

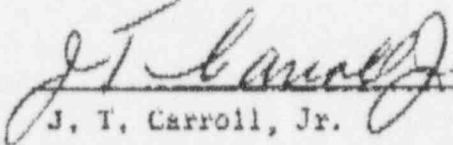
To: James P. O'Reilly
Directorate of Regulatory Operations
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

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/ 12

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

Preliminary Approval:

 2/19/74
J. T. Carroll, Jr. Date

cc: Mr. A. Giambusso

B/630

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/ 12

IDENTIFICATION
OF OCCURRENCE:

Violation of the Technical Specifications, paragraph 2.3.7,
Low Pressure Main Steam Line Pressure Switches, RE23A and B,
were found to trip at pressures less than 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 | |

The major plant parameters at the time of the occurrence were:

- Power: Reactor, 1904 MWt
- Electric, 670 MWe
- Flow: Recirc., 59.86×10^6 lb/hr
- Feed., 7.11×10^6 lb/hr
- Reactor Pressure: 1020 psig
- Stack Gas: 29,329 μ Ci/sec

DESCRIPTION
OF OCCURRENCE:

On Friday, February 15, 1974, at 1525, while performing a sur-
veillance test on the four Main Steam Line Low Pressure Switches,
it was discovered that RE23A and B tripped at 855 and 853 psig,
respectively. These values are 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.
(See Attachment 1 for test results.)

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)

Sensor drift is a recognized problem and work is in progress to formulate a final solution. The steps required to achieve this end were delineated in Abnormal Occurrence Report No. 73-30 and restated in Abnormal Occurrence Report No. 74-9.

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 7 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 7 psig lower than normal reactor isolation and scram setpoint has no threatening effect whatso-

ever 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 1°F difference between the saturation temperature for 860 psig and 853 psig.

**CORRECTIVE
ACTION:**

Continuing corrective actions being taken at this time are as stated in Abnormal Occurrence Report Nos. 74-9 and 74-10 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) are being purchased for test and evaluation at Oyster Creek.

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

Prepared by: Arthur H. Rose Date: 2/19/74

The as found switch settings were:

	<u>Test Results</u>
RE23A	855 psig
RE23B	853 psig
RE23C	860 psig
RE23D	861 psig

The pressure switches were then recalibrated and checked to
accurate as follows:

	<u>Test Results</u>
RE23A	860 psig
RE23B	860 psig