10 CFR 50.73

BOSTON EDISON
Pilgrim Nuclear Power Station
Rocky Hill Road
Plymouth, Massachusetts 02360

Ralph G. Bird
Senior Vice President — Nuclear

December 6, 1989
BECo Ltr. 89-173

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

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

Dear Sir:

The enclosed Licensee Event Report (LER) 89-034-00 "Missed High Pressure Coolant Injection System Motor Operated Valve Surveillance During Plant Startup" is submitted in accordance with 10 CFR Part 50.73.

Please do not hesitate to contact me if there are any questions regarding this report.

R. G. Bird

BPL/bal

Enclosure: LER 89-034-00

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

Sr. NRC Resident Inspector - Pilgrim Station

Standard BECo LER Distribution

IE22
1/1

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Pilgrim Nuclear Power Station	0 5 0 0 0 2 9 3	1 OF 0 4

TITLE (4) Missed High Pressure Coolant Injection System Motor Operated Valve Surveillance During Plant Startup

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
1 1	0 7	8 9	8 9	0 3 4	0 0	1 2	0 6	8 9	N/A	0 5 0 0 0
									N/A	0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
N		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 0 1		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Brian P. Lunn - Sr. Plant Engineer	5 0 8 7 4 7 - 8 2 4 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

During a routine review of the Master Surveillance Tracking Program (MSTP) schedule, on November 8, 1989, it was found that reactor pressure had exceeded 150 psig on November 7, 1989, without performing surveillance Procedure 8.5.4.4, "HPCI Valve Operability Test". The High Pressure Coolant Injection (HPCI) System is required to be operable when reactor pressure is greater than 150 psig. The HPCI System motor operated valve operability surveillance required to be performed monthly per Technical Specification (T.S.) 4.5.C.1.c had become overdue during a plant shutdown that began on October 13, 1989. Therefore, the HPCI System motor operated valve operability was required to be reestablished prior to exceeding the plant conditions requiring HPCI operability. The plant had commenced startup from a planned shutdown on November 6, 1989. When the missed surveillance was identified, reactor power was at 3%, and reactor vessel pressure was approximately 930 psig.

The missed T.S. surveillance was caused by personnel error.

Procedure 8.5.4.4 "HPCI Valve Operability Test" was successfully completed on November 8, 1989.

Senior Plant Management discussed the missed surveillance with the Operations Section Staff and stressed the importance of performing required surveillances in accordance with the Master Surveillance Tracking Program schedule.

The missed surveillance had no potential to adversely impact the public health and safety.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Pilgrim Nuclear Power Station	0 5 0 0 0 2 9 3	8 9	— 0 3 4	— 0 0	0 2 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

EVENT DESCRIPTION

During a routine Systems Engineering review of the Master Surveillance Tracking Program (MSTP) schedule on November 8, 1989, it was found that reactor pressure had exceeded 150 psig on November 7, 1989, without performing surveillance Procedure 8.5.4.4, "HPCI Valve Operability Test". Technical Specification (T.S.) 3.5.C.1 requires the High Pressure Coolant Injection (HPCI) System to be operable whenever irradiated fuel is in the reactor vessel, reactor pressure is greater than 150 psig and reactor coolant temperature is greater than 365° Farenheit. T.S. 4.5.C.1.c requires a HPCI System motor operated valve operability surveillance once per month when HPCI is required to be operable. The HPCI System motor operated valve operability test was previously performed on September 20, 1989. On October 13, 1989, the plant was shutdown for a scheduled outage. While shutdown, the monthly interval plus 25% (allowed adjustment for T.S. surveillances) was exceeded. Because the surveillance interval was exceeded, motor operated valve operability needed to be reestablished prior to exceeding the plant conditions requiring HPCI operability.

REPORTABILITY

The missed "HPCI Valve Operability Test" resulted in operations prohibited by the T.S. and is reportable per 10 CFR 50.73(a)(2)(i)(B). Failure and Malfunction Report 89-432 was written on November 8, 1989, upon identifying the missed surveillance.

PLANT CONDITION

The plant had commenced startup from a planned shutdown on November 6, 1989. The missed surveillance was identified on November 8, 1989, at approximately 0930 hours. At the time of discovery, reactor power was at 3%, the reactor mode selector switch was in the STARTUP position, reactor vessel pressure was approximately 930 psig and reactor coolant temperature was approximately 525 degrees Farenheit. The plant conditions requiring HPCI operability were exceeded on November 7, 1989, at approximately 0600 hours.

