



Northeast
Nuclear Energy

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Millstone Nuclear Power Station
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The Northeast Utilities System

Donald B. Miller Jr.,
Senior Vice President - Millstone

May 11, 1994

MP-94-323

Re: 10CFR50.73(a)(2)(i)

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 94-007-00

Gentlemen:

This letter forwards Licer, see Event Report 94-007-00 required to be submitted within thirty (30) days pursuant to 10CFR50.73(a)(2)(i), an event or condition that alone could have prevented the fulfillment of a safety function.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Donald B. Miller, Jr.
Senior Vice President - Millstone Station

DBM/PB:clc

Attachment: LER 94-007-00

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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9405170065 940511
PDR ADDCK 05000336
S PDR

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 (MNB 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 4
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TITLE (4)
Emergency Charcoal Filters Tested to Wrong Standard

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
04	12	94	94	007	00	05	11	94		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9) 1
POWER LEVEL (10) 100

THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)

20.42(b)	20.49(c)	50.73(a)(2)(v)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(iv)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vi)	OTHER
20.405(a)(1)(iii)	X 50.73(e)(2)(f)	50.73(a)(2)(vii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iv)	50.73(a)(2)(g)	50.73(a)(2)(vii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(h)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Philip J. Lutz, Site Licensing	TELEPHONE NUMBER (include Area Code) (203) 447-1791 Ext. 6585
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPPDS

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 April 12, 1994, at 1715 hours, with the plant in Mode 1 at 100% power, it was identified that the Facility 2 Control Room Air Conditioning (CRAC) and Enclosure Building Filtration System (EBFS) were inoperable because previous charcoal testing was performed to an industry standard different from the standard referenced in the Millstone Unit 2 Technical Specifications.

Upon determining that the testing criteria specified in the Unit 2 Technical Specifications could not be performed, a Notice of Enforcement Discretion (NED) was requested to perform testing of charcoal adsorbers in accordance with ASTM D3803-89, the more stringent procedure for establishing the capability of new and used activated carbon to remove radio-labeled methyl iodide from air streams. The charcoal for all four trains of equipment, two facilities of CRAC and two facilities of EBFS, were tested utilizing ASTM D3808-89 with results greater than 95% efficiency as specified in the proposed change to the Millstone Unit 2 Technical Specifications.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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FACILITY NAME (1) Millstone Nuclear Power Station Unit 2	DOCKET NUMBER (2) 05000336	LER NUMBER (6)			PAGE (3) 02 OF 4
		YEAR 94	SEQUENTIAL NUMBER 007	REVISION NUMBER 00	

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

I. Description of Event

On April 12, 1994, at 1715 hours, with the plant in Mode 1 at 100% power, as part of a ventilation testing procedural review, it was identified to the system engineer that the vendor could not test the Control Room Air Conditioning (CRAC) Emergency Filtration System and Enclosure Building Filtration System (EBFS) charcoal canisters as specified on the Purchase Order and that the vendor had never tested previous test samples as specified on the Purchase Order. Subsequent investigation revealed that previously analyzed charcoal test canisters were not tested to the standards referenced in the Millstone Unit 2 Technical Specifications. The vendor tested the canisters to a different industry standard.

The Unit 2 Technical Specifications state as the surveillance requirements for charcoal adsorbers:

"Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978."

Regulatory Guide 1.52 lists as testing conditions for Laboratory Tests for Activated Carbon as:

"2 inches. Air filtration system designed to operate outside the primary containment and relative humidity is controlled to 70%. Per Test 5.b^d at a relative humidity of 70% for a methyl iodide penetration of less than 1%.

^d*See Table 5-1 of ANSI N509-1976 (Ref 1)."*

Table 5-1 of ANSI-1976 - Summary Table of New Activated Carbon Physical Properties Batch Tests to be performed on Finished Adsorbents.

"5.b Methyl Iodide, 80°C and 95% relative humidity. Test Method - RDT M16-1T, per 4.5.3, except 80°C and 95% relative humidity air is required for test (pre and post-loading sweep medium is 25°C)."

The test condition that the vendor could not simulate was the "Pre- and Post-Loading Sweep" condition. The pre-sweep at 25°C, immediately followed by the iodide penetration test at 80°C and 95% relative humidity causes water to condense on the charcoal and damages it by "wetting" the charcoal sample. This action negates the ability to obtain test results from the charcoal sample.

The test which was performed by the vendor was in accordance with ASTM D3803-1979 which became the industry standard for testing charcoal when it was issued. There were identified deficiencies in the RDT M16-1T procedure that were acknowledged by the vendor and therefore, he did not consider it to be a technically correct test.

