

DUQUESNE LIGHT COMPANY
Beaver Valley Power Station

NARRATIVE SUMMARY OF MONTHLY OPERATING EXPERIENCE - OCTOBER 1982

October 1 through October 16 Station in Operational mode 1 and the reactor power at a nominal 100%. At 1515 hours on the 13th began a reactor power reduction to approximately 65% to repair a broken air line (LCVSD106B). At 1545 hours the broken air line was repaired and reactor power was increased back to a nominal 100%.

October 17 At 0000 hours power was reduced by 150 MWe upon request from the system operator. At 0530 hours reactor power was reduced to approximately 30%, due to oscillation of Main Feedwater Regulating Valve (MFRV)[FCV-FW-488], in order to place the Bypass Feedwater Regulating Valve (BFRV)[FCV-FW-489] in service. The benchboard control switch for FCV-FW-488 was found to faulty and was replaced and at 1710 hours MFRV[FCV-FW-488] was successfully returned to service. With the permission of the system operator, at 1720 hours, the reactor power increase to 100% began and at 2100 hours the reactor reached 100% power.

October 18 At 0817 hours after experiencing problems with MFRV [FCV-FW-488] oscillating and not properly controlling the B Steam Generator level a load reduction was commenced. Then at 0826 hours the reactor tripped on a Hi-Hi level in the B Steam Generator. The Hi-Hi Steam Generator level Reactor trip caused both main feedwater pumps to be tripped electrically. When the main feedwater pump (FW-P-1B) was restarted it caused a system station 1B transformer over-current trip. At 0850 hours an unusual event due to partial loss of offsite power was declared and at 0923 hours the unusual event was terminated as offsite power was restored.

October 19 through October 20 Station in Hot Standby mode 3. At 0915 hours on the 19th the reactor was taken critical and at 1051 hours the Main Unit Generator was synchronized to the grid. At 1150 hours a hold was placed on the reactor power increase at 35% to place the B Steam Generator on BFRV[FCV-FW-489] as the MFRV [FCV-FW-488] was not controlling at its programmed setpoint. At 1035 hours on the 20th the MFRV[FCV-FW-488] was returned to service and at 1050 hours the reactor power increase was resumed. At 1220 hours the reactor power reached approximately 96%.

October 21 Station in Operational mode 1 with the reactor power at a nominal 100%. At 1136 hours the Main Steam Trip Valves [TV-LMS-101A,B,C,] went closed, due to low instrument air pressure, which resulted in a Low-Low level signal in the B Steam Generator and a Reactor trip. At 1755 hours reactor startup was commenced, the reactor was then taken critical at 0815 hours, and the Main Unit Generator was

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

synchronized to the grid at 1907 hours. Reactor power was then increased to 100%.

October 22

At 2216 hours on the 22nd began to decrease reactor power for evaluation of a possible seal failure in Reactor Coolant Pump [RC-P-1A]. At 2250 hours, with reactor power below 10%, the Main Turbine was manually tripped.

October 23

through

October 24

At 0830 hours on the 23rd the reactor tripped as the reactor power level exceeded the P-10 10% power range trip setpoints. The reactor power increase was caused by the BFRV's overfeeding the Steam Generators, thus decreasing Reactor Coolant System temperature and a corresponding increase in power. At 1242 hours on the 23rd the reactor was taken critical. At 2314 hours Reactor Coolant Pump [RC-P-1A] was placed back in service, after replacing a faulty leakoff flow instrument. At 0122 hours on the 24th the Main Unit Generator was synchronized to the grid.

October 25

through

October 28

Station in Operational mode 1 with reactor power at a nominal 100% and the Reactor Coolant System at normal operating temperature and pressure.

October 29

through

October 31

At 2100 hours on the 29th load reduction was started for the repair of MFRV[FCV-FW-488]. At 2155 hours, with the reactor power at approximately 28%, FCV-FW-488 was shut and FCV-FW-489 was placed in service to control Steam Generator level. After repairs were made FCV-FW-488 was returned to service at 0315 hours on the 31st. The following load changes took place upon request from the system operator: At 0550 hours the load was increased by approximately 150 MWe to about 365 MWe and 43% reactor power; at 0630 hours the load was increased by 100 MWe; and at 0740 hours the load was increased to about 710 MWe and 83% reactor power. Holding reactor power and awaiting further notification from the system operator before load increase will begin.

