse Electric Company, LLC, Nuclear Systems Steam Generator Product Line, Waltz Mill, Madison, PA 15663  
(name and address of N Certificate Holder)
- Manufactured for FirstEnergy Nuclear Operating Company  
(name and address of Purchaser)
- Location of installation Beaver Valley Power Station Unit 1 Shippingport, PA 15077  
(name and address)
- Type Vertical Steam Generator NP030651/1MB2 N/A 6653E95 82 2005  
(shell, or vert.) (cont. jacketed, heat ex.) (Cert. Holder's serial no.) (CRN) (drawing no.) (Natl. Bd. no.) (year built)

6. Shell: 1\*

(Additional shell course data table)

Shell Course Component	Material Specification No.	Tensile Strength	Nominal Thickness (Inches)	Minimum Design Thickness (Inches)	Inside Diameter (Ft. and In.)	Overall Length (Ft. and In.)
Upper Shell -2 Barrel	SA-508 Class 3	80 ksi	4.21"	4.17"	14' 0.50"	9' 3.50"
Upper Shell -1 Barrel	SA-508 Class 3	80 ksi	4.21"	4.17"	14' 0.50"	9' 3.50"
Conical Shell Transition	SA-508 Class 3	80 ksi	3.06"/4.19"/4.21"	3.02"/4.15"/4.17"	10' 9.38"/14' 0.50"	7' 8.75"
Lower Shell -2 Barrel	SA-508 Class 3	80 ksi	3.06"	3.02"	10' 9.38"	14' 1.42"
Lower Shell -1 Barrel	SA-508 Class 3	80 ksi	3.06"	3.02"	10' 9.38"	14' 2.42"

17. Nozzles, inspection and safety valve openings: 2\*

(Continuation - Shell openings data table)

Purpose (Inlet, outlet, drain, etc.)	Qty.	Dia. or Size	Type	How Attached	Material	Thickness	Reinforcement Material	Location
Primary Side Nozzle (Inlet)	1	31"	Forged	Integral	SA-508 Class 3	5.45"	Self reinforced	Primary Head
Primary Side Nozzle (Outlet)	1	31"	Forged	Integral	SA-508 Class 3	5.45"	Self reinforced	Primary Head
Primary Manway	2	16"	Forged	Integral	SA-508 Class 3	6.00"	Self reinforced	Primary Head
Steam Outlet Nozzle	1	29.375"	Forged	Integral	SA-508 Class 3	1.312"	Self reinforced	Top Head
Level Tap Nozzle	4	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Upper Shell
Pressure Tap Nozzle	2	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Upper Shell
Secondary Manway	2	16"	Weld end	Welded	SA-508 Class 3a	6.625"	Self reinforced	Upper Shell
Level Tap Nozzle	3	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Conc Shell
Feedwater Nozzle	1	14.32"	Weld end	Welded	SA-508 Class 3a	0.90"	Self reinforced	Lower Shell
Hand hole	6	6"	Forged	Integral	SA-508 Class 3	-	-	Lower Shell
Level Tap Nozzle	1	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Lower Shell
Inspection Port	2	4"	Forged	Welded	SA-508 Class 3	-	-	Lower Shell
Drain Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet
Cold Leg Blowdown Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet
Hot Leg Blowdown Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet

N-Certificate of Authorization No: N-1149 Expires: 11-24-07

N-Certificate Representative Signature: *[Signature]* Date: 8-31-05

ANI Signature: *[Signature]* Date: 8-31-05

ANI Commission #: NB 9428 ANIII PA 2384

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DCA

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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 EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Maliaño (Cantabria) SPAIN  
(Name and address of NPT Certificate Holder)

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
(Name and address of purchaser)

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA  
(Name and address)

4. Type OMB2.400.0.0 Rev.2 1" 1" 2005  
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1989 No Addenda 1 N20-1, N71-15, N411-1  
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: The Part is the complete S.G.  
No design responsibility. Minimum test temperature 70°F

8. Nom. thickness (in.) 1" & 2" Min. design thickness (in.) 1" & 2" Dia. ID (k & in.) 1" & 2" Length overall (k & in.) 71ft. 5.04 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	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 1MB2	30	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

SGRF  
FENO  
DCA

EJ  
QZ

10 Design pressure 1095/2485 (psi) psi Temp 600/650 °F Hydro test pressure 1357/3107 (psi) at temp. 600/650 °F  
(when applicable)

\* Supplemental information in the 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.

† This form/contact may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2900, Fairfield, NJ 07007-2900

2/A JB  
7-7-6

FORM N-2 (Back - Pg 2 of 3)

Certificate Holder's Serial Nos. 1MB2 through

CERTIFICATION OF DESIGN			
Design specifications certified by	NA. <small>(when applicable)</small>	P.E. State	NA. Reg. no. NA.
Design report* certified by	NA. <small>(when applicable)</small>	P.E. State	NA. Reg. no. NA.
CERTIFICATE OF COMPLIANCE			
We certify that the statements made in this report are correct and that this (these)		STEAM GENERATOR	
conforms to the rules of construction of the ASME Code, Section III, Division 1.			
NPT Certificate of Authorization No.	N-2764	Expires	December 2, 2005
Date	August 26, 2005	Name	EQUIPOS NUCLEARES, S.A. <small>(NPT Certificate Holder)</small>
		Signed	G. Cué <small>(Authorized representative)</small>
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 <u>NEW YORK</u> and employed by <u>ROYAL &amp; SUN ALLIANCE</u> of <u>NORTH CAROLINA</u> have inspected these items described in this Data Report on <u>26 AUGUST 2005</u> , 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	26 AUG '05	Signed	<i>[Signature]</i> <small>(Authorized Nuclear Inspector)</small>
		Commissions	NB# 10153 A B NNS; NY# 4018 <small>[Nat. Bd. Incl. endorsement and state or prov. and no.]</small>

Notes:

- Nozzle shipping caps are not part of this manufacturer's data report.
- Hydrotest per drawing OMB2.40H1.0 Rev.0 & OMB2.40H1.0.1 Rev.1

1A22  
30M37  
ACU



SCRP  
FENOC  
DCA



3/A  
1MB2 DG  
7-7-1

**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 EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Maliaño (Cantabria) SPAIN  
(name and address of NPT Certificate Holder)

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
(name and address of purchaser)

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA  
(name and address)

4. Type OMB2.400.0.0 Rev.2 1" 1" 2005  
(drawing no.) (wall spec. no.) (nominal strength) (CPN)

5. ASME Code, Section III, Division 1: 1989 No Addenda 1 N20-4, N71-15, N411-1, N474-2, N401-1, 2142-1, 2143-1  
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: The Part is the complete S.G.  
No design responsibility. Minimum test temperature 70°F

8. Nom. thickness (in.) 1" & 2" Min. design thickness (in.) 1" & 2" Dia. (ft & in.) 1" & 2" Length overall (ft & in.) 71ft. 5.04 in.

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

1\*

Component	Material Spec.	Tensile Strength	Thickness		Inside Dia.	Overall Length
			Nom.	Min.		
Channel Head	SA-508 Cl.3	80 ksi	7.19"	5.14"	10' 5.56"	5' 6.9"
Elliptical Head	SA-508 Cl.3	80 ksi	4.01"	3.97"	14' 0.5"	5' 3.45"
Tube Sheet	SA-508 Cl.3A	90 ksi	21.28"	21.11"	10' 9.38"	2' 3.56"
"A" Barrel	SA-508 Cl.3	80 ksi	3.35"/3.06"	3.31"/3.02"	10' 9.38"	14' 2.42"
"B" Barrel	SA-508 Cl.3	80 ksi	3.06"	3.02"	10' 9.38"	14' 1.42"
Cone	SA-508 Cl.3	80 ksi	3.06"/4.19"/4.21"	3.02"/4.15"/4.17"	10' 9.38"/14' 0.5"	7' 8.75"
"H" Barrel	SA-508 Cl.3	80 ksi	4.21"	4.17"	14' 0.5"	9' 3.5"
"J" Barrel	SA-508 Cl.3	80 ksi	4.21"	4.17"	14' 0.5"	9' 3.5"
Tubes	SB 163 UNS N06690	---	0.05"	---	OD 0.875"	Qty. 3592"U"

2\* Nozzles, Inspection and Safety Valve Opening

Purpose	Qty.	Dia. (In)	Type	How attached	Material Spec.	Thickness	Reinforcement material	Location
Feedwater nozzle	1	14.32"	Welded end	Welded	SA-508 Cl.3A	0.90"	Selfreinforced	Secondary
Primary nozzles	2	31"	Forged	Integral	SA-508 Cl.3	5.45"	Selfreinforced	Primary
Blowdown nozzles	2	2.406"	Welded end	Welded	SA-508 Cl.1A	0.796"	---	Secondary
Shell drain nozzle	1	2.406"	Welded end	Welded	SA-508 Cl.1A	0.796"	---	Secondary
Water level nozzle	8	1.065"	Welded end	Welded	SA-508 Cl.1A	0.466"	---	Secondary
Steam outlet	1	29.375"	Forged	Integral	SA-508 Cl.3	1.313"	Selfreinforced	Secondary
Primary manways	2	16"	Forged	Integral	SA-508 Cl.3	6.00"	Selfreinforced	Primary
Second. manways	2	16"	Welded end	Welded	SA-508 Cl.3A	6.625"	Selfreinforced	Secondary
Handholes	6	5.991"	Forged	Integral	SA-508 Cl.3	---	---	Secondary
Inspection ports	2	4.01"	Forged	Welded	Inconel (F43)	2.56"	---	Secondary
Pressure Tap nozzle	2	1.065"	Welded end	Welded	SA-508 Cl.1A	0.466"	---	Secondary

**Weld Overlay :** Primary side surface of the tube plate is overlaid with weld-deposited nickel-chromium-iron alloy. The Channel head interior surfaces, including nozzles and manways overlaid with stainless steel weld deposit. Primary Nozzles include safe-ends of 316 LN material.





FORM N-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR VESSELS

As required by the Provisions of the ASME Code Rules

1. Manufactured by Westinghouse Electric Corporation, Tampa Division, Tampa, Florida  
(Name and address of Manufacturer)

2. Manufactured for Duquesne Light  
(Name and address of Purchaser)

3. Type Vertical Kind Steam Gen Vessel No. (1301) (          ) (          ) Nat'l Bd. No. 68-45 Yr. Built 1971  
(Vess. or Vess.) (Tank, Jacketed, Heat Ex.) (Mfg. Serial No.) (State & State No.)

3a. Applicable ASME Code Section III Edition 1965, Addenda Date II-66, Case No.           
 Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material SA-533 Gr A CL 1 T.S. 80000 Nominal Thickness \* in. Corrosion Allowance 06 in. Diam \* ft. \* in. Length \* ft. \* in.  
(Kind & Spec. No.) (Min. of range specified)

5. Seams: Long Weld-Dbl Butt H.T.<sup>1</sup> Yes X.R. Complete Efficacy          %  
(If Class B)

Girth Weld-Dbl Butt H.T.<sup>1</sup> Yes X.R. Complete No. of Courses \*        

6. Heads (a) Material SA533 Gr A CL 1 T.S. 80000 (b) Material          T.S.         

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Convex or Concave)
(a) <u>Top</u>	<u>3.62</u>			<u>2:1</u>				<u>Concave</u>
(b) <u>        </u>								

If removable, bolts used          (Material, Spec. No., T.S., Size, Number) Other fastening          (Describe or attach sketch)

7. Assy. Closure \* Girth Weld-Dbl Butt; H.T.: X.R. Complete  
Girth Weld  
(Describe as groove & weld, bar, etc. If bar give dimensions, describe or sketch)

8. Constructed for design press \* 1085 psi at Max. temp 600 °F at temp. of +10 °F Charpy Impact 30 ft-lb Pneumatic Hydrostatic or Combination } Test Pressure 1356 psi @ 70 °F min

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary. Material SA-508 CL 2 Diam. 125.75 in. Thickness 21.03 in. Attachment See Item 12  
(Kind & Spec. No.) (Subject to press.) (Welded, Bolted)

Floating. Material          (Kind & Spec. No.) Diam.          in. Thickness          in. Attachment         

10. Tubes: Material SB-163 O.D. 7/8 in. Thickness .050 inches or gage Number 3388 Type U  
(Kind & Spec. No.) (Straight or U)

Items 11 to 14 incl. to be completed for primary chamber

11. Shell: Material          T.S.          Nominal Thickness          in. Corrosion Allowance          in. Diam.          ft.          in. Length          ft.          in.  
(Kind & Spec. No.) (Min. of range specified)

12. Seams: Long          (Welded, Dbl., Single) H.T.<sup>1</sup>          (Yes or No) X.R.          Efficacy          %  
(If Class B)

Girth Weld-Dbl Butt H.T.<sup>1</sup> Yes X.R. Complete No. of Courses \*        

13. Heads: (a) Material          T.S.          (b) Material Gr 9CC T.S. 70000 (c) Material          T.S.         

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Convex or Concave)
(a) Top, bottom, ends								
(b) Channel	<u>5.19</u>					<u>62.81</u>		<u>Concave</u>
(c) Floating								

If removable, bolts used (a)          (b)          (c)          Other fastening          (Describe or attach sketch)

14. Constructed for specified design press \* 2485 psi at Max. temp 650 °F at temp. of +10 °F Charpy Impact 20 ft-lb Pneumatic Hydrostatic or Combination } Test Pressure 3106 psi @ 70 °F min

<sup>1</sup> If Postweld Heat-Treated.  
<sup>2</sup> List other internal or external pressures with coincident temperature when applicable.

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

Outlet: (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Prim. Inlet	1	31" I.D.	Weld	SA-216	1.5"	SA-216	Integrally
Prim. Outlet	1	31" I.D.	End	Gr WCC	1.5"	Gr WCC	Cast
Steam Outlet	1	29" I.D.	Weld	SA-508	1.5"	Steel	Welded
Feedwater	1	14.75" I.D.	End	Cl 2	.625"	Steel	Welded

17. Inspection Manholes, No. 4 Size 16" Location (2) Chamber & (2) Upper Shell  
 Openings: Handholes, No. 2 Size 6" Location Stub Barrel Portion of Lower Shell  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt No. \_\_\_\_\_ Lugs \_\_\_\_\_ (Number) \_\_\_\_\_ Legs \_\_\_\_\_ (Number) \_\_\_\_\_ Other Y Attached See below (Where & How)  
 Four main supports are cast integral with the chamber.

19. Remarks: This N-1 form is to be signed off by the code inspector under certificate of shop inspection for everything listed except the hydrostatic test and subsequent inspection. Field inspector must sign off for the latter items on certificate of field assembly inspection below. All other mfg. is specified on Manufacturer's Partial Data Forms N-2 filed at Westinghouse.  
(Brief description of service for which vessel was designed)

**CERTIFICATION OF DESIGN**

Design information on file at Westinghouse Electric Corporation, Tampa Division, Tampa, Florida  
 Stress analysis report on file at Westinghouse Electric Corporation, Tampa Division, Tampa, Florida  
 Design specifications certified by (W) Atomic Power Division Prof. Eng. W. Seth State Pa. Reg. No. 13331-E  
 Stress analysis report certified by (W) Atomic Power Division Prof. Eng. Lohmeier Fla. Reg. No. 13436

We certify that the statements made in this report are correct and that all details of material, design, construction, and workmanship of this pressure vessel conform to the ASME Code for Nuclear Vessels, Section III, May 6 nuclear 19 71. Signed Westinghouse Electric Corporation by [Signature]

Certificate of Authorization Expires N-122 April 10, 1972

**CERTIFICATE OF SHOP INSPECTION**

VESSEL MADE BY Westinghouse Electric Corporation at Tampa, Florida  
 I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Pennsylvania and employed by Lambertson Mechanical Co., Chicago, Ill  
 have inspected the pressure vessel described in this manufacturer's data report on April 30 19 71, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code for Nuclear Vessels.  
 By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.  
 Date May 14 19 71  
Edward H. Miller Inspector's Signature  
 Commission Natl Bd. 2653, Penna # WC 1772 Nat'l Board or Province No.

**CERTIFICATE OF FIELD ASSEMBLY INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_  
 have compared the statements in this manufacturer's data report with the described pressure vessel and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the ASME Code for Nuclear Vessels. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psig primary side & \_\_\_\_\_ psig secondary side.  
 By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.  
 \_\_\_\_\_ 19 \_\_\_\_\_  
 \_\_\_\_\_ Inspector's Signature \_\_\_\_\_ Commission \_\_\_\_\_ Nat'l Board, State or Province and No. \_\_\_\_\_

Westinghouse



Nuclear Steam Generator

Size Sq. Ft. 51,500	Serial 1301	Primary Side Class <u>A</u>	Secondary Side Class <u>A</u>
Instr. Book 1440-C216		Chamber Design 2485 psig @ 650 °F	Shell Design 1085 psig @ 600 °F
NATL. BOARD NO. 68-45		Tube Bundle Design 1600 psig @ 650 °F	Tube Bundle Design 670 psig @ 650 °F
SPIN NO. D'W KC FC SG-1 Date <u>1971</u>		Initial Hydrotest 3106 psig @ 70 °F	Initial Hydrotest 1356 psig @ 70 °F
		Subsequent Hydrotest DIFFERENTIAL PRESSURE SPEC. OF SPEC. °F	Subsequent Hydrotest DIFFERENTIAL PRESSURE SPEC. OF SPEC. °F
Westinghouse Elec. Corp.		123P357	MADE IN U.S.A.

Form No. 1825

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C. Date 4/17/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7)  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1B  
Various (Steam Generator Replacement) RCS and Support Class 1, Remainder Class 2

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, Summer 1971, Addenda, None, Code Case  
SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda

(c) Applicable Section XI Code Case(s) N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1B	Westinghouse Electric Corp	1302	68-46	N/A	1971	Removed	Yes
1RC-E-1B	Westinghouse Electric Corp	NP030651/2MB2	83	N/A	2005	Installed	Yes

7. Description of Work Replaced "A" Steam Generator as identified on orders 200136931, 200137071,  
200137096, 200137237, 200110785, 200136666, and 200203122.

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 (Back)

9. Remarks Existing "B" Steam Generator was removed by severing at nozzles from existing piping. All large  
Applicable Manufacturer's Data Reports to be attached  
bore piping (Reactor Coolant, Main Steam, and Feedwater) was severed and the existing piping was  
subsequently reconnected to the new replacement generator. The main steam and feedwater piping each  
had two spool pieces removed and reinstalled. Reactor Coolant (Continued on Supplementary Sheet Pg 3)

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 *Greg Kammerdeiner* Principal Consultant Date April 20, 2006  
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 PA and employed by HSB CT of Hartford, CT have inspected the components described in this Owner's Report during the period November 13, 2004 to April 18, 2006 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. Zymis* Commissions NB9428 ANIB PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date April 20, 2006

**FORM NIS-2 (Supplementary Sheet)**

1. Owner F.E.N.O.C. Date 4-17-06  
(NAME)

76 South Main Street – Akron, OH 44308 Sheet 3 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)

Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7)  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)

Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1B  
Various (Steam Generator Replacement) RCS and Support Class 1, Remainder Class 2
5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, Summer 1971 Addenda, None Code Case  
SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2
- (d) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda
- (e) Applicable Section XI Code Case(s) N-416-2

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)
IRC-E-1B	Westinghouse Electric Corp	1302	68-46	N/A	1971	Removed	Yes
IRC-E-1B	Westinghouse Electric Corp	NP030651/2MB2	83	N/A	2005	Installed	Yes

Reference Item  
9

pipng was severed and rewelded at the nozzle connection only. Temporary alignment attachments were welded to the main steam and feedwater piping and subsequently removed. Attachment material was identified as ¾" Plate (A516 Gr 70) Heat 5102306/03, 1" plate (A36) Heat 624050, 1" Diameter Bar (A36) Heat 756780, ½" Flatbar (A36) Heat JE3461 and 1" Plate (A516 Gr 70) Heat V02420. The main steam vent valve was removed and vent nipple was capped. Pipe Cap was identified as 1-1/2" 3000# (SA105) Heat 9122 The feedwater thermal liner assembly RT port plug was replaced. Plug material is 1-1/4" diameter plug Heat 8991875. Additional RT Ports were installed in the feedwater and main steam piping. All new ports were plugged with RT plugs identified as 1"-8 UNC (SA105) Heat 8860857. Smallbore piping (Blowdown and shell drain) was replaced at the nozzle connections (3 total). A Reducing insert was welded to the drain nozzle. Reducer was identified as 2" x 1" (A105) Heat 9215. The blowdown nozzle piping was replaced with 2" Diameter Schedule 80 A106 Gr C pipe Heat A80847. A new upper lateral restraint was installed with assembly manufactured by Penn State Tool and Die procured on FENOC PO 45135388. Additional material installed by site included U Bolt 1-8 UNC (A193 Gr B7) Heat 11665790. (Cont'd Supplementary Sheet pg 4)

**FORM NIS-2 (Supplementary Sheet)**

1. Owner F.E.N.O.C. Date 4-17-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 4 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7).  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1B  
Various (Steam Generator Replacement) RCS and Support Class 1, Remainder Class 2

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, Summer 1971 Addenda, None, Code Case  
SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2

(f) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda

(g) Applicable Section XI Code Case(s) N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1B	Westinghouse Electric Corp	1302	68-46	N/A	1971	Removed	Yes
1RC-E-1B	Westinghouse Electric Corp	NP030651/2MB2	83	N/A	2005	Installed	Yes

Reference Item  
9

Strut Pin (SA 540 Gr B23) Heat 740333A9503, Spanner Nut (A515 Gr 70) Heat U8600, Jam Nut (A515 Gr 70) Heat U7723, ½" setscrew (A575) Heat 51386-01, Capscrew (A574) Heat 13883. The Lower Support had bolting replaced. Bolting was identified as 2"-8 UNC (A354 Gr BD) Heat 400765, 2"-8 UNC Hex Nut A563 Gr DH Heat 19699, 1-1/2"-12 UNF capscrew for generator footbolting SA 540 Gr B23 Heat 22118. The support consisted of parts Lubrite Plate (Alloy 424) Heat 05661, and Vertical Support Plate AISI 4340 Heat E42483 All work is referenced in orders identified in Description of Work (Item 7)

44A-26  
7-7-6

FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS\*  
As Required by the Provisions of the ASME Code, Section III, Division 1

- Manufactured and certified by Westinghouse Electric Company, LLC, Nuclear Systems Steam Generator Product Line, Waltz Mill, Madison, PA, 15663  
(name and address of Manufacturer)
- Manufactured for FirstEnergy Nuclear Operating Company  
(name and address of Purchaser)
- Location of installation Beaver Valley Power Station Unit 1 Shippingport, PA 15077  
(name and address)
- Type Vertical Steam Generator NP030651/2MB2 N/A 6653E95 81 2005  
(shape, or vert.) (unit, jacketed, heat ex.) (Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l Bd. no.) (year built)
- ASME Code, Section III, Division I: 1989 no addenda 1 N-20-3, N-71-16, N-411-1, N-474-2  
(edition) (addenda data) (class) (Code Case no.)

