

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Oyster Creek, Unit 1 DOCKET NUMBER (2) 0 5 0 0 0 2 1 1 9 1 PAGE (3) 1 OF 0 1 4

TITLE (4) STANDBY GAS INITIATION CAUSED BY PROCEDURAL NONCOMPLIANCE WHILE PLACING AUGMENTED OFFGAS SYSTEM IN SERVICE

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
04	14	88	88	008	00	05	13	88	
									DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9) N THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)

20.402(b)	<input type="checkbox"/>	20.405(e)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	<input type="checkbox"/>	73.71(b)	<input type="checkbox"/>
20.405(a)(1)(i)	<input type="checkbox"/>	50.38(a)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	<input type="checkbox"/>	73.71(e)	<input type="checkbox"/>
20.405(a)(1)(ii)	<input type="checkbox"/>	50.38(a)(2)	<input type="checkbox"/>	50.73(a)(2)(vi)	<input type="checkbox"/>	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	<input type="checkbox"/>
20.405(a)(1)(iii)	<input type="checkbox"/>	50.73(a)(2)(i)	<input type="checkbox"/>	50.73(a)(2)(vii)(A)	<input type="checkbox"/>		
20.405(a)(1)(iv)	<input type="checkbox"/>	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(vii)(B)	<input type="checkbox"/>		
20.405(a)(1)(v)	<input type="checkbox"/>	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(ix)	<input type="checkbox"/>		

LICENSEE CONTACT FOR THIS LER (12)

NAME Lynne W. Leitman, Operations Engineer TELEPHONE NUMBER 610 9 917 11-14 31819

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On April 14, 1988 at 0941 hours, a Reactor Building Isolation and Standby Gas Treatment System automatic initiation occurred. The reactor was operating at full power at the time. The cause of the event was failure to drain the Augmented Offgas (AOG) system's offgas inlet line in accordance with the system operating procedure. This caused system pressure oscillations which eventually forced radioactive gases past a drain line sump water seal, into the area under the plant's ventilation stack. The safety significance is minimal because of the limited duration of the release into the stack base area and because the safety systems functioned as designed. Immediate corrective action taken was to enter the plant's Emergency Operating Procedures for secondary containment control. The offgas inlet line was drained before the AOG system was returned to service. The AOG system operating procedure will be revised to drain the offgas inlet line immediately before placing the AOG system in service. The drain line sump water seal will be evaluated for adequacy and modified if necessary. Personnel involved in this event will receive counseling on the importance of proper turnover and strict procedural compliance. Additionally, this report will be made required reading for Radwaste Operations personnel.

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

Date of Occurrence

The event occurred on April 14, 1988 at 0941 hours.

Identification of Occurrence

An automatic initiation of the Standby Gas Treatment System (SGTS) (EIIS Code BH) and reactor building isolation occurred due to a reactor building ventilation monitor (EIIS Code IL) high radiation signal. This is considered reportable in accordance with 10CFR50.73(a)(2)(iv).

Conditions Prior to Occurrence

The reactor was operating at full power. The Augmented Offgas (AOG) (EIIS Code WF) System was being placed in service.

Description of Occurrence

At approximately 0600 hours on April 14, 1988, the AOG system was started up and placed in the recycle mode. The system had been out of service for modifications to electrical systems. At approximately 0915 hours the AOG system started receiving and processing plant offgas. Pressure oscillations in the system were noted, and AOG was given an isolate and bypass signal at 0940 hours. At 0941 hours a reactor building ventilation monitor high radiation signal was received, initiating the SGTS and isolating the reactor building. Control Room operators entered Emergency Operating Procedures (EOPs) for secondary containment control. At 1002 hours, the high radiation signal cleared, was manually reset, and SGTS automatically tripped as expected. SGTS operation was then restarted manually to allow maintenance activities to be performed on reactor building ventilation heating components. The EOPs were exited at 1010 hours.

At 1015 hours the continuous air monitor alarms in the reactor building started to alarm, apparently due to the alteration of normal ventilation system flow caused by SGTS operation. Reactor building access was secured at 1106 hours due to the airborne activity levels. Activity peaked at 1300 hours. SGTS operation was secured and reactor building ventilation was returned to service at 1301 hours when maintenance activities were complete. Airborne activity levels began to decrease immediately. The AOG system was later placed in service at 1351 hours. Reactor building access was restored at 1528 hours.

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Apparent Cause of Occurrence

The apparent cause of the occurrence is personnel error in not following a procedure as written. The AOG system operating procedure requires draining the offgas inlet line prior to placing the AOG system in service. Since the operators starting the system knew they would be keeping it in the recycle mode for some time and water accumulation during this operation could be expected, they deferred draining the offgas inlet line. This information was not passed on in the turnover to the subsequent shift, who were responsible for placing the system in service. When the system was placed in service without the offgas inlet line drained, oscillations in system inlet pressure were experienced. The AOG system was isolated and bypassed. Sufficient pressure built up in the system to force radioactive gases in the offgas line past a sump water seal in a drain line, into the area near the base of the plant ventilation stack. The reactor building vent monitors are located outside the reactor building and in the vicinity of the area near the base of the plant stack. The increase in background radiation levels at the stack base caused the reactor building vent monitor to alarm and SGTS to initiate when it reached its 13 millirem per hour setpoint.

Contributing to this event was the marginal capability of the water seal on the drain line at the base of the stack.

The airborne activity in the reactor building subsequent to this event was apparently caused by the alteration of normal ventilation system flow caused by SGTS operation.

Analysis of Occurrence & Safety Assessment

The reactor building isolation and SGTS function to minimize any ground level release of radioactive material which might result from a release of radioactive material in the reactor building. The SGTS provides a means to filter and exhaust the reactor building atmosphere to the stack. The initiation of these safety systems and the events causing the actuation are considered to have minimal safety significance. This is based on the fact that the SGTS and reactor building isolation functioned as designed. The amount of offgas released to the base of the stack area was limited in duration and did not result in a ground level release.

The airborne radioactivity condition in the reactor building subsequent to the event posed no hazard to personnel. The activity consisted mainly of short-lived noble gas and noble gas decay products, at only a small fraction of the maximum permissible concentrations specified in 10CFR20.

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Corrective Action

Immediate corrective action consisted of entering the plant Emergency Operating Procedures for secondary containment control. The offgas inlet line was drained before returning AOG to service.

Future corrective actions include:

1. The AOG operating procedure will be revised to add another step to drain the offgas inlet line immediately before placing the AOG system in service.
2. The adequacy of the drain line sump water seal will be evaluated. Appropriate modifications will be made if necessary.
3. Personnel involved in this event will be counseled on the importance of strict procedural compliance and proper turnover of information to subsequent shift personnel.
4. This report will be made required reading for all Radwaste Operations personnel to stress procedural compliance and proper turnover.

Similar Events

LER 87-045 "SGTS Initiation Due to Water Accumulation in the AOG System"

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GPU Nuclear Corporation
Post Office Box 388
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609 971-4000
Writer's Direct Dial Number:

May 13, 1988

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report

This letter forwards one (1) copy of Licensee Event Report (LER)
No. 88-008.

Very truly yours,

E. E. Fitzpatrick
Vice President & Director
Oyster Creek

EEF:JR:dmd(0493A)
Enclosures

cc: Mr. William T. Russell, Administrator
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NRC Resident Inspector
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