

DUQUESNE LIGHT COMPANY
Beaver Valley Power Station

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - FEBRUARY 1983

February 1 through February 5 The station was in operational mode 1 with reactor power at a nominal 100 percent and the reactor coolant system at normal operating temperature and pressure.

February 6 At 0000 hours, a load reduction was started in preparation for a containment entry. This was completed at 0121 hours with reactor power at 48 percent. At 0200 hours, a crew of electricians entered containment to investigate the cause of high stator temperatures on the "C" reactor coolant pump [RC-P-1C]. At 0300 the electricians removed the inspection plates on the pump, and stator temperatures began to decrease. The crew also added oil to all three reactor coolant pumps' lube oil reservoirs. All three were about 1" low. A reactor power increase was begun at 0615 hours at system's request. This was completed at 1100 hours with reactor power a nominal 100 percent.

February 7 through February 11 The station was in operational mode 1 with reactor power at a nominal 100 percent and the reactor coolant system at normal operating temperature and pressure.

February 12 At 1004 hours the plant experienced a reactor trip/safety injection actuation due to low steamline pressure. A sweated fitting on the air supply line to the trip valve on the "B" main steam line [TV-MS-101B] had separated, venting the air and allowing the valve to close. The subsequent steam flow increase in the "A" steam line momentarily dropped steam pressure sufficiently to cause a trip. An Unusual Event was declared at 1028 hours due to the Emergency Safeguards Features actuation. The reactor operators followed applicable procedures to stabilize the plant and then proceeded to recover from the trip and the safety injection. The Unusual Event was terminated at 1106 hours. The air line to the "B" main steam trip valve [TV-MS-101B] was repaired and a stroke test was performed at 2200 hours. The valve failed to close and an investigation found that one of the actuator cylinder pistons was binding and would not stroke fully.

February 13 The station was in operational mode 3, Hot Standby. At 0005 hours, the technical specification action statement dealing with an inoperable main steam isolation valve was met by disconnecting both of the valve actuator cylinders from the valve shaft in order to close the valve. At 0300 hours, a containment entry was made to check the "B" loop cubicle for leaks; none were found. Disassembly of the "B" main steam trip valve actuator showed that the problem was due to a scored cylinder which in turn was attributed to a slightly deformed piston. Repairs to the valve were completed at 1900 hours.

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - FEBRUARY 1983

February 14 Reactor startup was commenced at 0050 hours and the reactor was taken critical at 0112 hours. The reactor tripped at 0135 hours on 10-10 steam generator level in the "C" steam generator. The feedwater bypass valve [FCV-FW-499] had failed to respond to manual control. An investigation revealed a leaking "O" ring on the valve actuator that allowed cylinder equalization. A stroke test showed that the valve would only open about 10 percent of the way. The actuator was repaired and the limit switches were adjusted. At 1020 hours, the valve was stroke tested satisfactorily and reactor startup was commenced at 1025 hours. The reactor went critical at 1049 hours and the main unit generator was synchronized at 1452 hours. Reactor power was steadily increased until 1600 hours, at which time it was held at 50 percent in order to test run the "A" main feedwater pump [FW-P-1A]. The pump was run satisfactorily and a reactor power increase was begun at 1658 hours. Reactor power reached a nominal 100 percent at 2000 hours.

February 15 Reactor power was reduced by 80 MW at 0027 hours to allow for isolation of the "B" first point heater [FW-E-1B], which had developed a tube leak. The isolation valves for the point heater were completely closed at 0032 hours but were leaking by. Reactor power was increased to a nominal 100 percent at 1335 hours. Isolation valves for "B" first point heater were verified as closed and holding flow at 2200 hours.

February 16 through
February 25 Station was in operational mode 1 with reactor power at a nominal 100 percent and the reactor coolant system at normal operating temperature and pressure.

February 26 Station in operational mode 1 with reactor power at a nominal 100 percent. Both trains of the reactor trip breaker under voltage trip function were tested as required on NRC IE Bulletin 83-01. Both trains tested satisfactorily.

February 27 through
February 28 The station was in operational mode 1 with reactor power at a nominal 100 percent and the reactor coolant system at normal operating temperature and pressure.

