

BOSTON EDISON COMPANY  
PILGRIM NUCLEAR POWER STATION  
SUMMARY OF OPERATIONS FOR MARCH, 1979

The month of March began with the unit operating at 100% power.

On Saturday, March 3, 1979, the unit was reduced to 50% power for backwashing the main condenser. At the conclusion of the backwash the unit returned to 100% power.

The unit remained at 100% power, until Sunday, March 25, 1979, at which time the reactor power level was reduced to 50% for a backwash of the main condenser.

While increasing power, following the backwash, the reactor scrammed from a low water level condition at 1045 hours.

The decision was made to keep the unit out of service in order to perform surveillance tests and allow maintenance to replace the "A" & "D" SRMs and work on the connector for the "A", I.R.M.

At the conclusion of the surveillance tests and maintenance work the reactor was started up in power on Thursday, March 29, 1979 and taken critical at 1041 hrs.

The reactor scrammed at 1541 hrs due to a I.R.M. high flux condition. The reactor was re-started and taken critical at 1710 hrs. The unit was synchronized onto the grid at 0140 hrs. on March 30, 1979.

Instrumentation and Control Technicians traced the low water level scram condition of March 25th to a noisy relay (settle relay) and a noisy cable in the Reactor Manual Control System which generated a sufficiently high noise level to cause the "B" feedwater regulator to interpret it as a high level input signal.

The month closed out with the reactor power level at 90% and increasing.

The monthly capacity factor was 80.2% with a Plant Availability of 85.1%.

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## REFUELING INFORMATION

The following refueling information is included in the Monthly Report as requested in a letter to Mr. G. C. Andognini dated January 18, 1978.

For your convenience, the information supplied has been enumerated so that each number corresponds to equivalent notation utilized in the request.

1. The name of this facility is Pilgrim Nuclear Power Station, Docket No. 50-293.
2. Scheduled date for next Refueling Shutdown: January 1980.
3. Scheduled date for restart following refueling: April 1980.
- 4.
5. Due to their similarity, requests 4, 5 & 6 are responded to collectively.
6. The fuel, which is presently expected to be loaded during the next scheduled shutdown, may be reloaded fuel of a new design and may therefore require a proposed license submittal and technical specification change. It is not possible, however, to supply pertinent information on dates. As information concerning fuel design, core configuration, Operational Review Committee determinations, proposed licensing action, and technical specification submittals become available, it will be forwarded to you.
7. (a) There are 580 fuel assemblies in the core.  
(b) There are 580 fuel assemblies in the spent fuel pool.
8. (a) The station is presently licensed to store 2320 spent fuel assemblies. The actual spent fuel storage capacity is 1170 fuel assemblies and new high density fuel storage racks are in the process of being installed.  
(b) The planned spent fuel storage capacity is 2320 fuel assemblies.
9. With present spent fuel in storage, the spent fuel pool now has the capacity to accommodate an additional 580 fuel assemblies (one core).

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-293  
 UNIT Pilgrim #1  
 DATE 4-11-79  
 COMPLETED BY C.M. Gaffney  
 TELEPHONE 1-617-746-7900

MONTH March 1979

| DAY | AVERAGE DAILY POWER LEVEL<br>(MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL<br>(MWe-Net) |
|-----|--|-----|--|
| 1   | 659.                                   | 17  | 658.                                   |
| 2   | 659.                                   | 18  | 660.                                   |
| 3   | 658.                                   | 19  | 660.                                   |
| 4   | 442.                                   | 20  | 660.                                   |
| 5   | 594.                                   | 21  | 658.                                   |
| 6   | 657.                                   | 22  | 660.                                   |
| 7   | 659.                                   | 23  | 659.                                   |
| 8   | 659.                                   | 24  | 659.                                   |
| 9   | 658.                                   | 25  | 243.                                   |
| 10  | 659.                                   | 26  | 0.                                     |
| 11  | 658.                                   | 27  | 0.                                     |
| 12  | 659.                                   | 28  | 0.                                     |
| 13  | 661.                                   | 29  | 0.                                     |
| 14  | 660.                                   | 30  | 328.                                   |
| 15  | 661.                                   | 31  | 551.                                   |
| 16  | 660.                                   |     |  |

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.

POOR ORIGINAL

OPERATING DATA REPORT

DOCKET NO. 50-293  
 DATE 4-11-79  
 COMPLETED BY C.M. Gaffney  
 TELEPHONE 1-617-746-7900

OPERATING STATUS

1. Unit Name: Pilgrim #1
2. Reporting Period: March 1979
3. Licensed Thermal Power (MWt): 1998.
4. Nameplate Rating (Gross MWe): 678.
5. Design Electrical Rating (Net MWe): 655.
6. Maximum Dependable Capacity (Gross MWe): 690.
7. Maximum Dependable Capacity (Net MWe): 670.
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:  
None
9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