Items 6 - 10 inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

- Shell: 1° 1° 1° 1° 1° 54° 7.59"  
(max T spec. no.) (penalty strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
- Seams: \_\_\_\_\_  
(long) (RT) (RT) (off 90) (circ) (RT) (RT) (no. of corners)
- Heads: SA-508 Class 3 80 ksi N/A N/A  
(a) mat'l spec. no. (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)

	Location (top, bottom, ends)	Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top	4.01"		N/A	N/A	2:1	N/A	N/A	N/A	Concave
b)	-	-	-	-	-	-	-	-	-	-

If removable, bolts used N/A Other fastening N/A  
(mat'l spec. no., size, qty) (describe or sketch detail)

- Jacket Closure: N/A  
(Describe as type & model, bar, etc. If bar, give dimensions, describe, or sketch)
- Design Pressure<sup>2</sup> 1085 at max. temp. 600 Min. pressure-test temp. 70 Pneu. hydro or comb. test pressure 1357  
(psig) (deg. F) (deg. F) (deg. F) (psig) (psig)

Items 11 and 12 to be completed for tube sections.

- Tubesheets: SA-508 Class 3a 129.25" secondary/125.50" primary 21.28" Welded  
(material, mat'l spec. no.) (dia. in. (subject to para. 11)) (thickness (in.)) (attachment)
- Tubes: SB-163 UNS N06690 0.875" 0.050" 3592 U  
(mat'l spec. no.) (OD (in.)) (thickness (sheet or pipe)) (wt.) (type (straight or U))

Items 13 to 16 inclusive to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

- Shell: \_\_\_\_\_  
(mat'l spec. no.) (penalty strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))
- Seams: \_\_\_\_\_  
(long (jacketed, etc., straight)) (RT) (yes or no) (RT) (off 90) (circ) (RT) (RT) (no. of corners)
- Heads: \_\_\_\_\_  
(a) mat'l spec. no. (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top, bottom, ends	-	-	-	-	-	-	-	-
(b)	Channel	7.19"	N/A	N/A	N/A	N/A	62.81"	N/A	Concave
(c)	Floating	-	-	-	-	-	-	-	-

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(mat'l spec. no., size, qty) (describe or sketch detail)

- Design pressure<sup>2</sup> 2485 at 650 Min. pressure-test temp. 70 Pneu. hydro or comb. test pressure 3107  
(psig) (deg. F) (deg. F) (deg. F) (psig) (psig)

<sup>1</sup> If postweld heat treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

\*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 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of this form.



SRP  
FENOC  
DCA

**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS**  
**As Required by the Provisions of the ASME Code, Section III, Division I**

Certificate Holder's Serial No. NP030651/2MB2

5/9 DG  
7-7-6

Nozzles, inspection, and safety valve openings:

Purpose (inlet, outlet, drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Material	Thickness	Reinforcement Material	Location
2"	2"	2"	2"	2"	2"	2"	2"	2"

18. Supports: Skirt no Lugs - Legs 4 Other - Attached Channel Head - Integral Forged  
(yes or no) (quantity) (quantity) (describe) (where and how)

19. Remarks: N-2 Data Report from Equipos Nucleares, SA attached  
The length (overall) shown on the N-2 form is the total vessel length based on ENSA shipping drawing 0MB2.400.0 Rev. 2. The length (overall) shown on the N-1 Form is the length of the vessel shell sections and does not include the upper head, channel head or tubesheet.

**CERTIFICATION OF DESIGN**

Design specification certified by John S. Rees P.E. State Florida Reg. no. 47713  
 Design report certified by Robert F. Condrac P.E. State Pennsylvania Reg. no. PE41768E

**CERTIFICATE OF SHOP COMPLIANCE**

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

N Certificate of Authorization No. N-1149 Expires 11-24-07  
 Date 8-31-05 Name Westinghouse Electric Co. LLC Signed [Signature]  
(N Certificate Holder) (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 HSB CT of Hartford, CT. have inspected the component described in this Data Report on 8-31-05, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component in accordance with the ASME Code, Section III, Division I.

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 8-31-05 Signed [Signature] Commissions NB 9428 ANIB PA 2384  
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

**CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE**

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division I.

N Certificate of Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_  
 Date \_\_\_\_\_ Name \_\_\_\_\_ Signed \_\_\_\_\_  
(N Certificate Holder) (authorized representative)

**CERTIFICATE OF FIELD ASSEMBLY 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 \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_ have compared the statements in this Data Report with the described component and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me on \_\_\_\_\_ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component in accordance with the ASME Code, Section III, Division I.

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 \_\_\_\_\_ Signed \_\_\_\_\_ Commissions \_\_\_\_\_

SBPP  
FENOC  
PCA

6A-26  
7-7-6

**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS**  
As Required by the Provisions of the ASME Code, Section III, Division 1

(Authorized Nuclear Inspector)

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

- Manufactured and certified by Westinghouse Electric Company, LLC, Nuclear Systems Steam Generator Product Line, Waltz Mill, Madison, PA, 15663  
(name and address of N Certificate Holder)
- Manufactured for FirstEnergy Nuclear Operating Company  
(name and address of Purchaser)
- Location of installation Beaver Valley Power Station Unit 1 Shippingport, PA 15077  
(name and address)
- Type Vertical Steam Generator NP0306S1/2MB2 N/A 665JE95 83 2005  
(hoist, or vert.) (vess, jacketed, heat ex.) (Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l Bd. no.) (year built)

6. Shell: 1\*

(Additional shell course data table)

Shell Course Component	Material Specification No.	Tensile Strength	Nominal Thickness (inches)	Minimum Design Thickness (inches)	Inside Diameter (Ft. and in.)	Overall Length (Ft. and in.)
Upper Shell -2 Barrel	SA-508 Class 3	80 ksi	4.21"	4.17"	14' 0.50"	9' 3.50"
Upper Shell -1 Barrel	SA-508 Class 3	80 ksi	4.21"	4.17"	14' 0.50"	9' 3.50"
Coical Shell Transition	SA-508 Class 3	80 ksi	3.06" / 4.19" / 4.21"	3.02" / 4.15" / 4.17"	10' 9.38" / 14' 0.50"	7' 8.75"
Lower Shell -2 Barrel	SA-508 Class 3	80 ksi	3.06"	3.02"	10' 9.38"	14' 1.42"
Lower Shell -1 Barrel	SA-508 Class 3	80 ksi	3.06"	3.02"	10' 9.38"	14' 2.42"

7. Nozzles, inspection and safety valve openings: 2\*

(Continuation - Shell openings data table)

Purpose (Inlet, outlet, drain, etc.)	Qty.	Dia. or Size	Type	How Attached	Material	Thickness	Reinforcement Material	Location
Primary Side Nozzle (Inlet)	1	31"	Forged	Integral	SA-508 Class 3	5.45"	Self reinforced	Primary Head
Primary Side Nozzle (Outlet)	1	31"	Forged	Integral	SA-508 Class 3	5.45"	Self reinforced	Primary Head
Primary Manway	2	16"	Forged	Integral	SA-508 Class 3	6.00"	Self reinforced	Primary Head
Steam Outlet Nozzle	1	29.375"	Forged	Integral	SA-508 Class 3	1.312"	Self reinforced	Top Head
Level Tap Nozzle	4	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Upper Shell
Pressure Tap Nozzle	2	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Upper Shell
Secondary Manway	2	16"	Weld end	Welded	SA-508 Class 3a	6.625"	Self reinforced	Upper Shell
Level Tap Nozzle	3	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Cone Shell
Feedwater Nozzle	1	14.32"	Weld end	Welded	SA-508 Class 3a	0.90"	Self reinforced	Lower Shell
Head hole	6	6"	Forged	Integral	SA-508 Class 3	-	-	Lower Shell
Level Tap Nozzle	1	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Lower Shell
Inspection Port	2	4"	Forged	Welded	SA-508 Class 3	-	-	Lower Shell
Drain Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet
Cold Leg Blowdown Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet
Hot Leg Blowdown Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet

N-Certificate of Authorization No: N-1149 Expires: 11-24-07

N-Certificate Representative Signature: [Signature] Date: 8-31-05

ANI Signature: [Signature] Date: 8-31-05

ANI Commission #: NB 9428 ANIB I'A 2384



4/9/80  
7-7-6

**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

Pg. 1 of 3

1. Manufactured and certified by EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Malariaño (Cantabria) SPAIN  
(name and address of NPT Certificate Holder)

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
(name and address of purchaser)

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA  
(name and address)

4. Type 0MB2.400.0.0 Rev.2 1" 1" - 2005  
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1989 No Addenda 1 N204, N71-15, N411-1  
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: The Part is the complete S.G.  
No design responsibility. Minimum test temperature 70°F

8. Nom. thickness (in.) 1" & 2" Min. design thickness (in.) 1" & 2" Dia. ID (ft & in.) 1" & 2" Length overall (ft & in.) 7ft. 5.04 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	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 2MB2	31	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

SEMP  
FENDC  
ICA  
J L C  
E N  
O A

10 Design pressure 1095/2485 psig psi. Temp. 600/650 °F Hydro. test pressure 1357/3107 psig at temp. °F (when applicable)

\* Supplemental information in the 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 Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

579 x  
77-4

FORM N-2 (Back - Pg 2 of 3)

Certificate Holder's Serial Nos. 2MB2 through \_\_\_\_\_

CERTIFICATION OF DESIGN			
Design specifications certified by	<u>NA.</u>	P.E. State	<u>NA.</u>
	<small>(when applicable)</small>		Reg. no. <u>NA.</u>
Design report* certified by	<u>NA.</u>	P.E. State	<u>NA.</u>
	<small>(when applicable)</small>		Reg. no. <u>NA.</u>
CERTIFICATE OF COMPLIANCE			
We certify that the statements made in this report are correct and that this (these)			<u>STEAM GENERATOR</u>
conforms to the rules of construction of the ASME Code, Section III, Division 1.			
NPT Certificate of Authorization No.	<u>N-2764</u>	Expires	<u>December 2, 2005</u>
Date	<u>August 26, 2005</u>	Name	<u>EQUIPOS NUCLEARES, S.A.</u>
		Signed	<u>G. Cué</u>
	<small>(NPT Certificate Holder)</small>		<small>(authorized representative)</small>
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 <u>NEW YORK</u> and employed by <u>ROYAL &amp; SUN ALLIANCE</u> of <u>NORTH CAROLINA</u> have inspected these items described in this Data Report on <u>26 AUGUST 2005</u> , 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	<u>26 AUG '05</u>	Signed	<u>[Signature]</u>
		Commissions	<u>NB # 10153 ABNNS - NY # 4018</u>
	<small>(Authorized Nuclear Inspector)</small>		<small>(Nat'l. Bd. (incl. endorsements) and state or prov. and no.)</small>

Notes:

- Nozzle shipping caps are not part of this manufacturer's data report.
- Hydrotest per drawing OMB2.40H.0.0 Rev.0 & OMB2.40H.0.1 Rev.1

4902  
3/10/05



SGRP  
FENOC  
DCA



6/9 XG  
7-7-6

**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 EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Malaria (Cantabria) SPAIN  
(name and address of NPT Certificate Holder)

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
(name and address of purchaser)

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA  
(name and address)

4. Type OMB2.400.0.0 Rev.2 1" 1" 2005  
(drawing no.) (mat'l spec. no.) (nominal strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1989 No Addenda 1 N20-4, N71-15, N411-1  
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: The Part is the complete S.G.  
No design responsibility. Minimum test temperature 70°F

8. Nom. thickness (in.) 1" & 2" Min. design thickness (in.) 1" & 2" Dia. ID (ft & in.) 1" & 2" Length overall (ft & in.) 71ft. 5.04 in.

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

1"

Component	Material Spec.	Tensile Strength	Thickness		Inside Dia.	Overall Length
			Nom.	Min.		
Channel Head	SA-508 Cl.3	80 ksi	7.19"	5.14"	10' 5.56"	5' 6.9"
Elliptical Head	SA-508 Cl.3	80 ksi	4.01"	3.97"	14' 0.5"	5' 3.45"
Tube Sheet	SA-508 Cl.3A	90 ksi	21.28"	21.11"	10' 9.38"	2' 3.56"
"A" Barrel	SA-508 Cl.3	80 ksi	3.35"/3.06"	3.31"/3.02"	10' 9.38"	14' 2.42"
"B" Barrel	SA-508 Cl.3	80 ksi	3.06"	3.02"	10' 9.38"	14' 1.42"
Cone	SA-508 Cl.3	80 ksi	3.06"/4.19"/4.21"	3.02"/4.15"/4.17"	10' 9.38"/14' 0.5"	7' 8.75"
"H" Barrel	SA-508 Cl.3	80 ksi	4.21"	4.17"	14' 0.5"	9' 3.5"
"J" Barrel	SA-508 Cl.3	80 ksi	4.21"	4.17"	14' 0.5"	9' 3.5"
Tubes	SB 163 UNS N06690	---	0.05"	---	OD 0.875"	Qty. 3592"U"

2" Nozzles, Inspection and Safety Valve Opening

Purpose	Qty.	Dia. (In)	Type	How attached	Material Spec.	Thickness	Reinforcement material	Location
Feedwater nozzle	1	14.32"	Welded end	Welded	SA-508 Cl.3A	0.90"	Selfreinforced	Secondary
Primary nozzles	2	31"	Forged	Integral	SA-508 Cl.3	5.45"	Selfreinforced	Primary
Blowdown nozzles	2	2.406"	Welded end	Welded	SA-508 Cl.1A	0.796"	---	Secondary
Shell drain nozzle	1	2.406"	Welded end	Welded	SA-508 Cl.1A	0.796"	---	Secondary
Water level nozzle	8	1.065"	Welded end	Welded	SA-508 Cl.1A	0.466"	---	Secondary
Steam outlet	1	29.375"	Forged	Integral	SA-508 Cl.3	1.313"	Selfreinforced	Secondary
Primary manways	2	16"	Forged	Integral	SA-508 Cl.3	6.00"	Selfreinforced	Primary
Second. manways	2	16"	Welded end	Welded	SA-508 Cl.3A	6.625"	Selfreinforced	Secondary
Handholes	6	5.991"	Forged	Integral	SA-508 Cl.3	---	---	Secondary
Inspection ports	2	4.01"	Forged	Welded	Inconel (F43)	2.56"	---	Secondary
Pressure Tap nozzle	2	1.065"	Welded end	Welded	SA-508 Cl.1A	0.466"	---	Secondary

Weld Overlay : Primary side surface of the tube plate is overlaid with weld-deposited nickel-chromium-iron alloy. The Channel head interior surfaces, including nozzles and manways overlaid with stainless steel weld deposit. Primary Nozzles include safe-ends of 316 LN material.



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A

N.B. NUMBER: 31

2/3  
26776



CERTIFIED BY:

EQUIPOS NUCLEARES, S.A.  
CANTABRIA - SPAIN

CLASS 1

2MB2

2005

MFG. SERIAL No.

YEAR BUILT

EQUIPMENT NAME: NUCLEAR STEAM GENERATOR

NATIONAL BOARD NO. 83



CERTIFIED BY:  
WESTINGHOUSE ELECTRIC COMPANY LLC  
MONROEVILLE, PENNSYLVANIA, USA

PRIMARY SIDE

SECONDARY SIDE

CHAMBER DESIGN  
2485 PSIG 650 °F

SHELL DESIGN  
1085 PSIG 600 °F

TUBE BUNDLE DESIGN  
1600 PSI 650 °F

TUBE BUNDLE DESIGN  
670 PSI 650 °F

CLASS

NP-03-0651/2MB2

2005

SERIAL NO.

YEAR BUILT

EQUIPMENT NAME: NUCLEAR STEAM GENERATOR

FORM N-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR VESSELS  
As required by the Provisions of the ASME Code Rules

P.I.F.

1. Manufactured by Westinghouse Electric Corporation, Tampa Division, Tampa, Florida  
(Name and address of Manufacturer)

2. Manufactured for Duquesne Light  
(Name and address of Purchaser)

3. Type Vertical Kind Steam Vessel No. (1302) (            ) Nat'l Bd. No. 68-46 Yr. Built 1971  
(Type or Ver. (Tank, Jacketed, Heat Ex.) (Mfr. Ser. No.) (State & State No.)  
3.1 Applicable ASME Code Section III, Edition 1965, Addenda Date 1966, Code Nos.             
Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material SA-533 Gr A CL 1 T.S. 80000 Nominal Thickness            in. Corrosion Allowance 0.06 in. Diam.            ft.            in. Length            ft.            in.  
(Kind & Spec. No.) (Min. of range specified)

5. Seams: Long Weld-Dbl Butt H.T.            Yes            X.R.            Complete            Efficiency            %  
(U Class B)  
Gr B Weld-Dbl Butt H.T.            Yes            X.R.            Complete            No. of Courses            \*

6. Heads: (a) Material SA-533 Gr A CL 1 T.S. 80000 (b) Material            T.S.             
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Convex or Concave)  
(a) Top            3.62                                  2:1                                                        Concave  
(b)                                                                                                                                    

If removable, bolts used            (Material, Spec. No., T.S., Size, Number) Other fastening            (Describe or attach sketch)

7. Assy Closure            Gr B Weld-Dbl Butt H.T.            X.R.            Complete             
Gr B Weld (Describe as gage & weld, bar, etc. If bar give dimensions, describe or sketch)

8. Constructed for design press 1085 psi at Max. temp 600 °F at temp. of +10 °F Charpy Impact 30 ft-lb Pneumatic Hydrostatic or Combination } Test Pressure 1356 psi @ 70 °F min.

