

# NORTHEAST UTILITIES



The Connecticut Light And Power Company  
Western Massachusetts Electric Company  
Holyoke Water Power Company  
Northeast Utilities Service Company  
Northeast Nuclear Energy Company

General Offices: Selden Street, Berlin Connecticut

P. O. BOX 270

HARTFORD, CONNECTICUT 06141-0270

(203)665-5000

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

September 15, 1991  
MP-92-997

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Reference: Facility Operating License No. NPF-49  
Docket No. 50-423  
Licensee Event Report 92-016-01

Gentlemen:

This letter forwards Licensee Event Report 92-016-01, which is being submitted to revise corrective action. Licensee Event Report 92-016-00 was submitted pursuant to 10CFR50.73(a)(2)(i), any operation or condition prohibited by the plant's Technical Specification and 10CFR50.73(a)(2)(v) as a condition which would have prevented the fulfillment of the safety function of a system needed to control the release of radioactive material.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

Stephen E. Scace  
Vice President - Millstone Station

SES/JSY:dlr

Attachment: LER 92-016-01

cc: T. T. Martin, Region I Administrator  
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2 and 3  
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3

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NRC Form 366 (6-89)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED OMB NO. 3150-0104 EXPIRES: 4/30/92 Estimated burden per response to comply with this information collection request: 50.0 hrs. Forwards comments regarding burden estimate to the Records and Reports Management Branch (p-630), U.S. Nuclear Regulatory Commission, Washington, DC 20545, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.					
<b>LICENSEE EVENT REPORT (LER)</b>				FACILITY NAME (1) Millstone Nuclear Power Station Unit 3		DOCKET NUMBER (2) 0 5 0 0 0 4 2 3 1 OF 0 7			
TITLE (4) Both Trains of Auxiliary Building Filters Inoperable									
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
0 7	0 4	9 2	9 2	0 1 6	0 1	0 7	0 4	9 2	
OPERATING MODE (9)		THIS REPORT IS BEING SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)							
1		20.402(b)		20.402(e)		50.73(a)(2)(iv)		73.71(b)	
POWER LEVEL (10)		0 7 8		50.3616(1)		X 50.73(a)(2)(v)		73.71(c)	
0 7 8		20.405(a)(1)(i)		50.3616(2)		50.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
0 7 8		20.405(a)(1)(ii)		X 50.73(a)(2)(ii)		50.73(a)(2)(vii)(A)			
0 7 8		20.405(a)(1)(iii)		50.73(a)(2)(iii)		50.73(a)(2)(vii)(B)			
0 7 8		20.405(a)(1)(iv)		50.73(a)(2)(iv)		50.73(a)(2)(viii)			
LICENSEE CONTACT FOR THIS LER (12)									
NAME						TELEPHONE NUMBER			
Jeffrey S. Young, Engineer, Ext. 455						AREA CODE			
Jeffrey S. Young, Engineer, Ext. 455						2 0 3 4 4 7 - 1 7 9 1			
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
SUPPLEMENTAL REPORT EXPECTED (14)									
X YES (If yes, complete EXPECTED SUBMISSION DATE)						NO			
EXPECTED SUBMISSION DATE (15)						MONTH DAY YEAR			
1 0 3 0 9 2						1 0 3 0 9 2			
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16) <p>On July 4, 1992 at 1655 with the plant in Mode 1 at 78% power, the access door on the common intake plenum for the Auxiliary Building Filter System was found open and reported to the Control Room. The Control Room staff declared both filters to be inoperable. A Plant Equipment Operator on rounds discovered the open access door. The immediate corrective action was to close the access door.</p> <p>The most probable cause of this event is improper design. It is believed that the operation of the system for surveillance testing may have caused this access door to open.</p> <p>To prevent recurrence, the door has been locked wired shut.</p>									

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

Estimated burden per response to comply with this information collection request: 50.0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (p-530), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)			PAGE (3)
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Millstone Nuclear Power Station Unit 3	0 5 0 0 0 4 2 3 9 2	1	16	01	02 OF 07

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

I. Description of Event

On July 4, 1992 at 1655 with the plant in Mode 1 at 78% power (2240 psia and 577 degrees Fahrenheit), an access door on the common intake plenum for the Auxiliary Building Filter System was found open. The discovery was made by an operator on rounds. The access door provides access to damper 3HVR\*DMPF12. The Control Room staff determined that this may cause both filters to be inoperable and entered the action statement for both trains of ventilation inoperable.

