

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - OCTOBER, 1983

October 1 Following the calibration of the excore instrumentation at 73 percent reactor power, the station was given the go ahead to increase to full power. At 0635 hours, the increase in power was begun.

 While withdrawing the rods in Control Bank 'D', Control Rod H-2 was found to be reading greater than 12 steps above the group demand counter. The primary voltage read 218 steps, while the group demand counter read 202 steps. Upon investigation, it was found that the power supply voltage was out of adjustment high. The voltage was reduced to the lower limit setting, and the rod then read within specifications. Group demand read 213 steps, and primary voltage read 221 steps. The station reached a nominal 100 percent power at 1705 hours.

October 2 The station was in Operational Mode 1 at a nominal 100 percent, and the Reactor Coolant System was at normal operating temperature and pressure.

October 3 The station was in Operational Mode 1 at a nominal 100 percent
Through reactor power. The Reactor Coolant System was at normal operating temperature and pressure. At 1048 hours on the 3rd,
October 4 a reactor/turbine trip occurred when a meter control repairman inadvertently pulled the fuses to Power Range Channel N-44 while performing a calibration of the N-43 Power Range Channel. Realizing his mistake, the repairman replaced the fuses to N-44 and pulled the N-43 fuses without first resetting the high flux rate trip on N-44. This caused a 2/4 high flux rate signal on Detectors N-43 and N-44 and the subsequent trip. The plant was stabilized and placed in Operational Mode 3, Hot Standby.

 After the startup requirements were met, the reactor was taken critical at 1756 hours. The Main Unit Generator was synchronized to the grid at 1852 hours.

 At 2215 hours, with reactor power at 73 percent, a chemistry sample of the 1B Safety Injection Accumulator showed the boron concentration to be too high. The reactor power increase was temporarily halted until the accumulator could be drained and refilled. This was completed at 0040 hours on the 4th. A chemistry sample showed the boron concentration to be within acceptable limits. At 0052 hours, a power increase at a rate of 3 percent/hour was begun. Full power was reached at approximately 1300 hours.

October 5 The station was in Operational Mode 1 with reactor power at
Through a nominal 100 percent. The Reactor Coolant System was at
October 8 normal operating temperature and pressure.

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - OCTOBER, 1983 (Continued)

October 9 At 0000 hours, reactor power was reduced $\frac{1}{2}$ percent to eliminate the cycling the No. 1 Turbine Governor Valve had been experiencing at 100 percent power. This had been causing approximately 5 MW load swings on the Main Unit Generator.

 At 0855 hours, Power Range Detector N-41 failed. The appropriate N-41 bistables were tripped, and a reactor power decrease was started at 0930 hours to less than 75 percent as required by the abnormal operating procedures. Reactor power was brought below 75 percent at 1017 hours. The N-41 detector high voltage power supply was replaced. At 1254 hours, N-41 was returned to service, and a reactor power increase was begun at 1300 hours. Full power was achieved at 1500 hours.

October 10 The station was in Operational Mode 1 at a nominal 100 percent reactor power. The Reactor Coolant System was at normal operating temperature and pressure.

October 11 The station was in Operational Mode 1 at a nominal 100 percent reactor power. At 1030 hours, the Chemistry Department noted that steam generator conductivity and sodium concentrations were increasing. The problem was identified as condenser leakage in the 'B' Waterbox. At 1800 hours, the 'B' Waterbox was isolated, and draining was begun.

 At 1642 hours, reduction of the station load to less than 75 percent reactor power was commenced in order to begin an outage to repair the N-41 Power Range Detector. At 1742 hours, reactor power was stabilized at 73 percent. Load reduction continued at 1957 hours, and the Main Unit Generator Output Breakers were opened at 2125 hours. The station entered Operational Mode 3 at 2137 hours.

October 12 The N-41 repair was completed at 1037 hours. A surveillance test was completed satisfactorily, and the unit was declared operable at 1200 hours.