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary. Material SA-508 Cl 2 Diam. 125.75 in. Thickness 21.03 in. Attachment See Item 12  
(Kind & Spec. No.) (Subject to press.) (Welded, Bolted)

Floating. Material            (Kind & Spec. No.) Diam.            in. Thickness            in. Attachment           

10. Tubes: Material SB-163 O.D. 7/8 in. Thickness .050 inches or gage Number 3388 Type U  
(Kind & Spec. No.) (Straight or U)

Items 11 to 14 incl. to be completed for primary chamber

11. Shell: Material            T.S.            Nominal Thickness            in. Corrosion Allowance            in. Diam.            ft.            in. Length            ft.            in.  
(Kind & Spec. No.) (Min. of range specified)

12. Seams: Long            (Welded, Dbl., Single) H.T.            (Yes or No) X.R.            Efficiency            %  
Gr B Weld-Dbl Butt H.T.            Yes            X.R.            Complete            No. of Courses            \*

13. Heads: (a) Material            T.S.            (b) Material Gr BCC T.S. 70000 (c) Material            T.S.             
Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (Convex or Concave)  
(a) Top, bottom, ends                                                                                                                                      
(b) Channel            5.19                                                                                                    Concave  
(c) Floating                                                                                                                                    

If removable, bolts used (a)            (b)            (c)            Other fastening            (Describe or attach sketch)

14. Constructed for specified design press 2465 psi at Max. temp 650 °F at temp. of +10 °F Charpy Impact 20 ft-lb Pneumatic Hydrostatic or Combination } Test Pressure 3106 psi @ 70 °F min.

<sup>1</sup> If Postweld Heat-Treated  
<sup>2</sup> List other internal or external pressures with coincident temperature when applicable.

\* See Dwg 1097J74.

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
rim. Inlet	1	31" I.D.	Weld	SA-216	1.5"	SA-216	Integrally
Prim. Outlet	1	31" I.D.	End	Gr WCC	1.5"	Gr WCC	Cast
Steam Outlet	1	29" I.D.	Weld	SA-508	1.5"	Steel	Welded
Feedwater	1	14.75" I.D.	End	Cl 2	.625"	Steel	Welded

17. Inspection Manholes, No. 4 Size 16" Location (2) Chamber & (2) Upper Shell  
 Openings: Handholes, No. 2 Size 6" Location Stub Barrel Portion of Lower Shell  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt NO Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other X Attached See Below  
 Four main supports are cast integral with the chamber.

19. Remarks: This N-1 form is to be signed off by the code inspector under certificate of shop inspection for everything listed except the hydrostatic test and subsequent inspection. Field inspector must sign off for the latter items on certificate of field assembly inspection below. All other mfg. is specified on manufacturer's partial data forms N-2 filed at Westinghouse.  
(Brief description of service for which vessel was designed)

**CERTIFICATION OF DESIGN**

Design information on file at Westinghouse Electric Corporation, Tampa Division, Tampa, Florida  
 Stress analysis report on file at Westinghouse Electric Corporation, Tampa Division, Tampa, Florida  
 Design specifications certified by (W) Atomic Power Division Prof. Eng. N. Setti, State Pa., Reg. No. 13331-E  
 Stress analysis report certified by (W) Atomic Power Division Prof. Eng. John Scobie, Fla., Reg. No. 13436

We certify that the statements made in this report are correct and that all details of material, design, construction, and workmanship of this pressure vessel conform to the ASME Code for Nuclear Vessels, Section I.  
 Date May 6, 1971 Signed Westinghouse Electric Corporation by S. S. [Signature]

Certificate of Authorization Expires N-122 April 10, 1972

**CERTIFICATE OF SHOP INSPECTION**

VESSEL MADE BY Westinghouse Electric Corporation at Tampa, Florida

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Illinois and employed by Westinghouse Electric Corporation, Chicago, Ill.

have inspected the pressure vessel described in this manufacturer's data report on May 14, 1971, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date May 14, 1971  
 Inspector's Signature [Signature] Commission Neil P. Board 2-157, License NBC 1172  
 Nat'l Board or Province No.

**CERTIFICATE OF FIELD ASSEMBLY INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_

have compared the statements in this manufacturer's data report with the described pressure vessel and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the ASME Code for Nuclear Vessels. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psig primary side & \_\_\_\_\_ psig secondary side.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date \_\_\_\_\_ 19\_\_\_\_\_  
 Inspector's Signature \_\_\_\_\_ Commission \_\_\_\_\_  
 Nat'l Board, State or Province and No. \_\_\_\_\_

J.O. NO. 11700  
 BOOK 123/28

Westinghouse



### Nuclear Steam Generator

Size Sq. Ft.	Serial	Primary Side	Secondary Side
51, 500	1302	Class <u>A</u>	Class <u>A</u>
Instr. Pack 1440-C216		Shell Design 2485 psig @ 650 °F	Shell Design 1055 psig @ 600 °F
NATL. BOARD NO. 68-46		Tube Bundle Design 1600 psig @ 650 °F	Tube Bundle Design 670 psig @ 650 °F
SPIN NO. D.WRC FC SG-2		Initial Hydrotest 3105 psig @ 70 °F	Initial Hydrotest 1356 psig @ 70 °F
Date <u>1971</u>		Subsequent Hydrotest Differential Pressure <u>SEE CUR SPEC</u> PSIG °F	Subsequent Hydrotest Differential Pressure <u>SEE CUR SPEC</u> PSIG °F
Westinghouse Elec. Corp.		123P387	MADE IN U.S.A.

Form No. 1826

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C. Date 4/18/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 5  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7)  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1C  
Various (Steam Generator Replacement) RCS and Support Class 1, Remainder Class 2

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, Summer 1971 Addenda, None Code Case SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda  
 (c) Applicable Section XI Code Case(s) N-416-2

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)
IRC-E-1C	Westinghouse Electric Corp	1303	68-47	N/A	1971	Removed	Yes
IRC-E-1C	Westinghouse Electric Corp	NP030651/3MB2	84	N/A	2005	Installed	Yes

7. Description of Work Replaced "A" Steam Generator as identified on orders 200136934, 200137072,  
200137108, 200137238, 200110794, 200136667, and 200202266.

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 (Back)

9. Remarks "C" Steam Generator was rereplaced by severing at nozzles from existing piping. All large bore piping (Reactor Coolant, Main Steam, and Feedwater) was severed and the existing piping was subsequently reconnected to the new replacement generator. The main steam piping had one spool pieces removed and Reinstalled and one spool piece replaced. The feedwater had piping (Continued on Supplementary Sheet Pg 3)

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 Greg Kammerdeiner Principal Consultant Date April 20, 2006  
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 PA and employed by HSB CT of Hartford, CT have inspected the components described in this Owner's Report during the period November 13, 2004 to April 18, 2006 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Dean J. Jurek Commissions NB9428 ANIB PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date April 20, 2006

FORM NIS-2 (Supplementary Sheet)

1. Owner F.E.N.O.C. Date 4-18-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 3 of 5  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7)  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1C  
Various (Steam Generator Replacement) RCS and Support Class 1, Remainder Class 2

- 5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, Summer 1971 Addenda, None, Code Case SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2
- (d) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda
- (e) Applicable Section XI Code Case(s) N-416-2

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)
IRC-E-1C	Westinghouse Electric Corp	1303	68-47	N/A	1971	Removed	Yes
IRC-E-1C	Westinghouse Electric Corp	NP030651/3MB2	84	N/A	2005	Installed	Yes

Reference Item

9

replaced and reconfigured Reactor Coolant piping was severed and rewelded at the nozzle connection only. Temporary alignment attachments were welded to the main steam and feedwater piping and subsequently removed. Attachment material was identified as ¾" Plate (A516 Gr 70) Heat 5102306/03, ¾" Plate (A36) Heat 4105241, 1" plate (A36) Heat 624050¼" Flatbar (A36) Heat JE3461 and 1" Plate (A516 Gr 70) Heat V02420. The main steam vent valve was removed and vent nipple was capped. Pipe Cap was identified as 1-1/2" 3000# (SA105) Heat 077F. The feedwater thermal liner assembly RT port plug was replaced. Plug material is 1-1/4" diameter plug Heat 8991875. Additional RT Ports were installed in the main steam piping. All new ports were plugged with RT plugs identified as 1"-8 UNC (SA105) Heat 8860857. The main steam piping was replaced with a spool identified as 32" Diameter Pipe (A691 CMS 75 Class 22) Heat U1427. Portions of the feedwater piping was replaced. The replacement material was identified as two 16" elbows (A335 Gr 11) Heats HN5185 and NHUN. A portion of pipe was also replaced in the feedwater line. The pipe is 16" Diameter (A335 P11) Heat 955637. A Weld Ring was used to perform weld build up on the main steam spool and subsequently removed. Ring material was identified as (Cont'd Supplementary Sheet pg 4)

**FORM NIS-2 (Supplementary Sheet)**

1. Owner F.E.N.O.C. Date 4-18-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 4 of 5  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders See Description of Work (Item 7)  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Steam Generator Asset Number: 1RC-E-1C  
Various (Steam Generator Replacement) RCS and Support Class 1, Remainder Class 2

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, Summer 1971 Addenda, None, Code Case  
SG - ASME Section III 1989 Edition, No Addenda, Code Cases N-20, N-71-16, N-411-1, N-474-2

(f) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda

(g) Applicable Section XI Code Case(s) N-416-2

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)
IRC-E-1C	Westinghouse Electric Corp	1303	68-47	N/A	1971	Removed	Yes
IRC-E-1C	Westinghouse Electric Corp	NP030651/3MB2	84	N/A	2005	Installed	Yes

Reference Item

9

30" Diameter (A109) Heat 569277. A new drain branch was installed in the feedwater line. Material used was 1" Sockolet (A182 F11) Heat 980ZNC with a 1" Schedule 80 nipple (A106 Gr B) Heat 601154 and new 1" 800 Lb valve (A105) Serial GY1. Smallbore piping (Blowdown and shell drain) was replaced at the nozzle connections (3 total). A Reducing insert was welded to the drain nozzle. Reducer was identified as 2" x 1" (A105) Heat 9215. The blowdown nozzle piping was replaced with 2" Diameter Schedule 80 A106 Gr C pipe Heat A80847. A new upper lateral restraint was installed with assembly manufactured by Penn State Tool and Die procured on FENOC PO 45135388. Additional material installed by site included U Bolt 1-8 UNC (A193 Gr B7) Heat 11665790, Strut Pin (SA 540 Gr B23) Heat 740333A9503, Spanner Nut (A515 Gr 70) Heat U8600, Jam Nut (A515 Gr 70) Heat U7723, 1/2" setscrew (A575) Heat 51386-01, Capscrew (A574) Heat 13883. A new spherical bearing was replaced in the support strut. Bearing material was Torrington Monoball Lot 35765. A shim plate was added to the snubber (Cont'd on supplementary sheet pg 5.



**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS\***  
As Required by the Provisions of the ASME Code, Section III, Division 1

7/19 DC  
77-6

Manufactured and certified by Westinghouse Electric Company, LLC, Nuclear Systems Steam Generator Product Line, Waltz Mill, Madison, PA, 15663  
(name and address of Manufacturer)

2. Manufactured for FirstEnergy Nuclear Operating Company  
(name and address of Purchaser)

3. Location of installation Beaver Valley Power Station Unit 1 Shippingport, PA 15077  
(name and address)

4. Type Vertical Steam Generator NP030651/3MB2 N/A 6653E95 84 2005  
(type, or vol.) (mat. jacketed, heat ex.) (Cert. Holder's serial no.) (CRHQ) (drawing no.) (Nuc'l. Bd. no.) (year built)

5. ASME Code, Section III, Division 1: 1989 no addenda 1 N-20-3, N-71-16, N-411-1, N-474-2  
(edition) (addenda date) (class) (Code Case no.)

Items 6 - 10 Inclusive to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

6. Shell: 1° 1° 1° 1° 1° 54' 7.59"  
(nom'l spec. no.) (nominal strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

7. Seams: \_\_\_\_\_  
(long.) (RT) (RT) (alt. %s) (grd) (RT) (RT) (no. of courses)

8. Heads: SA-508 Class 3 80 ksi N/A N/A  
(a) nom'l spec. no. (nominal strength) (b) nom'l spec. no. (nominal strength)

	Location (top, bottom, ends)	Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top	4.01"		N/A	N/A	2:1	N/A	N/A	N/A	Concave
)										

If removable, bolts used N/A Other fastening N/A  
(nom'l spec. no., size, qty.) (describe or attach sketch)

9. Jacket Closure: N/A  
(Describe as open & weld, bar, etc. if bar, give dimensions, describe, or sketch)

10. Design Pressure<sup>2</sup> 1085 at max. temp. 600 Min. pressure-test temp. 70 Pneu., hydro or comb. test pressure 1357  
(psf) (deg. F) (deg. F) (deg. F) (psf)

Items 11 and 12 to be completed for tube sections.

11. Tubesheets: SA-508 Class 3a 129.25" secondary/125.50" primary 21.28" Welded  
(floating, nom'l spec. no.) (dia. in. (subject to press.)) (thickness (in.)) (attachment (welded, bolted))

12. Tubes: SB-163 UNS N06690 0.875" 0.050" 3592 U  
(nom'l spec. no.) (OD (in.)) (thickness (inches or gage)) (no.) (type (straight or U))

Items 13 to 16 Inclusive to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

13. Shell: \_\_\_\_\_  
(nom'l spec. no.) (nominal strength) (nom. thickness (in.)) (min. design thickness (in.)) (dia. ID (ft. & in.)) (length (overall) (ft. & in.))

14. Seams: \_\_\_\_\_  
(long. (welded, etc., straight)) (RT) (yes or no) (RT) (alt. %s) (grd) (RT) (RT) (no. of courses)

Heads: \_\_\_\_\_  
(a) nom'l spec. no. (nominal strength) (b) nom'l spec. no. (nominal strength) (c) nom'l spec. no. (nominal strength)

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (convex or concave)
(a)	Top, bottom, ends								
(b)	Channel	7.19"	N/A	N/A	N/A	N/A	62.81"	N/A	Concave
(c)	Floating								

If removable, bolts used \_\_\_\_\_ Other fastening \_\_\_\_\_  
(nom'l spec. no., size, qty.) (describe or attach sketch)

16. Design pressure<sup>2</sup> 2485 at 650 Min. pressure-test temp. 70 Pneu., hydro or comb. test pressure 3107  
(psf) (deg. F) (deg. F) (deg. F) (psf)

\* If postweld heat treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

\* 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 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and number of sheets is recorded at top of this form.



SRPP  
FEROC  
DCA

879 26 27-1

FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS  
As Required by the Provisions of the ASME Code, Section III, Division 1

Certificate Holder's Serial No. NP030651/3MB2

Nozzles, inspection, and safety valve openings:

Purpose (inlet, outlet, drain, etc.)	Quantity	Dia. or Size	Type	How Attached	Material	Thickness	Reinforcement Material	Location
2"	2	2"	2"	2"	2"	2"	2"	2"

18. Supports: Skirt no Lugs - Legs 4 Other - Attached Channel Head - Integral Forged  
(yes or no) (quantity) (quantity) (describe) (where and how)

19. Remarks: N-2 Data Report from Equipos Nucleares, SA attached  
The length (overall) shown on the N-2 form is the total vessel length based on ENSA shipping drawing OMB2 400.0.0 Rev. 2. The length (overall) shown on the N-1 Form is the length of the vessel shell sections and does not include the upper head, channel head or tubeshoot.

CERTIFICATION OF DESIGN

Design specification certified by John S. Rees P.E. State Florida Reg. no. 47713  
Design report certified by Robert F. Condrac P.E. State Pennsylvania Reg. no. PE41768E

CERTIFICATE OF SHOP COMPLIANCE

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

N Certificate of Authorization No. N-1149 Expires 11-24-07

Date 8-31-05 Name Westinghouse Electric Co. LLC Signed [Signature]  
(N Certificate Holder) (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 HSB CT of Hartford, CT. have inspected the component described in this Data Report on 8-31-05 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this component 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 8-31-05 Signed [Signature] Commissions NB 9428 ANIB PA 2384  
(Authorized Member Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this nuclear vessel conforms to the rules of construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. \_\_\_\_\_ Expires \_\_\_\_\_

Date \_\_\_\_\_ Name \_\_\_\_\_ Signed \_\_\_\_\_  
(N Certificate Holder) (authorized representative)

CERTIFICATE OF FIELD ASSEMBLY 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 \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_ have compared the statements in this Data Report with the described component and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection, have been inspected by me on \_\_\_\_\_ and that to the best of my knowledge and belief the Certificate Holder has constructed and assembled this component 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 \_\_\_\_\_ Signed \_\_\_\_\_ Commissions \_\_\_\_\_



**FORM N-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR VESSELS**  
As Required by the Provisions of the ASME Code, Section III, Division 1

9/9 DG  
7-7-6

(Authorized Nuclear Inspector)

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

1. Manufactured and certified by Westinghouse Electric Company, LLC, Nuclear Systems Steam Generator Product Line, Waltz Mill, Madison, PA, 15663  
(name and address of N Certificate Holder)
2. Manufactured for FirstEnergy Nuclear Operating Company  
(name and address of Purchaser)
3. Location of installation Beaver Valley Power Station Unit 1 Shippingport, PA 15077  
(name and address)
4. Type Vertical Steam Generator NP030651/3MB2 N/A 6653E95 84 2005  
(basis, or var.) (mat. jacketed, base co.) (Cert. Holder's serial no.) (ORN) (drawing no.) (Nat'l. Bd. no.) (year built)
6. Shell: 1\*

(Additional shell course data table)

Shell Course Component	Material Specification No.	Tensile Strength	Nominal Thickness (inches)	Minimum Design Thickness (inches)	Inside Diameter (FL and in.)	Overall Length (FL and in.)
Upper Shell -2 Barrel	SA-508 Class 3	80 ksi	4.21"	4.17"	14' 0.50"	9' 3.50"
Upper Shell -1 Barrel	SA-508 Class 3	80 ksi	4.21"	4.17"	14' 0.50"	9' 3.50"
Conical Shell Transition	SA-508 Class 3	80 ksi	3.06"/4.19"/4.21"	3.02"/4.15"/4.17"	10' 9.38"/14' 0.50"	7' 8.75"
Lower Shell -2 Barrel	SA-508 Class 3	80 ksi	3.06"	3.02"	10' 9.38"	14' 1.42"
Lower Shell -1 Barrel	SA-508 Class 3	80 ksi	3.06"	3.02"	10' 9.38"	14' 2.42"

Nozzles, inspection and safety valve openings: 2\*

(Continuation - Shell openings data table)

Purpose (Inlet, outlet, drain, etc.)	Qty.	Dia. or Size	Type	How Attached	Material	Thickness	Reinforcement Material	Location
Primary Side Nozzle (Inlet)	1	31"	Forged	Integral	SA-508 Class 3	5.45"	Self reinforced	Primary Head
Primary Side Nozzle (Outlet)	1	31"	Forged	Integral	SA-508 Class 3	5.45"	Self reinforced	Primary Head
Primary Manway	2	16"	Forged	Integral	SA-508 Class 3	6.00"	Self reinforced	Primary Head
Steam Outlet Nozzle	1	29.375"	Forged	Integral	SA-508 Class 3	1.312"	Self reinforced	Top Head
Level Tap Nozzle	4	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Upper Shell
Pressure Tap Nozzle	2	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Upper Shell
Secondary Manway	2	16"	Weld end	Welded	SA-508 Class 3a	6.625"	Self reinforced	Upper Shell
Level Tap Nozzle	3	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Cone Shell
Feedwater Nozzle	1	14.32"	Weld end	Welded	SA-508 Class 3a	0.90"	Self reinforced	Lower Shell
Hand hole	6	6"	Forged	Integral	SA-508 Class 3	-	-	Lower Shell
Level Tap Nozzle	1	1.065"	Weld end	Welded	SA-508 Class 1a	0.466"	-	Lower Shell
Inspection Port	2	4"	Forged	Welded	SA-508 Class 3	-	-	Lower Shell
Drain Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet
Cold Leg Blowdown Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet
Hot Leg Blowdown Nozzle	1	2.406"	Weld end	Welded	SA-508 Class 1a	0.796"	-	Tubesheet

N-Certificate of Authorization No: N-1149 Expires: 11-24-07

N-Certificate Representative Signature: *[Signature]* Date: 8-51-05

ANI Signature: *[Signature]* Date: 8-31-05

ANI Commission #: NB 9428 ANIB PA 2384

SEMP  
FEMOC  
DCA

7/A  
JG  
7-76

**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

EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Maliaño (Cantabria) SPAIN

1. Manufactured and certified by EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Maliaño (Cantabria) SPAIN  
(name and address of NPT Certificate Holder)

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
(name and address of purchaser)

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA  
(name and address)

4. Type OMB2.400.0.0 Rev.2 1" 1" - 2005  
(drawing no.) (mat'l spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1989 No Addenda 1 N204, N71-15, N411-1  
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: The Part is the complete S.G.  
No design responsibility. Minimum test temperature 70°F

8. Nom. thickness (in.) 1" & 2" Min. design thickness (in.) 1" & 2" Dia. ID (ft & in.) 1" & 2" Length overall (ft & in.) 71ft. 5.04 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	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 3MB2	32	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

SQRP  
ENOC  
DCA  
JLG

10. Design pressure 1095/2485 psi psi. Temp. 600/650 °F. Hydro. test pressure 1357/3107 psi at temp. °F  
(when applicable)

\* Supplemental information in the 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.  
This form (E6694) may be obtained from the Code Dept., ASME, 22 Law Drive, Box 2900, Fairfield, NJ 07007-2900

8/19/06  
276

FORM N-2 (Back — Pg 2 of 3)

Certificate Holder's Serial Nos. 3MB2 through \_\_\_\_\_

**CERTIFICATION OF DESIGN**

Design specifications certified by NA. P.E. State NA. Reg. no. NA.  
(when applicable)

Design report\* certified by NA. P.E. State NA. Reg. no. NA.  
(when applicable)

**CERTIFICATE OF COMPLIANCE**

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

NPT Certificate of Authorization No. N-2764 Expires December 9, 2005

Date August 26, 2005 Name EQUIPOS NUCLEARES, S.A. Signed G. Cué  
(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 NEW YORK and employed by ROYAL & SUNALLIANCE of NORTH CAROLINA have inspected these items described in this Data Report on 26 AUGUST 2005, 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 26 AUG '05 Signed [Signature] Commissions NB # 10153 AB NNS ; NY # 4018  
(Authorized Nuclear Inspector) (Nat'l. Bd. find. endorsement) and state or prov. and no. 1

Notes:

- Nozzle shipping caps are not part of this manufacturer's data report.
- Hydrotest per drawing OMB2.40H.0.0 Rev.0 & OMB2.40H.0.1 Rev.1

\*The Secondary hydrotest was waived by the ANS and therefore not included in the work. HSB ANI witnessed the test on behalf of the N Certificate Holder, Westinghouse and include it in their Data Report for the component.



