

DUQUESNE LIGHT COMPANY
Beaver Valley Power Station

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - SEPTEMBER 1982

- September 1 through September 6 Station in Cold Shutdown Mode 5 with Reactor Coolant System Tavg at 130°F and a steam bubble in the pressurizer maintaining pressure at approximately 300 psig. The 1C reactor coolant loop is isolated and drained for steam generator tube leak repair. At 2100 hours on the 2nd, Westinghouse reported the location of the steam generator tube leak. At 1800 hours on the 3rd, 1C steam generator secondary side draining was commenced and at 0300 hours on the 4th it was complete. By 0130 hours on the 5th main condenser vacuum was established, 1C loop fill started at 0900 hours and finished by 1500 hours, and at 2330 hours the 1C hot leg Loop Stop Isolation Valve was opened.
- September 7 through September 8 Reactor Coolant System temperature and pressure are at 120°F and 325 psig. At 0239 hours on the 8th shut down control rod banks A and B were withdrawn. At 0710 hours completed drawing containment vacuum, and at 1203 hours the station entered Hot Shutdown Mode 4. At 1459 hours on the 8th, during a purging operation, the Pressurizer Relief Tank rupture disc blew out. By 2145 hours the disc was repaired. The Residual Heat Removal System was isolated at 1940 hours.
- September 9 The station entered Hot Standby Mode 3 at 0207 hours.
- September 10 Commenced reactor start-up at 1043 hours and at 1130 hours the reactor was critical, but due to problems in the Rod Control System the reactor was made subcritical at 1226 hours. By 1249 hours all control rod banks were at zero steps to aid in trouble shooting the H-14 rod position indicator. At 2052 hours, after the calibration of the H-14 control rod position indicator was complete, reactor start-up was commenced and at 2108 hours the reactor was critical.
- September 11 The main unit generator was synchronized to the grid at 0027 hours and at 0117 hours the reactor tripped on low-low 1C steam generator level. The reactor was again taken critical at 0314 hours and the main unit generator was synchronized to the bus at 0415 hours. A turbine trip, which was due to high level in the B steam generator, caused another reactor trip at 0430 hours. The slow response of the Bypass Feedwater Regulating Valves was accountable for both reactor trips. Reactor start-up was commenced at 2119 hours; the reactor was critical at 2136 hours and at 2338 hours the main unit generator was synchronized to the grid.

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - SEPTEMBER 1982 (Continued)

- September 12 Station is in Operational Mode 1 at a nominal 5% reactor power undergoing power escalation to 100%. At 0810 hours, with a nominal 50% reactor power, load was reduced 10% due to condenser vacuum problems. The problems were determined to be in the auxiliary steam pressure to the air ejectors and also air in the circulating water system. Reactor power was again reduced 10% at 1624 hours after encountering problems with the turbine supervisory instrumentation indicating turbine rotor position greater than alarm set point. Reactor power increase was resumed at 1710 hours after determining the problem to be faulty instrumentation. At 1720 hours another hold was put on the reactor power escalation due to the malfunction of Heater Drain Pump [SD-P-1A]. At 2109 hours Heater Drain Pump [SD-P-1B] was returned to service and the reactor power escalation was resumed. At 2123 hours, with a nominal 70% reactor power, Main Feedwater Pump [FW-P-1A] was started.
- September 13 through September 16 At 1415 hours on the 13th the reactor power reached a nominal 100%. The Reactor Coolant System is at the normal operational Tavg and pressure of 575°F and 2235 psig.
- September 17 through September 18 At 0538 hours the reactor power was reduced to a nominal 81% after experiencing low level problems in the Steam Generators and in the Heater Drain Tank. The levels returned to normal and at 0635 hours reactor power was increased back to 100%. At 2011 hours, reactor power was decreased 10% at 1%/min and at 2030 hours, reactor power was increased 10% at 1%/min for the power coefficient measurements.
- September 19 Reduced load by approximately 100 MWE by request of the System Operator at 0423 hours and at 1130 hours reactor power increase back to 100% was commenced by request of the System Operator.
- September 20 through September 23 Reactor power is at a nominal 100% and the Reactor Coolant System is at its normal operating temperature and pressure.
- September 24 At 2030 hours released by the System Operator to begin reactor power reduction to a nominal 25% for the repair of Main Feedwater Regulating Valve [FCV-FW-478]. At 2229 hours the station reached a nominal 25% reactor power.
- September 25 Station in Operational Mode 1 with reactor power at approximately 25%. At 0217 hours the reactor tripped on a low-low steam generator level due to the closure of the C bypass feedwater regulating valve and the station entered into Hot Standby Mode 3.
- September 26 The draining and refilling of all three steam generators and the condensate hotwell to improve secondary chemistry is in progress. At 1820 hours the A and B shutdown Control Banks were pulled.

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - SEPTEMBER 1982 (Continued)

September 27 At 1135 hours reactor start-up was commenced, at 1200 hours the reactor went critical, at 1301 hours the main unit generator was synchronized to the grid, and by 2400 hours the reactor power was at a nominal 98%.