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MAJOR SAFETY RELATED MAINTENANCE - OCTOBER 1982

1. Replaced the generator inboard bearings on the #2 Rod Drive Motor Generator Set.
2. Maintenance work on the Main Feedwater Regulating Valve [FCV-FW-488], during the month of October, occurred twice. Maintenance replaced the cage, the valve stem, the packing and the plug. Instrument and Control replaced the actuator, the positioner, the I/P converter, and the air regulators.

OPERATING DATA REPORT

DOCKET NO. 50-334
 DATE 11-5-82
 COMPLETED BY L. W. Weaver
 TELEPHONE 412-643-1829

OPERATING STATUS

1. Unit Name: Beaver Valley Power Station, Unit #1
2. Reporting Period: October, 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 | 745 | 1,296 | 57,000 |
| 12. Number Of Hours Reactor Was Critical | 709.3 | 2,294.2 | 23,353.5 |
| 13. Reactor Reserve Shutdown Hours | 0 | 0 | 4,482.8 |
| 14. Hours Generator On-Line | 684.5 | 2,182.1 | 22,336.2 |
| 15. Unit Reserve Shutdown Hours | 0 | 0 | 0 |
| 16. Gross Thermal Energy Generated (MWH) | 1,633,910.4 | 5,202,006.7 | 48,830,947 |
| 17. Gross Electrical Energy Generated (MWH) | 524,400 | 1,662,200 | 15,312,640 |
| 18. Net Electrical Energy Generated (MWH) | 498,310 | 1,541,144 | 14,035,720 |
| 19. Unit Service Factor | 91.9 | 29.9 | 40.7 |
| 20. Unit Availability Factor | 91.9 | 29.9 | 40.7 |
| 21. Unit Capacity Factor (Using MDC Net) | 82.6 | 26.1 | 33.5 |
| 22. Unit Capacity Factor (Using DER Net) | 78.5 | 24.8 | 31.8 |
| 23. Unit Forced Outage Rate | 8.1 | 8.7 | 37.9 |
| 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

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October

DOCKET NO. 50-334
 UNIT NAME BVPS Unit #1
 DATE 11-5-82
 COMPLETED BY L. W. Weaver
 TELEPHONE (412) 643-1829

| 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 |
|-----|--------|-------------------|---------------------|---------------------|--|-------------------------------|-----------------------------|--------------------------------|--|
| 09 | 821018 | F | 26.4 | A | 3 | N/A | CH | VALVEX | Tripped on a High-high level in the B Steam Generator due to control problems with the B Main Feedwater Regulating Valve. |
| 10 | 821021 | F | 7.5 | G | 3 | N/A | PA | AIRDRY | The inadvertent closure of IA-115, on the outlet of the Instrument Air Bypass Filters [IA-FD-1, 2] with the instrument air dryers in the bypass mode, resulted in low air pressure in the Instrument Air Receiver Tank and the temporary loss of instrument air. |
| 11 | 821022 | F | 26.5 | A | 5 | N/A | ZZ | ZZZZZZZ | Reduced reactor power to below 10 percent and tripped the turbine to investigate possible Reactor Coolant Pump [RC-P-IA] Seal Failure. |

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-334
 UNIT BVPS Unit #1
 DATE 11-5-82
 COMPLETED BY L. W. Weaver
 TELEPHONE 412-643-1829

MONTH October

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 1 | <u>809</u> |
| 2 | <u>809</u> |
| 3 | <u>801</u> |
| 4 | <u>801</u> |
| 5 | <u>801</u> |
| 6 | <u>801</u> |
| 7 | <u>808</u> |
| 8 | <u>801</u> |
| 9 | <u>809</u> |
| 10 | <u>801</u> |
| 11 | <u>805</u> |
| 12 | <u>805</u> |
| 13 | <u>809</u> |
| 14 | <u>805</u> |
| 15 | <u>813</u> |
| 16 | <u>817</u> |

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|-----|--|
| 17 | <u>469</u> |
| 18 | <u>273</u> |
| 19 | <u>82</u> |
| 20 | <u>486</u> |
| 21 | <u>510</u> |
| 22 | <u>765</u> |
| 23 | <u>0</u> |
| 24 | <u>698</u> |
| 25 | <u>805</u> |
| 26 | <u>801</u> |
| 27 | <u>801</u> |
| 28 | <u>793</u> |
| 29 | <u>726</u> |
| 30 | <u>171</u> |
| 31 | <u>514</u> |

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.