800P  
FENOC  
DCA

**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

Pg. 3 of 3

1. Manufactured and certified by EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Maliaño (Cantabria) SPAIN  
(name and address of NPT Certificate Holder)

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
(name and address of purchaser)

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA  
(name and address)

4. Type OMB2.400.0.0 Rev.2 1" 1" 2005  
(drawing no.) (unit, spec. no.) (tensile strength) (CR#) (year built)

5. ASME Code, Section III, Division 1: 1989 No Addenda 1  
(edition) (addenda date) (class) N20-4, N71-15, N411-1  
N474-2, N401-1, 2142-1, 2143-1  
(Code Case no.)

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

7. Remarks: The Part is the complete S.G.  
No design responsibility. Minimum test temperature 70°F

8. Nom. thickness (in.) 1" & 2" Min. design thickness (in.) 1" & 2" Dia. ID (ft & in.) 1" & 2" Length overall (ft & in.) 71ft. 5.04 in.

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

1\*

Component	Material Spec.	Tensile Strength	Thickness		Inside Dia.	Overall Length
			Nom.	Min.		
Channel Head	SA-508 Cl.3	80 ksi	7.19"	5.14"	10' 5.56"	5' 6.9"
Elliptical Head	SA-508 Cl.3	80 ksi	4.01"	3.97"	14' 0.5"	5' 3.45"
Tube Sheet	SA-508 Cl.3A	90 ksi	21.28"	21.11"	10' 9.38"	2' 3.56"
"A" Barrel	SA-508 Cl.3	80 ksi	3.35"/3.06"	3.31"/3.02"	10' 9.38"	14' 2.42"
"B" Barrel	SA-508 Cl.3	80 ksi	3.06"	3.02"	10' 9.38"	14' 1.42"
Cone	SA-508 Cl.3	80 ksi	3.06"/4.19"/4.21"	3.02"/4.15"/4.17"	10' 9.38"/14' 0.5"	7' 8.75"
"H" Barrel	SA-508 Cl.3	80 ksi	4.21"	4.17"	14' 0.5"	9' 3.5"
"J" Barrel	SA-508 Cl.3	80 ksi	4.21"	4.17"	14' 0.5"	9' 3.5"
Tubes	SB 163 UNS N06690	---	0.05"	---	OD 0.875"	Qty. 3592"U"

## 2\* Nozzles, Inspection and Safety Valve Opening

Purpose	Qty.	Dia. (In)	Type	How attached	Material Spec.	Thickness	Reinforcement material	Location
Feedwater nozzle	1	14.32"	Welded end	Welded	SA-508 Cl.3A	0.90"	Selfreinforced	Secondary
Primary nozzles	2	31"	Forged	Integral	SA-508 Cl.3	5.45"	Selfreinforced	Primary
Blowdown nozzles	2	2.406"	Welded end	Welded	SA-508 Cl.1A	0.796"	---	Secondary
Shell drain nozzle	1	2.406"	Welded end	Welded	SA-508 Cl.1A	0.796"	---	Secondary
Water level nozzle	8	1.065"	Welded end	Welded	SA-508 Cl.1A	0.466"	---	Secondary
Steam outlet	1	29.375"	Forged	Integral	SA-508 Cl.3	1.313"	Selfreinforced	Secondary
Primary manways	2	16"	Forged	Integral	SA-508 Cl.3	6.00"	Selfreinforced	Primary
Second. manways	2	16"	Welded end	Welded	SA-508 Cl.3A	6.625"	Selfreinforced	Secondary
Handholes	6	5.991"	Forged	Integral	SA-508 Cl.3	---	---	Secondary
Inspection ports	2	4.01"	Forged	Welded	Inconel (F43)	2.56"	---	Secondary
Pressure Tap nozzle	2	1.065"	Welded end	Welded	SA-508 Cl.1A	0.466"	---	Secondary

**Weld Overlay:** Primary side surface of the tube plate is overlaid with weld-deposited nickel-chromium-iron alloy. The Channel head interior surfaces, including nozzles and manways overlaid with stainless steel weld deposit. Primary Nozzles include safe-ends of 316 LN material.

S&P  
F&I/C  
DCAEJN  
03/9

NUMBER 32

CERTIFIED BY

EQUIPOS NUCLEARES, S.A.  
CANTABRIA - SPAIN

CLASS 1

3MB2  
MFG. SERIAL No.

2005  
YEAR BUILT

EQUIPMENT NAME: NUCLEAR STEAM GENERATOR



NATIONAL BOARD NO. 84  
CERTIFIED BY:  
WESTINGHOUSE ELECTRIC COMPANY LLC  
MONROEVILLE, PENNSYLVANIA, USA



CLASS 1

PRIMARY SIDE	SECONDARY SIDE
CHAMBER DESIGN 2485 PSIG 650 °F	SHELL DESIGN 1085 PSIG 600 °F
TUBE BUNDLE DESIGN 1600 PSI 650 °F	TUBE BUNDLE DESIGN 670 PSI 650 °F
<u>NP-03-0651/3MB2</u> SERIAL NO.	<u>2005</u> YEAR BUILT



EQUIPMENT NAME: NUCLEAR STEAM GENERATOR



**FORM N-1 MANUFACTURERS' DATA REPORT FOR NUCLEAR VESSELS**  
As required by the Provisions of the ASME Code Rules

1217

1. Manufactured by Westinghouse Electric Corporation, Tampa Division, Tampa, Florida  
(Name and address of Manufacturer)

2. Manufactured for Duquesne Light  
(Name and address of Purchaser)

3. Type Vertical Kind Steam Gen Vessel No. (1003) (          ) (          ) Nat'l. Bd. No. 68-47 Yr. Buil. 1971  
(Type, Kind, Jacketed, Heat Exch.) (Wgt. Spec. No. (State & State No.)) (Date)  
3a. Applicable ASME Code Section III, Division 1(b), Addenda Date 1966 Case Nos.           
Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material SA-533 Gr A CL 1 T.S. 80000 Nominal Thickness          in. Corrosion Allowance 0.06 in. Diam.          ft. Length          ft. in.  
(Kind & Spec. No.) (Min. of range specified)

5. Seams: Long Weld-Dbl Butt H.T. Yes X.R. Complete Efficiency          %  
(U Class B)  
Girth Weld-Dbl Butt H.T. Yes X.R. Complete No. of Courses          \*

6. Heads (a) Material SA-533 Gr A CL 1 T.S. 80000 (b) Material          T.S.         

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Convex or Concave)
(a) Top	3.62			2:1				Concave
(b)								

If removable, bolts used          (Material, Spec. No., T.S., Size, Number) Other fastening          (Describe or attach sketch)

7. Assy. Closure \* Girth Weld-Dbl Butt; H.T.; X.R. Complete  
(Describe as open & weld, bar, etc. If bar give dimensions, describe or sketch)  
Girth Weld         

8. Constructed for design press. 1085 psi at Max. temp 600 °F at temp. of +10 °F Charpy Impact 30 ft-lb Pneumatic Hydrostatic or Test Pressure 1356 psi  
(@ 70 °F Min.)

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary: Material SA-508 CL 2 Diam. 125.75 in. Thickness 21.03 in. Attachment See Item 12  
(Kind & Spec. No.) (Subject to press.) (Welded, Bolted)

10. Tubes: Material SB-163 O.D. 7/8 in. Thickness .050 inches or gage Number 3388 Type U  
(Kind & Spec. No.) (Straight or U)

Items 11 to 14 incl. to be completed for primary chamber

11. Shell: Material          T.S.          Nominal Thickness          in. Corrosion Allowance          in. Diam.          ft. Length          ft. in.  
(Kind & Spec. No.) (Min. of range specified)

12. Seams: Long Weld-Dbl, Single H.T.          (Yes or No) X.R.          Efficiency          %  
(U Class B)  
Girth Weld-Dbl Butt H.T. Yes X.R. Complete No. of Courses          \*

13. Heads: (a) Material          T.S.          (b) Material SA-216 T.S. 70000 (c) Material          T.S.         

Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Press. (Convex or Concave)
(a) Top, bottom, ends								
(b) Channel	5.19							Concave
(c) Floating								

If removable, bolts used (a)          (b)          (c)          Other fastening           
(Material, Spec. No., T.S., Size, Number) (Describe or attach sketch)

14. Constructed for specified design press. 2485 psi at Max. temp 650 °F at temp. of +10 °F Charpy Impact 20 ft-lb Pneumatic Hydrostatic or Test Pressure 3106 psi  
(@ 70 °F Min.)

\* If Postweld Heat-Treated.  
\* List other internal or external pressures with coincident temperature when applicable.

\* See Dwg. 1097J74

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Prim. Inlet	1	31" I.D.	Weld	SA-216	1.5"	SA-216	Integrally
Prim. Outlet	1	31" I.D.	End	Gr. WCC	1.5"	Gr. WCC	Cast
Steam Outlet	1	29" I.D.	Weld	SA-508	1.5"	Steel	Welded
Feedwater	1	14.75" I.D.	End	CL 2	.625"	Steel	Welded

17. Inspection Manholes, No. 4 Size 16" Location (2) Chamber & (2) Upper Shell

Openings: Handholes, No. 2 Size 6" Location Stub Barrel Portion of Lower Shell

Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Skirt No \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Other X Attached See Below

Four main supports are cast integral with the chamber.

19. Remarks: This N-1 form is to be signed off by the code inspector under certificate of shop inspection for everything listed except the hydrostatic test and subsequent inspection. Field inspector must sign for the latter items on certificate of field assembly inspection below. All other mfg. is specified on manufacturer's partial data forms N-2 filed at Westinghouse.

**CERTIFICATION OF DESIGN**

Design information on file at Westinghouse Electric Corporation, Tampa Division, Tampa, Florida

Stress analysis report on file at Westinghouse Electric Corporation, Tampa Division, Tampa, Florida

Design specifications certified by (W) Atomic Power Division Prof. Eng. H. Seth Pa. Reg. No. 13331-E

Stress analysis report certified by (W) Atomic Power Division Prof. Eng. Louis Pa. Reg. No. 13436

We certify that the statements made in this report are correct and that all details of material, design, construction, and workmanship of this pressure vessel conform to the ASME Code for Nuclear Vessels, Section III.

May 6, 1971 Signed Westinghouse Electric by R. E. Weddell

Certificate of Authorization Expires N-122 April 10, 1972

**CERTIFICATE OF SHOP INSPECTION**

VESSEL MADE BY Westinghouse Electric Corporation at Tampa, Florida

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Pennsylvania and employed by Ludlum-McIntosh Co. P.O. Box 20

have inspected the pressure vessel described in this manufacturer's data report on May 19 1971, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date May 14 1971

L. E. Weddell Inspector's Signature

Commission Nat'l Board 2657 Penna #VC 1772 Nat'l Board or Province NO.

**CERTIFICATE OF FIELD ASSEMBLY INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of \_\_\_\_\_ and employed by \_\_\_\_\_

have compared the statements in this manufacturer's data report with the described pressure vessel and state that parts referred to as data items \_\_\_\_\_, not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the ASME Code for Nuclear Vessels. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psig primary side & \_\_\_\_\_ psig secondary side.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date \_\_\_\_\_ 19\_\_\_\_

Inspector's Signature \_\_\_\_\_ Commission \_\_\_\_\_ Nat'l Board, State or Province and No. \_\_\_\_\_

Printed in U.S.A. (4/70) This Form is obtainable from the ASME, 345 E. 47th St., New York, N.Y. 10017

Westinghouse



### Nuclear Steam Generator

Size Sq. Ft. 51 500	Serial 1303	Primary Side Class A	Secondary Side Class A
Instr. Spec: 1440 - C216		Shell Design 2435 psig @ 650 °F	Shell Design 1085 psig @ 350 °F
NATL. BOARD NO. 68-47		Tube Sheet Design 1600 psig @ 650 °F	Tube Sheet Design 670 psig @ 350 °F
SFIN NO. DLW FC PC SG-3		Initial Hydrotest 3106 psig @ 70 °F	Initial Hydrotest 1356 psig @ 70 °F
DATE 1971		Subsequent Hydrotest 5000 psig @ 350 °F	Subsequent Hydrotest 5000 psig @ 350 °F

Westinghouse Elec. Corp.

1237397

MADE IN U.S.A.

Form No. 1827

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C. Date 4/17/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders 200133608, 200133612, 200133613, 200133630  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Containment Structure

5. (a) Applicable Construction Code ASME Section III 1968 Edition, N/A Addenda, None Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1992 Edition 1992 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)
Containment Structure	Graver Tank	N/A	N/A	BV-1-RCBX	1973	Partially Removed	No
Containment Structure	Graver Tank	N/A	N/A	BV-1-RCBX	2006	Partially Reinstalled	No

7. Description of Work Removed portion of containment structure including concrete, reinforcing steel, and steel liner plate to facilitate the replacement of Steam Generators and Reactor Head.

8. Tests Conducted: Hydrostatic\*  Pneumatic\*  Nominal Operating Pressure  Exempt   
 Other  Pressure 58.6391 psia Test Temp. 72.300 °F

FORM NIS-2 (Back)

9. Remarks Containment structure components / materials removed for access opening to containment were  
Applicable Manufacturer's Data Reports to be attached  
restored to original configuration. Replacement consisted of reinstalling door sheet that was removed from the  
steel liner plate (approximately 19' x 20' area) Two flush patches were installed in the door sheet by welding  
prior to reinstalling the door sheet to address local areas of corrosion. The patch material installed was  
(Continued on Supplementary Sheet Pg 3)

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 *Greg Kammerdeiner* Principal Consultant Date April 20, 2006  
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 PA and employed by HSB CT of Hartford, CT have inspected the components described in this Owner's Report during the period November 13, 2004 to April 18, 2006 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. Jirik* Commissions *IN PA2384*  
Inspector's Signature National Board, State, Province, and Endorsements

Date April 20, 2006

FORM NIS-2 (Supplementary Sheet)

1. Owner F.E.N.O.C. Date 4-17-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 3 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders 200133608, 200133612, 200133613, 200133630  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Containment Structure

5. (a) Applicable Construction Code ASME Section III 1968 Edition, N/A Addenda, None Code Case  
 (d) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1992 Edition 1992 Addenda  
 (e) 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)
Containment Structure	Graver Tank	N/A	N/A	BV-1-RCBX	1973	Partially Removed	No
Containment Structure	Graver Tank	N/A	N/A	BV-1-RCBX	2006	Partially Reinstalled	No

Reference Item 9

3/8" Plate (SA 516 Gr 60) Heat T6585. Alignment fixtures identified as ¼" plate material (A516 Gr 70) Heat 5102306 / 03 were attached and abandoned in place to the interior liner plate. Alignment fixtures identified as ½" plate material (A36) Heat JE3461 were welded and subsequently removed from the liner plate. Lifting blocks to facilitate removal / reinstallation of the door sheet were attached and remain in place to the exterior of the door sheet by welding. Block material was identified as 1-1/2" Plate (A36) Heat U2112/6D. After door sheet was reinstalled Nelson studs were reattached to exterior of liner plate by stud welding. These studs were used to replace studs removed to facilitate plate cutting / removal and studs that were identified as damaged. The new stud materials were 5/8" Diameter A108 Heat 7201435 and ½-13 UNC A108 Heat 7284024. Reinforcing bar was then reinstalled by cadweld splicing. Bar was reused from supply removed from original structure. Damaged material was replaced. Reinforcing bar replaced was (All rebar material A615 Grade 60) #18 Rebar Heat V5-2955, #14 Rebar Heat C504062 and #4 rebar Heat C504062. Cad weld material used were sleeves identified as 3-3/4" OD Heat 4M44686, 5-1/4" OD Heat 3M39546 and 4M44686. Exothermic Filler Metal was identified as Batch numbers N12868, N12878, 12871, N12859, N12867, N12877, N12876, N12847, N12880, NM12870, 12861, N12879, N12869, N12875. Concrete was then replaced in construction opening. Concrete materials used for mixture were identified (Continued on supplementary Sheet 4)

## FORM NIS-2 (Supplementary Sheet)

1. Owner F.E.N.O.C. Date 4-17-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 4 of 4  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Orders 200133608, 200133612, 200133613, 200133630  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Containment Structure

5. (a) Applicable Construction Code ASME Section III 1968 Edition, N/A Addenda, None Code Case  
 (f) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1992 Edition 1992 Addenda  
 (g) 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)
Containment Structure	Graver Tank	N/A	N/A	BV-1-RCBX	1973	Partially Removed	No
Containment Structure	Graver Tank	N/A	N/A	BV-1-RCBX	2006	Partially Reinstalled	No

Reference Item 9

as Pozzolith 200N (ASTM C494) Lot 171436910W5, Micro-Air (ASTM C260) Lot M171436911W5, and Rheobuild 1000 (ASTM C494 and ASTM C1017) Lot M171436079W5. Additionally all testing requirements (see below) identified in approved Relief Request BV3-IWE-1-4 were performed to satisfy Pressure testing requirements. Type "A" test was performed on the containment structure at 58.6391 psia and 72.300° F (reference FENOC 1BVT-1.47.2 test results).

Relief Request Testing:

1. Visual (VT) examinations and Magnetic Particle (MT) testing of the completed steel liner plate weld and attachment welds.
2. Spot Radiographic Testing (RT) examination of the completed full penetration steel liner plate weld.
3. Vacuum-Box testing of the completed full penetration steel liner plate weld.
4. VT-1 examinations of the welds and surrounding areas of the restored containment liner plate interior and exterior surfaces.
5. VT-3 examination of the inside surface of the containment liner plate after coatings were applied.
6. 10 CFR 50 Appendix J, Type A pneumatic leakage test of the containment pressure retaining boundary after restored reinforced concrete attained proper strength.

Form No. 1828

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date 04-11-2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200156046  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Construction Serv. Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Piping	Schneider Power	N/A	N/A	WR-19	1976	Removed	No
Piping	FENOC	N/A	N/A	WR-19	2006	Installed	No

7. Description of Work Replaced tee, pipe, flange, and flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Replaced 24" tee (Ht. #NFDI, PO #45172997), 24" flange (Ht. #HF-3, PO #45184246), 24" pipe (AO1374, PO #45166674), and rebuilt support R-50.  
Applicable Manufacturer's Data Reports to be attached

Replacement 1-1/4" Studs: Ht. #P918 P.O. 47082958; Nuts: Ht. #P921 P.O. 47082958. Previous NIS-2 Data Report No. 1803.

