

Maine Yankee

RELIABLE ELECTRICITY SINCE 1972

329 BATH ROAD • BRUNSWICK, MAINE 04011 • (207) 798-4100

January 20, 1997

MN-97-13

JRH-97-19

UNITED STATES NUCLEAR REGULATORY COMMISSION

Attention: Document Control Desk

Washington, D. C. 20555

Reference: (a) License No. DPR-36 (Docket No. 50-309)

Subject: Maine Yankee Licensee Event Report 96-042, Lack of Thermal Relief Valves
for Several Heat Exchangers

Gentlemen:

Please find enclosed Maine Yankee Licensee Event Report 96-042. This report is submitted
in accordance with 10 CFR 50.73(a)(2)(i).

Please contact us should you have any questions regarding this matter.

Very truly yours,



James R. Hebert, Manager

Licensing & Engineering Support Department

JRH/mwf

Enclosure

c: Mr. Hubert Miller
Mr. J. T. Yerokun
Mr. D. H. Dorman
Mr. Patrick J. Dostie
Mr. Uldis Vanags

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PDR ADOCK 05000309
S PDR

IF22/1

EXPIRES 04/30/98

LICENSEE EVENT REPORT (LER)

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)

Maine Yankee Atomic Power Company

DOCKET NUMBER (2)

50-309

PAGE (3)

1 OF 3

TITLE (4)

Lack of Thermal Relief Valves for Several Heat Exchangers

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
12	19	96	96	-- 042 --	00	01	18	97	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
POWER LEVEL (10)		0	20.2201(b)		20.2203(a)(2)(v)		<input checked="" type="checkbox"/> 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)		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

Ethan Brand, Supervisor, Nuclear Safety

TELEPHONE NUMBER (Include Area Code)

207-882-5661

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

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

At approximately 1030 on 12/19/96, a Plant Engineer advised the PSS of a Design Discrepancy involving the Component Cooling Water and Fuel Pool Cooling Heat Exchangers. The FSAR states that these heat exchangers meet the ASME Section VIII and the ANSI B31.1 Code requirements.

In fact, these heat exchangers do not have the code required thermal relief valves installed to protect against over-pressure; and therefore are not in conformance with the plants design basis as described in the FSAR. The PSS and STA evaluated the operability of these heat exchangers and declared them operable, but not in accordance with the plant's design basis.

Administrative controls were put in place to prevent inappropriate isolation of the Heat Exchangers.

Engineering is evaluating other heat exchangers for similar conditions.

LICENSEE EVENT REPORT (LER)

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

INITIAL PLANT CONDITIONS:

On December 19, 1996, the plant was stable, operating in condition 5, Hot Shutdown, at zero percent power.

EVENT DESCRIPTION:

At approximately 1030 on 12/19/96, a Plant Engineer advised the PSS of a Design Discrepancy involving the Component Cooling Water and Fuel Pool Cooling Heat Exchangers.

ASME Code(Section VIII) and ANSI Piping Code(B31.1)require these heat exchangers (E-4A, E-4B, E-5A, E-5B and E-25) to be provided with thermal relief protection against over-pressurization, in the event the coolant medium side of the heat exchanger (tube side for CCW Hxs and shell side for SFP HX) was isolated with either the heat load side still in service or the heat exchanger subjected to some external heat source (e.g.fire).

The FSAR states that these heat exchangers meet the ASME Section VIII and the ANSI B31.1 Code requirements.

In fact, these heat exchangers do not have the code required thermal relief valves installed to protect against over-pressure; and therefore are not in conformance with the plants design basis as described in the FSAR.

At 1045, the PSS and STA evaluated the operability of these heat exchangers and declared them operable, but not in accordance with the plant's design basis. Administrative controls were put in place to prevent inappropriate isolation of the Heat Exchangers.

SAFETY SIGNIFICANCE:

The safety significance of this event is low. The administrative controls put in place will preclude isolating only the cool water side of the heat exchangers. Prior to this control, if the heat exchanger cool side was isolated, then the heat exchanger would not have been operable. The location of these heat exchangers are in areas of extremely low fire loading.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

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

CAUSAL FACTORS:

The original design of the plant did not include thermal relief valves for these heat exchangers. Documentation indicates that it was discussed but determined to not be required. Further evaluation of this event is ongoing.

CORRECTIVE ACTIONS:

Administrative controls were put in place to prevent the heat exchanger cool water side from being isolated when required for service.

Engineering is evaluating other heat exchangers for similar conditions. Any resulting additional issues will be reported by another LER or a revision to this LER.

PREVIOUS SIMILAR EVENTS:

LER 96-022, Containment Primary Component Piping Design Inadequacy Due to Lack of Thermal Relief Valves and LER 95-012-01, RHR Spring Reliefs Inadequate for Low Temperature Over Pressure Protection, describe issues which involve inadequate relief valve design for original plant construction.