NORTHEAST UTILITIES
The Connecticut Light And Power Company
Western Massachusetts Electric Company
Holyoke Water Power Company
Northeast Utilities Service Company
Northeast Nuclear Energy Company

General Offices · Selden Street, Berlin Connecticut

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March 17, 1993
MI-93-223

Re: 10CFR50.73

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

Reference: Facility Operating License No. DPR-65
Docket No. 50-336
Licensee Event Report 93-003-00

Gentlemen:

This letter forwards Licensee Event Report 93-003-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(i).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace
Vice President - Millstone Station

SES/HEB:dlr

Attachment: LER 93-003-00

cc: T. T. Martin, Region I Administrator
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2

NRC Form 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

Estimated burden per response to comply with this information collection request: 50.0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (p-530), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Millstone Nuclear Power Station Unit 2	0 5 0 0 0 3 3 6	1 OF 0 3

TITLE (4)
High Pressure Safety Injection Valve Not at Proper Open Position

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	
0 2	1 7	9 3	9 3	–	0 0 3	– 0 0	0 3	1 7	9 3		0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1		20.402(b)	20.402(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	1 0 0	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		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
Harvey Beeman, Engineer, Ext. 5638	AREA CODE 2 0 3 4 4 7 1 1 7 9

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)

On February 17, 1993, at 0936, with the plant operating at 100% power, it was discovered that a mispositioned High Pressure Safety Injection (HPSI) valve would have rendered the Facility 1 HPSI system inoperable. This discovery was made while the Facility 2 Emergency Diesel Generator (EDG) had been removed from service to perform preventive maintenance. Operators took immediate actuon to restore the valve to its correct position in accordance with the time limits of Technical Specification 3.0.5. Subsequent investigation concerning the mispositioned valve resulted in the determination that since the condition existed at the start of the Facility 2 diesel outage, the requirements of Technical Specification 3.0.5 had been exceeded for a period of 1 hour and 26 minutes.

No further operator action was required.

I. Description of Event

On February 17, 1993, at 0936, with the plant operating at 100% power, it was discovered that a mispositioned High Pressure Safety Injection (HPSI) valve would have rendered the Facility 1 HPSI system inoperable. This discovery was made while the Facility 2 Emergency Diesel Generator (EDG) had been removed from service to perform preventive maintenance.

During restoration of surveillance SP 2601A, pursuant to Technical Specification 4.5.2.e.1, one of four injection valves (2-SI-647) on the Facility 1 HPSI system appeared to open approximately 1/2 turn beyond the intended open position indicator. In accordance with SP 2604E, this valve was repositioned (at 0505 on February 17, 1993) to what appeared to be the correct position. The motor actuator was de-energized and a Plant Incident Report was initiated as required by procedure. These actions maintained this system in an operable status. As the result of investigation by both Operations and Plant Engineering, it was subsequently concluded that the valve had been repositioned to the remnants of a previous mark which was no longer valid. Therefore the repositioning which had occurred at 0505 in effect, had rendered the Facility 1 HPSI inoperable.

Independent of this activity, and believing that both HPSI facilities were operable, the Facility 2 EDG was removed from service for planned preventive maintenance at 0610. The plant entered Technical Specification Action Statement 3.8.1.1.a for the diesel work.

At 0936, upon discovery of the mispositioned valve, Operations immediately returned the valve to its original position and verified the correct position of the remaining injection valves. No further operator actions were required.

The net effect of the two events (valve mispositioned and diesel generator out of service) was that the plant had (as concluded by subsequent investigation) operated outside of Technical Specification 3.0.5. This requirement allows an emergency power source to be removed from service for a given facility provided that all redundant facility systems are operable. Operations not meeting this requirement is allowed for a maximum of 2 hours. Investigation into the time at which the valve was mispositioned revealed that the requirements of 3.0.5 were not satisfied for a period of 3 hours and 26 minutes (i.e. 1 hour and 26 minutes longer than permitted).

During this time period, the Facility 1 HPSI system would have functioned as intended but would have provided only approximately 95% of the flow required by Technical Specification 4.5.2.f.

II. Cause of Event

Since the ECCS LCO Action Statement had not been entered, the operators correctly allowed the EDG to be removed from service for preventive maintenance. The operation outside of Technical Specification 3.0.5 is based on subsequent investigation after finding the mispositioned valve. The root cause of the event was inadequate procedural guidance to indicate where the latest set of marks were located and the subsequent repositioning of the valve.

III. Analysis of Event

This report is being submitted pursuant to the requirements of 10CFR50.73 (a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications".

As outlined above, actual operator actions were at all times within Technical Specification requirements based on the information available at the time. Subsequent investigation into the valve position results in this condition being administratively reportable.

Although this event deals with the Emergency Core Cooling System (ECCS), there were only minimal safety consequences. The Facility 1 HPSI system would have functioned as intended and provided approximately 95% of the required flow rate. The Facility 2 HPSI system was operable since normal power was always available. There were no plant transients in progress and there were no challenges to the plant safety systems. All other Safety Injection components remained operable during this time period.

IV. Corrective Action

Upon discovery of the error, valve 2-SI-647 was immediately returned to its correct position and the position of all other injection valves were verified.

In order to prevent recurrence, the manner by which the open position of an injection valve is verified has been reviewed and a less error prone method has been developed. This method utilizes an alignment tool and an external marking ring. Marking rings have been designed, fabricated and installed on all ECCS throttle valves identified in Table 4.5-1 of the Technical Specification Requirements. Additionally, Surveillance Procedures SP 2604E & SP 2604F have been revised to reflect the use of the alignment tool/marking rings and to more clearly define the actions to be taken in the event that a valve does not open to the desired mark.

V. Additional Information

There were no failed components.

Similar LERs: None

EIIS Codes:

BQ INV L200 (HPSI Injection Valve)
EK DG F010 (Emergency Diesel Generator)