

DUQUESNE LIGHT COMPANY
Beaver Valley Power Station

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - JULY 1982

- July 1 Station is in Cold Shutdown Mode 5 awaiting the repair of the 1B Reactor Coolant Pump. The Reactor Coolant System Tavg and pressure are at 110°F and 300 psig.
- July 2 Started seal injection to Reactor Coolant Pump [RC-P-1B] at 1300 hours and at 1355 hours the B Reactor Coolant Loop Stop Valve Pressurization was taken out of service and began filling Reactor Coolant Loop B.
- July 3 At 2134 hours, Reactor Coolant Pump [RC-P-1B] was started and the B Reactor Coolant Loop hot Leg and cold Leg stop valves were opened. At 2335 hours, the Reactor Coolant Pumps were shutdown to begin the vent procedure of the Reactor Coolant System.
- July 4 The vent procedure of the Reactor Coolant System was completed at 0153 hours. At 1135 hours began pulling containment vacuum and at 1612 hours the containment vacuum air ejector secured. At 1502 hours, Reactor Coolant Pump [RC-P-1A] was started, at 1800 hours, Reactor Coolant Pump [RC-P-1C] was started, and at 1818 hours Reactor Coolant Pump [RC-P-1B] was started and heat-up into Hot Shutdown Mode 4 commenced. At 1926 hours the station entered Hot Shutdown Mode 4.
- July 5 Reactor Coolant System Tavg and pressure at 305°F and 400 psig. At 0005 hours the Residual Heat Removal System was taken out of service and by 0129 hours the station entered Hot Stand-by Mode 3 with the Reactor Coolant System Tavg and pressure at 465°F and 1450 psig. At 0850 hours, Main Feed Water Pump [FW-P-1A] was started. At 1930 hours the Reactor Coolant System Tavg and pressure reached 547°F and 2235 psig.
- July 6 Surveillance Testing in progress. At 1558 hours began pulling Shutdown Banks A and B for approach to criticality. At 1730 hours Control Bank A was pulled.
- July 7 through July 9 All control banks are at 228 steps except Control Bank D which is at 160 steps with a boron dilution rate of 50 GPM. At 0245 hours on the 7th with Control Bank D at 215 steps initial criticality was achieved. The Core Design Check Test started at 1230 hours on the 7th and was in progress through July 9 when it was completed at 1100 hours. The Reactor Power was then increased to a nominal 2% to place Steam Generator Blowdown in service.

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NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - JULY 1982 (Cont.)

- July 10 Began rolling the turbine at 0010 hours and at 0316 hours the main unit generator was synchronized to the grid. At 0630 hours the N-41 Power Range Detector was declared inoperable due to intermittent spiking which was giving positive and negative rate trips. At 1230 hours began a 2%/min load reduction for the performance of the Turbine Overspeed Trip Test. At 1330 hours, the Main Generator Output Breaker was opened while the Reactor was at a nominal 7% power. At 1420 hours the turbine overspeed trip setpoint was verified at 1994 RPM and at 1518 hours the Main Generator Output Breaker was closed.
- July 11 Ramping reactor power at 3%/hour to hold point of 40% for the
through performance of a Full Core Flux Map. At 0103 hours on the 11th
July 12 a nominal 40% reactor power was achieved. At 1730 hours on the
12th, the 40% reactor power Full Core Flux Map was completed. At
2250 hours on the 12th core analysis data was evaluated satisfactorily
and an increase in reactor power to a nominal 75% was commenced
at a rate of 3%/hour.
- July 13 At 0330 hours stopped reactor power increase and stabilized below
50% reactor power for Computer Alarm Operability requirements
(Tech. Spec. 3.2.1). At 1000 hours began 3%/hour load increase
to a nominal 75% reactor power. At 1210 hours Main Feedwater Pump
[FW-P-1A] started for plant load increase. At 1833 hours began
reducing the station load to a nominal 60% reactor power level to
remove FW-P-1A from service, at 1933 hours FW-P-1A was shutdown.
- July 14 At 0540 hours started Main Feedwater Pump [FW-P-1A] for maintenance
observation, at 0600 hour began to ramp reactor power at 3%/hour
to \leq 75% reactor power.
- July 15 At 2000 hours, released by system operator to commence reactor
power reduction at 1%/min. for the repair of Excore Power Range
Detector N-41. At 2132 hours the Main Generator Output Breaker
was opened at 2135 hours tripped the Turbine and at 2226 hours
all Control Rods inserted and the Reactor shutdown.
- July 16 Reactor shutdown for the repair of the N-41 Power Range Detector
Reactor Coolant System Tavg. and Pressure at 547°F and 2235 psig.
- July 17 At 2205 hours Reactor Start-up was commenced and at 2250 hours the
Reactor was critical.

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NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - JULY 1982 (Cont.)

