

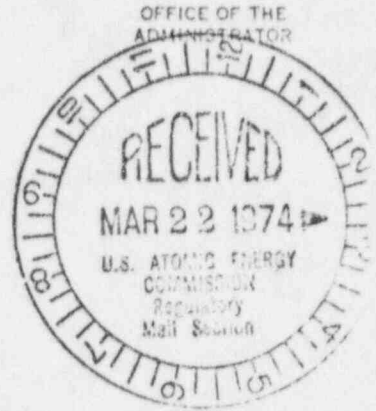


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

18 MAR 1974

Mr. A. Giambusso
Deputy Director for
Reactor Projects
Directorate of Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

50-219



Dear Mr. Giambusso:

Thank you for your letter of February 20, 1974, concerning the Oyster Creek Nuclear Generating Station and its effects on the Oyster Creek Marina.

With regard to your request for information concerning the "...present EPA position on the acceptability of the proposed New Jersey water quality criteria...", I asked Jack Anderson of my staff to see to it that some assistance was provided. He arranged for your staff to be contacted by Mr. Paul Arbesman or Mr. Harry Allen of EPA's Region II office. I understand this has been accomplished and I trust they have satisfied your needs.

Should any further problems or questions arise in this area, please feel free to contact me.

Sincerely yours,

Sheldon Meyers
Director
Office of Federal Activities

B/ 2289

50-219



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/ 23

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

Preliminary Approval:

J. T. Carroll, Jr. 3/18/74
J. T. Carroll, Jr. Date

cc: Mr. A. Gianbusso

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Initial Telephone
Report Date: 3/16/74

Date of
Occurrence: 3/15/74

Initial Written
Report Date: 3/18/74

Time of
Occurrence: 1852

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/23

IDENTIFICATION
OF OCCURRENCE:

Violation of the Technical Specifications, paragraph 3.1.A.3, the high flow isolation setpoint for the Isolation Condenser condensate line break sensors were found to actuate at differential pressures in excess of those as stated in Technical Specification table 3.1.1.H.2 (<27 inches ΔP H₂O).

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

CONDITIONS PRIOR
TO OCCURRENCE:

<u>X</u> Steady State Power	<u> </u> Routine Shutdown
<u> </u> Hot Standby	<u> </u> Operation
<u> </u> Cold Shutdown	<u> </u> Load Changes During
<u> </u> Refueling Shutdown	<u> </u> Routine Power Operation
<u> </u> Routine Startup	<u> </u> Other (Specify)
<u> </u> Operation	<u> </u>

Power: Reactor, 1902 MWt
Elec., 661 MWe
Flow: Recirc., 15.3×10^4 gpm
Feed., 7.10×10^6 lb/hr
Reactor Pressure: 1020 psig
Stack Gas: 40,600 μ Ci/sec

DESCRIPTION
OF OCCURRENCE:

On Friday, March 15, 1974, at 1852, while performing routine surveillance testing on the Isolation Condenser condensate high flow line break sensors, it was observed that two of the four sensors (located two each on the A and B Isolation Condensers) actuated at setpoints above the Technical Specification limit of 27 inches H₂O. The two sensors, 1B11A2 and 1B11B2,

were both found to actuate at 29 inches of H₂O differential pressure. The complete condensate line break sensor surveillance results were as follows:

Isolation Condenser A

<u>Sensor</u>	<u>Trip (inches H₂O)</u>	<u>Reset (inches H₂O)</u>
1B11A1	26.5	23
1B11A2	29.5	25

Isolation Condenser B

<u>Sensor</u>	<u>Trip (inches H₂O)</u>	<u>Reset (inches H₂O)</u>
1B11B1	27	25.5
1B11B2	29	26.5

The 1B11A2 and 1B11B2 sensors were recalibrated and were surveilled to function in the proper manner. The surveillance retest results were as follows:

Isolation Condenser A

<u>Sensor</u>	<u>Trip (inches H₂O)</u>	<u>Reset (inches H₂O)</u>
1B11A2	27	23

Isolation Condenser B

<u>Sensor</u>	<u>Trip (inches H₂O)</u>	<u>Reset (inches H₂O)</u>
1B11B2	26.5	24.5

APPARENT CAUSE
OF OCCURRENCE:

Design
 Manufacture
 Installation/
Construction
 Operator

Procedure
 Unusual Service Condition
 Inc. Environmental
Component Failure
 Other (Specify)

The cause of the occurrence has been attributed to sensor drift.

ANALYSIS OF
OCCURRENCE:

The safety significance of this event lies in the loss of system redundancy. Had a condition occurred whereby the condensers would have been required to isolate, the redundant sensors, 1B11A1 and 1B11B1, would have performed the isolation function in the proper manner.

CORRECTIVE
ACTION:

Corrective action will be taken, as appropriate, pending Plant Operations Review Committee review of this occurrence.

