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

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203)665-5000

July 2, 1993
MP-93-522

Re: 10CFR50.73(a)(2)(iv)

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 93-013-00

Gentlemen:

This letter forwards Licensee Event Report 93-013-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(iv).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace
Vice President - Millstone Station

SES/RB:ljs

Attachment: LER 93-013-00

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

LICENSEE EVENT REPORT (LER)

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.

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)
Reactor Trip on High Pressurizer Pressure

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 6	0 3	9 3	9 3	–	0 1 3	– 0 0	0 7	0 2	9 3		0 5 0 0 0 | |
											0 5 0 0 0 | |

OPERATING MODE (9)	1	THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.402(c)	X 50.73(a)(2)(iv)	73.71(b)
		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)	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
Richard A. Perry, Engineer, Ext. 6067	2 0 3 4 4 7 – 1 7 9 1

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	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 June 3, 1993, at 1624 hours, with the plant in mode 1 at 100% power, the main turbine generator Electro-Hydraulic Control (EHC) system initiated a signal that caused the main turbine to rapidly decrease load. The sudden load drop caused an increase in pressurizer pressure, resulting in a reactor trip. The EHC signal has been attributed to spurious relay actuations as a result of operations within the EHC cabinet.

Operators performed Emergency Operating Procedure EOP 2525, "Standard Post Trip Actions" and all safety related equipment performed as expected.

This is being reported pursuant to requirements of Paragraph 50.73(a)(2)(iv), reporting any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature system, including the Reactor Protection System (RPS).

I. Description of Event

On June 3, 1993, at 1624 hours, with the plant in Mode 1 at 100% power, the EHC monitor panel trouble alarm along with several other alarms were annunciated on the control room main boards. Approximately ten seconds later, the reactor tripped. Seconds before the EHC monitor panel trouble light came on, a plant equipment operator had opened and closed the EHC cabinet doors.

The main turbine generator Electro-Hydraulic Control (EHC) system initiated a signal that caused the main turbine intercept valves and control valves to close. The main turbine rapidly decreased load. The resulting load imbalance between the reactor plant and the steam plant caused an increase in reactor temperature and pressure, opening both Power Operated Relief Valves (PORVs) and several steam generator safety valves. The reactor tripped on high pressurizer pressure. The pressurizer PORVs and steam generator safety valves properly reseated. The main turbine automatically tripped as a result of the reactor trip. Electrical power output at the time of the turbine trip was approximately 166 Megawatts.

Operators performed Emergency Operating Procedure EOP 2525, "Standard Post Trip Actions." Both the secondary and primary plant response was as expected for a reactor/turbine trip on high pressurizer pressure. All safety related equipment performed as expected. There were no ESF system actuations.

II. Cause of Event

The root cause of the automatic reactor/turbine trip on high pressurizer pressure was the closing of the main turbine intercept and control valves in response to signals from the EHC cabinet. The cause of the EHC signals that closed the valves has not been determined.

A plant equipment operator opened the doors of the EHC cabinet to check the temperature, as part of his normal rounds. The opening and closing of the EHC cabinet doors was determined to be essentially coincident with an EHC trouble alarm and indication of intercept valve closure. Potential causes are Electro-Magnetic Field (EMF) induction while the doors were open or vibration from the door opening or closing.

III. Analysis of Event

These conditions are being reported pursuant to requirements of Paragraph 50.73(a)(2)(iv), reporting any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature system, including the Reactor Protection System (RPS). All safety systems functioned as designed. Therefore, there are no safety consequences as a result of this event.

IV. Corrective Action

Extensive troubleshooting of the EHC system was conducted. All relevant EHC instrument loops and power supplies were checked. An attempt was made to reproduce a current path to the relays that could have resulted in the intercept valves closing, but the EHC signal that caused the intercept and control valves to close was not able to be reproduced. Repeated door opening and closing during low load turbine operations did not reproduce any abnormal operations.

To minimize the probability of reoccurrence, caution tags are now hung on the EHC cabinet doors. These tags require control room notification before opening the cabinet doors.

V. Additional Information

Similar LERs:

91-001

EIIS Codes for referenced components:

Main Turbine - TA-TRB-G084

EHC Cabinet - TG-CAB-G084

Power Operated Relief Valves - AB-RV-D243

Steam Generator Safety Valves - SB-RV-D243