

Maine Yankee

RELIABLE ELECTRICITY SINCE 1972

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

October 25, 1996
MN-96-157 JRH-96-233

UNITED STATES NUCLEAR REGULATORY COMMISSION

Attention: Document Control Desk
Washington, D. C. 20555

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

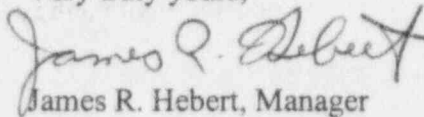
Subject: Maine Yankee Licensee Event Report 96-030, Incorrect Acceptance Criteria
Specified for Containment Ventilation/Purge System Filter Surveillance

Gentlemen:

Please find enclosed Maine Yankee Licensee Event Report 96-030. 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

JVW/mwf

Enclosure

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

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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 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)

Incorrect Acceptance Criteria Specified for Containment Ventilation/Purge System Filter Surveillances

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
9	26	96	96	-- 030	-- 00	10	25	96	FACILITY NAME	DOCKET NUMBER
										05000
OPERATING MODE (9)		7	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		90%	20.2201(b)			20.2203(a)(2)(v)		X	50.73(a)(2)(i)	50.73(a)(2)(viii)
			20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(iii)	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)(iii)			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

Robert E. Maloney, Senior Shift Technical Advisor

TELEPHONE NUMBER (Include Area Code)

(207) 882-5844

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).

X

NO

EXPECTED
SUBMISSION
DATE (15)

MONTH

DAY

YEAR

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

On 9/26/96, Maine Yankee was operating at 90% power. On that date, NRC specialists concluded their scheduled, on-site inspection of Maine Yankee's compliance with Radioactive Effluent Technical Specifications; and identified an apparent discrepancy in the acceptance criteria used for the Containment Ventilation/Purge System charcoal filter surveillance tests.

A 1985 Amendment to Maine Yankee's Tech Specs imposed a new requirement to perform laboratory analysis of charcoal samples from these filters to verify "at least 50% radioactive elemental iodine removal efficiency" to demonstrate the capability of these filters to maintain required off-site dose level limits following a postulated Fuel Handling Accident Inside Containment.

Contrary to the Tech Specs, the charcoal samples from these filters have always been analyzed using the accepted industry standard for radioactive filtering systems; i.e. to verify the stated efficiency using the 50% radioactive methyl iodide removal technique.

The root cause of this discrepancy is a cognitive error on the part of Maine Yankee engineers in failing to specify to the vendor performing the lab analysis, the unique acceptance criteria for the Containment Vent/Purge Filters; and that it differed from the acceptance criteria required for Maine Yankee's other radioactive filtering systems.

The short term corrective action is to specify the required acceptance criteria for subsequent surveillance tests. The planned, long term corrective action is to seek an amendment to the Technical Specifications to standardize the acceptance criteria for charcoal filter surveillances.

LERs 96-028 and 96-010 reported previous events involving inadequate surveillance testing and a failure to strictly comply with testing requirements specified in the Facility Operating License.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Maine Yankee Atomic Power Company	50-309	96	-- 030	-- 00	2 OF 3

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

INITIAL PLANT CONDITIONS:

On September 26, 1996, Maine Yankee was operating in Condition 7; at 90% steady state power. On that date, NRC specialist inspectors concluded their scheduled, on-site inspection of Maine Yankee's compliance with Radioactive Effluent Technical Specifications.

EVENT DESCRIPTION:

During their exit brief on September 26, 1996, the NRC specialists reported an apparent discrepancy identified during their review of surveillance test results for the Containment Ventilation/Purge System filter [FLT] lab analysis performed on November 20, 1995.

The Maine Yankee Technical Specifications (TS) for Ventilation Filter System Surveillance Testing contain different acceptance criteria for the several different ventilation system filters.

Filter system operability for the Containment Ventilation/Purge System is verified, in part, by determining that "Charcoal samples undergo a laboratory carbon sample analysis to verify at least 50% radioactive **elemental iodine** removal efficiency." This requirement was imposed in 1985 by TS Amendment 73, in response to NRC concerns about the ability of these filters to maintain the dose levels at the plant's exclusion area boundary less than the reference levels in 10 CFR Part 100 following a postulated fuel handling accident inside containment.

At that time, the existing TS surveillance requirements for the Spent Fuel Pool Ventilation System filters and the Control Room Recirculation and Breathing Air Ventilation System filters required charcoal samples from those filters to be laboratory analyzed to verify "at least 99% radioactive **methyl iodide** removal" and "at least 95% radioactive **methyl iodide** removal" respectively.

All of Maine Yankee's required laboratory carbon sample analyses are performed by a contracted, off-site vendor, who, unless otherwise directed, performs the analysis according to the recognized industry practice for radioactive system charcoal filters, i.e. for radioactive **methyl iodide** removal capability.

The TS require filter system operability to be demonstrated "at least each refueling interval" and/or "following activities that could contaminate and impair the function...such as filter operation during... painting, fire or chemical release...". A subsequent review of previous surveillance test results indicated the Containment Ventilation /Purge System filters have been analyzed since 1985 for 50% methyl iodide removal capability. Maine Yankee concluded therefore that from the time the TS requirements for these filters were imposed in 1985, Maine Yankee has failed to test these filters in exact compliance with the TS on six (6) consecutive required occasions.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

SAFETY SIGNIFICANCE:

The safety significance of failing to perform the surveillance testing in exact accordance with the TS requirements is non-significant. The standard industry practice of testing charcoal filtering media for its capability to remove radioactive **methyl iodide** is considered to be a more conservative test than that of analyzing for **elemental iodine** removal capability. Therefore, the previous test results, which verified the capability of these filters to remove at least 50% radioactive **methyl iodide**, provide assurance that they would be effective in maintaining the dose levels at the plant's exclusion area boundary less than the reference levels in 10 CFR Part 100 in the event of a postulated fuel handling accident inside containment. Maine Yankee believes the failure to perform these tests in exact compliance with the TS did not result in an increased risk to public health and safety.

CAUSAL FACTORS:

The root cause for not testing the Containment Ventilation/Purge System filters in strict compliance with the TS surveillance requirements was cognitive human error on the part of plant engineers who failed to specify the required acceptance criteria when contracting for the laboratory analysis of charcoal filter samples by Maine Yankee's off-site vendor.

No immediate corrective action was required at the time this discrepancy was identified. The filters were declared inoperable; but the Containment Ventilation/Purge System is not required for the current plant operating condition.

The short term corrective action is to specify the required acceptance criteria for any subsequent surveillance tests of the Containment Ventilation/Purge System filters.

The planned, long term corrective action is to formally evaluate the relative merits of the differing test and acceptance criteria; and if appropriate, seek an amendment to the Technical Specifications to standardize the acceptance criteria for all of Maine Yankee's radiological ventilation system charcoal filter surveillances.

PREVIOUS SIMILAR EVENTS:

LERs 96-028 and 96-010 reported previous events involving inadequate surveillance testing and a failure to strictly comply with testing requirements specified in the Facility Operating License.