The past charcoal testing results of both facilities (trains) of CRAC and EBFS were reviewed. It was determined that both Facility 1 CRAC and EBFS charcoal beds were operable because no invalid tests had been performed since these charcoal beds were replaced within a time frame where the surveillance testing was not required. However, the Facility 2 CRAC and EBFS were declared inoperable for the following reasons as specified by the surveillance requirements of the associated Technical Specifications:

- 1) The Facility 2 CRAC was declared inoperable because the charcoal had been in service greater than 18 months and the previous charcoal testing was performed to the wrong test standard.
- 2) The Facility 2 EBFS was declared inoperable because it had exceeded the 720 hour run time and the charcoal testing for it was performed to the wrong test standard.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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FACILITY NAME (1) Millstone Nuclear Power Station Unit 2	DOCKET NUMBER (2) 05000336	LER NUMBER (6)			PAGE (3) 03 OF 4
		YEAR 94	SEQUENTIAL NUMBER 007	REVISION NUMBER 00	

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

The plant entered Technical Specification Action Statement (TSAS) 3.6.5.1 and 3.7.6.1. A Notice of Enforcement Discretion was requested to perform testing of charcoal absorbers in accordance ASTM D3803-89 with the more stringent procedure for establishing the capability of new and used activated carbon to remove methyl iodide from air streams. The charcoal for all four trains of equipment, two facilities of CRAC, and two facilities of EBFS was tested utilizing ASTM D3803-89 with results greater than 95% efficiency as specified by the proposed change to the Millstone Unit 2 Technical Specifications. The Unit 2 Technical Specifications are in the process of being changed to reference the more stringent test standard and all subsequent charcoal tests will be performed in accordance with ASTM D3803-89.

There were no automatic or manually initiated safety system responses as a result of this event.

II. Cause of Event

The root cause of this event has been determined to be personnel error in that the purchase requisitions identifying the test condition standard did not receive the appropriate level of review prior to being issued to the test vendor for surveillance testing. Prior to 1983, QA purchase orders were not written to document the testing requirement standards. The testing method was left up to the discretion of the vendor. From 1983 to 1994 the purchase orders that were written were inconsistent, they either did not specify the Technical Specification requirements or identified the wrong testing standard. In conjunction with this, the test results did not receive an adequate receipt inspection. The only critical characteristic reviewed on the test data sheets was the acceptance criteria for efficiency, testing parameters were not reviewed or verified.

III. Analysis of Event

Although the charcoal was not tested in accordance with the Millstone Unit 2 Technical Specifications, the charcoal was tested in accordance with standard industry charcoal test conditions. Test results were reviewed and compared against the original acceptance criteria and appropriate actions were taken as a result of these test results. The acceptance criteria for the EBFS and the CRAC systems charcoal efficiency was not different than originally analyzed.

Based on event investigation results that the charcoal in the Facility 2 CRAC and EBFS were not tested in accordance with Technical Specification requirements, this event is being reported under 10CFR50.73(a)(2)(i) as a condition prohibited by the plant's Technical Specifications.

There were no safety consequences associated with this event since the charcoal systems in the Facility 1 CRAC and EBFS were recently changed and within their acceptable surveillance requirement time frame. Additionally, though previous tests were performed to a different industry standard, the testing was technically acceptable and the units acceptance criteria had been satisfied. Subsequently, the charcoal for all four trains of equipment, two facilities of CRAC, and two facilities of EBFS were tested utilizing ASTM D3803-89 with results greater than 95% efficiency as specified by the proposed change to Millstone Unit 2 Technical Specifications.

IV. Corrective Action

The Technical Specifications surveillance criteria for the Millstone Unit 2 Enclosure Building Filtration System Emergency Filtration (4.6.5.1), the Control Room Emergency Filtration charcoal efficiency testing (4.7.6.1), and the Storage Pool Area Ventilation system (4.9.15) were changed to reflect the newest and more stringent charcoal testing procedure for establishing the capability of new and used activated carbon to remove radio-labeled methyl iodide from air streams in accordance with ASTM D3803-89. A charcoal test canister was removed from each of the four charcoal units and tested in accordance with D3803-89. Subsequently, the charcoal for all four trains of equipment, two facilities of CRAC and two facilities of EBFS, exhibited greater than 95% efficiency.

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TEXT CONTINUATION**

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FACILITY NAME (1) Millstone Nuclear Power Station Unit 2	DOCKET NUMBER (2) 05000336	LER NUMBER (6)			PAGE (3) 04 OF 4
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		94	-- 007 --	00	

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

The Operations Department will provide written departmental guidance to cover the appropriate technical requirements to be specified on the purchase order to the testing vendor for processing laboratory test samples for charcoal test canister for the EBFS and CRAC systems. The surveillance acceptance criteria will also be modified to ensure that all necessary data pertaining to the appropriate vendor data is verified prior to surveillance acceptance. These two items will be accomplished prior to the next scheduled surveillance.

V. Additional Information

Similar LERs: None

EIIS Code

Emergency Air Filtration: B11-FLT-A220