In the event of a Safety Injection Signal (SIS), the system is required to

- filter the air in the Auxiliary Building before discharge to the atmosphere. This is accomplished by passing the discharge of the Charging Pump and Component Cooling Water Area Ventilation exhaust fans (see attached drawing) through the filters.
- assist the Supplemental Leak Collection and Release System (SLCRS) in maintaining a negative pressure in the Auxiliary Building. This is accomplished by exhausting more air than is brought into the building by the Charging Pump and Component Cooling Water Area Ventilation supply fans (see attached drawing).

As an immediate corrective action, the access door was shut and latched.

No automatic or manually initiated safety response was required or initiated.

II. Cause of Event

The root cause of this event is most probably design inadequacy.

On June 29, 1992, an electrician noticed the access door open while troubleshooting a damper in the same area. The electrician notified the control room. An additional report was made to the control room on June 30, 1992. Investigation showed that the Supervising Control Room Operator (SCO) who was notified that the access door was open did not know where the access door was located and did not understand that an abnormal condition was being reported. Therefore, he did not investigate the situation.

The Auxiliary Building Filter System was last run as required by Technical Specification 4.7.9.a on June 18, 1992. It was most likely at this time that the two closure handles vibrated to the unlatched position. This access door is hinged with two cam type locking devices. This is the only access door in safety related ducting which is known to have vibrated open. A review of all safety related ducting will be performed and any similar doors will also be lock wired shut. Other access panels in the area are either bolted shut or have sash type locks around the perimeter of the panel.

The access door, which is approximately 4 square feet, is approximately 15 feet from the floor and can only be reached by use of a ladder. The electrician noticed the door open on June 29, 1992 when he placed a ladder to troubleshoot a damper near the door. Therefore, the only reasonable explanation for the door being open is system operation.

III. Analysis of Event

This event was the subject of an immediate report in accordance with 10CFR50.72(b)(2)(iii). This report is being submitted in accordance with 10CFR50.73(a)(2)(v), as a condition which would have prevented the fulfillment of the safety function of this system that is needed to control the release of radioactive material and 10CFR50.73(a)(2)(i)(B), as a condition prohibited by Technical Specifications.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

Estimated burden per response to comply with this information collection request: 50.0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (p-530), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)				PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 365A as (17))

Technical Specification 3.7.9 requires both trains of the Auxiliary Building Filter System to be operable. During the investigation, it was determined that the access door was open on June 29, 1992. Both trains should have been declared inoperable from that time.

The Auxiliary Building Filter System is designed to control the release of radioactive material from the area of the Charging Pump and Plant Component Cooling Water Pumps and Heat Exchangers in Auxiliary Building during an accident by directing releases through a filtered path and assisting the Supplemental Leak Collection and Release System (SLCRS) in maintaining a negative pressure within the secondary enclosure around containment.

The two systems, Auxiliary Building Filter System and SLCRS, work together to establish the negative pressure. A simplified drawing of the secondary enclosure is included in this report. The two systems are tested together to demonstrate the ability to achieve the negative .25 inches water gage pressure within 1 minute inside the secondary containment enclosure during the 18 month secondary enclosure drawdown surveillance.

The open access door is assumed to have a non-conservative effect on the amount of air removed by the Auxiliary Building Filter System. The section of duct where the access door is located is pressurized in the accident alignment. Opening the access door may reduce the inlet pressure to the Auxiliary Building Filter System fans with a subsequent reduction in flow. A simplified sketch of the Auxiliary Building Filter System is included in this report.

While this factor is expected to decrease the filtered discharge flow rate, it is unclear if the decrease would be significant and if the ability to maintain a negative pressure in the Auxiliary Building during an accident is affected. In addition, with the Auxiliary Building Filter System in standby, the Variable Inlet Vanes (VIVs) have been set by procedure at 20% open in manual since initial plant testing in 1986. The system was designed to run with the VIVs in automatic to maintain pressure in the inlet plenum. The secondary enclosure drawdown tests have previously been performed with the VIVs in automatic. The VIVs were set to 100% open in manual on July 11, 1992. This was believed to be conservative at the time. Subsequent testing showed that this position resulted in tripping of the fans and was the subject of an immediate report. The effects of the VIVs position are still under investigation.

IV. Corrective Action

As immediate corrective action, the access door was closed and latched.

To prevent recurrence of this event the door has been locked wired shut.

To address the delay in investigating the open access door, the way incoming reports are handled by the Control Room has been strengthened.

- Personnel reporting abnormal or unusual conditions to the Operations Department will be directed to the Shift Supervisor (SS) or SCO. In addition, personnel will be instructed to inform their immediate supervisor of any abnormal or unusual conditions which have been reported to the Control Room.
- As part of operator requalification training, the Operations Department expectation that they must take initiative in investigating abnormal or unusual conditions has been reinforced. They must understand that personnel from other departments may not be qualified to evaluate the significance of the condition or the impact on plant operation but that the condition they report must still be investigated.

