



**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  
(860) 444-4300  
Fax (860) 444-4277

The Northeast Utilities System

MAR 25 1996

Docket No. 50-336  
B15612

Re: 10 CFR 50.73

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

This letter forwards Licensee Event Report (LER) 96-010-00 documenting an event that occurred at Millstone Nuclear Power Station, Unit No. 2 on February 22, 1996. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(v).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

P. M. Richardson  
Director - Millstone Unit No. 2

Attachment: LER 96-010-00

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

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PDR ADDCK 05000336  
S PDR

## LICENSEE EVENT REPORT (LER)

(See reverse for required number of  
digits/characters for each block)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 (3150-0104),  
OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Millstone Nuclear Power Station Unit 2

DOCKET NUMBER (2)

05000336

PAGE (3)

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TITLE (4)

Inadequate Flow Through the Containment Hydrogen Monitors due to the Pressure Regulators

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL	REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
02	22	96	96	010	00	02	25	96	FACILITY NAME	DOCKET NUMBER
OPERATING		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)								
		20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)		50.73(a)(2)(viii)
POWER		20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)		50.73(a)(2)(x)
		20.2203(a)(2)(ii)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)		73.71
		20.2203(a)(2)(iii)			20.2203(a)(4)			50.73(a)(2)(iv)		OTHER
		20.2203(a)(2)(iii)			50.36(c)(1)			<input checked="" type="checkbox"/> 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

G. P. van Noordennen, Nuclear Licensing Supervisor

TELEPHONE NUMBER (include Area Code)

(860)440-2084

## 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)

YES		NO		EXPECTED		MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE).		<input checked="" type="checkbox"/> NO						

## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On February 22, 1996, at 2240 hours, with the plant in Mode 5 at 0% power, it was identified that containment hydrogen monitor flow could not be established with the containment at atmospheric pressure (0 psig). Hydrogen monitor flow may be required after a Loss of Coolant Accident (LOCA) with containment pressure equal to or greater than 0 psig and less than 10 psig. This requirement meets the provisions of NUREG-0737 and RG 1.97, Revision 2, as reflected in the licensing basis. The apparent cause of this event was an improper setting of the system pressure regulators and flow indicating valves. This event is being reported pursuant to the requirements of 10CFR50.73(a)(2)(v)(D), "any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident."

The corrective action is to revise the system calibration procedure to provide sample flow for containment pressure conditions representative of design basis accident conditions. An investigation is continuing to verify that PASS and the hydrogen monitoring system meet the design basis requirements. This investigation will be completed prior to the end of the current outage.

There were no immediate operator actions required in response to this event. Additionally, there were no automatic or manually initiated safety systems actuated as a result of this event.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER		REVISION NUMBER	
		96	--	010	-- 00	

Millstone Nuclear Power Station Unit 2

05000336

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

I. Description of Event

On February 22, 1996, at 2240 hours, with the plant in Mode 5 at 0% power, it was identified that containment hydrogen monitor flow could not be established with the containment at atmospheric pressure (0 psig). Pursuant to the provisions of NUREG-0737 and RG 1.97, Revision 2, hydrogen monitoring may be required after a Loss of Coolant Accident (LOCA) with containment pressure equal to or greater than 0 psig and less than 10 psig.

An immediate report was made on February 22, 1996 at 2248 hours pursuant to the requirements of 10CFR50.72(b)(1)(v), "any event that results in a major loss of emergency assessment capability..."

There were no immediate operator actions required in response to this event. Additionally, there were no automatic or manually initiated safety systems actuated as a result of this event.

II. Cause of Event

The apparent cause of this event was an improper flow balance to account for all accident scenarios.

III. Analysis of Event

The pressure regulators which control the inlet pressure to the hydrogen monitors are currently set at 10 psig. The flow indicating needle valves which control hydrogen monitoring sample and bypass flow are currently set at 100 cc/min sample flow and 6500 cc/min bypass flow. With these pressure and flow settings, flow through the hydrogen monitor cannot be established when containment pressure is at or near atmospheric conditions and the containment hydrogen concentration could not be measured. The plant's emergency operating procedure (EOP 2532) requires the operation of the hydrogen recombiners when the hydrogen concentration is higher than the 1.5% limit. However, a false reading from the hydrogen monitors may fail to direct the operator to start the hydrogen recombiners.

A preliminary determination shows that (1) decreasing the setting of the pressure regulators from 10 psig to 5 psig, (2) increasing the hydrogen monitor sample flow through the flow indicating valve from 100 cc/min to 150 cc/min and, (3) decreasing the hydrogen monitor bypass flow through the flow indicating valve from 6500 cc/min to 2500 cc/min will allow adequate flow through the hydrogen monitors with containment pressure at or near atmospheric pressure (0 psig). It has also been determined that the system will still operate properly during all pressure inlet conditions.

This event is being reported pursuant to the requirements of 10CFR50.73(a)(2)(v)(D), "any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident."

The actual and the potential safety significance is low following a design basis event since (1) the hydrogen concentration will not reach 3% (the limit at which a containment purge is required) for 7 days, and (2) the Post Accident Sampling System (PASS) would be available to assess hydrogen concentration at atmospheric pressure.

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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

IV. Corrective Action

The corrective action is to revise the system calibration procedure to provide sample flow for containment pressure conditions representative of design basis accident conditions. An investigation is continuing to verify that PASS and the hydrogen monitoring system meet the design basis requirements. This investigation will be completed prior to the end of the current outage.

V. Additional Information

EIIS Codes

PASS	IP
Hydrogen Analyzer	IK
PAM	IP
CTMT	NH

Similar Events

LER 95-022-00  
LER 96-008-00  
LER 96-009-00

Manufacturer Data

None.