FAILURE DATA:

Type: Barton Differential Pressure Switch
Range: 0-60 inches H₂O
Pressure Rating: 1500 psig
Serial Nos.: 1B11A2 - 278-965
1B11B2 - 278-967

Prepared by:

Carl H. Rose

Date:

3/18/74

To: James P. O'Reilly
Directorate of Regulatory Operations
Region I
631 Park Avenue
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Oyster Creek Nuclear Generating Station Docket #50-219
Forked River, New Jersey 08731

Subject: Abnormal Occurrence Report No. 50-219/74/ 22

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

Preliminary Approval:

J. T. Carroll, Jr. 3/18/74
J. T. Carroll, Jr. Date

cc: Mr. A. Ciambusso

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OYSTER CREEK NUCLEAR GENERATING STATION
 FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
 Report No. 50-219/74/22

IDENTIFICATION
 OF OCCURRENCE:

Violation of the Technical Specifications, paragraph 2.3.7,
 Low Pressure Main Steam Line Pressure Switch, RE23D, was
 found to trip at a pressure less than the minimum required
 value of 860 psig.

This event is considered to be an abnormal occurrence as de-
 fined 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		

Power:	Reactor, 1902 MWt
	Elec., 661 MWe
Flow:	Recirc., 15.8×10^4 gpm
	Feed., 7.10×10^4 lb/hr
Reactor Pressure:	1020 psig
Stack Gas:	40,600 μ Ci/sec

DESCRIPTION
 OF OCCURRENCE:

On Friday, March 15, 1974, at 1550, while performing a routine
 surveillance test on the four Main Steam Line Low Pressure
 Switches, it was discovered that RE23D tripped at 850 psig.
 This value is below the minimum required trip point of 860
 psig which is derived by adding to the Technical Specification
 limit of 850 psig a 10 psig head correction factor.

The "as found" and "as left" switch settings were:

	<u>"As Found" Settings</u>	<u>"As Left" Settings</u>
RE23A	865 psig	861 psig
RE23B	864 psig	864 psig
RE23C	865 psig	865 psig
RE23D	850 psig	860 psig

Pressure switch RE23D was immediately recalibrated and rechecked to actuate at 860 psig.

APPARENT CAUSE
OF OCCURRENCE:

- | | |
|--|--|
| <input checked="" 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) |

Switch repeatability is a recognized problem and work is in progress to formulate a final solution.

ANALYSIS OF
OCCURRENCE:

As indicated in the bases of the Technical Specifications, "The low pressure isolation of the Main Steam Lines at 850 psig was provided to give protection against fast reactor depressurization and the resultant rapid cooldown of the vessel. Advantage was taken of the scram feature which occurs when the Main Steam Isolation Valves are closed to provide for reactor shutdown so that high power operation at low reactor pressure does not occur, thus providing protection for the fuel cladding integrity safety limit."

The adverse consequences of reactor isolation occurring at reactor pressure approximately 10 psig below the specified minimum value of 860 psig is limited to those effects attendant to

a greater than normal reactor cooldown rate. The fuel cladding integrity safety limit only comes into effect for power operation at reactor pressures less than 600 psig or for power operation greater than 354 MWt with less than 10% recirculation flow. Therefore, the consequences of a 10 psig lower than normal reactor isolation and scram setpoint has no threatening effect whatsoever on the fuel cladding integrity.

The effects of a too rapid cooldown due to the lower isolation pressure are inconsequential since there is less than 2°F difference between the saturation temperature for 860 psig and 850 psig.

CORRECTIVE
ACTION:

Continuing corrective actions being taken at this time are as stated in Abnormal Occurrence Report Nos. 74-9, 74-10, and 74-12, and as restated herein:

1. Investigation is being conducted into the basis for the steam line low pressure setting of 850 psig. Development of a Technical Specification change to lower the setpoint will follow if results of transient analyses indicate this possibility. (See Abnormal Occurrence Report No. 73-30.)
2. Recommendations to possibly reduce or eliminate the sensor setpoint change problem have been received. It was reported that General Electric tests on a pulsating line to simulate plant conditions show that pre-cycled Barksdale switches show improvement but that the switches still do not meet 1% repeatability. General Electric, therefore, recommended an

Ashcroft switch as it is more accurate. The Ashcroft catalog number is 61 S 6080 BN20-06L-1028.

As a result, one switch of each type (pre-cycled Barksdale and Ashcroft) has been purchased for test and evaluation at Oyster Creek. An Ashcroft switch is currently on hand and undergoing evaluation.

FAILURE DATA:


Manufacturer data pertinent to these switches are as follows:

Meletron Corp. (subsidiary of Barksdale)
Los Angeles, California
Pressure Actuated Switch
Model 372
Catalog #372-6SS49A-293
Range 20-1400 psig
Proof Psi. 1750 G

Previous Abnormal Occurrence Reports involving these switches are:

1. Letter to Mr. A. Gianfusso from Mr. D. A. Ross, dated December 24, 1973.
2. Abnormal Occurrence Report No. 74-1.
3. Abnormal Occurrence Report No. 74-9.
4. Abnormal Occurrence Report No. 74-10.
5. Abnormal Occurrence Report No. 74-12.

Prepared by:



Date: 3/18/74