GPU Nuclear

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January 21, 1991
C321-91-2013

U.S. Nuclear Regulatory Commission
ATTN: 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. 90-017.

Very truly yours,

J.J. Barton
Director, Oyster Creek

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

Mr. Alexander W. Dromerick
U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
Forked River, NJ 08731

(docs/ler/covltrs)

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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)
Oyster Creek, Unit 1	0 5 0 0 0 2 1 9	1 OF 0 3

TITLE (4)

Both Standby Gas Treatment Systems Declared Inoperable Due to Common Duct Failure

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)
1 2	2 0	9 0	9 0	- 0 1 7	- 0 0	0 1	2 1	9 1		0 5 0 0 0
										0 5 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)			
N	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	20.405(a)(1)(i)	50.36(c)(1)	X 50.73(a)(2)(v)	73.71(c)
0 9 1 3	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	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
Paul Cervenka	AREA CODE 6 0 9 9 7 1 - 4 8 9 4

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
X	YES (If yes, complete EXPECTED SUBMISSION DATE)		0 5	1 5	9 1
	NO				

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

On December 20, 1990 at approximately 1415 hours a degradation in ductwork was discovered that caused both Standby Gas Treatment Systems to become inoperable. This condition is considered reportable in accordance with 10CFR50.73(a)(2)(v).

The duct is constructed of 1/8 inch sheet aluminum and has a cross sectional measurement of 14 inches by 14 inches. The degradation consisted of a side panel separating from the top and bottom corners for a span of approximately three feet. The cause of the duct failure is still under investigation. The degradation of the duct is a potentially significant condition as it could have affected the operation of both trains of the SGTS. Immediate corrective action consisted of declaring both Standby Gas Treatment Systems inoperable and commencing an orderly shutdown in accordance with Technical Specifications. Concurrent with the plant shutdown, temporary repairs were made to restore the integrity of the ductwork.

DATE OF OCCURRENCE

The condition was discovered on December 20, 199 at approximately 1300 hours.

IDENTIFICATION OF OCCURRENCE

On December 20, 1990 at approximately 1300 hours a degradation in ductwork was discovered that caused both Standby Gas Treatment Systems to become inoperable. This condition is considered reportable in accordance with 10CFR50.73(a)(2)(v).

CONDITIONS PRIOR TO OCCURRENCE

The plant was in the RUN mode at approximately 93% power.

DESCRIPTION OF OCCURRENCE

On December 20, 1990 at approximately 1300 hours, GPU Nuclear Personnel, accompanied by a contractor maintenance worker who was reporting the condition, investigated a degradation in ductwork at the base of plant stack. Operations Personnel determined that the degradation would affect the operability of both Standby Gas Treatment Systems (SGTS) (EIIS Code BH). At 1415 hours both Standby Gas Treatment Systems were declared inoperable and a plant shutdown commenced in accordance with Technical Specifications. Concurrent with the plant shutdown activities were underway to implement a temporary repair of the duct to restore the Standby Gas Treatment System to an operable status. At 2115 hours, when it was determined that the repairs to the ductwork could not be accomplished within an eight hour period, an Unusual Event was declared in accordance with the Emergency Plan. At 0023 hours on 12/21/90, repairs to the ductwork were completed and a Secondary Containment Leak Rate Test was performed as a post maintenance test. At 0210 hours the Secondary Containment Leak Rate Test was successfully completed, and at 0240 hours both Standby Gas Treatment Systems were declared operable, the Unusual Event was terminated, and the reactor shutdown was secured.

The degraded duct was a branch header from the Reactor Building Main Exhaust Header. This branch header is a common supply to both Standby Gas Treatment Systems. The duct is constructed of 1/8 inch sheet aluminum and has a cross sectional measurement of 14 inches by 14 inches. The degradation consisted of the separation of the side panel along the top and bottom corners along the duct for a distance of three feet.

APPARENT CAUSE

The cause of the duct failure is still under investigation and will be submitted in a supplement to this report.

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The Standby Gas Treatment System consists of two separate filter trains each having 100% capacity. The system filters and exhausts the reactor building atmosphere to the stack during secondary containment isolation conditions to minimize the release of radioactive materials to the environs.

The degradation of the duct is a potentially significant condition as it could have affected the operation of both trains of the SGTS. The amount of time that the degradation existed and the impact on the operability of the SGTS cannot be quantified because an as-found secondary containment leak rate test was not performed. However, routine SGTS operability surveillance test results, as recent as 12/10/90, did not indicate any degradation in system performance. This would suggest that either the degradation occurred after 12/10/90 or that the negative pressure induced on the duct during system operation had a sealing effect on the separated section and did not have any significant impact on SGTS operability.

Because an as-found secondary containment leak rate test was not performed, the safety significance cannot be accurately determined, therefore, it must be assumed to be significant.

CORRECTIVE ACTION

Immediate corrective action consisted of declaring both Standby Gas Treatment Systems inoperable and commencing an orderly shutdown in accordance with Technical Specifications. Concurrent with the plant shutdown, temporary repairs were made to restore the integrity of the ductwork. The temporary repair was inspected once per shift for the first three days after the repair and will continue to be inspected once per week until permanent repairs are made.

If any additional corrective actions are determined to be necessary, they will be provided in the supplement to this report after the cause has been determined.

SIMILAR EVENTS

None.