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] Senior Specialist Date April 21, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-24-, 20 06

Form No. 1829

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date May 17, 2006  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200144326  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Chemical and Volume Control (Q1)

5. (a) Applicable Construction Code ANSI B31.1 1971 Edition, S'71 Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built**	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Rockwell-Edwards	N/A	N/A	1CH-1	1976	Removed	No
Globe Valve	Flowsolve	---	N/A	1CH-1	2006	Installed	No

7. Description of Work Replaced valve and pipe nipple 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 (Back)

9. Remarks No Code Data Reports available. \*\*Year installed. Replacement 2" NPS pipe: Ht. #34843.  
Applicable Manufacturer's Data Reports to be attached  
P.O. 45168782. New valve was manufactured to ASME Section III 1983E but not Code stamped.  
New valve was originally supplied under P.O. 7066622, but was returned to Flowserve and  
disassembled for internal cleaning under P.O. 55102271. Serial number was not recorded.

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] Senior Specialist Date May 31, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, P + 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1830

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date May 17, 2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200123823  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date                     

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Piping	Stone & Webster	N/A	N/A	WR-1	1976	Corrected	No

7. Description of Work Replaced flange, pipe, and studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Report available. \*\*Year installed. Replacement 20" Pipe: Ht. #U23203,  
Applicable Manufacturer's Data Reports to be attached  
P.O. 45153956; Flange: Ht. #227B566, P.O. 45153956. Replacement 1-1/8" Studs: Ht. #J218,  
P.O. 7123870; Bolts: Ht. #QQQ, P.O. 45189015; Nuts: Ht. #TRS, P.O. 7123870; Ht. #13616 TRS,  
P.O. 7121785.

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] Senior Specialist Date June 12, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, P 42384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-13-, 20 06

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C.  
(NAME)  
76 South Main Street – Akron, OH 44308  
(ADDRESS)

Date 12/15/05

Sheet 1 of 1

2. Plant Beaver Valley Power Station  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1

200166559  
REPAIR ORGANIZATION P.O. NO., JOB NO., ETC.

3. Work Performed By Plant Engineering  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Type Code Symbol Stamp Not Applicable

Authorization No. N/A

Expiration Date "

4. Identification of System Containment Depressurization/Safety Injection

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989E

6. Identification of Components Repaired or Replaced and Replacements Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (YES or NO)
Snubber	Grinnell	9188	N/A	BV-SI-PSSP-2	—	Replaced	No
Snubber	Grinnell	22179	N/A	BV-SI-PSSP-2	—	Replacement	No

7. Description of Work Replaced snubber with spare for testing/refurbishment purposes.

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

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Data Reports  
are available. The snubber was purchased non-NF components (non-code).

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this Replacement  
conforms to the rules of the ASME Code Section XI. Repair Or Replacement

Type Code Symbol Stamp N/A

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

Signed Robert B. Brooks Date 12/15, 2005  
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 CT of Hartford, CT. have inspected the components described in the

Owner's Report during the period 11-13-04 to 12-16-05, 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. Zynik Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 12-16-, 2005

Form No. 1832

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200172969  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Construction Serv. Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date         

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Ball Valve	BNL Industries	B021016-1-11	N/A	IRW-125	2003	Corrected	No
Valve End Cap	BNL Industries	B021016-1-3	N/A	---	2003	Installed	No

7. Description of Work Replaced valve end cap and pipe piece.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 1571.  
Applicable Manufacturer's Data Reports to be attached  
Replaced inlet side 6" NPS pipe piece: Ht. #893240, P.O. 7058537.

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] Senior Specialist Date April 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-17-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions INS, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-17-, 20 06

Form No. 1833

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200172968  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Serv. Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Ball Valve	BNL Industries	B021016-1-1	N/A	IRW-126	2003	Corrected	No
Valve End Cap	BNL Industries	B021016-1-3	N/A	---	2003	Installed	No

7. Description of Work Replaced valve end cap and pipe piece.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 1571.  
Applicable Manufacturer's Data Reports to be attached  
Replaced inlet side 6" NPS pipe piece: Ht. #893240, P.O. 7058537.

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] Senior Specialist Date April 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-17-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I.N. PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-17-, 20 06

Form No. 1834

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/17/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200172898  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Serv. Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Ball Valve	BNL Industries	B021016-1-9	N/A	1RW-129	2003	Corrected	No
Valve End Cap	BNL Industries	B021016-1-4	N/A	---	2003	Installed	No

7. Description of Work Replaced valve end cap and pipe piece.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 1571.  
Applicable Manufacturer's Data Reports to be attached  
Replaced outlet side 6" NPS pipe piece: Ht. #893240, P.O. 7058537.

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] Senior Specialist Date May 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, P 42384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-17-, 20 06

Form No. 1835

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200172967  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Serv. Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Ball Valve	BNL Industries	B021016-1-6	N/A	IRW-130	2003	Corrected	No
Valve End Cap	BNL Industries	B021016-1-4	N/A	---	2003	Installed	No

7. Description of Work Replaced valve end cap and pipe piece.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 1571.  
Applicable Manufacturer's Data Reports to be attached  
Replaced outlet side 6" NPS pipe piece: Ht. #893240, P.O. 7058537.

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] Senior Specialist Date April 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-17-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions E, N, P 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-17-, 20 06

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C.  
(NAME)  
76 South Main Street – Akron, OH 44308  
(ADDRESS)

Date 1/04/06

Sheet 1 of 1

2. Plant Beaver Valley Power Station  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1

200014091  
REPAIR ORGANIZATION P.O. NO., JOB NO., ETC.

3. Work Performed By Plant Engineering  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Type Code Symbol Stamp Not Applicable

Authorization No. N/A

Expiration Date "

4. Identification of System River Water

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, §71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989E

6. Identification of Components Repaired or Replaced and Replacements Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, Or Replacement	ASME Code Stamped (YES or NO)
Snubber	Grinnell	8768	N/A	BV-WR-HSS-311	--	Replaced	No
Snubber	Grinnell	8374	N/A	BV-WR-HSS-311	--	Replacement	No

7. Description of Work Replaced snubber with spare because of leakage.

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

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Data Reports  
are available. The snubber was purchased non-NF components (non-code).

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in the report are correct and this Replacement  
conforms to the rules of the ASME Code Section XI. Repair Or Replacement

Type Code Symbol Stamp \_\_\_\_\_ N/A

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

Signed Robert B. Brooks      Date JAN 4, 2006  
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 CT of Hartford, CT. have inspected the components described in the Owner's Report during the period 11-13-04 to 1-4-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Dean J. Zylich      Commissions P.N. PA 2384  
Inspector's Signature      National Board, State, Province, and Endorsements

Date 1-4-, 2006

Form No. 1840

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C.  
(NAME)  
76 South Main Street - Akron, OH 44308  
(ADDRESS)

Date 4-17-06  
Sheet 1 of 3

2. Plant Beaver Valley Power Station  
(NAME)  
Route 168 - Shippingport, PA 15077  
(ADDRESS)

Unit No. 1  
Orders 200138272, 200152706, 200124578  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Westinghouse / Beaver Valley  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

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, 1968 Edition, 1970 Addenda, None Code Case 2142-1, 2143-1, N474-1
- (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda
- (c) Applicable Section XI Code Case(s) N-416-2

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 Pressure Vessel ClosureHead	Westinghouse	CE 69203	21011	BV-IRC-R-1	1973	Removed	Yes
Reactor Pressure Vessel Head	Equipos Nucleares S.A.	1MB1	29	BV-IRC-R-1	2005	Installed	Yes
CRDM Appurtenances	Curtiss-Wright Electro-Mechanical Corp	Various (See Remarks)	N/A	N/A	2005	Installed	Yes

7. Description of Work Installed New Reactor Pressure Vessel Head with 48 CRDM, 4 CETNA, and 8 Adapter Cap Canopy Seal Welds. Reinstalled 6 Sway Braces, with 3 modified shroud support using the Westinghouse design Simplified Head Assembly. Reactor Pressure Vessel Head was reinstalled by refueling group.

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

FORM NIS-2 (Back)

9. Remarks Reactor Vessel Head Data Report includes CRDM Housings, Adapter Plugs, Vent Piping, And Lifting Lugs. CETNA Serial Numbers B1204001, B1204002, B1204003, and B1204005 Heat Number 238340. Manufactured to ASME Section III 1989 Ed-No Add. CRDM Appurtenances manufactured to ASME Section III 1968 Ed - W '69Add. (Continued on Supplementary Sheet Page 3).

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 Greg Kammerdeiner Principal Consultant Date April 20, 2006  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period November 13, 2004 to April 18, 2006 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. Zyzanski  
Inspector's Signature

Commissions NB9428 A-JIB P12384  
National Board, State, Province, and Endorsements

Date April 20, 2006

FORM NIS-2 (Supplementary Sheet)

1. Owner F.E.N.O.C.  
(NAME)  
76 South Main Street – Akron, OH 44308  
(ADDRESS)

Date 4-17-06

Sheet 3 of 3

2. Plant Beaver Valley Power Station  
(NAME)  
Route 168 – Shippingport, PA 15077  
(ADDRESS)

Unit No. 1

Orders 200138272, 200152706, 200124578

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

3. Work Performed By Westinghouse / Beaver Valley  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

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 1968 Edition, 1970 Addenda, None Code Case 2142-1, 2143-1, N474-1

(d) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda

(e) Applicable Section XI Code Case(s) N-416-2

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 Pressure Vessel Head	Westinghouse	CE69203	21011	BV-IRC-R-1	1973	Removed	Yes
Reactor Pressure Vessel Head	Equipos Nucleares S.A.	1MB1	29	BV-IRC-R-1	2005	Installed	Yes
CRDM Appurtenances	Curtiss-Wright Electro-Mechanical Corp	Various (See Remarks)	N/A	N/A	2005	Installed	Yes

Reference Item

9

48 CRDM appurtenances installed consist of Serial Number identifications 001-6D69670G01-006 through 048-6D69670G01-006. Shroud Support was modified using additional sway brace lugs attached to the underside of shroud. Details of work performed identified on referenced Orders.

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Corrected copy  
Date: April 10th., 2006

**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

Pg. 1 of 3

**EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Maliaño (Cantabria) SPAIN**  
(Name and address of NPT Certificate Holder)

1. Manufactured and certified by \_\_\_\_\_  
(Name and address of NPT Certificate Holder)

2. Manufactured for **WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)**  
(Name and address of purchaser)

3. Location of installation **BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA**  
(Name and address)

4. Type **1MB1.000.0.0 Rev.2** **1"** **1"** **2005**  
(Drawing no.) (mat'l. spec. no.) (Design strength) (CAN) (Year built)

5. ASME Code, Section III, Division 1: **1989** **No Addenda** **1** **2142-1, 2143-1, N474-1**  
(Edition) (Addenda date) (Class) (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) \_\_\_\_\_ Revision \_\_\_\_\_ Date \_\_\_\_\_  
(No.)

7. Remarks: **The Part is a complete Reactor Pressure Vessel Head**  
**With design responsibility, Design Report No. 1MB1ADRD1 Rev 4**

8. Nom. thickness (in.) **1"** Min. design thickness (in.) **1"** Dia. ID (ft & in.) **12" 5.25"** Length overall (ft & in.) **8' 0.75"**

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	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <b>1MB1</b>	<b>20</b>	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure **2485 psig** psi. Temp. **650** °F. Hydro. test pressure **3106 psig** at temp. °F  
(When applicable)

\* Supplemental information in the 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.

FORM N-2 (Back -- Pg 2 of 3)

Corrected copy  
Date: April 10th., 2006

Certificate Holder's Serial Nos. 1MB1 through: \_\_\_\_\_

CERTIFICATION OF DESIGN

Design specifications certified by Joselito O. Calle P.E. State Virginia Reg. no. 024373  
(when applicable)  
Design report certified by Jesus M. Collado P.E. State Maine Reg. no. 5175  
(when applicable)

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-2764 Expires December 2, 2005  
Date April 10th., 2006 Name EQUPOS NUCLEARE6, S.A. Signed G. Cue  
(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 New York and employed by Royal & Sun Alliance Insurance of Manchester, England have inspected these items described in this Data Report on 10 April 2006 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 10 April 2006 Signed [Signature] Commissions NB#10153A 8NNS, NY#4018  
(Authorized Nuclear Inspector) (N.B. Bd. (incl. endorsements) and state or prov. and no.)

Corrected copy  
Date: April 10th., 2006

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

Pg. 3 of 3

1. Manufactured and certified by EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I. 8 - 38200 Alatriño (Cantabria) SPAIN  
name and address of NPT Certificate Holder

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - P.O. Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
name and address of purchaser

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough Beaver County, Pennsylvania, USA  
name and address

4. Type IMB1.000 0.0 Rev 2 1" 1" 2005  
(Drawing no.) (nom. spec. dia.) (nominal strength) (CRN) (year built)

5. ASME Code, Section III, Division I: 1989 No Addenda 1 2142-1, 2143-1, 2474-1  
(edition) (addenda date) (class) (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) \_\_\_\_\_ Revision \_\_\_\_\_ Date \_\_\_\_\_  
(spec.)

7. Remarks: The Part is a complete Reactor Pressure Vessel Head  
With design responsibility, Design Report No. 1MB1ADR01 Rev 4

8. Nom. thickness (in.) 1" Min. design thickness (in.) 1" Dia. ID (ft & in.) 12' 5.25" Length overall (ft & in.) 8' 0.75"

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

1\*

Component / Qty.	Material Spec.	Tensile Strength	Thickness		Inside Dia.	Overall Length
			Nom.	Min.		
Closure Head/1	SA-508 Cl.3	80 ksi	6.35"	6.188"	12' 5.25"	8' 0.75"
CROM Housings/56	SB-167 Alloy N06690TT	85 ksi	0.625"	0.625"	2.75"	From 3' 2.5" to 4' 10.5"
Housing Adaptor Plugs/8	SA-182 F 304	75 ksi	0.939"	0.937"	6.122"	7.607"
Lifting Lugs/3	SA-533 Type B Cl.2	90 ksi	2.992"	2.874"	----	1' 5.1"
Vent Pipes/2	SB-187(690) SA-312 Tp 316	85 ksi/75 ksi	1" SCH 160		---	---
Instrument Columns/4	SB-167(690)	85 ksi	0.625"	0.625"	2.75"	55.875

Note: The Reactor Pressure Vessel Head and the Housing Adaptor Plugs have been hydro-tested.

**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

Pg. 1 of 2

**Curtiss-Wright Electro-Mechanical Corporation**  
 1000 Cheswick Avenue, Cheswick, PA 15024

1. Manufactured and certified by First Energy Beaver Valley Nuclear (Name and address of NPT Certificate Holder) Power Station Unit 1  
P.O. Box 004, Route 168, Shippingport, PA 15077

2. Manufactured for First Energy Beaver Valley Nuclear (Name and address of purchaser) Power Station Unit 1  
P.O. Box 004, Route 168, Shippingport, PA 15077

3. Location of installation P.O. Box 004, Route 168, Shippingport, PA 15077

4. Type 6D69670 Rev. 6 SA-336 F304LN 70,000 2005  
(Working no.) (Mat'l spec. no.) (Nominal weight) (CRW) (Serial No.)

5. ASME Code, Section III, Division 1: 1968 Winter 1969 I  
(Edition) (Address date) (Article) (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) --- Revision --- Date ---

7. Remarks: These Class 1 appurtenances consist of a single type F304LN SST section and will ultimately attach to a reactor vessel. The bottom of the appurtenance is prepared for field welding.

8. Nom. thickness (in.) .62 Min. design thickness (in.) .46 Dia. ID (R & L) 0' 5" Length overall (R & L) 18' 190"

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	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) 001-6D69670G01-006	---	(26) 026-6D69670G01-006	---
(2) 002-6D69670G01-006	---	(27) 027-6D69670G01-006	---
(3) 003-6D69670G01-006	---	(28) 028-6D69670G01-006	---
(4) 004-6D69670G01-006	---	(29) 029-6D69670G01-006	---
(5) 005-6D69670G01-006	---	(30) 030-6D69670G01-006	---
(6) 006-6D69670G01-006	---	(31) 031-6D69670G01-006	---
(7) 007-6D69670G01-006	---	(32) 032-6D69670G01-006	---
(8) 008-6D69670G01-006	---	(33) 033-6D69670G01-006	---
(9) 009-6D69670G01-006	---	(34) 034-6D69670G01-006	---
(10) 010-6D69670G01-006	---	(35) 035-6D69670G01-006	---
(11) 011-6D69670G01-006	---	(36) 036-6D69670G01-006	---
(12) 012-6D69670G01-006	---	(37) 037-6D69670G01-006	---
(13) 013-6D69670G01-006	---	(38) 038-6D69670G01-006	---
(14) 014-6D69670G01-006	---	(39) 039-6D69670G01-006	---
(15) 015-6D69670G01-006	---	(40) 040-6D69670G01-006	---
(16) 016-6D69670G01-006	---	(41) 041-6D69670G01-006	---
(17) 017-6D69670G01-006	---	(42) 042-6D69670G01-006	---
(18) 018-6D69670G01-006	---	(43) 043-6D69670G01-006	---
(19) 019-6D69670G01-006	---	(44) 044-6D69670G01-006	---
(20) 020-6D69670G01-006	---	(45) 045-6D69670G01-006	---
(21) 021-6D69670G01-006	---	(46) 046-6D69670G01-006	---
(22) 022-6D69670G01-006	---	(47) 047-6D69670G01-006	---
(23) 023-6D69670G01-006	---	(48) 048-6D69670G01-006	---
(24) 024-6D69670G01-006	---	(49) 049-6D69670G01-006	---
(25) 025-6D69670G01-006	---	(50) ---	---

10. Design pressure 2500 psi. Temp. 650 F. Hydro. test pressure 3750 PSIO at temp. ---  
(When applicable)

\* Supplemental information in the form of test 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.

(11/03)

PD 58101748  
 END  
 WEC  
 SVI  
*[Handwritten initials]*

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

Certificate Holder's Serial No. 001\* through 049\*

CERTIFICATION OF DESIGN

Design specifications certified by Harshad C. Jambusaria PE State PA Reg. no. PE026695E  
Design reports certified by James D. Price PE State PA Reg. no. PE032823E

CERTIFICATE OF COMPLIANCE

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

NPT Certificate of Authorization No. N-1386 Expires 5/14/06

Date 1/4/06 Name Curtiss-Wright Signed [Signature]  
Electro-Mechanical Corporation  
(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 Pennsylvania and employed by One Beacon Insurance Company

of Boston, Massachusetts have inspected these items described in this Data Report on 01-04-2006, 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 data 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 01-04-2006 Signed [Signature] Contributions PA-2006  
(Authorized Signatory Inspected) (Part, Pt. No., Sec., Ed., Code, Division and State or Prov. and City)

\*6D69670G01-006

PO 55101746  
END  
WEC  
BVI

Contract 5069

FORM N-1 MANUFACTURERS DATA REPORT FOR NUCLEAR VESSELS As required by the Provisions of the ASME Code Rules and the National Board

Sheet 1 of 2

1. Manufactured by Combustion Engineering, Inc., 911 W. Main Street, Chattanooga, Tenn.

2. Manufactured for Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, Pa. Clo. Bd. No. CB59203

3. Type Vert Kind Tank, Jacketed, Heat Ex. Vessel No. (CR 69103) (Name and address of Purchaser) (Other Serial No.) (State & State No.) Nat'l Bd. No. 21011 Tr. Bull. 1971

Items 4-8 incl. to be completed for single wall vessels, jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material BA-533 GR. B, CL-1 T.S. 80,000 Thickness 7 7/8 in. Corrosion Allowance N/A in. Dia. 13 1 3/8 in. Length 40 ft 5 1/16 in. Over Heads

5. Seams: Long DBL. Butt H.T. YES X.R. YES Efficiency % (If Class B) Girth DBL. Butt H.T. YES X.R. YES No. of Courses 3

6. Heads: (a) Material BA-533 GR. B, CL-1 T.S. 80,000 Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. Concave

If removable, bolts used Alloy Stl. A SA-540 GR. 2, 145,000, 6", 58 Other fastening

7. Jacket Closure Describe an edge & weld, bar, etc. if bar give dimensions, describe or sketch

8. Constructed for operating press. 2235 psi at Max. temp. 543 °F at temp. of 10 °F Charpy Impact 30 ft-lb Pneumatic Hydrostatic or Pressure 3125 psi

Items 9 and 10 to be completed for tube sections.

9. Tube Sheets: Stationary. Material Diam. Thickness Attachment Floating. Material Diam. Thickness Attachment

10. Tubes: Material O.D. Thickness inches Number Type

Items 11 to 14 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.

11. Shell: Material T.S. Nominal Thickness in. Corrosion Allowance in. Dia. ft. Length ft. in.

12. Seams: Long H.T. X.R. Efficiency % (If Class B) Girth H.T. X.R. No. of Courses

13. Heads: (a) Material T.S. Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Press. (b) Material T.S. (c) Material T.S.

