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 3

TITLE (4)
Diesel Generator Inoperability due to Service Water Valve Failure to Open

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 3	2 5	8 9	8 9	— 0 0 5 —	0 0	0 4	2 5	8 9		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		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)	X OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	Technical Specification
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	4.8.1.1.3 & 6.8.2
		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)
Richard R. Belanger (extension 4048) Lead Engineer-Compliance	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

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 March 25, 1989, at 2:30pm EST, the B train emergency diesel generator (EDG) was started to determine engine lube oil pressure response during the engine starting sequence. When the engine was started, the diesel generator heat exchanger outlet valve (SW-V18) failed to open and prevented service water flow through the heat exchanger. The diesel generator closed loop cooling system provided the required engine cooling during the test.

The cause of the failure of SW-V18 to open is attributed to a valve stem bushing which had become uncoupled from the valve stem. The uncoupling occurred as a result of loosening of the bushing setscrew, which allowed the bushing to slide on the valve stem.

The valve stem bushing for valve SW-V18 was realigned, the valve stem was deburred, and the setscrew was reinstalled with loctite to preclude a recurrence of this event. The A train diesel generator heat exchanger outlet valve (SW-V16) was modified to preclude a similar failure. No other corrective actions are required or planned.

The failure of this valve to open, and the resulting diesel generator inoperability is being reported pursuant to 10CFR50.73(a)(2)(i) and Seabrook Station Technical Specifications 4.8.1.1.3 and 6.8.2.

There were no adverse safety consequences as a result of this event.

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

On March 25, 1989, at 2:30pm EST, the B train emergency diesel generator (EDG) was started to determine engine lube oil pressure response during the engine starting sequence. When the engine was started, the diesel generator heat exchanger outlet valve (SW-V18) failed to open and prevented service water flow through the heat exchanger. The diesel generator closed loop cooling system provided the required engine cooling during the test.

Safety Consequences

There were no adverse safety consequences as a result of this event. Seabrook Station has not yet achieved initial criticality; therefore, no decay heat or fission product source exists which would require the diesel generator to function to mitigate the consequences of an accident.

Root Cause

The cause of the failure of SW-V18 to open is attributed to a valve stem bushing which had become uncoupled from the valve stem. With the bushing uncoupled, the valve was separated from its actuator and therefore did not open. The valve stem bushing is fastened to the valve stem using a setscrew and is prevented from rotating by the use of a woodruff key. The uncoupling occurred as a result of the setscrew loosening over time, allowing the bushing to slide on the valve stem.

Valve position indication is determined from the valve stem and is indicated both in the Control Room and locally at the EDG control board. No position change was observed during the EDG start sequence. Therefore, the EDG is considered to have been inoperable since the performance of the previous surveillance test which occurred on February 23, 1989. During this period, the B train EDG was required to be operable from February 23 to March 18, 1989, while the A train EDG was out of service. The unavailability of both diesel generators during this period is contrary to the requirements of Technical Specification 3.8.1.2, "A.C. Sources - Shutdown," and is being reported pursuant to 10CFR50.73(a)(2)(i)(B).

The inability of the B train EDG to perform its design function has been reviewed in accordance with Regulatory Position C.2.e.8 of Regulatory Guide 1.108, Revision 1 (August 1977), and has been determined to constitute a valid test failure. No additional testing is required as a result of this failure since this is the only failure in the last twenty valid tests, and the second failure in the last one hundred valid tests. This failure is being reported pursuant to the requirements of Seabrook Station Technical Specifications 4.8.1.1.3 and 6.8.2.

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

Corrective Action

The valve shaft bushing for valve SW-V18 was realigned, the valve stem was deburred and the setscrew was reinstalled with loctite to preclude a recurrence of this event. Due to the inacessability of the setscrew, the A train diesel generator heat exchanger outlet valve (SW-V16) was modified by adding a spacer to the shaft to prevent bushing movement and preclude a similar failure. No other corrective actions are required or planned.

Plant Conditions

At the time of this event, Seabrook Station was in MODE 5 (Cold Shutdown), with the RCS [AB] at a temperature of approximately 135 degrees Fahrenheit and pressurized to 160 psig. The A train diesel generator was OPERABLE at the time SW-V18 failed to open.

This is the first event of this type at Seabrook Station.

New Hampshire
Yankee

George S. Thomas
Vice President-Nuclear Production

NYN- 89043

April 25, 1989

United States Nuclear Regulatory Commission
Washington, DC 20555

References: Facility Operating License No. NPF-56, Docket No. 50-443

Attention: Document Control Desk

Subject: Licensee Event Report (LER) No. 89-005-00: Diesel Generator Inoperability due to Service Water Valve Failing to Open

Gentlemen:

Enclosed please find Licensee Event Report (LER) No. 89-005-00 for Seabrook Station. This submittal documents an event which occurred on March 25, 1989, and is being reported pursuant to 10CFR50.73(a)(2)(i) and Seabrook Station Technical Specifications 4.8.1.1.3 and 6.8.2

Should you require further information regarding this matter, please contact Mr. Richard R. Belanger at (603) 474-9521, extension 4048.

Very truly yours,

George S. Thomas

Enclosure: NRC Forms 366, 366A

cc: Mr. William T. Russell
Regional Administrator
United States Nuclear Regulatory Commission
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