



Tech. Spec. 6.9.A.2

BOSTON EDISON

Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

E. T. Boulette, PhD
Senior Vice President - Nuclear

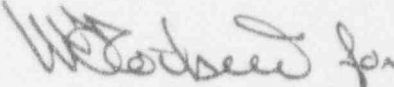
May 13, 1994
BECO Ltr. #94-056

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

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

APRIL 1994 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. T. Boulette, PhD

WJM/Tam/9458

Attachment

cc: Mr. Thomas T. Martin
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Senior Resident Inspector

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OPERATING DATA REPORT

DOCKET NO. 50-293
 DATE May 13, 1994
 COMPLETED BY: W. Munro
 TELEPHONE (508) 830-8474

OPERATING STATUS

NOTES

1. Unit Name Pilgrim I
2. Reporting Period April 1994
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

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>187511.0</u>
12. Hours Reactor Critical	<u>579.8</u>	<u>2586.0</u>	<u>115527.5</u>
13. Hours Reactor Reserve Shutdown	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
14. Hours Generator On-Line	<u>560.3</u>	<u>2477.2</u>	<u>111266.2</u>
15. Hours Unit Reserve Shutdown	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>936528.0</u>	<u>4605288.0</u>	<u>195750024.0</u>
17. Gross Electrical Energy Generated (MWH)	<u>317640.0</u>	<u>1579810.0</u>	<u>66225744.0</u>
18. Net Electrical Energy Generated (MWH)	<u>305081.0</u>	<u>1520182.0</u>	<u>63653876.0</u>
19. Unit Service Factor	<u>77.9</u>	<u>86.0</u>	<u>59.3</u>
20. Unit Availability Factor	<u>77.9</u>	<u>86.0</u>	<u>59.3</u>
21. Unit Capacity Factor (Using MDC Net)	<u>63.3</u>	<u>78.8</u>	<u>50.7</u>
22. Unit Capacity Factor (Using DER Net)	<u>64.8</u>	<u>80.6</u>	<u>51.8</u>
23. Unit Forced Outage Rate	<u>22.1</u>	<u>6.8</u>	<u>11.7</u>
24. Shutdowns scheduled over next 6 months (type, date, and duration of each) - MCO-10 - October - 30 Days			
25. If shutdown at end of report period, estimated date of startup - 5/1/94			

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-293
DATE: May 13, 1994
COMPLETED BY: W. Munro
TELEPHONE: (508) 830-8474

MONTH April 1994

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	664	17	375
2	664	18	353
3	637	19	354
4	663	20	341
5	663	21	272
6	664	22	261
7	664	23	0
8	662	24	0
9	663	25	0
10	664	26	0
11	663	27	0
12	662	28	0
13	663	29	49
14	662	30	126
15	661		
16	662		

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 APRIL 1994

The unit started the reporting period at 100 percent core thermal power (CTP) where it was essentially maintained until April 17, 1994. On April 17, 1994, reactor power was reduced to approximately 50 percent CTP to facilitate a thermal backwash of the main condenser, and perform control rod scram time testing. During the testing, at approximately 56 percent CTP, a number of the control rods exhibited an increased 10 percent scram insertion time. Also one control rod (10-31) failed to fully insert within 7 seconds in accordance with the acceptance criteria. This control rod was declared inoperable, fully inserted, and electrically disabled. Disassembly of the control rod's scram solenoid pilot valve, revealed one completely failed exhaust diaphragm and an embrittled and cracked pressure diaphragm. Other control rods which had exhibited slow or degraded scram insertion times were disassembled and upon inspection revealed diaphragms in various degrees of degradation. On April 20, 1994, while the rod scram time testing continued, reactor power was reduced to approximately 43 percent CTP to facilitate troubleshooting of the Augmented Offgas (AOG) System. On April 22, 1994, following the discovery of additional diaphragms with significant degradation, the decision was made to shut the plant down so that the scram solenoid pilot diaphragms on all 145 hydraulic control units (HCU) could be replaced. At 2321 hours on April 22, 1994, the main turbine was manually tripped off-line, and at 0331 hours on April 23, 1994, a controlled shutdown of the reactor was completed. Following HCU maintenance, the reactor was made critical at 2245 hours on April 28, 1994, and the main generator was synchronized to the grid at 1046 hours on April 29, 1994. Power was increased to approximately 25 percent CTP where it was essentially maintained to perform post work testing of the control rods. On April 30, 1994, at 2051 hours the main generator was manually tripped offline to facilitate a weld repair on the extraction steam line entering the train "B" second point feedwater heater. The unit remained offline for the remainder of the reporting period.

SAFETY RELIEF VALVE CHALLENGES
MONTH OF APRIL 1994

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

There were no safety relief valve challenges during the 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 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: May 26, 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.

MONTH APRIL 1994

PILGRIM NUCLEAR POWER STATION MAJOR SAFETY RELATED MAINTENANCE

SYSTEM	COMPONENT	MALFUNCTION	CAUSE	MAINTENANCE	CORRECTIVE ACTION TO PREVENT RECURRENCE	ASSOCIATED LER
Control Rod Drive (CRD) System	CRD Hydraulic Control Units	Scram Solenoid Pilot Valve Malfunctions. Failed Surveillance Procedure 9.9 Acceptance Criteria during CRD scram time testing.	Root cause under investigation	Replacement of Scram Solenoid Pilot Valve Diaphragms on all 145 CRD Hydraulic Control Units. Post Maintenance Test satisfactory. CRD System placed in service.	To be determined	N/A
Main Steam (MS) System	Main Steam Outboard Drain Line Valve Motor Operator MO-220-2.	Incorrect Gear Ratio Verified Per Engineering Evaluation.	Root cause under investigation	Replaced Motor Pinion Gear and Worm Shaft Clutch Gear. Performed diagnostic Votes test. Post work testing completed satisfactorily, and valve declared operable.	To be determined	N/A

MONTH APRIL 1994

PILGRIM NUCLEAR POWER STATION MAJOR SAFETY RELATED MAINTENANCE

SYSTEM	COMPONENT	MALFUNCTION	CAUSE	MAINTENANCE	CORRECTIVE ACTION TO PREVENT RECURRENCE	ASSOCIATED LER
Reactor Building Closed Cooling Water (RBCCW) System	RBCCW Valve 30-HO-252	Valve stem separated from disc.	Normal aging	Disassembled valve. Inspection indicated stem was broken in half. Replaced stem in kind. Replaced packing. Post work testing satisfactory.	To be determined	N/A
Feedwater (FW) System*	Second Point FW Heater "B" Train	Steam leak	Original construction weld defect	Weld overlay repair	None	N/A

* Not Safety Related But Required Turbine Shutdown

UNIT SHUTDOWNS AND POWER REDUCTIONS DOCKET NO: 50-293

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 NAME: Pilgrim I
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 TELEPHONE: (508) 830-8474
 REPORT MONTH APRIL 1994

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
4	4-17-94	S	0.0	B	-	N/A	N/A	N/A	Power Reduction - Thermal Backwash Main Condenser
5	4-22-94	F	144.7	B	1	N/A	N/A	N/A	Reactor Shutdown to Perform Maintenance on CRD Hydraulic Control Units Solenoid Valves
6	4-30-94	F	14.0	B	-	N/A	N/A	N/A	Main Generator Manually Tripped Offline to Perform a Weld Repair on the Extraction Steam Line Entering the Train "B" Second Point Feedwater Heater

1	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)