

To: James P. O'Reilly  
Directorate of Regulatory Operations  
Region I  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

From: Jersey Central Power & Light Company  
Oyster Creek Nuclear Generating Station Docket #50-219  
Forked River, New Jersey 08731

Subject: Abnormal Occurrence Report No. 50-219/74/ 2

The following is a preliminary report being submitted  
in compliance with the Technical Specifications  
paragraph 6.6.2.

Preliminary Approval:

*J. T. Carroll, Jr.* 1/9/74  
J. T. Carroll, Jr. Date

cc: Mr. A. Giambusso

B/682

Initial Written  
Report Date: 1/9/77

Time of Occurrence: 1100

OYSTER CREEK NUCLEAR GENERATING STATION  
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence  
Report No. 50-219/74/ 2

IDENTIFICATION  
OF OCCURRENCE:

Violation of the Technical Specifications, Table 3.1.1.B.2 and 3, which specifies that the RE22 Main Steam Line high flow sensors actuate at a differential pressure corresponding to line flows  $\leq 120\%$  of rated.

This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraph 1.15A.

CONDITIONS PRIOR  
TO OCCURRENCE:

<input checked="" type="checkbox"/> Steady State Power	<input type="checkbox"/> Routine Shutdown
<input type="checkbox"/> Hot Standby	<input type="checkbox"/> Operation
<input type="checkbox"/> Cold Shutdown	<input type="checkbox"/> Load Changes During
<input type="checkbox"/> Refueling Shutdown	<input type="checkbox"/> Routine Power Operation
<input type="checkbox"/> Routine Startup	<input type="checkbox"/> Other (Specify)
<input type="checkbox"/> Operation	

The reactor was operating at approximately 1827 MWt with a recirculation flow of  $61 \times 10^6$  #/hr when the surveillance test was conducted.

DESCRIPTION  
OF OCCURRENCE:

During the routine monthly surveillance testing of the RE22 Main Steam Line high flow sensors, it was observed that the RE22C and RE22E sensors actuated at a differential pressure of 100 psi, one in each of the two safety systems. This is greater than the maximum allowable level of 97.5 psid which corresponds to a Main Steam Line flow 120% of rated.

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APPARENT CAUSE  
OF OCCURRENCE:

<input type="checkbox"/>	Design	<input type="checkbox"/>	Procedure
<input type="checkbox"/>	Manufacture	<input type="checkbox"/>	Unusual Service Condition
<input type="checkbox"/>	Installation/ Construction	<input type="checkbox"/>	Inc. Environmental
<input type="checkbox"/>	Operator	<input type="checkbox"/>	Component Failure
		<input type="checkbox"/>	Other (Specify)

The cause of the failure is under investigation.

ANALYSIS OF  
OCCURRENCE:

The safety significance of this event is in the loss of system redundancy. Had a high flow event developed, the redundant sensors RE22A, B, D, F, G, and H would have performed an isolation function.

CORRECTIVE  
ACTION:

Each of the two sensors were recalibrated and returned to service as the failures were discovered.

FAILURE DATA:

Manufacturer: Barton  
Type: Indicating Differential Pressure Switch  
Range: 0-200 psid  
Series: RE22C - 224-19938  
RE22E - 278-77D

Prepared by:

Arthur A. Ponce

Date:

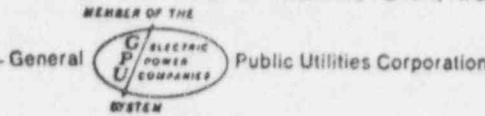
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# Jersey Central Power & Light Company



V-2-B-15

MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 201-539-6111



January 9, 1974



Mr. A. Giambusso  
Deputy Director of Reactor Projects  
Directorate of Licensing  
United States Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. Giambusso:

Subject: Oyster Creek Station  
Docket No. 50-219  
Main Steam Line High Radiation Monitor Failure

This letter serves to report the failure of main steam line high radiation monitor RN05A to trip at a level of 10 times background during the quarterly calibration test. This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraph 1.15A. Notification of this event, as required by the Technical Specifications, paragraph 6.6.2.a, was made to AEC Region I, Directorate of Regulatory Operations, by telephone on Thursday, December 27, 1973, and by telecopier on Friday, December 28, 1973.

While conducting the quarterly calibration test of the main steam line high radiation monitors, it was observed that the RN05A log count rate monitor failed to trip at its normal set point of 1000 cps. An attempt was made to determine the actual trip point by moving the Co<sup>60</sup> source, used to introduce the test signal, closer to the detector. The monitor would not trip regardless of the signal applied.

A half scram was introduced into the reactor protection system and the monitor was removed from service so that it could be bench-checked. It was observed that the trip would actuate at a level of approximately 40,000 cps. It was further observed that subsequent trips occurred intermittently at 1000 cps and 40,000 cps levels on a random basis.

The faulty RN05A log count rate monitor assembly was replaced with a spare unit which, when tested, was also found to be defective. A half scram was introduced into the reactor protection system until the original monitor assembly could be repaired. Once the repaired unit was reinstalled, a successful surveillance test was performed. The other three in-service monitors were also satisfactorily tested.

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January 9, 1974

The cause of the intermittent failure was traced to a cold soldered connection in the high alarm/trip section of the monitor assembly. The exact location of the failure was not determined but the portion of the circuit involved was narrowed down and after all soldered connections in this section were reworked, the problem disappeared.

Pertinent information concerning the monitor assembly is given below:

Equipment: RN05A  
Manufacturer: General Electric Company  
Drawing No.: 194X62961  
Serial No.: 5,478,616

The purpose of the main steam line high radiation monitoring system is to isolate and scram the reactor should gross fuel failures occur causing a sudden release of fission products. Since the other three monitors were proven operable, they would have performed the scram and isolation functions associated with a main steam line high radiation condition. Therefore, the safety significance of this event was a loss of system redundancy.

Since the problem with the monitor trip circuit was found and satisfactorily repaired, corrective action other than continued surveillance is not planned. A review will be made of all of the surveillance procedures for the main steam line high radiation monitors to ensure that they are sufficient for detecting malfunctions in these units.

Enclosed are forty copies of this report.

Very truly yours,



Donald A. Ross  
Manager, Nuclear Generating Stations

cs  
Enclosures

cc: Mr. J. P. O'Reilly, Director  
Directorate of Regulatory Operations