

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - MARCH, 1984

March 1 through March 8 The station in operational mode 1 with reactor power a nominal 100%. The Reactor Coolant System was at normal operating temperature and pressure.

March 9 The station was in operational mode 1 at a nominal 100% reactor power. Due to a high RCS leakrate, it was decided to take the station off-line to effect coolant system repairs and perform other plant maintenance. At 1800 hours, a power reduction was begun. Reactor power was held at 75%, 50%, and 20% to allow primary and secondary voltage readings to be taken on the Rod Position Indicators.

March 10 The Main Unit Generator output breakers were opened at 0000 hours. The Main Turbine was tripped at 0002 hours. Reactor power was being maintained at 6×10^{-6} amps in the intermediate range.

March 11 through March 12 The station was in operational mode 2 with reactor power being maintained at 2×10^{-6} amps. Work was proceeding on repairing the leak in the 1C RCS loop and on balancing the turbine. It was decided to de-escalate reactor power and cooldown the RCS to facilitate leak repairs. At 2200 hours on the 12th, as the reactor was being shutdown, a reactor trip occurred as source range fuses were being installed.

March 13 The station was in operational mode 3 with reactor power at 2000 counts per second. Cooldown of the RCS was begun in order to repair various Reactor Coolant System leaks. The station entered mode 4 at 0720 hours and the RHR system was placed in service at 1100 hours. The station entered mode 5 at 2126 hours and containment vacuum was broken at 2215 hours.

March 14 through March 15 The station was in operational mode 5 with the RHR system in service controlling decay heat. Work was continuing on the repair of RCS leaks. The 1A Reactor Coolant Pump was started at 1520 hours on the 15th.

March 16 The station was in operational mode 5. At 2000 hours, operations began drawing vacuum in containment in preparation for plant startup.

March 17 Problems were encountered in preparation for plant startup. MOV-CH-289, the Charging Header Containment Isolation Valve, gave dual indication while closed. Also, the breech lock on the inner door of the Containment Personnel Air Lock was malfunctioning. Plant startup was delayed while these items were repaired.

March 18 The Containment Personnel Air Lock was returned to service at 0340 hours. Repairs were completed on MOV-CH-289 and the valve was tested satisfactorily at 1428 hours. The 1B Reactor Coolant Pump was started at 1503 hours and immediately shutdown due to high seal leak-off. Reactor coolant system heatup continued and the station entered mode 4 at 1532 hours. The 1C Reactor Coolant Pump was started at 1557 hours.

March 19 The station entered mode 3 at 0250 hours. Reactor Coolant Pumps 1A and 1C were in service. Investigation continued in an attempt to correct the 1B Reactor Coolant Pump seal leak-off problems.

At 0330 hours, with RCS pressure at 1000 psig, the #1 seal on the pump reseated itself when the seal leak-off isolation valve was opened. The pump was then started without incident. The plant continued heating up at 25°F/HR and the RHR system was taken out of service at 2010 hours. At 2124 hours, a containment entry was made to Furmanite the loop 1C Cold Leg Manifold Inlet Isolation Valve, RC-31. The flange for flow orifice RC-482 was tightened also.

March 20 Reactor startup was begun at 0131 hours and the reactor was taken critical at 0220 hours. The maintenance crew in containment had been unable to stop the leak on flange for PIS-RC-482A & B. It was decided to install a drip collector hood around the flange to direct the leakage to the sump. A containment entry was made at 0656 hours to perform the work.

The Main Turbine had been rolled and was at 1800 RPM at 0520 hours awaiting completion of the work in containment. The turbine was tripped at 0925 hours when it became apparent that the containment work would take longer than originally anticipated. At 1030 hours, the nonreturn valve on the line from the 3A feedwater heater to the condenser, NRV-ES-103A, was found to be jammed. Repairs were begun on the valve actuator.

At 1500 hours, the maintenance crew departed containment. Repairs to NRV-ES-103A were completed at 1755 hours and turbine startup was begun immediately. The Main Unit Generator was synchronized to the grid at 1834 hours.

March 21 The station was in operational mode 1 with reactor power at 66% at 0000 hours. An escalation of reactor power was in progress and 100% power was achieved at 0230 hours.

March 22 through March 31 The station was in operational mode 1 with reactor power a nominal 100%. The Reactor Coolant System was at normal operating temperature and pressure.

MAJOR MAINTENANCE - MARCH, 1984

1. Tubes in Component Cooling Water Heat Exchangers CC-E-3A & 3B were cleaned.
2. The Main Unit Turbine was balanced.
3. The outboard seal and suction gasket were replaced on the 1B Main Feedwater Pump, FW-P-1B.
4. Repaired leaks on flow orifices RC-481, 482 on the 1C Reactor Coolant loop.
5. Motor operator on MOV-CH-289, Charging Header Containment Isolation Valve, was repaired.
6. Repaired the breech ring lock pin of the inner Containment Personnel Airlock door.
7. The nonreturn valve on the 3A Feedwater Heater [NRV-ES-103A] was repaired.

