Jersey Central Power & Light Company

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

MEMBER OF THE General G E U SYSTEM ELECTRIC POWER COMPANIES Public Utilities Corporation

July 26, 1974

Mr. A. Giambusso
Deputy Director for 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
Abnormal Occurrence Report No. 50-219/74/41

The purpose of this letter is to forward to you the attached Abnormal Occurrence Report in compliance with paragraph 6.6.2.a of the Technical Specifications.

Enclosed are forty copies of this submittal.

Very truly yours,

Ivan R. Finfrock, Jr.
Vice President

cs
Enclosures

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

6890

COPY SENT REGION 1

Jersey Central Power & Light Company

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

MEMBER OF THE General Electric Power Companies Public Utilities Corporation SYSTEM

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/41

Report Date

July 26, 1974

Occurrence Date

July 19, 1974

Identification of Occurrence

Violation of the Technical Specifications, paragraph 2.3.7, main steam line low pressure switches RE23C and D were found to trip at pressures less than the minimum required value of 860 psig. This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraph 1.15A.

Conditions Prior to Occurrence

The plant was at steady state power with major parameters as follows:

Power:	Reactor, 1895 MWt
	Electric, 641 MWe
Flow:	Recirculation, 57.6 x 10^6 lb/hr
	Feedwater, 7.08 x 10^6 lb/hr
Reactor Pressure:	1020 psig
Stack Gas:	16,000 µCi/sec

Description of Occurrence

On Friday, July 19, 1974, at 1023, while performing a routine surveillance test on the four main steam line low pressure switches, it was discovered that switches RE23C and D 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.

6393

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

	"As Found" Settings	"As Left" Settings
RE23A	860 psig	860 psig
RE23B	860 psig	860 psig
RE23C	855 psig	860 psig
RE23D	853 psig	861 psig

Apparent Cause of Occurrence

This event is considered to be reportable because of the lack of set point tolerances in the Technical Specifications.

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 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 1°F difference between the saturation temperature for 850 psig and 843 psig.

Corrective Action

Set point accuracy and tolerance in not only these instruments but in others as well are under investigation by Jersey Central Power & Light Company, GPU Service Corporation, and General Electric Company personnel as described in Abnormal Occurrence No. 50-219/74/35.

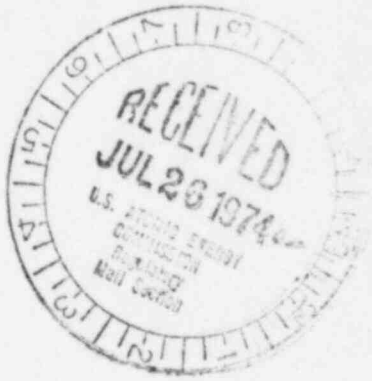
Failure Data

Manufacturer data pertinent to these switches are as follows:

Meletron Corporation (subsidiary of Barksdale)
Los Angeles, California
Pressure Actuated Switch
Model 372
Catalog No. 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. 50-219/74/1
3. Abnormal Occurrence Report No. 50-219/74/9
4. Abnormal Occurrence Report No. 50-219/74/10
5. Abnormal Occurrence Report No. 50-219/74/12
6. Abnormal Occurrence Report No. 50-219/74/22
7. Abnormal Occurrence Report No. 50-219/74/35
8. Abnormal Occurrence Report No. 50-219/74/37



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. 50-219/74/41

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

Preliminary Approval:

for 7/19/74

J. T. Carroll, Jr. Date

cc: Mr. A. Giambusso

6807

COPY SENT REGION 1

Initial Telephone Report Date: 7/19/74

Date of Occurrence: 7/19/74

Initial Written Report Date: 7/19/74

Time of Occurrence: 1023

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/ 41

IDENTIFICATION OF OCCURRENCE:

Violation of the Technical Specifications, paragraph 2.3.7, Main Steam Line Low Pressure Switches RE23C and D were found to trip at pressures less than the minimum required value of 860 psig.

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

CONDITIONS PRIOR TO OCCURRENCE:

X	Steady State Power	____	Routine Shutdown Operation
____	Hot Standby	____	Load Changes During Routine Power Operation
____	Cold Shutdown	____	Other (Specify)
____	Refueling Shutdown		
____	Routine Start Operation		

Power:	Reactor, 1895 MWt Elec., 641 MWe
Flow:	Recirc., 57.6 X 10^6 lb/hr Feed., 7.08 X 10^6 lb/hr
Reactor Pressure:	1020 psig
Stack Gas:	16,000 µCi/sec

DESCRIPTION OF OCCURRENCE:

On Friday, July 19, 1974, at 1023, while performing a routine surveillance test on the four Main Steam Line Low Pressure Switches, it was discovered that switches RE23C and D 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.

dupe 8

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

	"As Found" Settings	"As Left" Settings
RE23A	860 psig	860 psig
RE23B	860 psig	860 psig
RE23C	855 psig	860 psig
RE23D	853 psig	861 psig

APPARENT CAUSE OF OCCURRENCE:

X	Design	____	Procedure
____	Manufacture	____	Unusual Service Condition
____	Installation/ Construction	____	Inc. Environmental
____	Operator	____	Component Failure
		____	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 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 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 $1^{o}F$ difference between the saturation temperature for 850 psig and 843 psig.

CORRECTIVE ACTION: Setpoint accuracy and tolerance in not only these instruments but in others as well is under investigation by Company and GPU personnel with General Electric Company

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.

8. Abnormal Occurrence Report No. 74-37.

Prepared by: Arthur H Rose Date: 7/19/74

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.

8. Abnormal Occurrence Report No. 74-37.

Prepared by: Clifford H Root Date: 7/19/74