New Hampshire
Yankee

Ted C. Feigenbaum
Vice President

NYN-89083

July 10, 1989

United States Nuclear Regulatory Commission
Washington, DC 20555

Attention: Document Control Desk

References: a) Facility Operating License NPF-67, Docket No. 50-443

Subject: Facility Operating Report (LER) No. 89-007-00: Engineered Safety Feature Actuation - Containment Ventilation Isolation

Gentlemen:

Enclosed please find Licensee Event Report (LER) No. 89-007-00 for Seabrook Station. This submittal documents an event which occurred on June 10, 1989, and is being reported pursuant to 10 CFR 50.73(a)(2)(iv).

Should you require further information regarding this matter, please contact Mr. Timothy G. Pucko at (603) 474-9521, extension 4428.

Very truly yours,

Ted C. Feigenbaum

Ted. C. Feigenbaum

Enclosures: NRC Forms 366, 366A

cc: Mr. William T. Russell
Regional Administrator
United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

NRC Senior Resident Inspector
P.O. Box 1149
Seabrook Station, NH 03874

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Seabrook Station	0 5 0 0 0 4 4 3	1 OF 0 2

TITLE (4)

Engineered Safety Feature Actuation - Containment Ventilation Isolation

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 NAMES	DOCKET NUMBER(S)
										0 5 0 0 0
0 6	1 0	8 9	8 9	0 0 7	0 0	0 7	1 0	8 9		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)					
	3	20.402(b)	20.405(c)	X	50.73(a)(2)(iv)	73.71(b)	
POWER LEVEL (10)	0 0 0	20.405(a)(1)(i)	50.36(c)(1)		50.73(a)(2)(v)	73.71(c)	
		20.405(a)(1)(ii)	50.36(c)(2)		50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
		20.405(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		
		20.405(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		
		20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Timothy G. Pucko, Senior Engineer (Extension 4428)	6 0 3 4 7 4 - 9 5 2 1

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	
X	V I	R E	G 0 6 3	N							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE)				
X	NO				

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

On June 10, 1989, at 9:58am EDT, an Engineered Safety Features (ESF) actuation occurred causing the Containment Ventilation System to isolate. The inadvertent actuation was the result of a Containment On-Line Purge System (COP) radiation monitor, RM-6527B, failing high and initiating the isolation signal.

It has been determined that the cause of the failure was a faulty Geiger-Muller (GM) tube.

All Safety Systems operated as designed. The Train B, COP isolation valves V-2 and V-3 tripped automatically. The Train A, COP isolation valves V-1 and V-4 were manually closed and COP Fan-73 was manually tripped.

It was determined that the GM tube failure resulted from a loss of the tube's quench gas, which is used to suppress secondary emissions, causing the monitor to fail high.

The defective GM tube for RM-6527B was replaced, and the monitor was tested and declared operational on June 11, 1989, at 7:27am.

The long term corrective action will be a review of the data developed during the calibration of the radiation monitors to determine if a method can be developed to use the data for predicting GM tube failures. The ability to identify GM tubes with a high potential for failure will allow for early replacement of the GM tube, prior to its actual failure.

This is the second event of this type involving a failed radiation monitor GM tube.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Seabrook Station	0 5 0 0 0 4 4 3	8 9	— 0 0 7	— 0 0	0 2 OF 0 2

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

On June 10, 1989, at 9:58am EDT, with the Unit in MODE 3 (Hot Standby) an Engineered Safety Features (ESF)[JE] actuation occurred causing the Containment Ventilation System to isolate. The inadvertent actuation was the result of a Containment On-Line Purge System (COP) radiation monitor, RM-6527B, failing high and initiating the isolation signal.

It has been determined that the cause of the failure was a faulty Geiger-Muller (GM) tube.

All Safety Systems operated as designed. The Train B, COP isolation valves V-2 and V-3 tripped automatically. The COP isolation Train A valves V-1 and V-4 were manually closed and COP Fan-73 was manually tripped.

Corrective Action

A work request (89W002855) was initiated to troubleshoot and repair RM-6527B. It was determined that the GM tube failure resulted from a loss of the tube's quench gas, which is used to suppress secondary emissions, causing the monitor to fail high.

The defective GM tube for RM-6527B was replaced, are the radiation monitor tested and declared operational on June 11, 1989 at 7:27am.

The long term corrective action resulting from the event will be a review of the data developed during the calibration of the radiation monitor to determine if a method can be developed to use the data for predicting GM tube failures. The ability to identify GM tubes with a high potential for failure will allow for early replacement of the GM tube, prior to its actual failure.

Plant Conditions and Effects

During this event, the Reactor Coolant System (RCS)[AB] was at a temperature of 360 degrees Fahrenheit and the pressure was 1600 psig. The actuation of the Containment Ventilation System and isolation of the Containment On-Line Purge System had no effect on any other plant systems.

Similar Events

This is the second event of this type involving a failed radiation monitor GM tube. The previous event was reported by LER 87-001. This is the first event of this type involving a Containment Ventilation System isolation.