

Jersey Central Power & Light Company



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

MEMBER OF THE

General



Public Utilities Corporation

April 8, 1975

Mr. A. Giambusso
Director, Division of Reactor Licensing
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Giambusso:

Subject: Oyster Creek Station
Docket No. 50-219
Abnormal Occurrence Report No. 50-219/75-9

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, Manager
Generating Stations-Nuclear

CS

Enclosures

cc: Mr. J. P. O'Reilly, Director
Office of Inspection and Enforcement, Region 1

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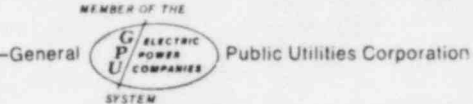
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OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/75-9

Report Date

April 8, 1975

Occurrence Date

March 29, 1975

Identification of Occurrence

Electrical fault on 1C bus and subsequent trip of 1C breaker. This event is considered to be an abnormal occurrence as defined in the Technical Specifications, paragraph 1.15.B.

Conditions Prior to Occurrence

The plant was shut down for the 1975 refueling outage. The reactor mode switch was in the REFUEL position with reactor coolant temperature approximately 150°F.

Description of Occurrence

At 1940 on Saturday, March 29, 1975, breaker 1C tripped due to a fault on bus 1C. Power to reactor protection system I was reestablished by transferring power feed from the MG set to the transformer and the scram was reset. Subsequently, all breakers on 1C were racked out and the tie breakers were closed to feed the unit substations (USIA1, USIA2, USIA3).

Apparent Cause of Occurrence

The trip of 1C breaker was caused by a fault on cable number 86-25 (Burns and Roe Drawing No. 3002, Sheet 1). This is the cable tie between 1C bus and the DG #1 breaker. One of the two phase "A" leads was discovered grounded between the 1C bus and the DG #1 breaker. The cable installed is Vulkene, insulated

and shielded, #SI-58064, rated at 5 Kv. Fault on the cable caused 86/1C lock-out to trip breaker 1C with subsequent loss of equipment connected to the 1C bus.

Analysis of Occurrence

Failure of the cable between the DG #1 breaker and bus 1C resulted in a loss of standby emergency power to bus 1C. In addition, the fault on bus 1C resulted in a temporary loss of one-half the safety systems associated with the emergency busses. Had a condition called for the operation of the safety systems, the redundant systems would have been available to operate. In addition, the redundant diesel generator was available to supply power to the redundant safety systems on a complete loss of outside power sources.

Appendix L to the FDSAR contains a probability analysis regarding the availability of standby cooling systems and includes an analysis of off-site power availability concurrent with a loss of coolant accident. The results indicated that the reliability of available power from off-site sources or from a self-contained unit (only one diesel generator was considered in the analysis) was quite high. Since the station is provided with two separate diesel generator units, having one unit out of service has no effect upon the results of the analysis. In addition, the effects of a single bus operation during a loss of coolant accident was analyzed in Amendment 32 to the FDSAR, and the unit loading under this condition was found to be within the normal Kva rating of the diesel generator. Thus, there is no additional safety significance associated with this event beyond that already analyzed. Please note again the shutdown condition of the plant for the 1975 refueling.

Corrective Action

All phase leads were disconnected between 1C bus and DG #1 breaker; lightning arrestors and capacitors were isolated after which the following tests were run. A 2500-volt megger test was completed on "A" phase lead to verify the failure. The five additional leads were meggered satisfactorily; however, a high potential test of 25 Kv D.C. resulted in a failure of three additional leads. These leads failed within two minutes of the start of the test. Further investigation into the failure indicated the fault to be in a 300-foot section of a 400-foot run. The failed sections will be replaced with new General Electric Company power cables, Vulkene, 5000 V, 500 MCM Type SI-58064. The new installed cables will be meggered at 2500 volts with a high potential test of 15 Kv D.C. maximum for 15 minutes. Upon completion of a satisfactory operation test on DG #1, the No. 2 unit will be removed from service at which time the power cables will be subjected to a similar test except the high potential test will be a maximum of 12 Kv D.C. for 15 minutes to determine the insulation quality of phase leads as per recommendations of the cable manufacturer.

Segments of the failed section of the cable will be sent to a laboratory for further investigation into the cause of the failure.

Failure Data

See "Apparent Cause of Occurrence" for details on cable involved in this event.