September 28 Station in Operational Mode 1 with the reactor power at a
through nominal 100% and the Reactor Coolant System Tavg and pressure
September 30 at 575°F and 2235 psig.

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MAJOR SAFETY RELATED MAINTENANCE - SEPTEMBER 1982

1. Tube plugging in the Steam Generator [RC-E-1C], to eliminate Reactor Coolant System leakage to the secondary side, is complete.
2. Removed and replaced the actuator, replaced the valve stem and repacked the Main Feedwater Regulating Valve [FCV-FW-478].
3. Removed and replaced the actuator due to hydraulic fluid leakage and replaced the valve steam packing on the Main Feedwater Regulating Valve [FCV-FW-488].
4. Replaced the valve steam packing on the Main Feedwater Regulating Valve [FCV-FW-498].
5. Overhauled the inboard seal on the Main Feedwater Pump [FW-P-1A].
6. Realigned the motor and replaced bearings on the reactor plant Component Cooling Pump [CC-P-1B].

OPERATING DATA REPORT

DOCKET NO. 50-334
 DATE 10-7-82
 COMPLETED BY L. W. Weaver
 TELEPHONE 412-643-1829

OPERATING STATUS

1. Unit Name: Beaver Valley Power Station, Unit #1
2. Reporting Period: September, 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 | 720 | 6,551 | 56,255 |
| 12. Number Of Hours Reactor Was Critical | 407 | 1,584.9 | 22,644.2 |
| 13. Reactor Reserve Shutdown Hours | 0 | 0 | 4,482.8 |
| 14. Hours Generator On-Line | 398.7 | 1,497.6 | 21,651.7 |
| 15. Unit Reserve Shutdown Hours | 0 | 0 | 0 |
| 16. Gross Thermal Energy Generated (MWH) | 994,759.9 | 3,568,096.3 | 47,197,036.8 |
| 17. Gross Electrical Energy Generated (MWH) | 318,600 | 1,137,800 | 14,788,240 |
| 18. Net Electrical Energy Generated (MWH) | 298,458 | 1,042,834 | 13,537,410 |
| 19. Unit Service Factor | 55.4 | 22.9 | 39.9 |
| 20. Unit Availability Factor | 55.4 | 22.9 | 39.9 |
| 21. Unit Capacity Factor (Using MDC Net) | 51.2 | 19.7 | 32.7 |
| 22. Unit Capacity Factor (Using DER Net) | 48.7 | 18.7 | 31.1 |
| 23. Unit Forced Outage Rate | 16.9 | 9.0 | 38.6 |

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: _____

| 26. Units In Test Status (Prior to Commercial Operation): | Forecast | Achieved |
|---|------------|------------|
| INITIAL CRITICALITY | <u>N/A</u> | <u>N/A</u> |
| INITIAL ELECTRICITY | <u>N/A</u> | <u>N/A</u> |
| COMMERCIAL OPERATION | <u>N/A</u> | <u>N/A</u> |

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-334
 UNIT 3VPS Unit #1
 DATE 10/4/82
 COMPLETED BY L. W. Weaver
 TELEPHONE (412) 643-182

MONTH September

| 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 | 0 |
| 11 | 0 |
| 12 | 348 |
| 13 | 797 |
| 14 | 804 |
| 15 | 804 |
| 16 | 808 |

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 17 | 804 |
| 18 | 812 |
| 19 | 775 |
| 20 | 808 |
| 21 | 812 |
| 22 | 809 |
| 23 | 811 |
| 24 | 729 |
| 25 | 0 |
| 26 | 0 |
| 27 | 293 |
| 28 | 808 |
| 29 | 811 |
| 30 | 809 |

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 October 7, 1982
 COMPLETED BY L. W. Weaver
 TELEPHONE (412) 643-1829

REPORT MONTH September

| 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 |
|-----|--------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|---|
| 05 | 820827 | S | 240.5 | B | 2 | N/A | CC | HT EXCH | Manually tripped the reactor due to an apparent dropped rod. Station remained shut down for scheduled Steam Generator (RC-E-1C) tube repair. |
| 06 | 820911 | F | 3.0 | A | 3 | N/A | CH | VALVEX | Tripped on low-low level indication in the 1C Steam Generator due to slow response time of the By-pass Feedwater control valves. Investigation is underway to reduce response time. |
| 07 | 820911 | F | 19.1 | A | 3 | N/A | CH | VALVEX | Turbine trip due to high level indication in the 1B Steam Generator again due to slow response of Bypass Feedwater Control Valves in manual. |

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 October 7, 1982
 COMPLETED BY L. W. Weaver
 TELEPHONE (412) 643-1829

REPORT MONTH September

| 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 |
|-----|--------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|--|
| 08 | 820925 | F | 58.7 | G | 3 | N/A | CH | VALVEX | While troubleshooting the Main Feed-water Regulating Valve [FCV-FW-498] not controlling at its programmed set-point the programmed signal thereon was removed. This also removed the programmed signal of the Bypass Feed-water Regulating Valve [FCV-FW-499] causing it to go closed. |

¹
 F- Forced
 S- Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 I-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

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 Method:
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