If removable, bolts used (a) (b) (c) Other fastening

14. Constructed for specified operating press. psi at Max. temp. °F at temp. of °F Charpy Impact ft-lb Pneumatic Hydrostatic or Pressure psi

1 If Postweld Heat Treated. 2 List other internal or external pressures with coincident temperature when applicable.

This vessel fabricated in accordance with ASME Code Section III 1968 Edition with Addenda through Winter, 1968.

FORM N-1 (back) OF SHEET 1

Items below to be completed for all vessels where applicable.

15. Safety Valve Outlets: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

16. Nozzles:

Purpose (Inlet/Outlet)	Number	Dim. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inlet	3	26" I.D.	Forging	SA-508-64, CI2	3"	Integral	Welded
Outlet	3	29 1/2" I.D.	Forging	SA-508-64, CI2	3"	Integral	Welded
(Cont. Rod) Tube	65	2 3/4" I.D.	Tube	SA-182	5/8"	In Head	Welded
Flange	65	2 3/4" I.D.	Forging	SA-182, 304	5/8"	Integral	Welded

17. Inspection Holes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

Openings: Holes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

18. Supports: Shift \_\_\_\_\_ No. \_\_\_\_\_ Legs \_\_\_\_\_ (Number) \_\_\_\_\_ Lgs. \_\_\_\_\_ (Number) \_\_\_\_\_ Other (6) \_\_\_\_\_ Build-ups Attached \_\_\_\_\_ Nozzles \_\_\_\_\_ (Describe) \_\_\_\_\_ (Where & How)

19. Remarks: Pressurized Water Reactor Vessel  
Control Rod Remains Included  
For continuation of Items 4, 6 & 16 See Sheet 2  
ASME Code Case 1332-3; A Code Case 1335-2; A Code Case 1336  
NRC Stamp to be applied in field  
(Brief description of service for which vessel was designed)

CERTIFICATION OF DESIGN

Design information on file at Combustion Engineering, Inc., Chattanooga, Tenn.

Stress analysis report on file at Combustion Engineering, Inc., Chattanooga, Tenn.

Design specifications certified by Leonard Katz Prof. Eng. Yes State Penn. Reg. No. 04478-E

Stress analysis report certified by Arthur J. Turner Prof. Eng. Yes State Tenn. Reg. No. 6455

We certify that the statements made in this report are correct and that all details of material, design, construction, and workmanship of this pressure vessel conform to the ASME Code for Nuclear Vessels.

Date August 18, 1972 Signed Combustion Engineering, Inc. By C. E. White  
(Manufacturer) C. E. White

Certificate of Authorization Expires March 7, 1975

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Combustion Engineering, Inc. at Chattanooga, Tenn.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Pennsylvania and employed by Hartford Stm. Hlrs. Insp. & Ins. Co of Hartford, Conn.

have inspected the pressure vessel described in this manufacturer's data report on September 14, 1972 and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date August 18, 1972

Inspector's Signature M. R. McFellan Commission NB-2928, PA.WC 922  
National Board or State and No.

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

have compared the statements in this manufacturer's data report \_\_\_\_\_ the described pressure vessel and state that parts referred to as data items Items 19, not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the ASME Code for Nuclear Vessels. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date \_\_\_\_\_ 19\_\_\_\_

Inspector's Signature \_\_\_\_\_ Commission \_\_\_\_\_  
National Board or State and No.

Form No. 1842

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date May 15, 2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200078051  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Recirculation Spray (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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 Support	Stone & Webster	N/A	N/A	IRS-HSS-210A	1976	Corrected	No

7. Description of Work Modified snubber support.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Report available. Previous NIS-2 Data Report Nos: 1119 and 469.  
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 [Signature] Senior Specialist Date May 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-17-, 20 06

Form No. 1843

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/16/2006  
(NAME)

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

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)

Shippingport, PA 15077 Work Order #200135467  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

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

Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS)

Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989

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

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built*	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Expansion Joint	Garlock	N/A	N/A	REJ-1RW-4A2	2006	Installed	No

7. Description of Work Replaced rubber expansion joint with spare and flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 633. \*Year installed.

Applicable Manufacturer's Data Reports to be attached

Replacement 1-1/4" Studs: Ht. #P408, P.O. 45137621; Nuts: Ht. #FSD, P.O. 104336-237; Ht.

#A201, P.O. 47048563; Ht. #68395-FSD, P.O. 104336-140.

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] Senior Specialist Date May 31, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1845

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date May 16, 2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200136721  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Reactor Coolant (Q1)

5. (a) Applicable Construction Code Section III 1968 Edition, S'68 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Target Rock	3	N/A	RV-IRC-551B	1973	Removed	Yes
Relief Valve	Target Rock	3	N/A	RV-IRC-551B	2005	Installed	Yes

7. Description of Work Replaced valve with spare for testing purposes.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Code Data Report attached. Previous NIS-2 Data Report Nos: 1436, 280, and 158.

Applicable Manufacturer's Data Reports to be attached

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

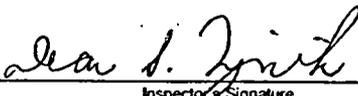
Signed  Senior Specialist Date May 30, 20 06  
Owner or Owner's Designee, Title

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 CT of Hartford, CT have inspected the components described in this

Owner's Report during the period 11-13-04 to 4-18-06, 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.

 Commissions I, D, P-42384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

1. Manufactured and certified by Target Rock; 1966E Broadhollow Rd.; E. Farmingdale, NY 11735  
(name and address of NV Certificate Holder)
2. Manufactured for First Energy; Route 168; Shippingport, PA  
(name and address of Purchaser)
3. Location of installation Beaver Valley Power Station; Route 168; Shippingport, PA  
(name and address)
4. Valve 0569C-001-1 Orifice size 2.443 Nom. Inlet size 6 Outlet size 6  
(Model no., series no.) (in.) (in.) (in.)
5. ASME Code, Section III, Division 1: 1968 Summer 1968 A None  
(edition) (addenda date) (class) (Code Case no.)
6. Type Pilot Operated 2485 120 650°F 3325 at 100°F max.  
(spring, pilot or power operated) (set pressure, psig) (blowdown, psi) (rated temp) (hydro test, psig, inlet)
7. Identification 3 N/A 0569C-001 Rev. B N/A 2005  
(Cert. Holder's serial no.) (CRN) (drawing no.) (Nat'l. Bd. no.) (year built)
8. Control ring settings N/A
9. Pressure retaining items:
 

	Serial No. Or Identification	Mat'l. Spec. Including Type or Grade	Tensile Strength
Body	3	SA351 CF8M	75 ksi
Bonnet or Yoke	9	SA105	70 ksi
Support Rods			
Nozzle			
Disk	2	SA 564 630	140 ksi
Spring Washers			
Adjusting Screws			
Spindle			
Spring			
Bolting	See page 2 of 3		
Other Items	See page 2 of 3		
10. Relieving capacity 345,000 lbs/hr overpressure as certified by the National Board (69C) 10/07/2005  
(date)
11. Remarks: \_\_\_\_\_

CERTIFICATION OF DESIGN			
Design Specification certified by	<u>F.W. Gardner</u>	P.E. State <u>PA</u>	Reg. No. <u>036614-E</u>
Design Report certified by	<u>Not applicable</u>	P.E. State <u>N/A</u>	Reg. No. <u>N/A</u>
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.	<u>N-1949</u>	Expires	<u>12/12/2007</u>
Date <u>12/20/2005</u>	Name <u>Target Rock</u> (Certificate Holder)	Signed 	<u>R. E. Glazier, QA Manager</u> (authorized representative)

\* 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 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

Certificate Holder's Serial No. 0569C-001-1 s/n 3

1. Manufactured and certified by Target Rock; 1966E Broadhollow Rd.; E. Farmingdale, NY 11735  
(name and address of NV Certificate Holder)
2. Manufactured for First Energy; Route 168; Shippingport, PA  
(name and address of Purchaser)
3. Location of installation Beaver Valley Power Station; Rout 168; Shippingport, PA  
(name and address)
4. Valve 0569C-001-1 Orifice size 2.443 Nom. Inlet size 6 Outlet size 6  
(Model no., series no.) (in.) (in.) (in.)

Pressure Retaining Item	Serial No. or Identification	Material Spec. Including Type or Grade	Tensile Strength	
Main Seat	200323-1	34	SA479 304L	70 ksi
Pilot Body	303839-2	1	SA479 304	75 ksi
Bonnet Cap	200324-1	9	SA105	70 ksi
End Cap	303835-1	4	SA479 316	75 ksi
Hex Nut	100-0076	n/a	SA194 2H	n/a
Hex Bolt	100501-1	n/a	SA193 B7	125 ksi
Stud	206189-2	n/a	SA193 B7	125 ksi
Stud	206189-1	n/a	SA193 B7	125 ksi
Stud	100482-2	n/a	SA193 B7	125 ksi
Stud	100482-1	n/a	SA193 B7	125 ksi

Certificate Holder's Serial No. 0569C-001-1 s/n 3

1. Manufactured and certified by Target Rock; 1966E Broadhollow Rd.; E. Farmingdale, NY 11735  
(name and address of NV Certificate Holder)
2. Manufactured for First Energy; Route 168; Shippingport, Pa  
(name and address of Purchaser)
3. Location of installation Beaver Valley Power Station; Route 168; Shippingport, PA  
(name and address)
4. Valve 0569C-001-1 Orifice size 2.443 Nom. Inlet size 6 Outlet size 6  
(Model no., series no.) (in.) (in.) (in.)

**CERTIFICATE OF INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of New York and employed by OneBeacon America Insurance Company of Boston, MA have inspected the pump, or valve, described in this Data Report on 12-20-2005, 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 12/20/2005 Signed [Signature] Commissions NY. 5102  
(Authorized Inspector) (Nat'l. Bd.(incl. endorsements) and state or prov. and no.)

Form No. 1847

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/15/2006  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200135468  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built*	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Expansion Joint	Garlock	N/A	N/A	REJ-1RW-7A	2006	Installed	No

7. Description of Work Replaced rubber expansion joint 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 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 725. \*Year installed.

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 [Signature] Senior Specialist Date April 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-15-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, P 42384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-15-, 20 06

Form No. 1848

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C  
(NAME)  
76 South Main Street – Akron, OH 44308  
(ADDRESS)

Date 04/15/2006  
Sheet 1 of 1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1  
Work Order #200074191  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

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

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built*	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Expansion Joint	Garlock	N/A	N/A	REJ-1RW-7C	2006	Installed	No
Plate	Energy & Process Corp.	N/A	N/A	Ht. #4105241	2006	Installed	No

7. Description of Work Replaced rubber expansion and 3/4" thick spacer plate.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 726. \*Year installed.

Applicable Manufacturer's Data Reports to be attached

Replacement 1" Studs: Ht. #13853-F204 P.O. 104336-245; Nuts: Ht. #P915 P.O. 47082958.

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] Senior Specialist Date May 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this

Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, I, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-17-, 20 06

Form No. 1849

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C  
(NAME)  
76 South Main Street – Akron, OH 44308  
(ADDRESS)

Date 04/13/2006  
 Sheet 1 of 1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1  
Work Order #20074192  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Type Code Symbol Stamp N/A  
 Authorization No. N/A  
 Expiration Date \*

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1, 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built*	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Expansion Joint	Garlock	N/A	N/A	REJ-1RW-8C	2006	Installed	No

7. Description of Work Replaced rubber expansion joint with spare.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 616. \*Year installed.  
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 [Signature] Senior Specialist Date April 13, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-14-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions PA 2384 I.C.I.  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-14, 20 06

Form No. 1855

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C  
(NAME)  
76 South Main Street – Akron, OH 44308  
(ADDRESS)

Date 04/14/2006

Sheet 1 of 1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1

Work Order #200059463  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date \*

4. Identification of System Chemical and Volume Control (Q2)

5. (a) Applicable Construction Code ANSI B31.1, 1967 Edition, S'71 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989

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

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built*	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Relief Valve	Crosby	51036 M2	N/A	RV-1CH-257	1976	Corrected	No

7. Description of Work Replaced flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. \*Year installed. Replacement 5/8" Studs: Ht. #P917  
Applicable Manufacturer's Data Reports to be attached  
P.O. 47082958; Nuts: Ht. #P914 P.O. 47082958.

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] Senior Specialist Date April 21, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IND, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-24, 20 06

Form No. 1857

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/14/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200074143  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989

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

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Piping	Duquesne Light	N/A	N/A	WR-15	1993	Corrected	No

7. Description of Work Replaced pipe flange 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 (Back)

9. Remarks No Code Data Report available. Previous NIS-2 Data Report Nos: 711, 692, and 191.  
Applicable Manufacturer's Data Reports to be attached  
Piping was disassembled for inspection and the 1-1/8" bolting was replaced: Studs Ht.#M610 P.O.  
47043692; Nuts Ht.#J858 P.O. 47059253, Ht.#13616-TRS P.O. 7121785.

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] Senior Specialist Date May 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, 2, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-17-, 20 06

Form No. 1858

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner <u>F.E.N.O.C</u> <small>(NAME)</small>	Date <u>04/14/2006</u>
<u>76 South Main Street – Akron, OH 44308</u> <small>(ADDRESS)</small>	Sheet <u>1</u> of <u>1</u>
2. Plant <u>Beaver Valley Power Station (BVPS)</u> <small>(NAME)</small>	Unit No. <u>1</u>
<u>Shippingport, PA 15077</u> <small>(ADDRESS)</small>	<u>Work Order #200074214</u> <small>Repair/Replacement Organization P.O. No., Job No., etc.</small>
3. Work Performed By <u>BVPS-Valve Team</u> <small>(NAME)</small>	Type Code Symbol Stamp <u>N/A</u>
<u>Shippingport, PA 15077</u> <small>(ADDRESS)</small>	Authorization No. <u>N/A</u>
	Expiration Date <u>"</u>

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989

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

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Piping	Duquesne Light	N/A	N/A	WR-14	1993	Corrected	No

7. Description of Work Replaced pipe flange 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 (Back)

9. Remarks No Code Data Report available. Previous NIS-2 Data Report Nos: 1757, 410, and 189.  
Applicable Manufacturer's Data Reports to be attached  
Replaced 1-1/8": Studs Ht.#69541/B839 P.O. 7070189, Ht. #J218 P.O. 7123870, Ht. #B843 P.O.  
7070056; Nuts Ht.#J858 P.O. 40736985, Ht.#61135-32-3-SAQ P.O. 104336-23, Ht. #VJ8 P.O.  
104336-97, Ht. #595977 P.O. D149199.

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] Senior Specialist Date May 31, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions E, N, P 12384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1859

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date 04/14/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200081163  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date         

4. Identification of System Feedwater (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(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	6910-650-10-31	N/A	FCV-1FW-478	1976*	Corrected	No
Plug	SPX Valve	0506	N/A	Ht. #M7571	2005	Installed	No

7. Description of Work Replaced valve plug.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Previous NIS-2 Data Report Nos: 649, and 292. \*Year installed.

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 [Signature] Senior Specialist Date April 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-17-06 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions INI PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-17-, 20 06

Form No. 1860

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/11/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200081407  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Feedwater (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	6910-650-10-32	N/A	FCV-1FW-488	1976*	Corrected	No
Plug	SVX Valves	0505	N/A	Ht. #M7571	2005	Installed	No

7. Description of Work Replaced valve plug, and bonnet studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report Nos: 649, 292. \*Year  
Applicable Manufacturer's Data Reports to be attached  
installed. Replacement 1-1/2" Studs: Ht.#P792 P.O. 45151409; Nuts: Ht. #J907 P.O. 47021297.

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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] Senior Specialist Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1861

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/15/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200081416  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Feedwater (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	6910-650-10-33	N/A	FCV-1FW-498	1976*	Corrected	No
Plug	Copes-Vulcan	0507	N/A	Ht. #M7571	2005	Installed	No

7. Description of Work Replaced valve plug and three body/bonnet nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report Nos: 651, and 294.

Applicable Manufacturer's Data Reports to be attached

Replacement 1-1/2" Nuts: Ht. #J505 P.O. 45102947. \*Year installed.

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] Senior Specialist Date May 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IN PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-17-, 20 06

Form No. 1864

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/21/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200134037  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \*

4. Identification of System Steam Generator Blowdown (Q2)

5. (a) Applicable Construction Code Section III 1980 Edition, S'80 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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)
Gate Valve	Borg-Warner	75593	N/A	TV-1BD-101A1	1982	Corrected	Yes
Bonnet	Borg-Warner	30045	N/A	Ht. #91893	1993	Installed	Yes

7. Description of Work Replaced valve bonnet and studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Code Data Report attached. Previous NIS-2 Data Report No. 1310. Replacement 5/16"

Applicable Manufacturer's Data Reports to be attached

Studs: Ht. #F862 P.O. 7120784, Ht. #P441 P.O. 45138921, Ht. #8E6286 D870 P.O. 104336-272;

Nuts: Ht. #M558 P.O. 47043065. Serial number of bonnet not recorded (1 or 2). ASME Section III

valve installed in an ANSI B31.1 1967E-S'71 system.

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

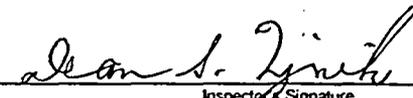
Signed  Senior Specialist Date June 16, 20 06  
Owner or Owner's Designee, Title

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 CT of Hartford, CT have inspected the components described in this

Owner's Report during the period 11-13-04 to 4-18-06, 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.

 Commissions INSI PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

**FORM NFV-1 N CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES\***  
As Required by the Provisions of the ASME Code, Section III, Div. 1

1. Manufactured by Nuclear Valve Div., Borg Warner, 7500 Tyrone Ave., Van Nuys, Calif.  
(Name and Address of N Certificate Holder)  
2. Manufactured for Duquesne Light Company, P.O. Box 2325, Boston, Mass. 02107  
(Name and Address of Purchaser or Owner)  
3. Location of Installation Beaver Valley Power Station, Shippingport, Beaver County, PA  
(Name and Address)  
4. Pump or Valve Gate Valve Nominal Inlet Size 3 Outlet Size 3  
(inch) (inch)

(a) Model No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Bd. No.	(g) Year Built
(1) 600#	75593 thru 75595	N/A	434HAB6-001	2	N/A	1982
(2)						
(3)						
(4)						
(5)						
(6)						
(7)						
(8)						
(9)						
(10)						

5. The valves are designed to handle a fluid media which includes steam, water condensate, borated water, etc., associated with a PWR and BWR. The temperature pressure rating of the media is stated below.  
(Brief description of service for which equipment was designed)

6. Design Conditions 1100 556 100 °F or Valve Pressure Class N/A (1)  
(Pressure) (Temperature)  
7. Cold Working Pressure 1480 psi at 100°F.  
8. Pressure Retaining Pieces

Mark No.	Material Spec. No.	Manufacturer	Remarks
<b>(a) Castings</b>			
Bonnet-Code 4C68	SA 216 WCB	Vulcan Steel	
Gate-Code 4F20	SA 216 WCB	Rex Precision	
4F19, 4C13		DUQUESNE LIGHT CO./STONE & WEBSTER BEAVER VALLEY STATION UNIT 1 P.O. BV-1212 3" GATE VALVE, CS, 600#, AIR OP. NVD OF BORG WARNER, 7500 TYRONE AVE. VAN NUYS, CA 91409	
<b>(b) Forgings</b>			
Body-Code 4H06	SA 105	Compton Forge	
Neck-Code 4A06	SA 105	Jorgensen Steel	
Retainer-Code 3E01	SA 105	Jorgensen Steel	
3A99			

(1) For manually operated valves only.

\* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

TRANSMITTAL NO. 00023



Form No. 1867

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date 04/20/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200136735  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BV Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Chemical and Volume Control (Q2)

5. (a) Applicable Construction Code ANSI B31.1, 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Relief Valve	Crosby	N76753-01-0001	N/A	RV-1CH-382B	1991	Removed	Yes
Relief Valve	Crosby	N56900-00-0029	N/A	RV-1CH-382B	2006*	Installed	Yes

7. Description of Work Replaced valve 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 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 433. \*Year installed.  
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 [Signature] Senior Specialist Date April 20, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, D, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-24-, 20 06

Form No. 1868

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/20/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200136737  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date                     

4. Identification of System Residual Heat Removal (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Relief Valve	Crosby	53237M	N/A	RV-1RH-721	1976	Removed	No
Relief Valve	Crosby	N69973-01-0001	N/A	RV-1RH-721	1988	Installed	No

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

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report Nos: 1555, and 1253.