- July 18 Commenced turbine roll at 0005 hours and at 0120 hours the main generator was synchronized to the grid. At 0140 hours the reactor tripped on a Hi/Hi Steam Generator level signal due to control problems with the Feedwater By-pass Control Valves. At 0210 hours reactor start-up commenced at 0225 hours the reactor went critical and at 0312 hours the main generator was synchronized to the grid. At 0415 hours a nominal 40% reactor power hold was established to calibrate the N-41 Power Range Detector.
- July 19 At 0305 hours on the 19th, the station reached a 72 hour hold point through at 78% reactor power for xenon equilibration and to perform a Full July 22 Core Flux Map. At 2030 hours on the 21st the flux map was completed and began ramping to a nominal 85% reactor power at 3%/hour. At 0100 hours on the 22nd a nominal reactor power level of 85% was reached, will begin ramping reactor power at 1%/hour. At 0410 hours on the 22nd a hold point at nominal 90% reactor power was established until the calibrations of Power Range Detectors N-42, N-43, N-44 were complete. At 1205 hours on the 22nd the Chemistry Department reported reactor coolant system inleakage into the secondary side of the Steam Generator [RC-E-1C] at a rate of .001 GPM. At 1750 hours reactor power was increased to a nominal 95% at \leq 1%/min.
- July 23 Station in Operational Mode 1 with the reactor at a nominal 96% through power and the Reactor Coolant System at normal operational July 31 temperature and pressure. The Steam Generator [RC-E-1C] primary side to secondary side tube leak is slowly increasing. At 1130 hours on the 28th, the reactor reached nominal full power.

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MAJOR SAFETY RELATED MAINTENANCE - JULY 1982

1. Replaced the N-41 Power Range Detector because of damage that occurred due to refueling seal leakage.
2. The A Incore Detector was replaced due to shorted leads.
3. Started the replacement of the Motor Thrust Bearing on Cooling Tower Pump [CT-P-1C].
4. Replaced the Inboard and Outboard Motor Bearings on Component Cooling Pump [CC-P-1C].
5. Installed temporary Chem. Nuclear Demineralizers to clean-up condensate and Steam Generator Blowdown.

OPERATING DATA REPORT

DOCKET NO. 50-334
 DATE 8/4/82
 COMPLETED BY L. W. Weaver
 TELEPHONE 412-643-5303

OPERATING STATUS

1. Unit Name: Beaver Valley Power Station, Unit #1
2. Reporting Period: July, 1982
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	744	5,683	54,791
12. Number Of Hours Reactor Was Critical	547.2	577.2	21,606.5
13. Reactor Reserve Shutdown Hours	0	0	4,482.8
14. Hours Generator On-Line	469.6	469.6	20,623.7
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	975,422.7	975,422.7	44,604,363.18
17. Gross Electrical Energy Generated (MWH)	307,600	307,600	13,958,040
18. Net Electrical Energy Generated (MWH)	286,849	286,849	12,781,425
19. Unit Service Factor	63.1	9.2	39.0
20. Unit Availability Factor	63.1	9.2	39.0
21. Unit Capacity Factor (Using MDC Net)	47.6	6.3	31.7
22. Unit Capacity Factor (Using DER Net)	45.3	6.0	30.1
23. Unit Forced Outage Rate	10.5	10.5	39.6

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:

	Forecast	Achieved
INITIAL CRITICALITY	N/A	N/A
INITIAL ELECTRICITY	N/A	N/A
COMMERCIAL OPERATION	N/A	N/A

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-334
 UNIT BVPS Unit #1
 DATE 8/4/82
 COMPLETED BY L. W. Weaver
 TELEPHONE (412) 643-5303

MONTH July

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	174
11	339
12	330
13	457
14	539
15	555
16	0

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	0
18	412
19	572
20	588
21	604
22	716
23	782
24	791
25	774
26	766
27	765
28	782
29	802
30	795
31	790

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

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 8-4-82
 COMPLETED BY L. W. Weaver
 TELEPHONE (412) 643-5303

REPORT MONTH July

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
01	820710	S	1.8	B	9	N/A	zz	zzzzzz	Turbine overspeed trip test Main Unit Generator taken off line, but the reactor was not tripped. Water was found in the cable and connector of the N-41 Detector (Model No. WL-23-743). Both the N-41 Detector, its associated cable, and the field cable connector were replaced. The water was a result of inleakage through the Refueling Cavity Seal during the last refueling outage. Control problems with By-pass Flow control valves in the automatic mode. Station tripped on Hi/Hi B Steam Generator level.
02	820715	F	51.8	A	1	82-023/03L	IA	INSTRU	
03	820718	F	1.5	A	3	N/A	CH	VALVOP	

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 (NURIG 0161)

⁵
 Exhibit I - Same Source