

DUQUESNE LIGHT COMPANY
Beaver Valley Power Station

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - JANUARY 1983

- January 1 through January 3 Station entered the month operating at approximately 66% reactor power as requested by the system operator. At 0600 hours on the 3rd a load increase was begun to bring reactor power to a nominal 100%. This was completed by 0700 hours.
- January 4 through January 6 Station was in operational mode 1 with reactor power at a nominal 100% and the reactor coolant system at normal operating temperature and pressure.
- January 7 Station in operational mode 1 with reactor power at a nominal 100%. At 0932 hours, received a reactor/turbine trip due to loss of power to the Normal 4KV Busses 1A and 1B. All auxiliary systems functioned as designed including the #1 Diesel Generator which started and sequenced on the loads for the 4KV Emergency Bus 1AE. All three reactor coolant pumps tripped due to 2/3 bus underfrequency signals, and the Auxiliary Feedwater System started to feed the steam generators. At 0936 hours, the 1C Reactor Coolant Pump was started to reinstate forced cooling flow to the reactor. At 0940 hours, steam generator feed flow was transferred from Auxiliary Feedwater to Main Feedwater via the Bypass Feed Regulating Valves. Also, at 0940 hours, an Unusual Event, Loss of Off-site Power Capability (Partial), was declared, and the appropriate notifications were made as per the EPP Procedure. After the tripped relays in the Switchyard were reset, the 1A System Station Service Transformer was re-energized. The Normal 4KV busses 1A and 1B were then restored to operable status by closing their respective feeder breakers and the Unusual Event was terminated at 1014 hours. The 1B Reactor Coolant Pump was restarted at 1020 hours. At 1028 hours, the 1A Reactor Coolant Pump failed to restart. At 1047 hours, the Emergency 4KV Bus 1AE was restored to its normal power supply and the No. 1 Diesel Generator was shutdown. After an investigation which found no problems, the 1A Reactor Coolant Pump was successfully restarted. The main turbine was placed on turning gear.
- January 8 Station was in Hot Standby Mode 3. A containment entry was made at 0100 hours to replace Source Range Detector N-32, which had failed to show any indication of reactor count rate when re-energized following the reactor trip on the 7th. The detector was energized and tested successfully at 1600 hours. At 1636 hours, reactor startup was commenced. The reactor went critical at 1710 hours, and at 1912 hours the main unit generator was synchronized to the grid. At 1916 hours, the reactor tripped on a high level indication in the 1B steam generator. After the plant was stabilized, reactor startup was commenced at 2028 hours. The reactor went critical at 2040 hours, and at 2113 hours the main unit generator was synchronized to the grid. Reactor power was increased to 60% as per system instructions.

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - JANUARY 1983 (Cont.)

- January 9 Station in operational mode 1 with reactor power approximately 60%. At 0800 hours, the load was increased per system request. This increase was completed at 1030 hours with reactor power at 86%.
- January 10 Station in operational mode 1 with reactor power at 86%. The #1 Battery Charger was declared out of service at 0545 hours due to low voltage output. At 0630 hours, the load was increased to a nominal 100% at the request of the system operator. At 1100 hours, the #1 Battery Charger was returned to operable status following investigation and repair.
- January 11 through January 13 Station in operational mode 1 with reactor power at a nominal 100% and the reactor coolant system at normal operating temperature and pressure.
- January 14 Station in operational mode 1 with reactor power at a nominal 100%. At 1654 hours, oil circuit breaker [OCB-83] tripped, thereby causing the station to lose off-site power capability. At 1704 hours an unusual event was declared since this is a limiting condition for operation during loss of off-site power sources. Both diesel generators were started to satisfy the technical specifications for loss of off-site power. Investigation of the problem found the cause of the breaker trip to be an overexcitation relay [59-109]. At 2204, the unusual event was terminated when [OCB-83] was declared operable following repair of the relay.
- January 15 through January 26 The following load changes took place during this period at the request of the system operator: At 0000 hours on the 15th, reactor power was reduced from 100% to 80%. At 0815 hours on the 17th, reactor power was increased to a nominal 100%. At 0020 hours on the 23rd, reactor power was reduced to 94%. At 0530 hours on the 24th, reactor power was increased to a nominal 100%.
- January 27 Station in operational mode 1 with reactor power at a nominal 100% and reactor coolant system at normal operating temperature and pressure. At 2120 hours, a crew entered containment to view a leak in the 'B' reactor coolant pump cubicle. The crew noted several flange and packing leaks. The leak rate was estimated to be approximately 0.2 GPM.
- January 28 through January 31 Station in operational mode 1 with reactor power at a nominal 100% and reactor coolant system at normal operating temperature and pressure. At 0200 hours on the 29th, reactor power was decreased to 92% at the request of the system operator. At 0020 hours on the 30th, reactor power was reduced again to 82% per system. At 0705 on the 31st, reactor power was increased back to a nominal 100% as requested by system operator.