CAUSE

The missed T.S. surveillance was caused by a cognitive personnel error by the on-shift Nuclear Watch Engineer (Licensed, Senior Reactor Operator).

The Master Surveillance Tracking Program (MSTP) identifies required T.S. surveillances and when they are due. A MSTP schedule is issued weekly. A master copy of the schedule is maintained in the Control Room Annex and is signed and dated by the surveillance performer when work is complete.

On October 27, 1989, a change was made to the MSTP to require Procedure 8.5.4.4 "HPCI Valve Operability Test" be performed at 150 psig. The change was made because with the plant shutdown, HPCI System operability was not required. Therefore, the test scheduled for October 28, 1989, was not required. The test was required to reestablish HPCI System operability prior to exceeding 150 psig.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Pilgrim Nuclear Power Station	0 5 0 0 0 2 9 3	8 9	— 0 3 4	— 0 0	0 3 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

The MSTP weekly schedule, as well as the daily outage work schedule, properly scheduled the required HPCI System surveillances. Procedure 8.5.4.1, "HPCI Pump and Valve Monthly/Quarterly Operability" was scheduled at 1000 psig and Procedure 8.5.4.4 "HPCI Valve Operability Test" was scheduled at 150 psig. Both of the above procedures meet the requirements for testing motor operated valves as specified in T.S. 4.5.C.1.c. Upon review of the scheduled surveillances, the Nuclear Watch Engineer questioned the need to test the HPCI System valve operability at both 150 psig and 1000 psig, as this was not the normal practice. The Watch Engineer mistakenly decided that only one of the procedures (8.5.4.1 or 8.5.4.4) needed to be performed. The test scheduled for 1000 psig was selected to be performed because it was considered more of a challenge to the valves opening and closing times. In making this decision, the Watch Engineer did not recognize that the due date for the HPCI System valve operability surveillance had been exceeded while the plant was shutdown and the implication regarding T.S. compliance (the need to establish HPCI System motor operated valve operability prior to exceeding 150 psig).

INITIAL CORRECTIVE ACTIONS TAKEN

- Upon identifying the missed surveillance, Procedure No. 8.5.4.4, "HPCI Valve Operability Test" was initiated and a Limiting Condition for Operation (LCO) A 89-141 was issued.

- Procedure No. 8.5.4.4 was completed at 1100 hours on November 8, 1989, and LCO A 89-141 was cleared.

CORRECTIVE ACTIONS TAKEN TO REDUCE THE POSSIBILITY OF FUTURE SIMILAR EVENTS

- A Meeting was conducted on November 14, 1989, with the Senior Vice President Nuclear, Vice President Nuclear Operations/Station Director, Plant Manager, Operations Section Manager, Chief Operations Engineer, the Nuclear Watch Engineers and the Nuclear Operations Supervisors to discuss the missed surveillance and the importance of adhering to the MSTP.

- As an additional measure to assure required surveillances are performed, Procedure 1.3.34 "Conduct of Operations" is being revised to require the Shift Technical Advisors (STAs) to review the MSTP schedule and identify on the STA turnover sheet the surveillances that are required for the upcoming shift.

ADDITIONAL ACTIONS BEING CONSIDERED

- A revision to Procedure 2.1.1 "Startup From Shutdown" is being considered. The revision would provide a checklist to trigger the performance of the surveillances required for specific operating condition plateaus.

SAFETY CONSEQUENCES

Procedure No. 8.5.4.4 "HPCI Valve Operability Test" was successfully completed at 1100 hours on November 8, 1989. No maintenance action was necessary. Therefore, the HPCI valves were operable when required. There was no potential to adversely impact the public health and safety.

PREVIOUS SIMILAR REPORTABLE EVENTS

A review of Licensee Event Reports (LERs) since 1984 identified the following events where a surveillance test scheduled by the MSTP was not performed within the required interval.

- LER 88-009-00 reported that documentation could not be found to confirm the performance of a once per cycle test of the "B" Emergency Diesel Generator.

- LER 85-016-00 reported that the weekly analysis for gross radioactivity of the reactor building vent particulate filter had not been performed.

- LER 85-005-00 reported a missed Rod Block Monitor functional and calibration surveillance. The surveillance interval for the Rod Block Monitor had been exceeded when the plant was shutdown and was not performed when required at 30% reactor power.

ENERGY INDUSTRY IDENTIFICATION SYSTEM (EIIS) CODES

The EIIS codes for this report are as follows:

COMPONENTS	CODES
Valve	V
SYSTEMS	
High Pressure Coolant Injection System	BJ