

**North
Atlantic**

North Atlantic Energy Service Corporation
P.O. Box 300
Seabrook, NH 03874
(603) 474-9521, Fax (603) 474-2987

The Northeast Utilities System

Ted C. Feigenbaum
Senior Vice President &
Chief Nuclear Officer

NYN -94037

April 8, 1994

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

References: (a) Facility Operating License No. NPF-86, Docket No. 50-443
(b) North Atlantic Letter NYN-94025, dated March 11, 1994, "Licensee Event Report (LER) 94-02-00: Inadequate Slave Relay Testing," T.C. Feigenbaum to USNRC

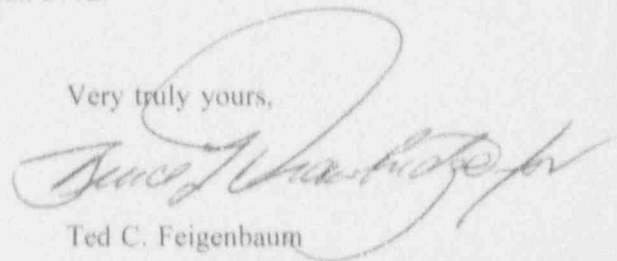
Subject: Licensee Event Report (LER) 94-02-01, "Inadequate Slave Relay Testing"

Gentlemen:

Enclosed is Licensee Event Report (LER) 94-02-01 for Seabrook Station. This submittal provides supplemental information regarding corrective actions.

Should you require further information regarding this matter, please contact Mr. James M. Peschel, Regulatory Compliance Manager at (603)474-9521 extension 3772.

Very truly yours,



Ted C. Feigenbaum

TCF:MDO

Enclosures: NRC Forms 366/366A

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

Mr. Albert W. De Agazio, Sr. Project Manager
Project Directorate I-4
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Antone C. Cerne
NRC Senior Resident Inspector
P.O. Box 1149
Seabrook, NH 03874

INPO
Records Center
700 Galleria Parkway
Atlanta, GA 30339-5957

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 (MNBB 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)

Seabrook Station

DOCKET NUMBER (2)

05000443

PAGE (3)

1 OF 3

TITLE (4)

Inadequate Slave Relay Testing

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
02	10	94	94	-- 02 --	01	04	08	94	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)	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)		X 50.73(a)(2)(vii)		OTHER	
		20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in	
		20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		Abstract below	
		20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)		and in Text,	
								NRC Form 366A)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

Mr. James M. Peschel, Regulatory Compliance Mngr.

TELEPHONE NUMBER (Include Area Code)

(603)474-9521 ext. 3772

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)

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 15 single-spaced typewritten lines) (16)

On February 10, 1994, while conducting a Solid State Protection System (SSPS) procedure review, it was determined that the method for performing Slave Relay Testing on three Charging System valves did not completely satisfy the Technical Specification Definition of a Slave Relay Test. Specifically, a continuity check was not performed on some testable actuation devices.

Changes made to the procedures for performing slave relay testing revised the method by which the valves were prevented from closing. The procedure change verified slave relay closure but did not verify continuity of the associated testable actuation devices.

The cause of the event is the omission of relevant information from surveillance procedures. Immediate corrective actions were to change procedures to correctly perform a Slave Relay Test and to retest the subject valves.

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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 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)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Seabrook Station	05000443	94	-- 002 --	01	2 OF 3

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

On February 10, 1994, while conducting a Solid State Protection System (SSPS) [JE] procedure review, it was determined that the method for performing Slave Relay Testing on three Charging System [CB] valves did not completely satisfy the Technical Specification Definition of a Slave Relay Test. Specifically, a continuity check was not performed on some testable actuation devices. Regulatory Guide 1.22 "Periodic Testing of Protection System Actuation Functions" defines an *Actuation Device* as a component or assembly of components that directly controls the motive power for actuated equipment.

The subject valves are containment isolation motor operated valves. Two valves close automatically on a Safety Injection signal to isolate the charging flow path to the regenerative heat exchanger [CB]. The remaining valve closes automatically on a containment Phase A isolation signal to isolate the letdown flowpath out of the letdown heat exchanger [CB].

These three valves are included in the Updated Final Safety Analysis Report (UFSAR) list of plant equipment which cannot be tested while the plant is at power so as not to damage plant equipment or upset plant operation. The original method for performing a Slave Relay Test of these valves was changed due to the potential for valve damage as a result of stroking the valves. Since it is not desirable for the valves to close while the plant is at power, the revised slave relay test is done in a manner which does not energize the motor operator on the valves. In the past, the motor thermal overload heaters were removed prior to slave relay actuation. Testing the valves in this manner demonstrated OPERABILITY of the associated slave relay and also performed a continuity check of the associated testable actuation devices.

Subsequent changes made to the procedures for performing slave relay testing revised the method by which the valves were prevented from closing. The changes replaced the steps which removed the motor thermal overload heaters with steps which opened slide links in the control circuits. This method verified slave relay closure but did not verify continuity of the associated testable actuation devices.

Safety Consequences

There were no adverse safety consequences as a result of this event. Subsequent surveillance testing demonstrated that the subject valves were OPERABLE in the as found condition. Given that the valves were found to be OPERABLE, there is no reason to believe that the valves were not capable of performing their intended safety function. Therefore, the inadequate surveillance testing notwithstanding, the plant response to an accident was unchanged and there were no adverse safety consequences as a result of the event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Seabrook Station	05000443	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		94	-- 002 --	01	

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

Root Cause

The cause of the event is the omission of relevant information from the surveillance procedures. Due to the unique method for testing the subject valves, the original procedure changes should have contained information which would alert personnel to the specific surveillance requirements. Due to the lack of relevant information, a satisfactory slave relay test was interpreted to be only a verification of proper slave relay operation. This definition does not include a continuity check of associated testable actuation devices and is thus not in agreement with the Technical Specification definition of a Slave Relay Test.

Corrective Action

1. Procedure changes were implemented to revise the method for performing Slave Relay Testing on the affected procedures. The revised method tests the associated testable actuation devices.
2. Surveillance Procedures which perform Slave Relay Testing were reviewed. No additional Slave Relay Testing issues were discovered.
3. The test methodology in the affected procedures will be administratively controlled to ensure that the Slave Relay Test incorporates the attributes of Technical Specification Definition 1.34 Slave Relay Test.
4. Guidance on overlap testing methodology will be included in the Operations Department Procedure Writers Guide.

Plant Conditions

At the time of the event the plant was in Mode 5 with Reactor Coolant System (RCS) temperature at 195 degrees Fahrenheit and RCS pressure at 335 psig.

Previous Occurrences

There are seven previous similar events involving general surveillance procedure inadequacies. These events were reported to the NRC in LER 93-15, LER 93-13, LER 92-09, LER 92-08, LER 89-002, LER 87-17, and LER 88-06. The event being reported in this LER differs from the previous events in that the root cause involves the omission of relevant information from a procedure change.