

# FENOC

FirstEnergy Nuclear Operating Company

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

L-03-184

November 7, 2003

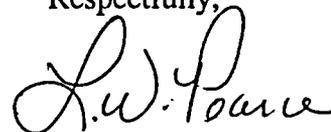
Beaver Valley Power Station  
Unit 1 - Docket No. 50-334, License No. DPR-66  
Unit 2 - Docket No. 50-412, License No. NPF-73  
Monthly Operating Report

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Gentlemen:

In accordance with NRC Generic Letter 97-02, "Revised Contents of the Monthly Operating Report", and Unit 1 and 2 Technical Specification 6.9.4, the "Monthly Operating Report" is submitted for Unit 1 and Unit 2 for the month of October, 2003. No regulatory commitments are contained in this submittal.

Respectfully,



L. W. Pearce

Vice-President BVPS

DTJ/cmg

Enclosures

cc: NRC Regional Office

King-of-Prussia, PA

IE24

# UNIT SHUTDOWNS

DOCKET NO. 50-334  
 UNIT NAME BVPS Unit #1  
 DATE November 3, 2003  
 COMPLETED BY David T. Jones  
 TELEPHONE (724) 682-4962

REPORTING PERIOD: October 2003

No.	Date (YM/D)	Type F: Forced S: Scheduled	Duration (Hours)	Reason (1)	Method of Shutting Down (2)	Cause / Corrective Actions  Comments
						NONE.

**(1) Reason**

- A - Equipment Failure (Explain)
- B - Maintenance or Test
- C - Refueling
- D - Regulatory Restriction
- E - Operator Training / License Examination
- F - Administrative
- G - Operational Error (Explain)
- H - Other (Explain)

**(2) Method**

- 1 - Manual
- 2 - Manual Trip / Scram
- 3 - Automatic Trip / Scram
- 4 - Continuation
- 5 - Other (Explain)

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**SUMMARY:**

The Unit operated at a nominal value of 100% output for the entire report period.

OPERATING DATA REPORT

DOCKET NO.: 50-334  
 UNIT NAME: BVPS UNIT #1  
 REPORT DATE: 11/03/03  
 COMPLETED BY: DAVID T. JONES  
 TELEPHONE: (724) 682-4962

1a. REPORTING PERIOD: OCTOBER 2003  
 1. DESIGN ELECTRICAL RATING (Net MWe): 835  
 2. MAX. DEPENDABLE CAPACITY (Net MWe): 821

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 \* Notes: Rated thermal power at \*  
 \* BVPS-1 was updated from 2652 Mwt\*  
 \* to 2689 Mwt on 10/20/01. Net \*  
 \* MDC was also updated from \*  
 \* 810 MWe to 821 MWe. \*  
 \*\*\*\*\*

	THIS MONTH	YEAR TO DATE	CUMULATIVE
3a. HOURS IN REPORTING PERIOD:	745.0	7296.0	241080.0
3. NO. OF HRS. REACTOR WAS CRITICAL:	745.0	5995.5	166587.0
4. SERVICE HOURS GENERATOR ON LINE:	745.0	5948.9	164060.9
5. UNIT RESERVE SHUTDOWN HOURS:	0.0	0.0	0.0
6. NET ELECTRICAL ENERGY GEN. (MWH):	627100.0	4784999.0	123441006.0
7. GROSS ELECT. ENERGY GEN. (MWH):	663120.0	5076437.0	131746027.0
8. GROSS THERMAL ENERGY GEN. (MWH):	2001020.0	15463022.0	405734331.5
9. UNIT AVAILABILITY FACTOR (%):	100.0	81.5	69.5
10. UNIT CAPACITY FACTOR (MDC) (%):	102.5	79.9	65.0
11. UNIT FORCED OUTAGE RATE (%):	0.0	1.0	15.2

## UNIT SHUTDOWNS

DOCKET NO. 50-412  
 UNIT NAME BVPS Unit #2  
 DATE November 3, 2003  
 COMPLETED BY David T. Jones  
 TELEPHONE (724) 682-4962

REPORTING PERIOD: October 2003

No.	Date (Y/M/D)	Type F: Forced S: Scheduled	Duration (Hours)	Reason (1)	Method of Shutting Down (2)	Cause / Corrective Actions
						Comments
1	031001	S	262.3	C	4	The Unit was shut down for its planned 10 <sup>th</sup> refueling outage on 9/13/03. The Unit completed its refueling outage on 10/11/03.
<del>1</del>	<del>031014</del>	<del>F</del>	<del>27.8</del>	<del>A</del>	<del>3</del>	<del>While reducing output from 65% to 30% in order to repair a leaking seal vent line connection on the Heater Drain Pumps, an automatic reactor trip occurred at approximately 39% output due to low level in the "B" Steam Generator. The low-level in the "B" Steam Generator was caused by failure of a multiplier/divider card in the "B" feedwater flow control loop. The card was replaced, and the Unit was returned to service.</del>

**(1) Reason**

- A - Equipment Failure (Explain)
- B - Maintenance or Test
- C - Refueling
- D - Regulatory Restriction
- E - Operator Training / License Examination
- F - Administrative
- G - Operational Error (Explain)
- H - Other (Explain)

**(2) Method**

- 1 - Manual
- 2 - Manual Trip / Scram
- 3 - Automatic Trip / Scram
- 4 - Continuation
- 5 - Other (Explain)