October 13 Station startup began at 0057 hours, and the reactor was taken critical at 0136 hours. The Main Unit Generator was synchronized with the grid at 0305 hours. A reactor trip occurred at 0320 hours due to 1B Steam Generator lo-lo level. The plant was stabilized, and reactor startup was again begun. The reactor was taken critical at 0442 hours, and the Main Unit Generator was synchronized with the grid at 0505 hours. Reactor power was being steadily increased when, at 0940 hours and 87 percent reactor power, turbine vacuum began dropping. This was attributed to the leak in the 'B' Condenser Waterbox. Reactor power was decreased to find a stable power level. Feedwater Pump FW-P-1B was secured at 1052 hours. Reactor power was stabilized at 48 percent at 1148 hours.

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - OCTOBER, 1983 (Continued)

October 14 Reactor power was increased 7 percent to improve the delta flux. The air was bled from the 1A Cooling Tower Pump. The other pumps were checked for air, and none was found. At 0620 hours, Feedwater Pump FW-P-1B was started, and a power increase was begun. Reactor power was taken to 73 percent and held while the 'B' Waterbox was being filled. At 1645 hours, 'B' Waterbox was returned to service, and a load increase was begun. Cooling Tower Pump 1A was started at 1720 hours. Reactor power was stabilized at 95 percent for performance of a calorimetric. Power was then increased to a nominal 100 percent.

October 15 The station was in Operational Mode 1 with reactor power at a nominal 100 percent. The Reactor Coolant System was at normal operating temperature and pressure.

October 16 At 0035 hours, the station load was reduced 175 MW at the request of the system operator. Reactor power was increased back to a nominal 100 percent at 0916 hours.

October 17 At 0230 hours, the station load was reduced 5 MW to stop turbine governor valve oscillation. At 0440 hours, the load was again reduced 5 MW to stop the governor valve oscillation. Reactor power was increased 1 percent at 1015 hours with no governor valve flutter.

October 18 At 0715 hours, reactor power was reduced 1 percent due to governor valve oscillation. Reactor power was a nominal 100 percent, and the Reactor Coolant System was at normal operating temperature and pressure.

October 19 The station was in Operational Mode 1 with reactor power at
Through a nominal 100 percent. The Reactor Coolant System was at
October 31 normal operating temperature and pressure.

MAJOR SAFETY-RELATED MAINTENANCE - OCTOBER, 1983

1. The high voltage power supply to Power Range Detector N-41 was replaced.
2. The 1B Instrument Air Compressor was overhauled.

OPERATING DATA REPORT

DOCKET NO. 50-334
 DATE 11-3-83
 COMPLETED BY J. L. Holtz
 TELEPHONE 412-643-1369

OPERATING STATUS

1. Unit Name: Beaver Valley Power Station, Unit #1
2. Reporting Period: October, 1983
3. Licensed Thermal Power (MWt): 2660
4. Nameplate Rating (Gross MWe): 923
5. Design Electrical Rating (Net MWe): 835
6. Maximum Dependable Capacity (Gross MWe): 860
7. Maximum Dependable Capacity (Net MWe): 810
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>745</u>	<u>7,296</u>	<u>65,760</u>
12. Number Of Hours Reactor Was Critical	<u>715.7</u>	<u>4,628.3</u>	<u>29,445.8</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>4,482.8</u>
14. Hours Generator On-Line	<u>705.5</u>	<u>4,567.2</u>	<u>28,367.4</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1,779,388</u>	<u>11,490,012.8</u>	<u>64,000,194.2</u>
17. Gross Electrical Energy Generated (MWH)	<u>579,000</u>	<u>3,742,300</u>	<u>20,254,940</u>
18. Net Electrical Energy Generated (MWH)	<u>552,402</u>	<u>3,555,591</u>	<u>18,767,708</u>
19. Unit Service Factor	<u>94.7</u>	<u>62.6</u>	<u>45.1</u>
20. Unit Availability Factor	<u>94.7</u>	<u>62.6</u>	<u>45.1</u>
21. Unit Capacity Factor (Using MDC Net)	<u>91.5</u>	<u>60.2</u>	<u>38.5</u>
22. Unit Capacity Factor (Using DER Net)	<u>88.8</u>	<u>58.4</u>	<u>37.4</u>
23. Unit Forced Outage Rate	<u>1.4</u>	<u>3.5</u>	<u>32.1</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

