



BOSTON EDISON

Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

R. A. Anderson
Vice President &
Station Director
Nuclear Operations

May 13, 1991
BECO Ltr. #91- 065

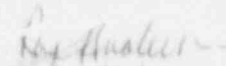
U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

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

Subject: April 1991 Monthly Report

Dear Sir:

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.


R.A. Anderson

WJM/bal

Attachment

cc: Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Rd.
King of Prussia, PA 19406

Senior Resident Inspector

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-293
 UNIT Pilgrim 1
 DATE May 13, 1991
 COMPLETED BY W. Munro
 TELEPHONE (508) 747-8474

MONTH April 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>663</u>	17	<u>657</u>
2	<u>664</u>	18	<u>654</u>
3	<u>663</u>	19	<u>651</u>
4	<u>663</u>	20	<u>650</u>
5	<u>664</u>	21	<u>648</u>
6	<u>663</u>	22	<u>646</u>
7	<u>635</u>	23	<u>575</u>
8	<u>662</u>	24	<u>627</u>
9	<u>661</u>	25	<u>558</u>
10	<u>659</u>	26	<u>625</u>
11	<u>662</u>	27	<u>659</u>
12	<u>662</u>	28	<u>661</u>
13	<u>653</u>	29	<u>438</u>
14	<u>662</u>	30	<u>0</u>
15	<u>662</u>	31	<u>N/A</u>
16	<u>660</u>		

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.

OPERATING DATA REPORT

DOCKET NO. 50-293
 DATE May 13, 1991
 COMPLETED BY W. Munro
 TELEPHONE (508) 747-8474

OPERATING STATUS

Notes

1. Unit Name Pilgrim 1
2. Reporting Period April 1991
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) 675
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

	<u>This Month</u>	<u>Yr-to-Date</u>	<u>Cumulative</u>
11. Hours In Reporting Period	<u>719.0</u>	<u>2879.0</u>	<u>161207.0</u>
12. Number Of Hours Reactor Was Critical	<u>690.2</u>	<u>2850.2</u>	<u>95450.9</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
14. Hours Generator On-Line	<u>690.2</u>	<u>2850.2</u>	<u>91766.3</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>1350672.0</u>	<u>5276592.0</u>	<u>158618088.0</u>
17. Gross Electrical Energy Generated(MWH)	<u>464090.0</u>	<u>1812180.0</u>	<u>53459694.0</u>
18. Net Electrical Energy Generated (MWH)	<u>446537.0</u>	<u>1743822.0</u>	<u>51370230.0</u>
19. Unit Service Factor	<u>96.0</u>	<u>99.0</u>	<u>56.9</u>
20. Unit Availability Factor	<u>96.0</u>	<u>99.0</u>	<u>56.9</u>
21. Unit Capacity Factor (Using MDC Net)	<u>92.7</u>	<u>90.4</u>	<u>47.6</u>
22. Unit Capacity Factor (Using DER Net)	<u>94.8</u>	<u>92.5</u>	<u>48.7</u>
23. Unit Forced Outage Rate	<u>4.01</u>	<u>1.00</u>	<u>12.4</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			
Refueling Outage No. 8, May 1991, approximately 70 days			