OPERATING DATA REPORT

DOCKET NO. 50-334
 DATE 4-9-84
 COMPLETED BY J. L. Holtz
 TELEPHONE 412-643-1369

OPERATING STATUS

1. Unit Name: Beaver Valley Power Station, Unit #1
2. Reporting Period: March, 1984
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	744	2184	69,408
12. Number Of Hours Reactor Was Critical	571.7	1985.7	32,865.1
13. Reactor Reserve Shutdown Hours	0	0	4482.8
14. Hours Generator On-Line	485.4	1837.5	31,616.3
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,263,131.7	4,626,931.2	72,216,469.7
17. Gross Electrical Energy Generated (MWH)	409,000	1,500,500	22,929,440
18. Net Electrical Energy Generated (MWH)	378,810	1,410,415	21,299,303
19. Unit Service Factor	65.2	84.1	47.7
20. Unit Availability Factor	65.2	84.1	47.7
21. Unit Capacity Factor (Using MDC Net)	62.9	79.7	41.4
22. Unit Capacity Factor (Using DER Net)	61.0	77.4	40.1
23. Unit Forced Outage Rate	0	4.6	29.8
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

N/A

N/A

N/A

N/A

N/A

N/A

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-334
 UNIT BVPS Unit #1
 DATE 4-9-84
 COMPLETED BY J. L. Holtz
 TELEPHONE (412) 643-136

MONTH March

DAY	AVERAGE DAILY POWER LEVEL * (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>783</u>	17	<u>0</u>
2	<u>824</u>	18	<u>0</u>
3	<u>784</u>	19	<u>0</u>
4	<u>817</u>	20	<u>50</u>
5	<u>783</u>	21	<u>783</u>
6	<u>825</u>	22	<u>825</u>
7	<u>783</u>	23	<u>784</u>
8	<u>823</u>	24	<u>825</u>
9	<u>713</u>	25	<u>784</u>
10	<u>0</u>	26	<u>825</u>
11	<u>0</u>	27	<u>784</u>
12	<u>0</u>	28	<u>825</u>
13	<u>0</u>	29	<u>784</u>
14	<u>0</u>	30	<u>825</u>
15	<u>0</u>	31	<u>783</u>
16	<u>0</u>		

* The gross generation integrator installed in February reads only to the nearest 1000 MWH, as opposed to the original integrator which read to the nearest 100 MWH. Given this reduction in meter accuracy, a 24 hour period does not provide enough readings to yield an accurate station daily average. The net generation strip chart recorder, however, shows that the station output during the month remained steady, averaging between 800 and 810 MWe for those times when the reactor was at 100% power. This is consistent with previous months' data. This integrator problem is presently being investigated for any necessary changes.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH March

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 4-10-84
 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
5	3/10/84 - 3/20/84	S	258.6	B	3	84-15	CB	PIPEXX	The station was taken off-line at 0000 hours on the 10th to repair various leaks on the 1C reactor coolant loop and perform other plant maintenance. An attempt was made to repair the leaks while keeping the reactor critical. It soon became apparent, however, that the reactor coolant system would have to be cooled down in order to effect the necessary repairs. While shutting down the reactor manually, a reactor trip occurred while fuses were being inserted in the source range instrumentation in the control room. The fuses had been removed to prevent an overvoltage condition on the instrumentation at higher flux levels. The operators attempted to hold off inserting the fuses until

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

DOCKET NO. 50-334
 UNIT NAME BVP's Unit #1
 DATE 4-10-84
 COMPLETED BY J. L. HOLTZ
 TELEPHONE (412) 643-1369

REPORT MONTH March

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Codes	Cause & Corrective Action to Prevent Recurrence
5	3/10/84 - 3/20/84	S	258.6	B	3	84-15	CB	PIPEXX	<p>just before the P6 permissive signal was de-energized. They were unable to insert the fuses quickly enough, however, and once P6 was disabled, the reactor tripped due to the tripped source range bistables.</p> <p>The station remained off-line until 1834 hours on the 20th.</p>

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 (L E R) File (NUREG 01611)

⁵
 Exhibit I - Same Source



Nuclear Division
P.O. Box 4
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Telephone (412) 393-6000

April 9, 1984

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

United States Nuclear Regulatory Commission
Director, Office of Management Information & Program Control
Washington, D.C. 20555

Gentlemen:

In accordance with Appendix A, Technical Specifications, the
Monthly Operating Report is submitted for the month of March, 1984.

Very truly yours,

J. J. Carey
Vice President
Nuclear Division

Enclosures

cc: NRC Regional Office, King of Prussia, PA

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