



**BOSTON EDISON**

Pilgrim Nuclear Power Station  
Rocky Hill Road  
Plymouth, Massachusetts 02360

**E. S. Kraft, Jr.**

Vice President Nuclear Operations  
and Station Director

June 11, 1993  
BECO Ltr. #93-074

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

License No. DPR-35  
Docket No. 50-293

May 1993 Monthly Report

In accordance with PNPS Technical Specification 6.9.A.2, a copy of the Operational Status Summary for Pilgrim Nuclear Power Station is attached for your information and planning. Should you have any questions concerning this report please contact me directly.

*E. S. Kraft, Jr.*  
E. S. Kraft Jr.

WJM/bal

Attachment

cc: Mr. Thomas T. Martin  
Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
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OPERATING LATA REPORT

DOCKET NO. 50-293  
 DATE June 11, 1993  
 COMPLETED BY: W. Munro  
 TELEPHONE (508) 747-8474

OPERATING STATUS

NOTES

1. Unit Name Pilgrim I
2. Reporting Period May 1993
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) 696
7. Maximum Dependable Capacity (Net MWe) 670
8. If Changes Occur in Capacity Ratings (Item Number 3 Through 7) Since Last Report, Give Reasons:  
None

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9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	<u>This Month</u>	<u>Yr-to-Date</u>	<u>Cumulative</u>
11. Hours In Reporting Period	<u>744.0</u>	<u>3623.0</u>	<u>179495.0</u>
12. Number of Hours Reactor Was Critical	<u>77.3</u>	<u>2220.2</u>	<u>108078.8</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
14. Hours Generator On-Line	<u>23.1</u>	<u>2154.6</u>	<u>104061.0</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>13632.0</u>	<u>4143144.0</u>	<u>182151960.0</u>
17. Gross Electrical Energy Generated (MWH)	<u>2350.0</u>	<u>1430880.0</u>	<u>61564874.0</u>
18. Net Electrical Energy Generated (MWH)	<u>2093.0</u>	<u>1376348.0</u>	<u>59169264.0</u>
19. Unit Service Factor	<u>3.1</u>	<u>59.5</u>	<u>58.0</u>
20. Unit Availability Factor	<u>3.1</u>	<u>59.5</u>	<u>58.0</u>
21. Unit Capacity Factor (Using MDC Net)	<u>0.4</u>	<u>56.7</u>	<u>49.2</u>
22. Unit Capacity Factor (Using DER Net)	<u>0.4</u>	<u>58.0</u>	<u>50.3</u>
23. Unit Forced Outage Rate	<u>16.6</u>	<u>4.0</u>	<u>12.1</u>

24. Shutdown 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 June 3, 1993.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-293  
UNIT Pilgrim I  
DATE June 11, 1993  
COMPLETED BY: W. Munro  
TELEPHONE 508) 747-8474

MONTH May 1993

DAY	AVERAGE DAILY POWER LEVEL (MWe Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	70
15	0	31	17
16	0		

This format lists the average daily unit power level in MWe-Net for each day in the reporting month, computed to the nearest whole megawatt.

