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To: James P. O'Reilly
Directorate of Regulatory Operations
Region 1
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. 50-219/74/37

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

Preliminary Approval:

J. T. Carroll, Jr. 7/12/74
J. T. Carroll, Jr. Date

cc: Mr. A. Giambusso

COPY SENT REGION 4

6576

Initial Telephone
Report Date: 7/12/74

Date of
Occurrence: 7/12/74

Initial Written
Report Date: 7/12/74

Time of
Occurrence: 1000

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/ 37

IDENTIFICATION
OF OCCURRENCE

Violation of the Technical Specifications, paragraph 2.3.7,
Main Steam Line Low Pressure Switches RE23A, B, C, and D, found
to trip at pressures 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:

☒ Steady State Power
☐ Hot Standby
☐ Cold Shutdown
☐ Refueling Shutdown
☐ Routine Startup
☐ Operation

☐ Routine Shutdown
Operation
☐ Load Changes During
Routine Power Operation
☐ Other (Specify)

Power: Reactor, 1893 MWt
Elec., 640 MWe
Flow: Recirc., 16.0×10^4 gpm
Feed., 7.07×10^6 lb/hr
Reactor Pressure: 1020 psig
Stack Gas: 15,000 μ Ci/sec

DESCRIPTION OF
OCCURRENCE:

On Friday, July 12, 1974, at 1000, while performing a routine
surveillance test on the four Main Steam Line Low Pressure
Switches, it was discovered that switches RE23A, B, C, and D
tripped at 842, 848, 846, and 850 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.

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

	<u>"As Found" Settings</u>	<u>"As Left" Settings</u>
RE23A	842 psig	860 psig
RE23B	848 psig	860 psig
RE23C	846 psig	860 psig
RE23D	850 psig	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/	<input type="checkbox"/> Inc. Environmental
<input type="checkbox"/> Construction	<input type="checkbox"/> Component Failure
<input type="checkbox"/> Operator	<input type="checkbox"/> Other (Specify)

The cause of this occurrence is switch repeatability, which is a recognized problem.

ANALYSIS OF
OCCURRENCE:

As indicated in the bases of the Technical Specifications, "The low pressure isolation of the Main Steam Lines at 650 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 18 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 18 psig lower than normal reactor isolation and scram set-point 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 850 psig and 832 psig.

CORRECTIVE
ACTION:

Continuing corrective action on this matter is as stated in previous abnormal occurrence reports.

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. Giambusso 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.
6. Abnormal Occurrence Report No. 74-22.
7. Abnormal Occurrence Report No. 74-35.

Prepared by:

Arthur H. Rice

Date:

7/12/74