

New Hampshire Yankee

Ted C. Feigenbaum
Senior Vice President and
Chief Operating Officer

NYN-90136

July 12, 1990

United States Nuclear Regulatory Commission
Washington, DC 20555

Attention: Document Control Desk

References: Facility Operating License No. NPF-86, Docket No. 50-443

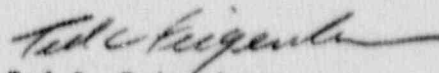
Subject: Licensee Event Report (LER) No. 90-014-00: Noncompliance with
Technical Specifications - Steam Generator Blowdown Flash Tank
Main Radiation Monitor Inoperable

Gentlemen:

Enclosed please find Licensee Event Report (LER) No. 90-014-00 for
Seabrook Station. This submittal documents an event which was identified on
June 12, 1990, and is being reported pursuant to 10CFR50.73(a)(2)(i).

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

Very truly yours,


Ted C. Feigenbaum

Enclosures: NRC Forms 366, 366A

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

Mr. Noel Dudley
NRC Senior Resident Inspector
P.O. Box 1149
Seabrook, NH 03874

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LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104

EXPIRES: 6/31/88

FACILITY NAME (1)

Seabrook Station

DOCKET NUMBER (2)

0 5 0 0 0 4 4 3 1 OF 0 3

PAGE (3)

TITLE (4)

Noncompliance with Technical Specifications - Steam Generator Blowdown Flash
Tank Drain Radiation Monitor 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 NAMES		DOCKET NUMBER(S)						
0	6	1	2	9	0	9	0	0	0	1	4	0	0	0	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)

POWER LEVEL (10)	0	4	0	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
				20.405(a)(1)(i)		50.36(a)(1)		50.73(a)(2)(v)		73.71(c)
				20.405(a)(1)(ii)		50.36(a)(2)		50.73(a)(2)(vi)		
				20.405(a)(1)(iii)	X	50.73(a)(2)(ii)		50.73(a)(2)(viii)(A)		OTHER (Specify in Abstract below and in Text, NRC Form 306A)
				20.405(a)(1)(iv)		50.73(a)(2)(i)		50.73(a)(2)(viii)(B)		
				20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)		

LICENSEE CONTACT FOR THIS LER (12)

NAME

Richard R. Belanger, Lead Engineer - Compliance, Extension 4048

TELEPHONE NUMBER

AREA CODE 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 NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	W	I	F	S					
			G	0	5	0	N		

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On June 12, 1990, at 2:15 p.m., while in MODE 1 at 40% power, it was discovered that contrary to Technical Specification 3.3.3.9, the sample pump for the steam generator blowdown flash tank drain radiation monitor was not running, even though the operator's console indicated that there was flow through the sample skid. The problem was identified to be a binding flow switch which indicated there was flow going through the monitor when in fact, there was not. Therefore, the sample pump was not turned on before discharges to the discharge transition structure began.

The problem was identified to be an improper indication of flow due to a binding flow switch. This flow switch indicated there was a flow through the radiation monitor, when in fact, there was no. The flow switch bound due to temporarily existing suspended solids in the Steam Generator Blowdown (SGB) System.

Once the suspended solids were removed from the flow switch, it operated satisfactorily. To prevent recurrence of this event, flow through each of the SGB radiation monitors will be visually verified daily. An evaluation of the flow switches will also be conducted.

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

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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

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

On June 12, 1990 at 2:15 p.m., EDT, it was discovered that the sample pump for the steam generator blowdown flash tank drain radiation monitor (1-RM-RM-6519) was not running, even though the operator's console indicated that there was flow through the sample skid. The problem was identified to be a binding flow switch which indicated there was flow going through the monitor when in fact, there was not. Therefore, the sample pump was not turned on before discharges to the discharge transition structure began. This monitor is required by Technical Specification 3.3.3.9 to be OPERABLE when the steam generator blowdown is directed to the discharge transition structure, as it was on June 12, 1990.

Background

During the Power Ascension Test Program at Seabrook Station there has been a high level of suspended solids in many systems, including Steam Generator Blowdown (SGB) [WI]. These suspended solids are from scale and corrosion products which are an expected result of initial plant startup. These suspended solids resulted in low flow conditions in two of the SGB radiation monitors. During investigation of this problem, the SGB flash tank drain radiation monitor sample pump was found to be de-energized.

The local switch at the pump was in the "AUTO" position. In "AUTO", when the toggle switch to initiate or terminate pump flow is initiated from either remote location, the plant computer monitors the flow switch indication to determine if the intended action is to turn the pump on or off. In this situation, it is unclear as to whether the pump was running or not before directing discharges to the discharge transition structure. As the procedure to direct SGB to the transition discharge structure was performed, the pump could have only remained or become de-energized, since with the flow switch erroneously showing flow through the monitor, the system logic would only allow the opposite of the intended function to occur.

The false sample flow status indication caused the operators to allow discharges to the discharge transition structure without the monitor being OPERABLE. This false status was caused by the flow switch binding. The binding was due to corrosion products creating suspended solids in the SGB sample flow. The suspended solids were cleared by tapping on the flow switch assembly. The flow switch appeared to work satisfactorily upon clearing the suspended solids.

Root Cause

The root cause of this event has been determined to be suspended solids in the SGB System. These suspended solids caused the in-line flow switch to bind and, therefore, send an incorrect flow indication to the radiation monitor consoles. This caused the sample pump to remain off and the monitor to be inoperable.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/86

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

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

Safety Consequences

There were no adverse safety consequences as a result of this event. The steam generator blowdown flash tank drain radiation monitor does not perform any safety functions, and the event did not interfere or inhibit any safety related equipment from performing its function. In addition, daily samples were being taken and tested for radioactivity. These samples indicated that no abnormal radiological conditions existed during this period. The health and safety of employees and the public was not adversely affected by this event.

Corrective Actions

Once the suspended solids were cleared from the flow switch, it was cycled manually several times to verify repeatable flow switch operation. To preclude recurrence of this event, an evaluation of the flow switches used in liquid process effluent monitoring applications will be conducted. This evaluation is expected to be completed by September 28, 1990. Until this evaluation is completed, Operations Department Personnel will visually verify flow through each of the five SGB radiation monitors on a daily basis. This will be done by observing the rotameter mounted on the radiation monitor skids. This verification will begin immediately and will be incorporated into an Auxiliary Operator Rounds Sheet by August 13, 1990.

Plant Conditions

At the time of this event, the plant was in MODE 1, Power Operations, at 40% power, with a Reactor Coolant System [AB] temperature of 566°F and pressure of 2,235 psig.

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