Notes

|   | This Month       | Yr.-to-Date      | Cumulative        |
|---|------------------|------------------|-------------------|
| 11. Hours In Reporting Period               | <u>744.0</u>     | <u>2160.0</u>    | <u>55296.0</u>    |
| 12. Number Of Hours Reactor Was Critical    | <u>646.8</u>     | <u>2062.8</u>    | <u>39110.5</u>    |
| 13. Reactor Reserve Shutdown Hours          | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>        |
| 14. Hours Generator On-Line                 | <u>633.0</u>     | <u>2049.0</u>    | <u>37771.6</u>    |
| 15. Unit Reserve Shutdown Hours             | <u>0.0</u>       | <u>0.0</u>       | <u>0.0</u>        |
| 16. Gross Thermal Energy Generated (MWH)    | <u>1214376.0</u> | <u>3995136.0</u> | <u>62436936.0</u> |
| 17. Gross Electrical Energy Generated (MWH) | <u>415760.0</u>  | <u>1371000.0</u> | <u>20501474.0</u> |
| 18. Net Electrical Energy Generated (MWH)   | <u>399792.0</u>  | <u>1318855.0</u> | <u>19680419.0</u> |
| 19. Unit Service Factor                     | <u>85.1</u>      | <u>94.9</u>      | <u>68.3</u>       |
| 20. Unit Availability Factor                | <u>85.1</u>      | <u>94.9</u>      | <u>68.3</u>       |
| 21. Unit Capacity Factor (Using MDC Net)    | <u>80.2</u>      | <u>91.1</u>      | <u>53.1</u>       |
| 22. Unit Capacity Factor (Using DER Net)    | <u>82.0</u>      | <u>93.2</u>      | <u>54.3</u>       |
| 23. Unit Forced Outage Rate                 | <u>14.9</u>      | <u>5.1</u>       | <u>10.5</u>       |

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):  
None

25. If Shut Down At End Of Report Period, Estimated Date of Startup: Unit Operating

26. Units In Test Status (Prior to Commercial Operation):

|                      |       |       |
|----------------------|-------|-------|
| INITIAL CRITICALITY  | _____ | _____ |
| INITIAL ELECTRICITY  | _____ | _____ |
| COMMERCIAL OPERATION | _____ | _____ |

POOR ORIGINAL

PILGRIM NUCLEAR POWER STATION  
MAJOR SAFETY RELATED MAINTENANCE

Month MARCH

| SYSTEM | COMPONENT                      | MALFUNCTION                   | CAUSE        | MAINTENANCE                 | CORRECTIVE ACTION TO PREVENT RECURRENCE               | ASSOCIATED L |
|--------|--------------------------------|-------------------------------|--------------|-----------------------------|---|--------------|
| 55     | Snubbers                       | 4-Leaking<br>4-Indicating 0   | Unknown      | To be tested and/or rebuilt | None  | None         |
| 3      | Scram Pilot Valves (47)        | N/A                           | BUNA-N Aging | Replace Buna-N parts        | Program initiated to schedule parts changeout         | 78-055/03L-0 |
| 5      | Scram Back-Up Valve            | N/A                           | BUNA-N Aging | Replace Buna-N parts        | Program initiated to schedule parts changeout         | 78-055/03L-0 |
| 5      | Discharge Vol Vent & Drain Vlv | N/A                           | BUNA-N Aging | Replace Buna-N parts        | Program initiated to schedule parts changeout         | 78-055/03L-0 |
| 33     | Diesel fire pump               | Failed starting solenoid coil | Unknown      | Replaced failed component   | None  | None         |
| 61     | Diesel "A"                     | Diesel was becoming sluggish  | Unknown      | Replaced governor           | Governors are to be replaced during refueling outages | None         |
|        |                                |                               |              |                             |   |              |
|        |                                |                               |              |                             |   |              |
|        |                                |                               |              |                             |   |              |
|        |                                |                               |              |                             |   |              |

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-293  
 UNIT NAME Pilgrim #1  
 DATE 4-11-79  
 COMPLETED BY C.M. Gaffney  
 TELEPHONE 1-617-746-7900

REPORT MONTH March 1979

| No. | Date     | Type <sup>1</sup> | Duration (Hours) | Reason <sup>2</sup> | Method of Shutting Down Reactor <sup>3</sup> | Licensee Event Report # | System Code <sup>4</sup> | Component Code <sup>5</sup> | Cause & Corrective Action to Prevent Recurrence                            |
|-----|----------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|--|
| 2   | 03/04/79 | S                 | 0.0              | B                   | 4  |                         |                          |                             | Main Condenser Backwash, Repair Steam Leaks and individual CRD Scram Times |
| 3   | 03/25/79 | F                 | 111.0            | H                   | 3  |                         |                          |                             | Reactor Scrammed from water level control fluctuation.                     |
|     |          |                   |                  |                     |  |                         |                          |                             |  |

<sup>1</sup>  
 F: Forced  
 S: Scheduled

<sup>2</sup>  
 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)

<sup>3</sup>  
 Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Other (Explain)

<sup>4</sup>  
 Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

<sup>5</sup>  
 Exhibit I - Same Source