DUQUESNE LIGHT COMPANY
Beaver Valley Power Station

MAJOR SAFETY-RELATED MAINTENANCE - FEBRUARY 1983

1. A containment entry was made on February 6 to inspect reactor coolant pump RC-P-1C. The inspection plates were removed in order to allow the stator to cool. Also, oil was added to all three reactor coolant pumps' lube oil reservoirs. All had been about 1" low.
2. The air supply line to the main steam trip valve TV-MS-101B actuator had separated at a sweated fitting and was repaired. Subsequent attempts to stroke the valve were unsuccessful. An investigation found that the actuator piston was binding due to debris and a loose pivot arm. Repeated operation of the valve over a period of time had allowed the piston to strike the cylinder wall, "mushrooming" its leading edge. The inside cylinder was honed and the piston head was machined. The actuator was tested satisfactorily.
3. One of the steam generator feedwater bypass valves [FCV-FW-499] had failed to respond to manual control due to a leaking "O" ring on the valve actuator. The "O" ring was replaced and the limit switches were adjusted.
4. Auxiliary feedwater pump, FW-P-2, was repacked.
5. Verified operability of both "A" & "B" reactor trip breakers to comply with I.E. Bulletin No. 83-01.

AVERAGE DAILY UNIT POWER LEVEL

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

MONTH February

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	813
2	809
3	817
4	817
5	821
6	676
7	813
8	813
9	821
10	825
11	821
12	332
13	0
14	30
15	792
16	821

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	817
18	813
19	821
20	809
21	813
22	809
23	809
24	809
25	817
26	821
27	817
28	813
29	
30	
31	

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.

OPERATING DATA REPORT

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

OPERATING STATUS

1. Unit Name: Beaver Valley Power Station, Unit #1
2. Reporting Period: February
3. Licensed Thermal Power (MWt): 2660
4. Nameplate Rating (Gross MWe): 923
5. Design Electrical Rating (Net MWe): 852
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>672</u>	<u>1,416</u>	<u>59,880</u>
12. Number Of Hours Reactor Was Critical	<u>623.6</u>	<u>1,334.6</u>	<u>26,152.1</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>4,402.8</u>
14. Hours Generator On-Line	<u>619.2</u>	<u>1,327.6</u>	<u>25,127.8</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1,598,707.8</u>	<u>3,333,046.8</u>	<u>55,843,228</u>
17. Gross Electrical Energy Generated (MWH)	<u>522,500</u>	<u>1,093,600</u>	<u>17,606,240</u>
18. Net Electrical Energy Generated (MWH)	<u>498,117</u>	<u>1,042,611</u>	<u>16,254,728</u>
19. Unit Service Factor	<u>92.1</u>	<u>93.8</u>	<u>43.9</u>
20. Unit Availability Factor	<u>92.1</u>	<u>93.8</u>	<u>43.9</u>
21. Unit Capacity Factor (Using MDC Net)	<u>91.5</u>	<u>90.9</u>	<u>36.9</u>
22. Unit Capacity Factor (Using DER Net)	<u>87.0</u>	<u>86.4</u>	<u>35.1</u>
23. Unit Forced Outage Rate	<u>7.9</u>	<u>6.25</u>	<u>35.0</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Shutdown for third refueling scheduled to begin June 11, 1983. Projected
duration is 14 weeks.

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

N/A

N/A

N/A

N/A

N/A

N/A

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH FEBRUARY

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 3-3-83
 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
3	830212	F	52.8	A	3	83-005/99X	CD	VALVOP	At 1004 hours, the plant experienced a safety inspection/reactor trip actuation due to low steamline pressure. A sweated fitting on the air supply line to the trip valve on the "B" main steam line [TV-MS-101B] had separated, allowing [TV-MS-101B] to close. The subsequent rapid increase in steam flow in the "A" and "C" steamlines momentarily dropped steam pressure in the "A" steamline sufficiently to cause a safety injection/reactor trip on a low steamline pressure signal. An Unusual Event was declared at 1028 hours due to ESF equipment actuation. The Unusual Event was terminated at 1106 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 FEBRUARY

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 3-3-83
 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
3	830212	F	52.8	A	3	83-005/99X	CD	VALVOP	<p>Following the repair of the air line at 2200 hours on the 12th, the valve was stroke tested unsatisfactorily. The problem was found to be a piston that was binding in the actuator cylinder. At 0005 hours on the 13th, the technical specification action statement dealing with an inoperable main steam isolation valve was met by disconnecting both of the valve actuator cylinders from the valve shaft in order to close the valve. Valve actuator repairs were completed at 1900 hours.</p> <p>Reactor startup was commenced at 0050 hours on the 14th, and the reactor went critical at 0112 hours. The reactor tripped at 0135 hours on</p>

1
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2
Reason:
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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 FEBRUARY

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 3-3-83
 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
3	830212	F	52.8	A	3	83-005/99X	CD	VALVOP	10-10 steam generator level in the "C" steam generator. The feedwater bypass valve [FCV-FW-499] had failed to respond to manual control due to a leaking "O" ring on the valve actuator cylinder. Following repair and testing of the valve, reactor startup was commenced at 1025 hours. The reactor was taken critical at 1049 hours and the main unit generator was synchronized at 1452 hours.

¹
 F: Forced
 S: Scheduled

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 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