Northeast
Nuclear Energy

Rope Ferry Rd. (Route 156), Waterford, CT 06385

Millstone Nuclear Power Station
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385-0128
(203) 444-4300
Fax (203) 444-4277

The Northeast Utilities System

Donald B. Miller Jr.,
Senior Vice President - Millstone

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

November 2, 1995
MP-95-324

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 95-038-00

This letter forwards Licensee Event Report 95-038-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(ii).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Donald B. Miller, Jr.
Senior Vice President - Millstone Station

DBM/KF:bjo

Attachment: LER 95-038-00

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

130013

IE22
1/1

NRC Form 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES: 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Millstone Nuclear Power Station Unit 2	05000336	1 OF 4

TITLE (4)
Hydrogen Monitor Flowpath Design Deficiency

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 NAME	DOCKET NUMBER
										05000
10	06	95	95	- 038 -	00	11	02	95	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1	THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
POWER LEVEL (10)	100		20.2203(a)(1)		20.2203(a)(3)(i)	X	50.73(a)(2)(ii)		50.73(a)(2)(x)
			20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
			20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER
			20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Philip J. Lutzi, Nuclear Licensing	(203) 440-2072

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 15 single-spaced typewritten lines) (16)

On October 6, 1995, at approximately 1819 hours with the plant in mode 1 at 100% power, it was identified that following a Loss of Coolant Accident (LOCA) coincident with the loss of a DC Bus, a hydrogen monitoring flowpath could not be established due to the configuration of the power supply to the valves. The containment isolation function of these valves was operable and not affected by the identified problem. The plant entered into limited condition of operation (LCO) 3.6.4.1 action b, which requires that one monitor be restored to operable status within 72 hours or the plant be in the hot standby within the next six (6) hours.

The cause of this event is a design deficiency in that the system was initially designed to meet the containment isolation single failure protection requirements. This resulted in the inability to open the valves for hydrogen sampling in the event of a LOCA and a loss of a DC bus. Without procedures to provide instructions on how to provide power to open the valves for hydrogen sampling in the event of a LOCA and a loss of a DC bus, this design deficiency resulted in a failure to meet Regulatory Guide 1.97 requirements.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Millstone Nuclear Power Station Unit 2	05000336	95	– 038 –	00	02 OF 04

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

I. Description of Event

On October 6, 1995, at 1819 hours with the plant in mode 1 at 100% power, it was identified that following a Loss of Coolant Accident (LOCA) coincident with the loss of a DC Bus, a hydrogen monitoring flowpath could not be established due to the configuration of the power supply to the valves. The containment isolation function of these valves was operable and not affected by the identified problem.

Both hydrogen monitors have similar but separate flowpaths (see figure). The hydrogen monitoring system and PASS use the normal containment radiation monitor for the sampling flowpath post LOCA. The Facility 1 Hydrogen monitor has a Facility 1 suction line isolation valve inside containment and a Facility 1 return line isolation valve outside containment powered by Facility 1 DC power. The outside containment suction isolation valve is powered by Facility 2 DC power. The containment isolation signals are the same facility as the power to the valves. Therefore, following a LOCA that initiates a containment isolation signal coincident with the loss of the Facility 2 DC bus, the outside containment isolation valve cannot be opened to allow for hydrogen sampling when required by the Emergency Operating Procedures.

The above also applies to the Facility 2 Hydrogen monitoring system for DC power alignment.

There were no automatic or manually initiated safety systems actuated as a result of the condition.

II. Cause of Event

The cause of this event is that the system was initially designed to meet the containment isolation single failure protection requirements. The subsequent hydrogen monitoring single failure protection feature in Reg. Guide 1.97 was not followed through in plant operating procedures.

III. Analysis of Event

Based on event investigation, this event is reportable under the criteria of 10CFR50.73(a)(2)(ii); ". . . a condition not covered by the plant's operating and emergency procedures."

In evaluating the safety significance of this event, it was confirmed that the critical function for these valves is Containment Isolation and this function is not compromised by this design deficiency. Electrical circuit independence is not degraded by this design deficiency. Since the connections to repower the valves can be made within the control room, it is postulated that the valves can be repowered in sufficient time (within 12 hours) to satisfy the sampling requirements after an accident. Therefore, the consequences of this condition are minimal.

IV. Corrective Action

The corrective action was to provide procedure guidance in an Operations Procedure that would provide electrical power to the respective outside containment isolation valve that would be de-energized due to a single DC bus failure. The Operations Procedure directs to the operators to align hydrogen monitoring in accordance with the Post Incident Hydrogen Control operations procedure. In this procedure, in the event of a loss of a vital DC bus, guidance was provided to install an electrical jumper for power to the de-energized valve. By providing direction in the procedure for installation of an electrical jumper to allow normal valve control opening of the containment isolation valves for Hydrogen monitoring post accident, (coincident with a loss of a DC Bus) there is no affect on any system performance because all actions can be performed inside the control room in a very short period of time. The Hydrogen monitoring system is credited for manual initiation within 12 hours following the accident.

Action was taken within the LCO time requirement and the plant exited LCO 3.6.4.1.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Millstone Nuclear Power Station Unit 2	05000336	95	– 038 –	00	03 OF 04

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

V. Additional Information

Similar LER's: None

EIIS Codes

Containment Environmental Monitoring System IK

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Millstone Nuclear Power Station Unit 2	05000336	95	- 038 -	00	04 OF 04

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

Containment