BOSTON EDISON COMPANY  
PILGRIM NUCLEAR POWER STATION  
DOCKET NO. 50-293

OPERATIONAL SUMMARY FOR MAY 1993

The unit started the reporting period with RFO-9 activities in progress. On May 19, 1993, at 1328 hours, the Start Up Transformer (SUT) became de-energized during a planned calibration of turbine/generator relays, lockout test and associated annunciator verification while shutdown. The Start Up Transformer lockout relay was actuated instead of the Main Transformer lockout relay. The de-energization of the SUT resulted in designed responses including automatic actuations of the Reactor Protection System, Primary and Secondary Containment Isolation Control Systems and Emergency Diesel Generators. The Start up Transformer was re-energized by 1421 hours. RFO-9 activities continued and on 5-28-93 all requirements for placing the Reactor Mode Switch to "Startup" were satisfied and the reactor was made critical at 1404 hours. On 5-29-93 with reactor pressure at approximately 140 psig, High Pressure Coolant Injection (HPCI) system and Reactor Core Isolation Cooling (RCIC) system overspeed and flow rate surveillances were successfully performed. Automatic Depressurization System (ADS) manual opening of the four safety relief valves (#203-3A, 3B, 3C and 3D) was performed on 5-29-93 at 350 psig. At 0209 hours on 5-30-93 the mode switch was placed in RUN and at 0511 hours the unit was synchronized to the grid. On 5-30-93 the HPCI 1000 psig pump and flow surveillance was successfully performed. During the RCIC 1000 PSIG pump and flow surveillance, oscillations were noted. The RCIC system was secured and declared inoperable. At 1844 hours the NRC was notified per 10CFR50.72(b)(iii). At 0011 hours on 5-31-93 the generator was taken off line for planned power ascension testing. Following successful turbine generator testing, the generator was synchronized to the grid at 1515 hours and reactor power was being increased to approximately 25 percent. At 1754 hours a backwash of the main condenser was accomplished. At 1921 hours when transferring Bus A5, from the Startup Transformer to the Unit Auxiliary Transformer a, Unit Auxiliary Transformer differential generator lockout occurred (Phase 'c'), causing a turbine trip and a full reactor scram at approximately 25 percent core thermal power. The unit remained in a forced outage condition for the remainder of the reporting period while investigating the cause of the Unit Scram.

SAFETY RELIEF VALVE CHALLENGES  
MONTH OF MAY 1993

Requirement: NUREG-0737 T.A.P. II.K.3.3  
Date: May 29, 1993  
Valve: #203-3A, 3B, 3C and 3D  
Reason: Normal Startup Testing (Ref. Proc. 8.5.6.2)

An SRV challenge is defined as anytime an SRV has received a signal to operate via reactor pressure, auto signal (ADS) or control switch (manual). Ref. BECo ltr. #81-01 date 01/05/81.

## REFUELING INFORMATION

The following refueling information is included in the Monthly Report as requested in an NRC letter to BECo, 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 Number 50-293.
2. Scheduled date for next refueling shutdown: April 1, 1995
3. Scheduled date for restart following next refueling: June 1, 1995
4. Due to their similarity, requests 4, 5, & 6 are responded to collectively under #6.
5. See #6.
6. The new fuel loaded during the 1993 refueling outage was of the same design as loaded in the previous refueling outage and consisted of 140 assemblies.
7.
  - (a) There are 580 fuel assemblies in the core.
  - (b) There are 1629 fuel assemblies in the spent fuel pool.
8.
  - (a) The station is presently licensed to store 2320 spent fuel assemblies. The actual usable spent fuel storage capacity is 2320 fuel assemblies.
  - (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 691 fuel assemblies.

PILGRIM NUCLEAR POWER STATION  
MAJOR SAFETY RELATED MAINTENANCE

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SYSTEM	COMPONENT	MALFUNCTION	CAUSE	MAINTENANCE	CORRECTIVE ACTION TO PREVENT RECURRENCE	ASSOCIATED LER
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Maintenance activities were accomplished in accordance with the RFO-9 outage schedule.

UNIT SHUTDOWNS AND POWER REDUCTIONS DOCKET NO: 50-293

DOCKET NO: 50-293  
 NAME: Pilgrim I  
 DATE: June 11, 1993  
 COMPLETED BY: W. Munro  
 TELEPHONE: 508) 747-8474  
 REPORT MONTH May 1993

NO.	DATE	TYPE1	DURATION (HOURS)	REASON	METHOD OF SHUTTING DOWN REACTOR	LICENSE EVENT REPORT #	SYSTEM CODE4	COMPONENT CODE5	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
04	5/30/93	S	716.3	C	1				Continuation of RFO-9.
05	5/31/93	S	0.0	B	5				Pwr Red-Turb Gen off-line for testing
06	5/31/93	F	4.6	A	3	93-014-00	EA	XFMR	UAT lockout-turb trip-scam.

1	2	2	3	4&5
F-FORCED S-SCHED.	A-Equip Failure B-Main or Test C-Refueling D-Regulatory Restriction E-Operator Training & License Examination	F-Admin G-Oper Error H-Other	1-Manual 2-Manual Scram 3-Auto Scram 4-Continued 5-Reduced Load 9-Other	Exhibit F & H Instructions for Preparations of Data Entry Sheet Licensee Event Report (LER) File (NUREG-1022)