Applicable Manufacturer's Data Reports to be attached

Replacement 3/4" Studs: Ht. #R597 P.O. 47085718; Nuts: Ht. #X269 P.O. 45168603, Ht. #X250

P.O. 45168676. The spindle guide (P.O. D100258) was replaced as part of the rebuild prior to 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 [Signature] Senior Specialist Date June 12, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-13-, 20 06

Form No. 1869

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date 04-18-2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200135760  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built*	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Butterfly Valve	Allis Chalmers	N/A	N/A	MOV-1RW-114A	1976	Corrected	No

7. Description of Work Replaced flange nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 642. Replacement  
Applicable Manufacturer's Data Reports to be attached  
1-1/4" Nuts: Ht. #68395-FSD P.O. 104336-140, Ht. #A201 P.O. 47048563, Ht. #P921 P.O.  
47082958. \*Year installed.

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] Senior Specialist Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I.N. PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1871

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/04/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200197587  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code Section III 1968 Edition, N/A Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Dresser Flow Control	BY-89642	N/A	SV-1MS-101C	2003	Removed	Yes
Safety Valve	Dresser	BM-07758	N/A	SV-1MS-101C	1968	Installed	Yes

7. Description of Work Replaced valve 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 (Back)

9. Remarks Code Data Report attached to previous NIS-2 Data Report No. 1712. The disc on replacement valve serial number BM-07758 was replaced by NWS Technologies, LLC. See attached NVR-1 Report: New disc S/N ADW91.

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] Senior Specialist Date June 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IN, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-20-, 20 06

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 55104586  
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: Main Steam Safety Valve  
b: Name of manufacturer: Consolidated / Dresser  
c: Identifying nos.

	<u>3787AX-RT21</u>	<u>BM07758</u>	<u>n/a</u>	<u>steam</u>	<u>6"</u>	<u>n/a</u>
	(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)
d: Construction Code:	<u>Section III</u>	<u>1968</u>	<u>n/a</u>	<u>n/a</u>	<u>A</u>	
	(name/section/division)	(edition)	(addenda)	(Code Cases(s))	(Code Class)	

6. ASME Code Section XI applicable for inservice inspection: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))

7. ASME Code Section XI used for repairs, replacements: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))

8. Construction Code used for repairs, replacements: 1968 n/a n/a  
(edition) (addenda) (Code Case(s))

9. Design responsibilities: n/a

10. Opening pressure: 1075 psig  
Set-pressure adjustment made at: NWS Technologies, LLC using steam

11. Description of work (include name and identifying number of replacement parts): Disassembled, inspected, machined nozzle seat step to restore parallelism, lapped and passivated nozzle seat, replaced disc with pre-oxidized X750 disc, assembled. Certified set-pressure and seat tightness using steam.

12. Remarks: NWS Traveler #: 06-52. New disc s/n: ADW91

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra 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, 2006.  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

3/17/06 NWS Technologies, LLC Cesar V. Sierra Manager, QA  
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. 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 Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 3/17/2006 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.

3/17/06 Charles F. Toegel Jr. NB # 8462, A, N, I NC# 1073  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

Form No. 1872

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200197606  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code Section III 1968 Edition, N/A Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Dresser Flow Control	BY-89643	N/A	SV-1MS-102C	2003	Removed	Yes
Safety Valve	Dresser	BM-07761	N/A	SV-1MS-102C	1968	Installed	Yes

7. Description of Work Replaced valve 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 (Back)

9. Remarks Code Data Report attached to previous NIS-2 Data Report No. 1713. The disc on replace-  
Applicable Manufacturer's Data Reports to be attached  
ment valve serial number BM-07761 was replaced by NWS Technologies, LLC. See attached.

NVR-1 Report. New disc S/N ADE668.

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] Senior Specialist Date June 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-20-, 20 06

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 55104586  
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: Main Steam Safety Valve  
b: Name of manufacturer: Consolidated / Dresser  
c: Identifying nos.  

<u>3707RAX-RT21</u>	<u>BM07761</u>	<u>n/a</u>	<u>steam</u>	<u>6"</u>	<u>n/a</u>
(type)	(mfr's S/N)	(NB#)	(service)	(size)	(yr.built)

d: Construction Code: Section III 1968 n/a n/a A  
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1968 n/a n/a  
(edition) (addenda) (Code Case(s))
9. Design responsibilities: n/a
10. Opening pressure: 1085 psig  
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): Disassembled, inspected, lapped and passivated nozzle seat, replaced disc with pre-oxidized X750 disc, assembled. Certified set-pressure and seat tightness using steam.
12. Remarks: NWS Traveler #: 06-53. New disc s/n: ADE68.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra 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, 2006.  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

3/17/06 NWS Technologies, LLC Cesar V. Sierra Manager, QA  
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. 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 Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 3/17/2006 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.

3/17/06 Charles F. Toegel Jr. NB # 8462, A, N, I NC# 1073  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

Form No. 1873

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/16/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200197607  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code Section III 1968 Edition, N/A Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Dresser Flow Control	BY-89644	N/A	SV-1MS-103C	2003	Removed	Yes
Safety Valve	Dresser	BM-07764	N/A	SV-1MS-103C	1968	Installed	Yes

7. Description of Work Replaced valve 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 (Back)

9. Remarks Code Data Report attached to previous NIS-2 Data Report No. 1714. The disc on replacement valve serial number BM-07764 was replaced by NWS Technologies, LLC. See attached NVR-1 Report. New disc S/N ADE09.

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] Senior Specialist Date June 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-20-, 20 06

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 55104586  
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: Main Steam Safety Valve  
b: Name of manufacturer: Consolidated / Dresser  
c: Identifying nos.  
3707RAX-RT21 BM07764 n/a steam 6" n/a  
(type) (mfr's S/N) (NB#) (service) (size) (yr.built)
- d: Construction Code: Section III 1968 n/a n/a A  
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1968 n/a n/a  
(edition) (addenda) (Code Case(s))
9. Design responsibilities: n/a
10. Opening pressure: 1095 psig  
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): Disassembled, inspected, machined nozzle seat step to restore parallelism, lapped and passivated nozzle seat, replaced disc with pre-oxidized X750 disc, assembled. Certified set-pressure and seat tightness using steam.
12. Remarks: NWS Traveler #: 06-54. New disc s/n: ADE09

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra 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, 2006.  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

3/17/06 NWS Technologies, LLC Cesar V. Sierra Manager, QA  
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. 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 Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 3/17/2006 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.

3/17/06 Charles F. Toegel Jr. NB # 8462, A, N, I NC# 1073  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

Form No. 1874

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/16/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)
2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200197608  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.
3. Work Performed By BVPS Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "
4. Identification of System Main Steam (Q2)
5. (a) Applicable Construction Code Section III 1968 Edition, N/A Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Dresser Flow Control	BY-89645	N/A	SV-IMS-104C	2003	Removed	Yes
Safety Valve	Dresser	BM-07767	N/A	SV-IMS-104C	1968	Installed	Yes

7. Description of Work Replaced valve 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 (Back)

9. Remarks Code Data Report attached to previous NIS-2 Data Report No. 1715. The disc on replacement valve serial number BM-07767 was replaced by NWS Technologies, LLC. See attached NVR-1 Report. New disc S/N ADF51.

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] Senior Specialist Date June 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this

Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions ENR, PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-20-, 20 06

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 55104586  
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: Main Steam Safety Valve  
b: Name of manufacturer: Consolidated / Dresser  
c: Identifying nos.  

	<u>3707RAX-RT21</u>	<u>BM07767</u>	<u>n/a</u>	<u>steam</u>	<u>6"</u>	<u>n/a</u>
	<small>(type)</small>	<small>(mfr's S/N)</small>	<small>(NB#)</small>	<small>(service)</small>	<small>(size)</small>	<small>(yr.built)</small>

d: Construction Code: 

	<u>Section III</u>	<u>1968</u>	<u>n/a</u>	<u>n/a</u>	<u>A</u>
	<small>(name/section/division)</small>	<small>(edition)</small>	<small>(addenda)</small>	<small>(Code Cases(s))</small>	<small>(Code Class)</small>

6. ASME Code Section XI applicable for inservice inspection: 

	<u>1989</u>	<u>n/a</u>	<u>n/a</u>
	<small>(edition)</small>	<small>(addenda)</small>	<small>(Code Case(s))</small>

7. ASME Code Section XI used for repairs, replacements: 

	<u>1989</u>	<u>n/a</u>	<u>n/a</u>
	<small>(edition)</small>	<small>(addenda)</small>	<small>(Code Case(s))</small>

8. Construction Code used for repairs, replacements: 

	<u>1968</u>	<u>n/a</u>	<u>n/a</u>
	<small>(edition)</small>	<small>(addenda)</small>	<small>(Code Case(s))</small>

9. Design responsibilities: n/a

10. Opening pressure: 1110 psig  
Set-pressure adjustment made at: NWS Technologies, LLC using steam

11. Description of work (include name and identifying number of replacement parts): Disassembled, inspected, machined nozzle seat step to restore parallelism, lapped and passivated nozzle seat, replaced disc with pre-oxidized X750 disc, assembled. Certified set-pressure and seat tightness using steam.

12. Remarks: NWS Traveler #: 06-55. New disc s/n: ADF51

**CERTIFICATE OF COMPLIANCE**

I, Cesar V. Sierra 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, 2006.  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.  
3/17/06 NWS Technologies, LLC *Cesar V. Sierra* Manager, QA  
Date Repair Organization Authorized representative Title

**CERTIFICATE OF INSPECTION**

I, Charles F. Toegel Jr. 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 Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 3/17/2006 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.  
3/17/06 *Charles F. Toegel Jr.* NB # 8462, A, N, I NC# 1073  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

Form No. 1875

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/16/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200197609  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Service Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Main Steam (Q2)

5. (a) Applicable Construction Code Section III 1968 Edition, N/A Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Dresser Flow Control	BY-89646	N/A	SV-1MS-105C	2003	Removed	Yes
Safety Valve	Dresser	BM-07770	N/A	SV-1MS-105C	1968	Installed	Yes

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

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Code Data Report attached to previous NIS-2 Data Report No. 1716. The disc on replacement valve serial number BM-07770 was replaced by NWS Technologies, LLC. See attached NVR-1 Report. New disc S/N ADF44. Replaced 1-3/8" Nuts: Ht. #P421 P.O. 45138286; Studs: Ht. #P919 P.O. 47082958.

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] Senior Specialist Date July 6, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-7-, 20 06

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

1. Work performed by: NWS Technologies, LLC Purchase Order # 55104586  
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: Main Steam Safety Valve  
b: Name of manufacturer: Consolidated / Dresser  
c: Identifying nos.
- |                     |                |            |              |           |            |
|---------------------|----------------|------------|--------------|-----------|------------|
| <u>3707RAX-RT21</u> | <u>BM07770</u> | <u>n/a</u> | <u>steam</u> | <u>6"</u> | <u>n/a</u> |
| (type)              | (mfr's S/N)    | (NB#)      | (service)    | (size)    | (yr.built) |
- d: Construction Code: Section III 1968 n/a n/a A  
(name/section/division) (edition) (addenda) (Code Cases(s)) (Code Class)
6. ASME Code Section XI applicable for inservice inspection: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))
7. ASME Code Section XI used for repairs, replacements: 1989 n/a n/a  
(edition) (addenda) (Code Case(s))
8. Construction Code used for repairs, replacements: 1968 n/a n/a  
(edition) (addenda) (Code Case(s))
9. Design responsibilities: n/a
10. Opening pressure: 1125 psig  
Set-pressure adjustment made at: NWS Technologies, LLC using steam
11. Description of work (include name and identifying number of replacement parts): Disassembled, inspected, machined nozzle seat step to restore parallelism, lapped and passivated nozzle seat, replaced disc with pre-oxidized X750 disc, replaced nozzle ring pin, assembled. Certified set-pressure and seat tightness using steam.
12. Remarks: NWS Traveler #: 06-56. New disc s/n: ADF44.

CERTIFICATE OF COMPLIANCE

I, Cesar V. Sierra 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, 2006.  
National Board Certificate of Authorization No. 81 to use the "NR" stamp expires April 9, 2006.

3/17/06 NWS Technologies, LLC Cesar V. Sierra Manager, QA  
Date Repair Organization Authorized representative Title

CERTIFICATE OF INSPECTION

I, Charles F. Toegel Jr. 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 Hartford Steam Boiler of CT of Hartford, CT have inspected the repair, modification or replacement described in this report on 3/17/2006 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.

3/17/06 Charles F. Toegel Jr. NB # 8462, A, N, I NC# 1073  
Date Inspector's Signature Commissions (NB (incl endorsements), jurisdiction, & no.)

Form No. 1876

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/20/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200133678  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Rodney Hunt	4	N/A	MOV-1RW-116A	1995	Corrected	No

7. Description of Work Replaced flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 643. \*Year installed.  
Applicable Manufacturer's Data Reports to be attached  
Replacement 1-1/4" Studs: Ht. #X573 P.O. 47117569; Nuts: Ht. #A201 P.O. 47030430, Ht. #S697  
P.O. 45168781.

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 *Donna F. White* Senior Specialist Date May 1, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Zivich* Commissions *I.N. PA2384*  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-5-, 20 06

Form No. 1877

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C  
(NAME)  
76 South Main Street - Akron, OH 44308  
(ADDRESS)

Date 04/13/2006

Sheet 1 of 1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1

Work Order #200133679  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date                     

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Rodney Hunt	3	N/A	MOV-1RW-116B	1995	Corrected	No

7. Description of Work Replaced flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 644. Replacement

Applicable Manufacturer's Data Reports to be attached

1-1/4" Studs: Ht. #P408 P.O. 45137621, Ht. #14830-D868 P.O. 104336-272; Nuts: Ht. #A201 P.O.

47030430, Ht. #FSD P.O. 104336-270.

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] Senior Specialist Date May 1, 2006  
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 CT of

Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-1-, 2006

Form No. 1878

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04-18-2006  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200019661  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Butterfly Valve	Allis-Chalmers	N/A	N/A	MOV-1RW-104A	1976*	Corrected	No
Disc	A/C Service	---	N/A	Ht. #C1894	1994	Installed	No

7. Description of Work Weld repaired body, replaced disc and flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Replacement 1" Studs: Ht. #P997, P.O. 45157891, Ht. #  
R596, P.O. 47085718; Nuts: Ht. #P916, P.O. 47082958, Ht. #M128, P.O. 47033238, Ht. #P175,  
P.O. 47052585, Ht. #M795, P.O. 47048563, Ht. #8990206-HDF, P.O. 104336-169. \*Year  
installed.

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] Senior Specialist Date June 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, P A 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-20-, 20 06

Form No. 1879

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/14/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200074215  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date   

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Piping	Duquesne Light	N/A	N/A	WR-16	1993	Corrected	No

7. Description of Work Replaced pipe flange 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 (Back)

9. Remarks No Code Data Report available. Previous NIS-2 Data Report Nos: 1564, 713, 693, and  
Applicable Manufacturer's Data Reports to be attached  
530. Replaced 1-1/8" Studs Ht.#M610 P.O. 47043692; Nuts: Ht. #J858, P.O. 47059253.

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] Senior Specialist Date May 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-17-, 20 06

Form No. 1880

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date 04/20/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200027896  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989

(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	Anchor-Darling	N/A	N/A	1RW-189	1976	Corrected	No

7. Description of Work Replaced flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. \*Year installed. Replacement 1-1/8" Studs: Ht. #M610  
Applicable Manufacturer's Data Reports to be attached  
P.O. 47043692; Nuts: Ht. #13616-TRS P.O. 7121785.

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  Senior Specialist Date May 1, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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.

 Commissions I, D, P + 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-1-, 20 06

Form No. 1881

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/13/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200027882  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date   

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Anchor-Darling	EZ068-1-3	N/A	IRW-190	1976	Corrected	No

7. Description of Work Replaced flange studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Replacement 1-1/8" Studs: Ht. #M610 P.O. 047043693;  
Applicable Manufacturer's Data Reports to be attached  
Nuts: Ht. #J858 P.O. 47043141, and Ht. #13616-TRS P.O. 7121785. Previous NIS-2 Data Report  
Nos: 976, and 712. \*Year installed.

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] Senior Specialist Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IND PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1882

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200135794  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Feedwater (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Pacific Valve	26523	N/A	1FW-34	1976	Corrected	No

7. Description of Work Replaced cover studs.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Report available. Replaced 3/4" NPT studs: Ht. #M794, P.O. 47048563.  
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 [Signature] Senior Specialist Date April 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this

Owner's Report during the period 11-13-04 to 4-17-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I.N. PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-17-, 20 06

Form No. 1883

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200135795  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date .

4. Identification of System Feedwater (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Pacific Valve	26524	N/A	1FW-35	1976	Corrected	No
Plugs	Energy & Process	N/A	N/A	Ht. #9204	2005	Installed	No

7. Description of Work Replaced hinge pin plugs.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Report Available. Valve manufactured to ANSI B16.5.  
Applicable Manufacturer's Data Reports to be attached

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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] Senior Specialist Date June 16, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions IN, PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1884  
1835

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200200122  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Construction Serv. Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date -

4. Identification of System River Water (Q3)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(c) Applicable Section XI Code Case(s): N-416-2

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Ball Valve	BNL Industries	B021016-1-7	N/A	IRW-131	2003	Corrected	No

7. Description of Work Repaired valve end cap.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 1571.  
Applicable Manufacturer's Data Reports to be attached  
Weld repaired the outlet side valve end cap in the area of attachment weld to tee to correct a  
pinhole found during a visual examination.

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] Senior Specialist Date April 12, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-12-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-12-06, 20 06

Form No. 1886

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/15/2006  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200199909  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \*

4. Identification of System Chemical and Volume Control (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(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)
Gate Valve	Anchor-Darling	N/A	N/A	MOV-ICH-115E	1976	Corrected	No

7. Description of Work Replaced bonnet studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

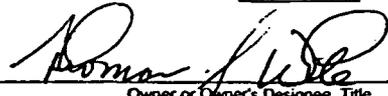
9. Remarks No Code Data Reports available. Valve designed to ANSI B16.5 1968. Replacement  
Applicable Manufacturer's Data Reports to be attached  
5/8" Studs: Ht. #X257 P.O. 45168676; Nuts: Ht. #252 P.O. 45168676.

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

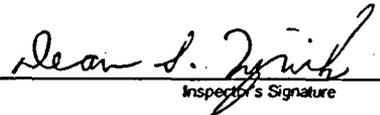
Certificate of Authorization No. N/A Expiration Date N/A

Signed  Senior Specialist Date May 1, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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.

 Commissions I, N, PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 5-5-, 20 06

Form No. 1887

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/15/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200199762  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Chemical and Volume Control (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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	Anchor-Darling	N/A	N/A	ICH-18	1976	Corrected	No

7. Description of Work Replaced cover to body studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Replacement 9/16" Nuts: Ht: #R729 P.O. 45162751;  
Applicable Manufacturer's Data Reports to be attached  
Studs: P.O. D149199-24. \*Year installed. Valve designed to ANSI B16.5 1968.

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] Senior Specialist Date May 31, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, P 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1888

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200200257, 200201075  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Blowdown (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S'71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Masoneilan	H-49378-74-3	N/A	TV-1BD-100C	1976	Corrected	No
Plug	Masoneilan	N/A	N/A	Ht. #306657-4	1994	Installed	No

7. Description of Work Replaced valve plug.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available.

Applicable Manufacturer's Data Reports to be attached

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CERTIFICATE OF COMPLIANCE

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

Type Code Symbol Stamp N/A

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

Signed [Signature] Senior Specialist Date July 5, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-19-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-6-06, 20 06

Form No. 1889

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 05/04/2006  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200201585  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS-Maintenance Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Residual Heat Removal (Q2)

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(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	Walworth	N/A	N/A	1RH-3	1976	Corrected	No

7. Description of Work Replaced cover to body studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Report available. Valve was manufactured to ANSI B16.5 1968.

Applicable Manufacturer's Data Reports to be attached

Replacement 7/8" Studs: Ht. #X374 P.O. 45172981; Nuts: Ht. #217A P.O. 45161672. \*Year

installed.

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] Senior Specialist Date May 26, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1890

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/12/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200197600  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Chemical and Volume Control (Q1)

5. (a) Applicable Construction Code ANSI B16.5 1968 Edition, -- Addenda, N/A Code Case  
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
(c) Applicable Section XI Code Case(s): N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Globe Valve	Masoneilan	H-20691-1-5	N/A	LCV-1CH-460B	1976	Corrected	No
Plug	Masoneilan	N/A	N/A	N/A	1986	Installed	No

7. Description of Work Replaced valve plug and body/bonnet nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks No Code Data Reports available. Previous NIS-2 Data Report No. 291. Installed new 7/8"  
Applicable Manufacturer's Data Reports to be attached  
Nuts: P.O. 104336-189. System piping is designed to ANSI B31.1 1967E-S'71A.

