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- 94065

June 13, 1994

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

Attention: Document Control Desk

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

Subject: Voluntary Licensee Event Report (LER) No. 94-007-00: Inadequate High Radiation Area Controls

Gentlemen:

Enclosed please find Licensee Event Report (LER) No. 94-007-00 for Seabrook Station. This submittal documents an event which occurred at Seabrook Station involving inadequate high radiation area controls. It is being reported as a voluntary LER.

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:EWM/ewm

Enclosures: NRC Forms 366, 366A

IE22
1/1

cc: Mr. Thomas T. Martin
Regional Administrator
United States 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
United States Nuclear Regulatory Commission
Washington, DC 20555

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

INPO
Records Center
1100 Circle 75 Parkway
Atlanta, GA 30339

NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Seabrook Station	05000443	1 OF 3

TITLE (4)
Voluntary LER 94-007-00, Inadequate High Radiation Area Controls

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
05	10	94	94	007	00	06	09	94		05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	6
POWER LEVEL (10)	0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	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
	20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)
	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 (Include Area Code)
Mr. James M. Peschel, Regulatory Compliance Manager	(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)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 10, 1994, at 1100 a Health Physics (HP) Supervisor on rounds discovered a High Radiation Area barrier repositioned which allowed access into the Volume Control Tank (VCT) area without the proper controls. The HP supervisor replaced the barrier to the proper position and searched the room for personnel, finding none. Two independent surveys of the VCT tank room were performed yielding the same results. The surveys determined that the radiation levels in this room indicated a maximum dose of 100mR/hr at 30 centimeters.

Technical Specification 6.11 requires that each High Radiation Area, as defined in 10CFR20, be conspicuously posted and barricaded. The radiation levels specified in 10CFR20 for a High Radiation Area are "**in excess**" of 100mR/hr at 30 centimeters. Based on the two radiation surveys performed after the barrier was found repositioned, the area did not meet the strict definition of a High Radiation Area and therefore posting and barricading, while unquestionably appropriate, was not required based on strict language of 10CFR20. Since the two independent surveys indicated radiation levels right on the High Radiation Area threshold, reporting of the barricade repositioning is in keeping with North Atlantic's conservative reporting philosophy.

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

The root cause of this event was determined to be personnel error and/or inattention to detail. Although it could not be verified, it appears that the barrier was not properly replaced when personnel completed moving equipment in and out of the room.

The immediate corrective action taken in response to the repositioned High Radiation Area barrier was to immediately replace the barrier and to verify no workers present in the room. The barrier was subsequently replaced with a swing gate type. The Health Physics posting procedure will be revised to provide additional guidance on proper posting and barricade setup. This event was described in three site wide publications to stress to personnel that HP posting shall not be tampered with, modified or otherwise altered.

Description of Event

On May 10, 1994 at 1100 a Health Physics (HP) Supervisor on rounds discovered a High Radiation Area barrier repositioned which allowed access into the Volume Control Tank (VCT) area without the proper controls. The HP supervisor replaced the barrier to the proper position and searched the room for personnel, finding none. While continuing on rounds, the HP Supervisor found two workers in an adjacent room who had been in the VCT tank room earlier that day. They stated that the barrier had been in place at that time.

Further investigation into this event revealed that a roving fire watch, on rounds, opened the door to this room at approximately 1030 that same day. The fire watch reported that the barrier was in place at that time. Therefore, approximately 30 minutes elapsed from when the fire watch opened the door and when the HP Supervisor reported the barrier repositioned. A review of Radiation Work Permits (RWP) and security access logs could not determine if personnel entered the tank room during the 30 minute period. Two independent surveys of the VCT tank room were performed yielding the same results. The surveys determined that the radiation levels in this room indicated a maximum dose of 100mR/hr at 30 centimeters.

Technical Specification 6.11 requires that each High Radiation Area, as defined in 10CFR20, be conspicuously posted and barricaded. The radiation levels specified in 10CFR20 for a High Radiation Area are "**in excess**" of 100mR/hr at 30 centimeters. Based on the two radiation surveys performed after the barrier was found repositioned, the area did not meet the strict definition of a High Radiation Area and therefore posting and barricading while unquestionably appropriate was not required based on strict language of 10CFR20. Since the two independent surveys indicated radiation levels right on the High Radiation Area threshold (exactly 100mR/hr vs. "in excess" of 100 mR/hr) reporting of the barricade repositioning is in keeping with North Atlantic's conservative reporting philosophy.

Safety Consequences

There were no adverse safety consequences as a result of this event. It is estimated that the barrier had been repositioned for approximately 30 minutes. A review of RWPs, security access logs, and personnel interviews could not determine if anyone entered the tank room during this period of time. A room search upon discovery found no one present in the room.

Root Cause

The root cause of this event has been determined to be personnel error and/or inattention to detail. Although, it could not be verified, it appears that the barrier was moved by personnel moving equipment in or out of the room. It is recognized that stanchions are easily moved to accommodate the movement of personnel and equipment.

Corrective Actions

The barrier was immediately repositioned across the entrance to the VCT room and the room searched to verify that no workers were presently in the room. The stanchion type barrier to this area was subsequently replaced with a spring loaded swing gate barrier which does not have to be physically moved to allow personnel and equipment passage. In addition, the following corrective actions were or will be taken to reduce the probability of events of this nature from reoccurring in the future:

1. The Health Physics posting procedure will be revised to provide additional guidance on proper posting and barricade setup.

2. This event was described in three site wide publications to discuss this event and stress to personnel that HP postings shall not be tampered with, modified or otherwise altered.

Plant Conditions

At the time of this event, the plant was in Mode 6, with the reactor defueled.

Related Events

North Atlantic has reported a similar event of this type involving an improperly posted High Radiation Area in Seabrook Station LER 93-019.