The impact on system operation of the VIVs set at 20% is still being reviewed.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

Estimated burden per response to comply with this information collection request: 50.0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (10-570), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (5)

PAGE (3)

Millstone Nuclear Power Station  
Unit 3YEAR SEQUENTIAL  
NUMBER REVISION  
NUMBER

0 6 0 0 0 4 2 3 9 2 - 0 1 6 - 0 1 0 4 OF 0 7

TEXT (If more space is required, use additional NRC Form 968A, s) (17)

Testing conducted to date showed that, with the temperature control circuit manually set to the extreme position for cold weather and with the VIVs at 20%, the Auxiliary Building Filter System fans tripped. This result is in conflict with the result of testing performed during start up in February 1986 which showed that the fans ran with the VIVs at 20% and the temperature control dampers in automatic. The most likely cause for this difference is that the start up testing was performed with dampers in automatic while the most recent testing was performed with dampers manually set at the extreme end of travel positions. Further evaluation is ongoing.

A new alignment based on testing has been determined. The temperature control dampers and the VIVs have been manually set at these positions. Fan operability in the accident flow alignment and a satisfactory drawdown of the secondary containment enclosure has been demonstrated. The temperature control is set for maximum outside air intake.

With these settings, continued safe operation is based on maintaining charging pump and component cooling water pump and heat exchanger area temperature above 32 degrees Fahrenheit. The following information shows that this is achievable through October 31, 1992:

- Historical meteorological data contained in section 2.3 of the FSAR shows that the lowest minimum temperature during October over an 80 year period was 20 degrees Fahrenheit.
- based on a worst case outside temperature of 20 degrees Fahrenheit, the heat generated in the charging pump and component cooling water pump and heat exchanger area will raise temperature above the required 32 degrees Fahrenheit.
- outside air temperature will be monitored every 8 hours. If outside air temperature drops below 20 degrees Fahrenheit, one train of the Auxiliary Building Filter System will have its VIVs and temperature control dampers placed in automatic and the other train will be placed in pull to lock and declared inoperable. Previous surveillance testing has shown that this configuration operates satisfactorily.

Positioning the VIVs at 100% open was shown by test to result in a trip of the Auxiliary Building Filter fans. This was the subject of an immediate report and will be followed up with a written report by September 23, 1992 in accordance with 10CFR50.73(a)(2)(i) and 10CFR50.73(a)(2)(v).

V. Additional Information

Licensee Event Reports submitted which discuss related events are as follows:

LER NumberTitle

91-018	Both Supplemental Leak Collection and Release System Trains Inoperable due to Design Deficiency
91-017	Both Supplemental Leak Collection and Release System Trains Inoperable due to Design Deficiency
91-015	Both Supplemental Leak Collection and Release System Trains Inoperable due to Deficient Procedure
90-010	Auxiliary Building Ventilation Filters Inoperable due to Equipment Failure
89-020	Inadvertent Supplemental Leak Collection and Release System Breach due to Deficient Procedure



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

Estimated burden per response to comply with this information collection request: 50.0 hrs. Forward comments regarding burden estimate to the Records and Reports Management Branch (p-330), U. S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503.

FACILITY NAME (1)  Millstone Nuclear Power Station Unit 3	DOCKET NUMBER (2)  0   8   0   0   0   4   2   3   9   2	LER NUMBER (3)			PAGE (3)  0   5   OF   0   7
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
			0   1   6	0   1	

TEXT (if more space is required, use additional NRC Form 356A's) (17)

LER 91-018 discusses an event where both trains of the Supplemental Leak Collection and Release System (SLCRS) were unknowingly inoperable when the fusible link for a fire damper in each train was subject to high temperature during a loss of non-vital power. The root cause was design deficiency which allowed the fusible links to be exposed to steam during a loss of non-vital power. The corrective action was to replace the fusible links with ones which had a higher setpoint. The corrective action for this LER involved a component which was not visually observable and therefore would not have prevented this event.

LER 91-017 discusses an event where both trains of the SLCRS were rendered inoperable in order to repair a fire damper which had failed shut. This decision was made by management because there was no way to isolate the two SLCRS trains on the discharge header. Since no corrective action was required because this was a conscious decision made to repair a failed component, this LER is considered unrelated to this event.