25. If Shut Down At End Of Report Period, Estimated Date of Startup 7/12/91

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

Operational Summary for April 1991

The unit started the reporting period at 100 percent power. During the first week, the drywell unidentified leakage increased from 1.9 to 3.08 gpm. An Operations Standing Order was reviewed requiring reactor shutdown when unidentified drywell leakage reached 4 gpm. The unit remained at 100 percent power until April 20, 1991 when due to end of cycle reactivity, reactor power was at 98 percent. On April 23, power was reduced to approximately 55 percent to perform a main condenser backwash. Power was again increased to 100 percent by 1500 hours on April 24, 1991. On April 25, 1991 power was reduced to 60 percent to evaluate a small steam leak in the steam tunnel. The leakage was contained and power was returned to 100 percent by 0745 hours on April 27, 1991. At 1540 hours the Seal Staging Hi Flow alarm for "B" Recirculation Pump was received in the control room, and was cleared at 1752 hours. Drywell floor leakage volume went down following the event. At 1350 hours on April 29, 1991 rapid oscillations occurred in "B" Recirculation Pump seal pressure readings, and the drywell pressure and temperature was rising slowly. At 1415 hours a decision was made to initiate reactor shutdown; power was reduced to 60 percent and the "B" Recirculation Pump was secured at 1450 hours. Evaluation of the drywell pump down indicated a greater than 5 gpm of unidentified leakage. An Unusual Event was declared at 1650 hours. At 1912 hours the Mode Switch was placed in the Shutdown position. At 1913 hours the turbine tripped off line. The Unusual Event was terminated at 0025 hours on April 30, 1991. The unit ended the reporting period in cold shutdown. Control rod exercise power reductions occurred on April 6, 13, 20 and 27, 1991.

Safety Relief Valve Challenges
Month of April 1991

Requirement: NUREG-0737 T.A.P. II.K.3.3

There were no safety relief valve challenges during this reporting period.

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 dated 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: Second Quarter 1991
3. Scheduled date for restart following refueling: Third Quarter 1991
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 1986/87 refueling outage was of the same design as loaded in the previous outage, and consisted of 192 assemblies.
7. (a) There are 580 fuel assemblies in the core.
(b) There are 1488* 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 1000 fuel assemblies.

* Includes 168 new fuel assemblies to support current refuel outage.

PILGRIM NUCLEAR POWER STATION
MAJOR SAFETY RELATED MAINTENANCE

<u>SYSTEM</u>	<u>COMPONENT</u>	<u>MALFUNCTION</u>	<u>CAUSE</u>	<u>MAINTENANCE</u>	<u>CORRECTIVE ACTION TO PREVENT RECURRENCE</u>	<u>ASSOCIATED LER</u>
Salt Service Water (SSW) System	SSW Pump P-208A	Low discharge head and high vibration.	Root cause under examination.	Re-built pump bowl assembly. Replaced all six (6) columns with new material design. Replaced all spider bearings and installed new stuffing box bushing. Implemented PDC 90-12 Phase 3, removal of tie rods.	Inspection of new columns for degradation after six (6) years of service.	N/A
Instrumentation and Control System	Main Steam Line High Radiation Relay 5A-K14E	Broken relay carriage assembly. (GE Type CR 3050-102AAS) F&MR 91-111	Root Cause under investigation.	Replaced relay carriage assembly and relay coil.	Relay sent to manufacturer, (General Electric Company) for analysis.	N/A
Diesel Generators and Auxiliaries	Emergency Diesel Generator (EDG) X-107B	EDG tripped while performing Surveillance Procedure 8.9.1. (F&MR 91-117)	Root Cause under investigation	Installed new EGA governor. (manufactured by Woodward Governor Company).	Failed EGA unit sent to manufacturer (Woodward Governor Company) for analysis.	N/A
Diesel Generator and Auxiliaries	Emergency Diesel Generator (EDG) X-107B	EGA governor motor operated potentiometer failed during testing of the new EGA governor.	Normal aging.	New potentiometer installed and adjusted.	N/A	N/A

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-293

NAME Pilgrim 1

DATE May 13, 1991

COMPLETED BY W. Munro

TELEPHONE (508) 747-8474

REPORT MONTH April 1991

NO.	DATE	TYPE ¹	DURATION (HOURS)	REASON ²	METHOD OF SHUTTING DOWN REACTOR ³	LICENSE EVENT REPORT #	SYSTEM CODE ⁴	COMPONENT CODE ⁵	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
8	04/29/91	F	28.8	D	2	91-007-00	AD	P Seal	Seal failure on "B" Recirculation Pump. Seal to be replaced.

1	2	2	3	4&5
F-Forced S-Sched	A-Equip Failure B-Maint 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 Preparation of Data Entry Sheet Licensee Event Report (LER) File (NUREG-1022)