



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)(B)

April 10, 1995

MP-95-114

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 95-011-00

This letter forwards Licensee Event Report 95-011-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(ii)(B).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Donald B. Miller, Jr.

Senior Vice President - Millstone Station

DBM/JK:dlr

Attachment: LER 95-011-00

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

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LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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)

1 OF 3

TITLE (4)

EHC Pressure Switches Not Isolated from RPS Circuitry

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
03	16	95	95	011	00	04	10	95	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000
OPERATING MODE (9)		N	THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		0	20.402(b)		20.405(c)		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)(vi)		OTHER	
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(vii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)	
			20.405(a)(1)(iv)		X 50.73(a)(2)(ii)(B)		50.73(a)(2)(viii)(B)			
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)			

LICENSEE CONTACT FOR THIS LER (12)

NAME

Philip J. Lutz, Nuclear Licensing

TELEPHONE NUMBER (Include Area Code)

(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)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X					

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

On March 16, 1995 at 1914 hours, with the plant de-fueled, it was determined, following a review of NRC Information Notice 95-10 "Potential Loss of Automatic Engineered Safety Features Actuation", that Non-QA electro-hydraulic control pressure switches PS-4597A, B, C, & D are connected to the Reactor Protection System (RPS) Turbine Trip Bistables (TTB) without adequate electrical isolation. This design deficiency is the result of inadequate design control which resulted in the downgrading of an RPS input device in 1989 from QA to Non-QA without proper consideration for isolation between vital and non-vital electrical circuits associated with a Safety System.

Design Engineering is reviewing the following potential corrective actions; a) restoring all components associated with the RPS turbine trip circuitry to its original QA-CAT1 status. b) installing QA-CAT1 isolation devices on the input of the RPS turbine trip circuitry. Corrective action will be completed prior to plant startup.

This is being reported pursuant to requirements of 10CFR 50.73 (a)(2)(ii)(B) as a condition that was outside the design basis of the plant.

EXPIRES: 5/31/95

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION
COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING
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BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION,
WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION
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WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

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Millstone Nuclear Power Station
Unit 2

05000336

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
95	— 011 —	00

02 OF 03

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)**I. Description of Event**

On March 16, 1995 at 1914 hours, with the plant de-fueled, it was determined, following a review of NRC Information Notice 95-10 "Potential Loss of Automatic Engineered Safety Features Actuation", that Non-QA Electro Hydraulic Control (EHC) pressure switches PS-4597A, B, C & D are connected to the RPS Turbine Trip Bistables (TTB) without adequate electrical isolation. This was identified as a potential issue upon completion of a review of the NRC Information Notice 95-10, by the Nuclear Safety Engineering Department.

The EHC pressure switches PS-4597A-D provide a "dry contact" input to the TTB located in RPS sensor channels A-D respectively. The purpose of the Turbine Trip Bistables is to provide a turbine trip (2/4) upon decreasing turbine electro hydraulic oil pressure. These EHC pressure switches PS-4597A-D were originally installed as QA-CAT 1 devices.

II. Cause of Event

This design deficiency is the result of inadequate design control which resulted in the downgrading of an RPS input device in 1989 from QA to Non-QA without proper consideration for isolation between vital and non-vital electrical circuits associated with a Safety System.

III. Analysis of Event

This is being reported pursuant to requirements of:

10CFR50.73(a)(2)(ii)(B), Any event or condition that resulted in the condition of the nuclear power plant being: In a condition that was outside the design basis of the plant.

An assessment of the above event has determined that the EHC pressure switch circuitry is functional, but does not conform with IEEE 279-1971. Interpretation of this standard implies equipment that is used for both protective and control functions shall be classified as part of the protection system and shall meet all the requirements of IEEE 279. Therefore, these EHC pressure switches are required to be QA-CAT1 or installation of qualified QA-CAT1 signal isolators on the input to the RPS turbine trip bistables is required.

The safety significance of this event is minimal for the following reasons;

- credible failures (e.g. open, short-to-ground, hot short) of the pressure switches remain unchanged.
- no new failure modes have been introduced as a result of downgrading the EHC pressure switches.
- gross failure of the RPS is not possible due to it's design (e.g. one sensor per trip unit, four redundant channels).
- MP2 FSAR Accident Analysis, Section 14 "states that no credit is taken for a turbine trip causing a reactor trip."
- A failure of the EHC pressure switch would most likely cause the RPS TTB to assume the tripped state which is also the safe condition.

IV. Corrective Action

Design Engineering is reviewing two potential options for corrective action: a) restoring all components associated with the RPS turbine trip circuitry to its original QA-CAT1 status. b) installing QA-CAT1 isolation devices to the input of the RPS turbine trip circuitry. Corrective action will be completed prior to plant startup.

EXPIRES: 5/31/95

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION
COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING
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FACILITY NAME (1) Millstone Nuclear Power Station Unit 2	DOCKET NUMBER (2) 05000336	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		95	- 011 -	00	03 OF 03

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

Similar LER's:

94-002-00, Failure to Meet Acceptable Isolation Requirements Between Class IE Protection Instrument Channels.

ELIS Codes

Plant Protection System - JC

Pressure Switch - PS