

Maine Yankee

RELIABLE ELECTRICITY SINCE 1972

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

January 27, 1997

MN-97-16

JRH-97-24

UNITED STATES NUCLEAR REGULATORY COMMISSION

Attention: Document Control Desk

Washington, D. C. 20555

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

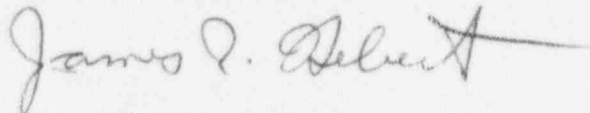
Subject: Maine Yankee Licensee Event Report 96-043, Generic Letter 96-01 Identified Surveillance Issues

Gentlemen:

Please find enclosed Maine Yankee Licensee Event Report 96-043. 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

mwf

Enclosure

040017

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

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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

FACILITY NAME (1)

Maine Yankee Atomic Power Company

DOCKET NUMBER (2)

50-309

PAGE (3)

1 OF 4

TITLE (4)

Generic Letter 96-01 Identified Surveillance Issues

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	27	96	96	-- 043 --	00	01	27	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 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
03	31	97

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

On December 27, 1996, the plant was stable, operating in condition 5, Hot Shutdown, at zero percent power. The control room was notified of several GL 96-01 review issues which affected the operability of the Reactor Protective System (RPS). The RPS is not required to be operable in Hot Shutdown. The RPS was administratively tagged to prevent reactor startup prior to issue resolution. On December 30, 1996, additional GL 96-01 concerns were identified which affected the operability of the Emergency Core Cooling System and the Emergency Diesel Generators. A plant cooldown to Cold Shutdown was conservatively completed. On January 17, 1997, engineering notified the control room that the CEA (control rod) Withdrawal Prohibit (CWP) is not tested to verify it functions as designed. Operations declared the CWP inoperable. The CWP is not required in the cold shutdown condition. Additional GL 96-01 issues are currently being evaluated.

All GL 96-01 identified issues will be evaluated and resolved and or tested prior to plant restart.

A comprehensive root cause evaluation of these issues is currently being conducted.

Long Term corrective actions will be based upon the result of this evaluation. A revision to this LER will be submitted with additional information including safety significance, root causes and planned long term corrective actions.

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		96	-- 043	-- 00	

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

INITIAL PLANT CONDITIONS:

On December 27, 1996, the plant was stable, operating in condition 5, Hot Shutdown, at zero percent power.

EVENT DESCRIPTION:

On December 27, 1996 at 1000 Engineering presented six GL 96-01 issues to the Control Room dealing with the Reactor Protection System (RPS). These items are not verified by surveillance procedures.

- 1) During testing of the 10 RPS channels, the K1, K2 & K3 relay actuation using the relays' primary coil is not verified, thus not providing the required overlap in circuit testing.
- 2) During RPS logic matrix testing, the matrix contacts are not verified to return to the closed state (trip cleared) following testing. The significance is that signal trip could remain instated.
- 3) The RCS Flow Zero Power Mode Bypass Switch inhibit function is not verified to operate. The significance is that the inhibit may not work and thus prevent rod latching for cold rod testing.
- 4) The Thermal Margin/Low Pressure (TM/LP) Zero Power Mode Bypass Switch inhibit function is not verified to operate. The significance is that the inhibit may not work and thus prevent rod latching for cold rod testing.
- 5) Steam Generator pressure - low pressure bypass function is not verified to operate. The significance is that the inhibit may not work and thus prevent rod latching for cold rod testing.
- 6) The TM/LP Control Element Assembly (control rod) withdrawal prohibit function is not verified to operate.

The Control Rod Drive System Motor Generator sets were administratively tagged to preclude reactor startup prior to completion of testing. Since the reactor was already shutdown, no other actions were immediately required.

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

On 12/30/96 the ongoing Generic Letter 96-01 logic test investigations resulted in the identification of the diesel generator start circuitry for degraded grid voltage not having been tested. This feature protects ECCS during a degraded voltage by initiating diesel generator load shedding.

At 0900 on 12/30/96, operations conservatively declared both trains of Emergency Core Cooling System (ECCS) (BQ/BP) inoperable. One train of ECCS is required by Technical Specifications in the hot shutdown condition, therefore a plant shutdown to cold shutdown was commenced. Operations also conservatively declared the Emergency Diesel Generators (EK) to be inoperable due to the missed logic circuitry testing. Placing the plant in a cold shutdown condition restored compliance with all affected Technical Specifications.

Operations and Engineering conducted further screening of all outstanding GL 96-01 issues to ensure that required plant equipment was operable under cold shutdown conditions. This review did not reveal any other concerns with the given (cold shutdown) plant condition.

On January 17, 1997, engineering notified the control room that the CEA Withdrawal Prohibit(CWP) was not tested to verify it functioned as designed. Though the CWP and testing is not required by Technical Specifications or described in the Technical Specifications; it is described in the FSAR. For example, Section 7.2.3.1 page 7-6 states, "In addition, a high rate-of-change pre-trip will initiate CEA withdrawal prohibit action, preventing all CEA's from being withdrawn, but not preventing insertion." FSAR Section 7.4.1.1 page 7-27 states, "CEA withdrawal is prohibited in certain situations where reactor protective system limits are being approached." FSAR Section 7.4.1.3, page 7-30 states, "All CEA's are prevented from being withdrawn if either a high power pre-trip, rate-of-change of power pre-trip, or thermal margin/low pressure pre-trip condition exists." FSAR Section 7.5.2.4, page 7-48 states, "The high rate of change power pre-trip alarm is active from 10E-4 to above 125 percent of full power. The pre-trip alarm also initiates a CEA withdrawal prohibit." Operations conservatively declared the CWP inoperable. The CWP is not required in the cold shutdown condition.

Maine Yankee has identified additional potential discrepancies (including those discussed above and others previously reported) during its initial GL 96-01 review. Review of these issues is ongoing at the time of the submittal of this LER.

Maine Yankee plans, based upon the results of the ongoing review, to resolve and or test all GL 96-01 issues prior to plant restart.

Additional information regarding the GL 96-01 issues will be submitted in a revision to this LER.

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

SAFETY SIGNIFICANCE:

The safety significance for these issues is still being evaluated, and will be documented in a revision to this LER. All issues were screened for immediate operability of affected systems and appropriate actions taken in accordance with Technical Specifications.

CAUSAL FACTORS:

A comprehensive root cause evaluation of these issues is currently being conducted. Results will be provided in a revision to this LER.

CORRECTIVE ACTIONS:

Immediate corrections actions, still underway at this time, are to assess the safety significance of the identified issues, and to determine the required tests. Testing and or resolution of all issues will be conducted prior to plant startup.

Long Term corrective actions will be based upon the result of this evaluation.

PERVIOUS SIMILAR EVENTS:

The following three LERs document the results of initial reviews of GL 96-01 identified issues.

LER 96-020, Automatic Function Logic Circuit Surveillance Testing
 LER 96-039, Both Emergency Diesel Generators Declared Inoperable
 LER 96-040, INADEQUATE SURVEILLANCE PROCEDURE FOR REACTOR TRIP BREAKER ACTUATION