



Northeast  
Utilities System

Millstone Offices • Rope Ferry Rd., Waterford, CT

P.O. Box 128  
Waterford, CT 06385-0128  
(203) 447-1791

November 20, 1996

Docket No. 50-245  
B16021

Re: 10CFR50.73

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

This letter forwards supplemental Licensee Event Report (LER) 96-048-01, documenting an event that occurred at Millstone Nuclear Power Station, Unit No. 1 on August 16, 1996. This LER was originally submitted pursuant to 10CFR50.73(a)(2)(i).

Upon further investigations, it has been determined that this event is not reportable. This supplement is submitted to document the additional findings and withdraw the LER.

There are no commitments contained within this letter. The Commitment Nos. B15893-1, to complete the investigation of the event and provide a supplemental report, and B15893-2, to disposition this issue prior to startup for Cycle 16, made in the submittal of LER 96-048-00 are closed.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

P. D. Hinnenkamp  
Director, Unit Operations

Attachment: LER 96-048-01

cc: H. J. Miller, Region I Administrator  
T. A. Easlick, Senior Resident Inspector, Millstone Unit No. 1  
J. W. Andersen, NRC Project Manager, Millstone Unit No. 1

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EXPIRES 04/30/98

## 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 (IT-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 1

DOCKET NUMBER (2)

05000245

PAGE (3)

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TITLE (4)

RPS Logic Testing Questions Identified During Generic Letter 96-01 Review

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
08	16	96	96	048	01	11	20	96	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
POWER LEVEL (10)		000	20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)	50.73(a)(2)(viii)
			20.2203(a)(1)			20.2203(a)(3)(i)			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)	<input checked="" type="checkbox"/> 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

Robert W. Walpole, MP1 Nuclear Licensing Manager

TELEPHONE NUMBER (Include Area Code)

(860)440-2191

## 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 (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION	MONTH	DAY	YEAR
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## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On August 16, 1996 at 1433 hours, with the plant in COLD SHUTDOWN, a surveillance review identified a issue which questioned the adequacy of surveillance test methods used to demonstrate operability of the Main Steam Isolation Valve (MSIV) Closure and Turbine Condenser Low Vacuum Reactor Protection System (RPS) trip functions. Specifically, the surveillance procedures did not individually test the relay contacts associated with the reactor pressure bypass function.

Subsequent investigation has determined surveillance procedures satisfactorily meet all Technical Specification (TS) surveillance requirements to verify operability of the MSIV Closure and Turbine Condenser Low Vacuum trip functions. There were no adverse safety consequences as a result of this event since the trip functions were fully operable. A design basis review also concluded surveillance test requirements for the Turbine Condenser Low Vacuum and MSIV Closure trip functions are within the design basis of the plant.

There are no corrective actions required since it has been determined that Millstone Unit No. 1 is in compliance with its TS. Northeast Nuclear Energy Company has completed its investigation and determined that all TS surveillance requirements were satisfied, therefore, LER 96-048-00 is retracted.

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

I. Description of Event

On August 16, 1996 at 1433 hours, with the plant in COLD SHUTDOWN, the engineering team performing circuit review in accordance with Generic Letter 96-01 identified a condition (issue) which questioned the adequacy of surveillance test methods used to demonstrate operability of the MSIV Closure and Turbine Condenser Low Vacuum RPS trip functions. Specifically, the surveillance procedures did not individually test the logic components (relay contacts) associated with the reactor pressure bypass function but rather tested only the bypass function. An initial review conservatively determined that failure to test the individual bypass contacts could have resulted in undetectable failures. This undetectable failure plus a single failure could have affected the operability of both the MSIV Closure and Turbine Condenser Low Vacuum RPS trip functions during prior operations. Thus the initial review conservatively reported this condition and committed to perform a detailed review of the design basis requirements.

Subsequent investigation determined the postulated failures were detectable by annunciation and, therefore, surveillance procedures satisfactorily meet TS surveillance requirements to verify operability of the MSIV Closure and Turbine Condenser Low Vacuum RPS trip channels. There were no adverse safety consequences as a result of this event since the MSIV Closure and Turbine Condenser Low Vacuum RPS trip functions were fully operable.

II. Cause of Event

Upon further investigations, it has been determined that this event is not reportable.

III. Analysis of Event

Technical Specification surveillance's define the testing required to demonstrate adequacy of systems to perform their safety function as specified in the plant's design bases. TS contain requirements to perform periodic functional tests and channel calibrations of the Turbine Condenser Low Vacuum and MSIV Closure trip functions. TS Table 3.1.1 requires these trip functions to be operable in all modes, however, the functions are allowed to be bypassed in refuel, shutdown, and startup/hot standby modes if reactor pressure is below 600 psig. This bypass is automatically enabled in the RPS logic by relays actuated from the mode switch and pressure switches.

A review of surveillance test procedures used to demonstrate operability of both of the Turbine Condenser Low Vacuum and MSIV Closure trip functions has verified that these procedures adequately test the associated safety functions. Additionally, testing verifies the bypass is not active when the trip functions are required to be operable.

TS contain no requirement to perform a logic system functional test or to functionally test the bypass function. The calibration and functional test procedures check pressure switch operation and the energization and de-energization of the relays. These surveillances do not specifically verify contact closure or opening, however, the bypass function is verified.

Field verification of the bypass alarm circuitry determined that a bypass alarm would be annunciated whenever any one of the four relays is energized. Therefore, a failure of a single bypass relay would not be undetectable and no additional failure need be postulated. A review of the design basis failure modes and

## LICENSEE EVENT REPORT (LER)

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

effects analysis confirmed that annunciation was credited for detecting failed closed contacts of the Turbine Condenser Low Vacuum and MSIV Closure bypass relays.

A review of the RPS system failure modes and effects analysis and design specifications determined that the surveillance test requirements for the Turbine Condenser Low Vacuum and MSIV Closure trip functions are within the design basis of the plant.

Since TS surveillance requirements were satisfied, this condition is not reportable pursuant to 10 CFR 50.73(a)(2)(i) as a condition prohibited by the plant Technical Specifications.

IV. Corrective Action

There are no corrective actions required associated with this LER since it has been determined that Millstone Unit No. 1 is in compliance with its TS.

V. Additional InformationSimilar Events

None

ELIS Codes

	<u>System</u>	<u>Component</u>
RPS	JC	--
Main Condenser	SD	COND
Relay	JC	RLY

Manufacturer Data

None