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

October 4, 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. 50-219/74-48

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,

Donald A. Ross

Donald A. Ross
Manager, Nuclear Generating Stations

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Enclosures

cc: Mr. J. P. O'Reilly, Director
Directorate of Regulatory Operations, Region 1

50-219 incident

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OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74-48

Report Date

October 4, 1974

Occurrence Date

September 25, 1974

Identification of Occurrence

Inoperability of the A and B isolation condensers due to high flow as sensed by the condensate line break sensors. 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 in post scram stabilization operations. Conditions prior to the scram were:

Power:	Reactor, 1902 MWt
	Electric, 665 MWe
Flow:	Recirculation, 60.2 x 10^6 lb/hr
	Feedwater, 7.11 x 10^6 lb/hr
Reactor Pressure:	1020 psig
Stack Gas:	12,600 μCi/sec

Description of Occurrence

On September 25, 1974, a generator load rejection scram occurred which resulted in closure of the main steam isolation valves approximately 45 seconds after the scram due to low main steam line pressure. In order to remove the reactor decay heat and to control reactor pressure, an attempt was made to initiate the B isolation condenser. Approximately one-half minute after initiation, the B isolation condenser rupture alarm sounded and the condenser isolated. Since there were

no indications of line rupture, the operator on duty immediately pushed the isolation condenser reset button and reinitiated the condenser which again isolated after about one-half minute. The operator then initiated the A isolation condenser which also isolated approximately one-half minute after initiation. Instrument department personnel were dispatched to the area of the line break instrumentation to verify high ΔP signals. Differential pressures of approximately 22 inches water were observed at this time. Recirculation flow was then reduced from rated flow after which the isolation condensers reset. Since the condensers were operable for half-minute periods due to the action of an isolation bypass time delay relay, which is started when the isolation signal occurs, the operator was able to initiate and reset alternately the condenser isolations. This provided a heat sink for the reactor decay heat until the effects of the reduction in recirculation flow allowed the isolation condensers to reset.

Apparent Cause of Occurrence

This occurrence was caused by the tripping of line break sensors which was due to the effects of rated recirculation flow.

Analysis of Occurrence

The isolation condensers are considered to be part of the engineered safeguards system referred to in the emergency core cooling system analysis submitted in Amendment 67 to the Oyster Creek FDSAR. Automatic initiation of the isolation condensers occurs on low-low water level which also results in the tripping of the recirculation pumps. It was demonstrated during this event that when recirculation flow was reduced, differential pressures of approximately 10 inches water were observed. Since this value is close to that expected with tripped recirculation pumps, both isolation condensers would have functioned as heat sinks during a loss of coolant accident.

Corrective Action

Surveillance testing was performed on all isolation condenser condensate line break sensors. "As found" set points for the sensors were approximately 24 inches water. This is the set point that had been previously chosen due to sensor set point drift problems. During this testing, the line break sensors were adjusted to trip at 27 inches water. The 27 inches trip point corresponds to a minimum reset point of 23.5 inches water. Since this minimum observed reset point is above the ΔP noted at rated recirculation flow (22 inches water), the 27 inches trip point is considered to be adequate for isolation condenser operation under all recirculation flow conditions.

Based upon the dependence of isolation condenser operation on recirculation flow conditions demonstrated in this occurrence, this relationship and applicable plant procedures will be reviewed in the on-going operator training program.

Failure Data

Not applicable.