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MAJOR SAFETY-RELATED MAINTENANCE - JANUARY 1983

1. Began overhauling reactor plant river water pump [WR-P-1A]. Shaft sent out for balancing.
2. Instrument and Control replaced the preamp and detector for source range Channel N-32. Detector was tested satisfactorily.

OPERATING DATA REPORT

DOCKET NO. 50-334
 DATE 2-4-83
 COMPLETED BY J. L. Holtz
 TELEPHONE 412-643-1369

OPERATING STATUS

1. Unit Name: Beaver Valley Power Station, Unit #1
2. Reporting Period: January, 1983
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	744	59,208
12. Number Of Hours Reactor Was Critical	711.0	711.0	25,528.5
13. Reactor Reserve Shutdown Hours	0	0	4,482.8
14. Hours Generator On-Line	708.4	708.4	24,508.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,734,339.0	1,734,339.0	54,244,520
17. Gross Electrical Energy Generated (MWH)	571,100	571,100	17,083,740
18. Net Electrical Energy Generated (MWH)	544,494	544,494	15,756,611 *
19. Unit Service Factor	95.2	95.2	43.3
20. Unit Availability Factor	95.2	95.2	43.3
21. Unit Capacity Factor (Using MDC Net)	90.4	90.4	36.1*
22. Unit Capacity Factor (Using DER Net)	85.9	85.9	34.4*
23. Unit Forced Outage Rate	4.8	4.8	35.5

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
 Shutdown for 3rd 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):

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

* These items contain corrected figures per 1982 operating statistics audit. (9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH January

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 2 - 8 - 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
1	830107	F	33.6	A	3	83-2/03L	EB	RELAYX	At 0930 hours, line backup timer 62-Z41 in switchyard operated, which in turn operated 87-Z41X and 87Z141X auxiliary trip and lockout relays. This tripped all 138KV breakers on No. 1 - 138KV bus, including the one serving the 1A station service transformer, and sent a remote trip signal to the plant to allow high speed transfer of station service to alternate source 1C transformer. The 1C transformer is out of service thus causing a reactor trip on a 2/3 reactor coolant pump bus undervoltage signal. No conclusive evidence was found to indicate the cause of the

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance of 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 BVPS Unit #1
 DATE 2-2-83
 COMPLETED BY J. L. Holtz
 TELEPHONE (412) 643-1369

REPORT MONTH January

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
1	830107	F	33.6	A	3	83-2/03L	EB	RELAYX	timer operation. Possible causes were found and work is being done to eliminate recurrence of the problem.
2	830108	F	2.0	A	3	N/A	CH	VALVEX	While increasing reactor power with the 1B Steam Generator Level Control in manual, operator attempted to close the bypass feedwater regulating valve when steam generator level was 40% and rising. The slow response of the bypass valve allowed the S/G level to continue to rise until the turbine tripped on a high S/G level indication. A design change package has been generated to reduce the response time of the S/G bypass valves.

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-334
 UNIT BVPS Unit #1
 DATE February 4, 1983
 COMPLETED BY J. L. Holtz
 TELEPHONE 412-643-1369

MONTH January, 1983

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	544	17	768
2	537	18	830
3	739	19	822
4	826	20	825
5	822	21	826
6	822	22	822
7	303	23	772
8	11	24	809
9	658	25	830
10	777	26	830
11	826	27	825
12	826	28	822
13	818	29	764
14	821	30	681
15	685	31	776
16	677		

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.