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] Senior Specialist Date May 31, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-5-, 20 06

Form No. 1891

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C. Date 4-17-06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 – Shippingport, PA 15077 Order 200194444  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Westinghouse / Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Reactor Coolant (Class 1)

5. (a) Applicable Construction Code ASME Section III 1968 Edition, 1970 Addenda, None Code Case 2142-1, 2143-1, N474-1  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Edition No Addenda  
 (c) Applicable Section XI Code Case(s) N-416-2

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 Pressure Vessel Head	Equipos Nucleares S.A.	1MB1	29	BV-IRC-R-1	2005	Installed	Yes

7. Description of Work Repaired arc strikes on the replacement reactor vessel head by buffing and/or grinding and blending with surrounding surface. 'As-left' excavated areas were MT examined. Repair welding was not necessary.

8. Tests Conducted: Hydrostatic\*  Pneumatic\*  Nominal Operating Pressure  Exempt   
 Other  Pressure \_\_\_\_\_ psi Test Temp. \_\_\_\_\_ °F  
\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks None

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 Greg Kammerdeiner Principal Consultant Date April 20, 2006  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period November 13, 2004 to April 18, 2006 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. Hynick Commissions NB 9428 A NIB PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date April 20, 2006

Corrected copy  
Date: April 10th., 2006

**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

Pg. 1 of 3

**EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I, 8 - 39600 Maliaño (Cantabria) SPAIN**

1. Manufactured and certified by \_\_\_\_\_  
(name and address of NPT Certificate Holder)

2. Manufactured for **WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)**  
(name and address of purchaser)

3. Location of installation **BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough, Beaver County, Pennsylvania, USA**  
(name and address)

4. Type **1MB1.000.0.0 Rev.2** **1"** **1"** **2005**  
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: **1989** **No Addenda** **1** **2142-1, 2143-1, N474-1**  
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: **The Part is a complete Reactor Pressure Vessel Head**  
**With design responsibility, Design Report No. 1MB1ADRO1 Rev.4**

8. Nom. thickness (in.) **1"** Min. design thickness (in.) **1"** Dia. ID (ft & in.) **12' 5.25"** Length overall (ft & in.) **8' 0.75"**

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	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <b>1MB1</b>	<b>29</b>	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure **2485 psig** psi. Temp. **650** °f. Hydro. test pressure **3106 psig** at temp. °F  
(when applicable)

\* Supplemental information in the 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.  
(7/84) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back -- Pg 2 of 3)

Corrected copy  
Date: April 10th., 2006

Certificate Holder's Serial Nos. 1MB1 through \_\_\_\_\_

CERTIFICATION OF DESIGN			
Design specifications certified by _____	Josecito O. Calle <small>(when applicable)</small>	P.E. State <u>Virginia</u>	Reg. no. <u>024373</u>
Design report' certified by _____	Jesus M. Collado <small>(when applicable)</small>	P.E. State <u>Maine</u>	Reg. no. <u>5175</u>
CERTIFICATE OF COMPLIANCE			
We certify that the statements made in this report are correct and that this (these) <u>REPLACEMENT REACTOR PRESSURE VESSEL HEAD</u> conforms to it's rules of construction of the ASME Code, Section III, Division 1.			
NPT Certificate of Authorization No. <u>N-2764</u>		Expires <u>December 2., 2006</u>	
Date <u>April 10th., 2006</u>	Name <u>EQUIPOS NUCLEARES, S.A.</u> <small>(NPT Certificate Holder)</small>	Signed <u>G. Cué</u>	<small>Authorized representative</small>
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 <u>New York</u> and employed by <u>Royal &amp; Sun Alliance Insurance</u> of <u>Manchester, England</u> have inspected these items described in this Data Report on <u>10 April 2006</u> 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 data 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 <u>10 April 2006</u>	Signed <u>[Signature]</u> <small>(Authorized Nuclear Inspector)</small>	Commissions <u>NB#10153A &amp; NS, NY#4018</u> <small>[Nat'l. Bd. (incl. endorsements) and state or prov. and no.]</small>	

Corrected copy  
Date: April 10th., 2006

**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

Pg. 3 of 3

1. Manufactured and certified by EQUIPOS NUCLEARES, S.A. - Avda. Juan Carlos I. 8 - 30600 Matagorda (Cantabria) SPAIN  
(name and address of NPT Certificate Holder)

2. Manufactured for WESTINGHOUSE ELECTRIC COMPANY - PO Box 355 - Pittsburgh - PA 15230 - 0355 (USA)  
(name and address of purchaser)

3. Location of installation BEAVER VALLEY POWER STATION UNIT 1, Shippingport Borough Beaver County, Pennsylvania, USA  
(name and address)

4. Type IMB1.000.0.0 Rev 2 1" 1" 2005  
(drawing no.) (matl. spec. no.) (tensile strength) (CRN) (year code)

5. ASME Code, Section III, Division 1: 1988 No Addenda 1 2142-1, 2143-1, N-74-1  
(edition) (addenda date) (class) (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) \_\_\_\_\_ Revision: \_\_\_\_\_ Date: \_\_\_\_\_  
(spec.)

7. Remarks: The Part is a complete Reactor Pressure Vessel Head  
With design responsibility, Design Report No. 1MB1AD601 Rev 4

8. Nom. thickness (in.) 1" Min. design thickness (in.) 1" Dia. (ft & in.) 12' 5.25" Length overall (ft & in.) 8' 0.75"

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

1\*

Component / Qty.	Material Spec.	Tensile Strength	Thickness		Inside Dia.	Overall Length
			Nom.	Min.		
Closure Head/1	SA-508 Cl.3	80 ksi	6.35"	6.188"	12' 5.25"	8' 0.75"
CRDM Housings/56	SB-167 Alloy N06690TT	85 ksi	0.625"	0.625"	2.75"	From 3' 2.5" to 4' 10.5"
Housing Adaptor Plugs/8	SA-182 F 304	75 ksi	0.939"	0.937"	6.122"	7.607"
Lifting Lugs/3	SA-533 Type B Cl.2	90 ksi	2.992"	2.874"	---	1' 5.1"
Vent Pipes/2	SB-167(690) SA-312 Tp 316	85 ksi/75 ksi	1" SCH 160		---	---
Instrument Columns/4	SB-167(690)	85 ksi	0.625"	0.625"	2.75"	55.875

**Note: The Reactor Pressure Vessel Head and the Housing Adaptor Plugs have been hydro-tested.**

Form No. 1892

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 04/21/2006  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 3  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 Work Order #200118580  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By BVPS Valve Team Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Steam Generator Blowdown (Q2)

5. (a) Applicable Construction Code Section III 1980 Edition, S'80 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989  
 (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)
Gate Valve	Borg-Warner	75597	N/A	TV-1BD-101A2	1982	Corrected	Yes
Bonnet	Borg-Warner	30045	N/A	Ht. #91893	1993	Installed	Yes
Gate	Flowserve	M4659-3	N/A	Ht. #M4659-3	2005	Installed	Yes

7. Description of Work Replaced valve gate, bonnet and studs/nuts.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks Code Data Reports attached. Replacement 5/16" Studs: Ht. #P441 P.O. 45138921; Nuts: Ht. #M558 P.O. 47043065. Serial number of bonnet not recorded (1 or 2). ASME Section III valve  
Applicable Manufacturer's Data Reports to be attached  
Is installed in an ANSI B31.1 1967E-S'71 system.

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] Senior Specialist Date June 17, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

[Signature] Commissions I, N, P 42384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-20-, 20 06

**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 Corporation, 1900 S. Saunders St., Raleigh, NC 27603  
(name and address of NPT Certificate Holder)

2. Manufactured for First Energy Corporation, P. O. Box 6100, Johnstown, PA 15907  
(name and address of purchaser)

3. Location of installation First Energy Corp., Beaver Valley Nuclear Plant, Rt. 168, Shippingport, PA 15077  
(name and address)

4. Type 434HAB6-001, R/D SA216,WCB N/A N/A 2005  
(drawing no.) (mat'l. spec. no.) (tensile strength) (CRN) (year built)

5. ASME Code, Section III, Division 1: 1980 Summer 1980 2 N/A  
(edition) (addenda date) (class) (Code Case no.)

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

7. Remarks: Gate for 3" 600# Gate Valve

S. O. 35338

8. Nom. thickness (in.) N/A Min. design thickness (in.) Per #4 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	Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) <u>M4659-3</u>	<u>N/A</u>	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

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

\* Supplemental information in the 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.

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

Certificate Holder's Serial Nos. M4659-3 through

**CERTIFICATION OF DESIGN**

Design specifications certified by \_\_\_\_\_ (when applicable) P.E. State \_\_\_\_\_ Reg. no. \_\_\_\_\_

Design report\* certified by \_\_\_\_\_ (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) Part(s) conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-1563 Expires November 26, 2006

Date 10/28/05 Name Flowserve Corporation Signed [Signature]  
(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, CT have inspected these items described in this Data Report on 10/28/05, 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 data 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 10/28/05 Signed [Signature] Commissions NC #1421  
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no.]



RR14586

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

Pg. 1 of \_\_\_\_\_

- 1. Manufactured and certified by BE/DP INTERNATIONAL, INC. PAPER DIV. FOR INDUSTRIAL OPERATIONS 2800 E. VANDER LIND VICTORIA, CL900
- 2. Manufactured for TEXAS UTILITIES, COMMERCE PEAK S. E. S. 5 MILES NW OF GLEN ROCK, TX 76043
- 3. Location of installation TEXAS UTILITIES, COMMERCE PEAK S. E. S. 5 MILES NW OF GLEN ROCK TX 76043
- 4. Type: TYPE 100 SAFETY VALVE 70,000 PSI N/A 1993
- 5. ASME Code, Section III, Division 1: 1976 SECTION 1976 2 N/A
- 6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
- 7. Remarks: BE/DP JOB NO. 9210267 PART MADE - ROBERTS MACHINERY  
HYDROSTATIC TESTING NOT PERFORMED REMARKS ATTACHED BY USER

PRESSURE CLASS- 900#

- 8. Nom. thickness (in.) N/A Min. design thickness (in.) N/A Dia. PD (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	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) 800452 802	N/A	(26)	
(2) 800452 802	N/A	(27)	
(3) 800452 802	N/A	(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

- 10. Design pressure 2160/800 psi. Temp. 100/500 °F. Hydro. test pressure N/A at temp. °F

\* Supplemental information in the form of data, 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.

INFORMATION COPY

Pg 13 of 46

RR 14586

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

Certificate Holder's Serial No. 300653 881 through 300653 883

CERTIFICATION OF DESIGN

Design specifications certified by N/A P.E. State N/A Reg. no. N/A
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 they conform to the rules of construction of the ASME Code, Section II, Division 1.

NPT Certificate of Authorization No. N-1131 Expires 10/10/06
Date 5-24-93 Name BR/IF INTERNATIONAL INC. Signed [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 CALIFORNIA and employed by ARVILLON METAL, INC., CD, FACTORY METAL INDUSTRIES ASSOCIATION of BENDON, OREGON have inspected these items described in this Data Report on MAY 24, 1993 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 II, 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 5/24/93 Signed [Signature] Commission 1275 CA.

INFORMATION COPY

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Form No. 1911

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner First Energy Nuclear Operating Company Date 04/19/06  
(NAME)  
76 South Main Street - Akron OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 - Shippingport, PA 15077 55102831  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Westinghouse/Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Route 168 - Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Reactor coolant, feedwater, main steam and blowdown

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, No Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repairs/Replacement Activity: 1989 Edition No Addenda  
 (c) Applicable Section XI Code Case(s) N/A

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
1RC-E-1A	Westinghouse	NP030651/ IMB2	82	N/A	2005	Installed	Yes

7. Description of Work Installed new primary side manway, secondary side manway, hand hole and inspection port fasteners on Orders 200124554 and 200124555

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 (Back)

9. Remarks Primary side order 200124554, secondary side order 200124555.  
Applicable Manufacturer's Data Reports to be attached  
Performed a VT-1 examination on all studs, nuts, washers, insert plates & gasket seating surfaces.

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 Gary Alberti Date April 27<sup>th</sup> 2006  
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 PA and employed by HSB CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Zynil Commissions NB9428 ANIB PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-28- 2006

Form No. 1912

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner First Energy Nuclear Operating Company Date 04/19/06  
(NAME)  
76 South Main Street - Akron OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 - Shippingport, PA 15077 55102831  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Westinghouse/Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Route 168 - Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Reactor coolant, feedwater, main steam and blowdown

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, No Addenda, N/A Code Case  
 (d) Applicable Edition of Section XI Utilized for Repairs/Replacement Activity: 1989 Edition No Addenda  
 (e) Applicable Section XI Code Case(s) N/A

6. Identification of Components

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

7. Description of Work Installed new primary side manway, secondary side manway, hand hole and inspection port fasteners on Orders 200124558 and 200124559

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 (Back)

9. Remarks Primary side order 200124558, secondary side order 200124559.  
Applicable Manufacturer's Data Reports to be attached  
Performed a VT-1 examination on all studs, nuts, washers, insert plates & gasket seating surfaces.

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 *Gary Alberti* Date April 27<sup>th</sup> 2006  
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 PA and employed by HSB CT of Hartford, CT have inspected the components described in this

Owner's Report during the period 11-13-04 to 4-18-06 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 4-28- 2006

Form No. 1913

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner First Energy Nuclear Operating Company Date 04/19/06  
(NAME)  
76 South Main Street - Akron OH 44308 Sheet 1 of 2  
(ADDRESS)

2. Plant Beaver Valley Power Station Unit No. 1  
(NAME)  
Route 168 - Shippingport, PA 15077 55102831  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Westinghouse/Beaver Valley Type Code Symbol Stamp N/A  
(NAME)  
Route 168 - Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date N/A

4. Identification of System Reactor coolant, feedwater, main steam and blowdown

5. (a) Applicable Construction Code ASME Section III 19 89 Edition, No Addenda, N/A Code Case  
 (f) Applicable Edition of Section XI Utilized for Repairs/Replacement Activity: 1989 Edition No Addenda  
 (g) 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)
IRC-E-1C	Westinghouse	NP030651/3MB2	84	N/A	2005	Installed	Yes

7. Description of Work Installed new primary side manway, secondary side manway, hand hole and inspection port fasteners on Orders 200124561 and 200124562

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 (Back)

9. Remarks Primary side order 200124561, secondary side order 200124562.  
Applicable Manufacturer's Data Reports to be attached  
Performed a VT-1 examination on all studs, nuts, washers, insert plates & gasket seating surfaces.

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 *Gary Alberti* Date April 27<sup>th</sup> 2006  
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 PA and employed by HSB CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Zylich* Commissions NB9428 A NIB PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-28- 2006

Form No. 1916

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200137020  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel/SGRP Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (c) Applicable Section XI Code Case(s): None

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	Bergen-Paterson	68284-15	N/A	RC-HC-9A	---	Removed	No
Snubber	Bergen-Paterson	1866	N/A	RC-HC-9A	---	Installed	No

7. Description of Work Replaced snubber with an upgraded version of the same model

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Zydek Commissions I, N, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1917

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200165992  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel/SGRP Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (d) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (e) Applicable Section XI Code Case(s): None

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	Bergen-Paterson	68284-20	N/A	RC-HC-9B	---	Removed	No
Snubber	Bergen-Paterson	1857	N/A	RC-HC-9B	---	Installed	No

7.-Description of Work Replaced snubber with an upgraded version of the same model

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Dean D. Lynch Commissions IND P12384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1918

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200165996  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel/SGRP Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date •

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (f) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (g) Applicable Section XI Code Case(s): None

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	Bergen-Paterson	68284-31	N/A	RC-HC-10B	---	Removed	No
Snubber	Bergen-Paterson	1845	N/A	RC-HC-10B	---	Installed	No

7. Description of Work Replaced snubber with an upgraded version of the same model

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Biocola Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Jynik Commissions I, N, P 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1919

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
As Required by the Provisions of the ASME Code Section XI

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200165997  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel/SGRP Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (h) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (i) Applicable Section XI Code Case(s): None

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	Bergen-Paterson	68284-32	N/A	RC-HC-10C	---	Removed	No
Snubber	Bergen-Paterson	1858	N/A	RC-HC-10C	---	Installed	No

7. Description of Work Replaced snubber with an upgraded version of the same model

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Zynik Commissions I, N, P 42384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1920

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200165998  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel/SGRP Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (j) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (k) Applicable Section XI Code Case(s): None

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	Bergen-Paterson	68284-02	N/A	RC-HC-11A	---	Removed	No
Snubber	Bergen-Paterson	1854	N/A	RC-HC-11A	---	Installed	No

7. Description of Work Replaced snubber with an upgraded version of the same model

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Ignish Commissions ENR, PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1921

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street – Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200165999  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Bechtel/SGRP Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date "

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (l) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (m) Applicable Section XI Code Case(s): None

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	Bergen-Paterson	68284-21	N/A	RC-HC-12C	---	Removed	No
Snubber	Bergen-Paterson	1847	N/A	RC-HC-12C	---	Installed	No

7. Description of Work Replaced snubber with an upgraded version of the same model

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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 J. Zepich Commissions PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1922

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C  
(NAME)  
76 South Main Street - Akron, OH 44308  
(ADDRESS)

Date 6/15/06  
Sheet 1 of 1

2. Plant Beaver Valley Power Station (BVPS)  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

Unit No. 1  
200136727  
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Technical Services Engr.  
(NAME)  
Shippingport, PA 15077  
(ADDRESS)

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

4. Identification of System Reactor Coolant

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
(n) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
(o) Applicable Section XI Code Case(s): None

6. Identification of Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Snubber	Grinnell	VB-6816B	N/A	RC-HSS-104	---	Removed	No
Snubber	Grinnell	8173	N/A	RC-HSS-104	---	Installed	No

7. Description of Work Replaced snubber with a spare for testing/refurbishment purposes.

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Brasher Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Dean J. Lynch Commissions ENR, PA2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1923

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200136732  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Technical Services Engr Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date   

4. Identification of System Reactor Component Cooling

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (p) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (q) Applicable Section XI Code Case(s): None

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	Pacific Scientific	24934	N/A	CC-HSS-1A	---	Removed	No
Snubber	Pacific Scientific	25736	N/A	CC-HSS-1A	---	Installed	No

7. Description of Work Replaced snubber with a spare for testing/refurbishment purposes

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

**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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Zwick Commissions IND PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1924

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY  
As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200136989  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Technical Services Engr Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Blowdown

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
(r) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
(s) Applicable Section XI Code Case(s): None

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	Pacific Scientific	24337	N/A	WGCB-PSSP-200D	---	Removed	No
Snubber	Pacific Scientific	25481	N/A	WGCB-PSSP-200D	---	Installed	No

7. Description of Work Replaced snubber with a spare for testing/refurbishment purposes

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Zivich Commissions E, N, P 12384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06

Form No. 1925

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS/REPLACEMENT ACTIVITY**  
**As Required by the Provisions of the ASME Code Section XI**

1. Owner F.E.N.O.C Date 6/15/06  
(NAME)  
76 South Main Street - Akron, OH 44308 Sheet 1 of 1  
(ADDRESS)

2. Plant Beaver Valley Power Station (BVPS) Unit No. 1  
(NAME)  
Shippingport, PA 15077 200136988  
(ADDRESS) Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed By Technical Services Engr Type Code Symbol Stamp N/A  
(NAME)  
Shippingport, PA 15077 Authorization No. N/A  
(ADDRESS) Expiration Date \_\_\_\_\_

4. Identification of System Blowdown

5. (a) Applicable Construction Code ANSI B31.1 1967 Edition, S71 Addenda, N/A Code Case  
 (l) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989E  
 (u) Applicable Section XI Code Case(s): None

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	Pacific Scientific	28143	N/A	WGCB-H-47A	---	Removed	No
Snubber	Pacific Scientific	18658	N/A	WGCB-H-47A	---	Installed	No

7: Description of Work Replaced snubber with a spare for testing/refurbishment purposes

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

\*Record test pressure and temperature

FORM NIS-2 (Back)

9. Remarks The snubber was replaced with a used spare rotated from stock. No Code Date Reports  
Applicable Manufacturer's Data Reports to be attached  
are available. The snubber was purchased as a non-NF component (non-Code)

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 Robert Brooks Date June 15, 20 06  
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 CT of Hartford, CT have inspected the components described in this Owner's Report during the period 11-13-04 to 4-18-06, 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. Lynch Commissions PA 2384  
Inspector's Signature National Board, State, Province, and Endorsements

Date 6-16-, 20 06