25. If Shut Down At End Of Report Period, Estimated Date of Startup: _____

26. Units In Test Status (Prior to Commercial Operation):

INITIAL CRITICALITY
 INITIAL ELECTRICITY
 COMMERCIAL OPERATION

Forecast	-	Achieved
<u>N/A</u>	-	<u>N/A</u>
<u>N/A</u>	-	<u>N/A</u>
<u>N/A</u>	-	<u>N/A</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 11-3-83
 COMPLETED BY J. L. Holtz
 TELEPHONE (412) 643-1369

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
7	10/11/83	F	29.67	A	1	N/A	IA	INSTRU	The station was taken off-line at 2125 hours on the 11th in order to repair the Power Range Detector N-41. The detector had failed, and the station had been operating at reduced power as required by the abnormal operating procedures. The N-41 Detector was repaired, and station startup began at 0057 hours on the 13th. The reactor was taken critical at 0136 hours, and the Main Unit Generator was synchronized to the grid at 0305 hours.

1
 F - Forced
 S - Scheduled

2
 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)

3
 Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Continued From Previous Month
 5-Reduction
 9-Other

4
 Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 0161)

5
 Exhibit I - Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 11-3-83
 COMPLETED BY J. L. Holtz
 TELEPHONE (412) 643-1369

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
8	10/13/83	F	1.75	A	3	N/A	CH	VALVEX	While increasing reactor power with 1B Steam Generator Level Control in manual, a reactor trip occurred due to lo-lo steam generator level. This was caused by the slow response of the Feedwater Bypass Valve while the operator was attempting to switch control from the Feedwater Bypass Valve to the Main Feedwater Regulating Valve. A Design Change package has been generated to reduce the response time of the S/G Bypass Valves.

¹
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²
 Reason:
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 H-Other (Explain)

³
 Method:
 1-Manual
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⁴
 Exhibit G- Instructions
 for Preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File (NUREG
 0161)

⁵
 Exhibit I- Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-334
 UNIT BVPS Unit #1
 DATE 11-3-83
 COMPLETED BY J. L. Holtz
 TELEPHONE (412) 643-136

MONTH October, 1983

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>693</u>
2	<u>817</u>
3	<u>461</u>
4	<u>739</u>
5	<u>810</u>
6	<u>818</u>
7	<u>780</u>
8	<u>818</u>
9	<u>818</u>
10	<u>818</u>
11	<u>669</u>
12	<u>0</u>
13	<u>308</u>
14	<u>626</u>
15	<u>809</u>
16	<u>731</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>814</u>
18	<u>817</u>
19	<u>814</u>
20	<u>822</u>
21	<u>817</u>
22	<u>818</u>
23	<u>814</u>
24	<u>814</u>
25	<u>826</u>
26	<u>822</u>
27	<u>830</u>
28	<u>818</u>
29	<u>826</u>
30	<u>850</u>
31	<u>822</u>

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH OctoberDOCKET NO. 50-334UNIT NAME BVPS Unit #1DATE 11-3-83COMPLETED BY J. L. HoltzTELEPHONE (412) 643-1369

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
6	10/03/83	F	8.07	H	3	N/A	IA	INSTRU	<p>While performing a quarterly calibration of Power Range Channel N-43, a meter control repairman inadvertently pulled the fuses to N-44. Realizing his mistake, he then replaced the fuses to N-44 and reloaded the fuses to N-43 without first resetting the 2/4 high flux rate trip on Channel N-44. This created a 2/4 high flux rate signal and a reactor trip.</p> <p>The plant was stabilized and reactor startup was begun. The reactor was taken critical at 1756 hours and the Main Unit Generator was synchronized to the grid at 1852 hours.</p>

1
F- Forced
S- Scheduled

2
Reason:
A-Equipment Failure (Explain)
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D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
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H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram
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5-Reduction
9-Other

4
Exhibit G - Instructions
for Preparation of Data
Entry Sheets for Licensee
Event Report (LER) File (NUREG
0161)

5
Exhibit I - Same Source