Jersey Central Power & Light Company

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

MEMBER OF THE General GPU ELECTRIC POWER COMPANIES SYSTEM Public Utilities Corporation

May 31, 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. 50-219/74/32

The purpose of this letter is to forward to you the attached Abnormal Occurrence Report in compliance with paragraph 1.15D of the Technical Specifications.

Enclosed are forty copies of this submittal.

Very truly yours,

Donald A. Ross

Donald A. Ross
Manager, Nuclear Generating Stations

DAR/pd

Enclosures

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

B/529

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/32

Report Date

May 31, 1974

Occurrence Date

May 21, 1974

Identification of Occurrence

Failure of RV40D core spray booster pump pressure switch in the permissive position. This created a condition whereby had core spray booster pump NZ03B failed to start or failed to establish a discharge pressure, its associated redundant booster pump, NZ03D, would not have started automatically. This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraph 1.15D.

Conditions Prior to Occurrence

The plant was shut down for refueling. The reactor mode switch was in the "Refuel" position and the reactor cavity was flooded.

Description of Occurrence

While performing the annual surveillance test of the auto-depressurization initiation logic with System I core spray system disabled, it was observed that relay 16K114D in the System II core spray booster pump initiation logic was in the energized position. An investigation indicated that the System II core spray booster pump discharge pressure switch, RV40D, which actuates this relay, was in the closed position. The switch normally closes when the booster pump discharge pressure comes up to approximately 230 psig, thereby energizing the 16K114D relay. Normally closed contacts from the 16K114D relay act in conjunction with the 16K114B relay and pressure switch RV40B to trip the NZ03B booster pump and start the redundant NZ03D booster pump if proper discharge pressure is not established within five seconds. Failure of the RV40D pressure switch in the closed position created a condition whereby NZ03B would not have tripped if it failed to establish sufficient discharge pressure, and pump NZ03D would not have started since the logic was failed in the "satisfied" position.

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Apparent Cause of Occurrence

The cause of this occurrence has been traced to the failure of RV40D pressure switch. The failed switch is presently being tested in an attempt to determine the cause of the failure. The remaining RV40 switches in this system have been calibrated and found to operate satisfactorily under test.

Analysis of Occurrence

The safety significance of this event is considered to be minimal since the reactor was in the shutdown condition with the cavity flooded.

Corrective Action

The immediate action was to place the 16K114D relay in the deenergized position by valving out RV40D, which is the tripped condition. In this configuration, RV40B would have acted to sense improper booster pump discharge pressure and started the redundant pump. The defective RV40D pressure switch has since been replaced and the replacement switch has been satisfactorily tested.

In the future, the RV40 pressure switches will be calibrated every three months rather than the present semi-annual interval. Also, similar switches in safety systems will be included on the three-month periodic calibration check.

Failure Data

MERCOID Pressure Switch
Type: DAW43-156 R21E

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. 50-219/74/34

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

Preliminary Approval:

J T Carroll Jr. 5/30/74

J. T. Carroll, Jr. Date

cc: Mr. A. Giambusso

B/530

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Report Date: • 5/30/74 Occurrence:

OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/ 34

IDENTIFICATION OF OCCURRENCE: Violation of the Technical Specifications, paragraph N/A, Indications of coolant leakage existing in the area of an incore flux monitor reactor vessel housing located at core coordinate 28-05.

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

CONDITIONS PRIOR TO OCCURRENCE:

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

The reactor was in the REFUEL mode during a hydrostatic test at 850 psig pressure and with coolant temperature approximately 155°F.

DESCRIPTION OF OCCURRENCE: On Tuesday, May 28, 1974, during a scheduled reactor vessel hydrostatic test to inspect the pressure boundary following refueling maintenance activities, leakage was observed in the vicinity of an incore flux monitor tube located at the bottom of the reactor vessel. Further investigation conducted on Wednesday, May 29, 1974, showed evidence of possible leakage in the area of an incore flux monitor housing penetration located in the reactor vessel bottom head. A second hydrostatic test was conducted at a pressure of 850 psig at approximately 7:00 p.m. on May 20, 1974, whereupon, water was observed leaking between the monitor housing and the reactor vessel. The leakage was measured under the conditions of 850 psig with a temperature of 164°F, and calculated to be on the order of approximately 0.02 gallons per hour.

APPARENT CAUSE OF OCCURRENCE:	____ Design ____ Manufacture ____ Installation/ Construction ____ Operator	____ Procedure ____ Unusual Service Condition Inc. Environmental ____ Component Failure ____ Other (Specify) ____________

The cause of this event has yet to be determined.

ANALYSIS OF OCCURRENCE: As stated in FDSAR Amendment #37, a postulated failure of the flux monitor tube would result in vessel leakage at a rate which would not cause excessive cladding temperatures and for which core reflooding is possible by engineered safety features. This situation is less severe than the design basis accident. To determine the consequences of a weld failure at a housing for an in-core monitor tube, it is assumed that the weld between the housing and the reactor vessel bottom head fails, allowing the housing and the in-core monitor tube to be ejected from the vessel. The hole provided in the bottom head for the housing has a diameter of two inches; this is the assumed break size. The hole has a break area of .0218 ft^2. Assuming worst conditions, this results in peak clad temperatures less than 1000°F, as updated in FDSAR Amendment #67. This value is well within acceptable limits of the applicable ECCS criteria.

CORRECTIVE ACTION:

The nuclear steam supply vendor and the reactor vessel manufacturer have been contacted with regard to this condition. Discussion will ensue as to the proper course of action to be taken to resolve this matter. Recommendations will be forthcoming pending complete review of this event by the Plant Operations Review Committee.

Prepared by: John P. Sullivan Jr. Date: 5/30/74