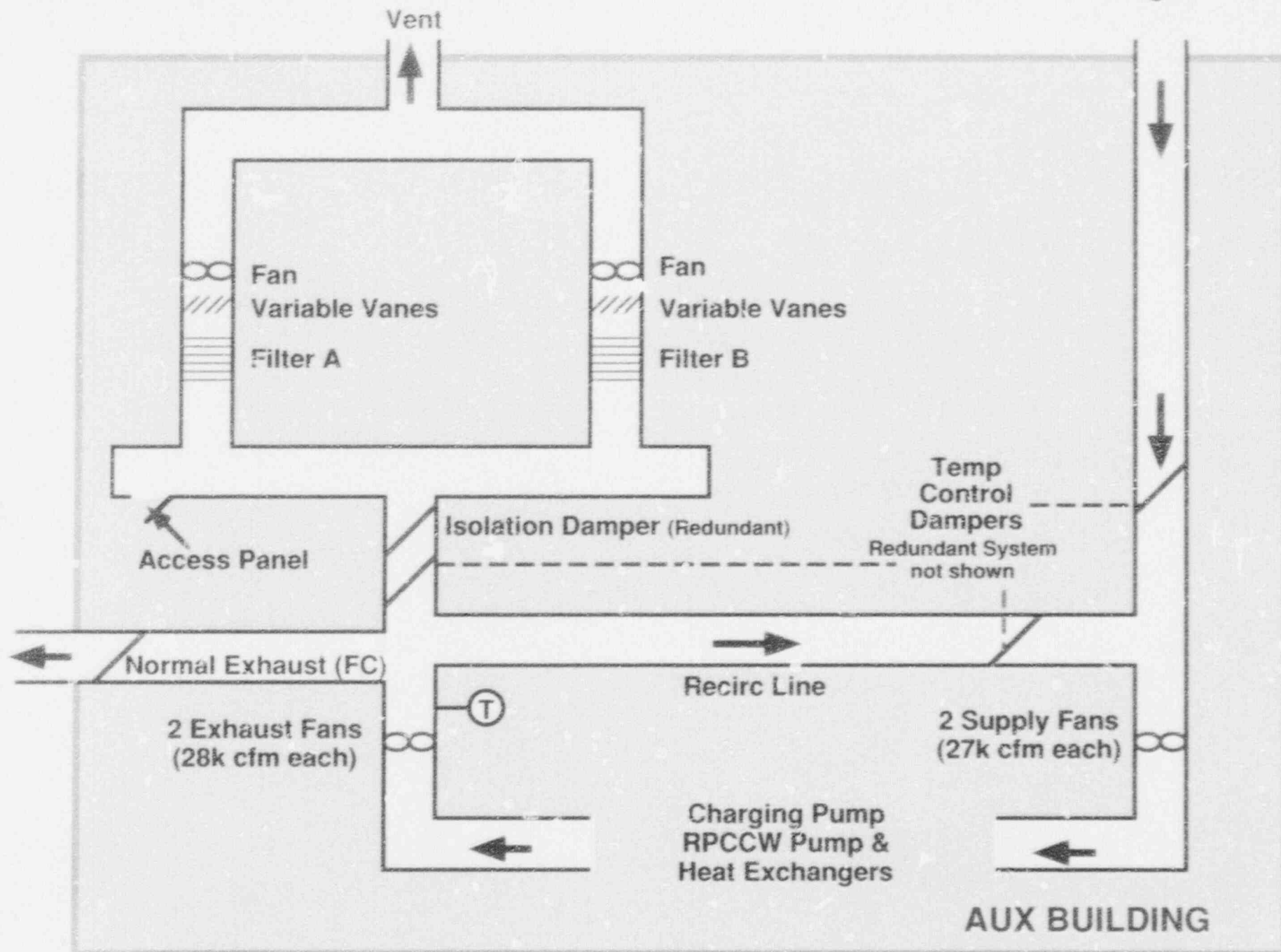
LER 91-015 discusses an event where both trains of the SLCRS were inadvertently made inoperable while troubleshooting a fire damper that had failed shut. The root cause was procedural deficiency which did not indicate the impact of removing an access panel on the common discharge plenum of the SLCRS. The corrective action was to replace the access panel. The corrective action for this LER involved controlling work practices and therefore would not have prevented this event.

LER 90-010 discusses an event where both trains of the Auxiliary Building Filter System were inoperable due to an equipment failure of the "B" train while the "A" train was out of service for maintenance. Since the root cause of this LER was determined to be an isolated event, this LER is considered unrelated to this event.

LER 89-020 discusses an event where the SLCRS boundary was inadvertently breached when maintenance was performed on a steam relief valve. The root cause was an administrative deficiency which failed to identify the impact of the maintenance on the SLCRS boundary. The corrective action for this LER involved controlling work practices and therefore would not have prevented this event.

EEIS codes

Systems	Component
Auxiliary Building Environmental Control System - VF	Access Door - DR



## Secondary Containment Drawdown

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