**SUMMARY:**

The Unit began the report period shut down in Mode 6 during its planned 10<sup>th</sup> refueling outage. Mode 5 was entered 0004 hours on 10/5/03. The Unit began to heat up entering Mode 4 at 1209 hours on 10/9/03. Mode 3 was entered at 0255 hours on 10/10/03. Mode 2 was entered at 0944 hours and the reactor was taken critical at 1041 hours on 10/11/03. Mode 1 was entered at 1851 hours on 10/11/03. The Unit was synchronized to the electrical grid at 2220 hours on 10/11/03 officially ending the 10<sup>th</sup> refueling outage. Output was then escalated to the 30% power plateau for fuel preconditioning and to obtain core power distribution data for startup testing. Following completion of a flux map, the Unit began power ascension to the 75% power plateau at 1540 hours on 10/12/03 for fuel preconditioning. Power ascension was suspended at approximately 31% output at 1750 hours on 10/12/03 in order to repair an oil leak from the "A" Heater Drain Pump upper bearing lube oil cooler. Upon completion of repairs, power ascension to 75% output was resumed at 0458 hours on 10/13/03. Power ascension was halted at approximately 65% output at 2125 hours on 10/13/03 in order to repair a seal leak on the "B" Main Feedwater Pump, and to obtain additional core power

## UNIT SHUTDOWNS

DOCKET NO.	50-412
UNIT NAME	BVPS Unit #2
DATE	November 3, 2003
COMPLETED BY	David T. Jones
TELEPHONE	(724) 682-4962

REPORTING PERIOD: October 2003

distribution data for startup testing. Following completion of a flux map, the Unit began to reduce output at 2140 hours on 10/14/03 from approximately 65% to 30% in order to repair a leaking seal vent line connection on both the "A" and "B" Heater Drain Pumps. During the power reduction, an automatic reactor trip occurred at 2356 hours on 10/14/03 while at approximately 39% output due to low level in the "B" Steam Generator. The Unit was subsequently stabilized in Mode 3. The low level in the "B" Steam Generator was caused by failure of a multiplier/divider card in the "B" feedwater flow control loop. Upon replacement of the card and evaluation of the trip, the Unit began to startup, entering Mode 2 at 2343 hours on 10/15/03. The reactor was taken critical at 0028 hours and Mode 1 was entered at 0120 hours on 10/16/03. The Unit was synchronized to the electrical grid at 0343 hours on 10/16/03 and output was escalated to the 30% power plateau. Repair of the seal leak on the "B" main Feedwater Pump and repair of the leaking seal vent line connections on both the "A" and "B" Heater Drain Pumps were verified completed, however, output could not be raised beyond 30% until chemistry conditions in the Steam Generators were within operating specifications. Once chemistry conditions in all three Steam Generators were within specifications, power ascension to the 90% power plateau was begun at 1143 hours on 10/16/03. Power ascension was halted at approximately 61% output at 0148 hours on 10/17/03 in order to repair the pump inboard seal housing interference on the "B" Main Feedwater Pump. Following repairs to the "B" Main Feedwater Pump, power ascension to the 90% power plateau was resumed at 2218 hours on 10/18/03. Power ascension was halted at approximately 86% output at 1056 hours on 10/19/03 in order to perform calibration of nuclear instrumentation. Following this calibration, the Unit resumed power ascension at 2015 hours on 10/19/03. Power ascension was halted at approximately 92% output at 2226 hours on 10/19/03 in order to perform a heat balance and to adjust the power range nuclear instrumentation. Following this adjustment, the Unit commenced to increase output to full power at 0220 hours on 10/20/03. A nominal value of 100% output was achieved at 0644 hours on 10/20/03. The Unit continued to operate at a nominal value of 100% output for the remainder of the report period.

OPERATING DATA REPORT

DOCKET NO.: 50-412  
 UNIT NAME: BVPS UNIT #2  
 REPORT DATE: 11/03/03  
 COMPLETED BY: DAVID T. JONES  
 TELEPHONE: (724) 682-4962

1a. REPORTING PERIOD: OCTOBER 2003  
 1. DESIGN ELECTRICAL RATING (Net MWe): 836  
 2. MAX. DEPENDABLE CAPACITY (Net MWe): 831

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 \* Notes: Rated thermal power at \*  
 \* BVPS-2 was uprated from 2652 Mwt\*  
 \* to 2689 Mwt on 10/30/01. Net \*  
 \* MDC was also uprated from \*  
 \* 820 MWe to 831 MWe. \*  
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	THIS MONTH	YEAR TO DATE	CUMULATIVE
3a. HOURS IN REPORTING PERIOD:	745.0	7296.0	139863.0
3. NO. OF HRS. REACTOR WAS CRITICAL:	469.8	6589.4	116144.5
4. SERVICE HOURS GENERATOR ON LINE:	454.9	6573.9	115400.4
5. UNIT RESERVE SHUTDOWN HOURS:	0.0	0.0	0.0
6. NET ELECTRICAL ENERGY GEN. (MWH):	307418.0	5396911.0	90579314.0
7. GROSS ELECT. ENERGY GEN. (MWH):	329784.0	5684734.0	95716779.0
8. GROSS THERMAL ENERGY GEN. (MWH):	1019110.0	17328185.0	291927796.0
9. UNIT AVAILABILITY FACTOR (%):	61.1	90.1	82.5
10. UNIT CAPACITY FACTOR (MDC) (%):	49.7	89.0	78.6
11. UNIT FORCED OUTAGE RATE (%):	5.8	0.4	9.3