

ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649

ROCHESTER GAS AND ELECTRIC CORPORATION
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June 21, 1973

Mr. John F. O'Leary, Director
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Subject: R. E. Ginna Nuclear Power Plant, Unit No. 1
Failure of the I-C Safety Injection Pump to start
manually from the alternate bus,
Abnormal Occurrences 73-3 and 73-4
Docket No. 50-244



Dear Mr. O'Leary:

In accordance with Ginna Station Technical Specifications, Section 6.6.2, this is to report abnormal occurrences on the dates of June 11 and 12, 1973. During the performance of periodic test (PT-2.1), and following the satisfactory test of the I-A and I-B Safety Injection Pumps, the I-C Safety Injection Pump, which can be operated from either Bus 14 or Bus 16, failed to start on Bus 16.

The occurrence designated by number 73-3 was first reported to Region I, Directorate of Regulatory Operations, on the date of June 11, 1973 and again reported as 73-4 on June 12, 1973 when the original determination and correction for the cause of the occurrence was proven incomplete upon further investigation.

The failure of the I-C Safety Injection Pump to start manually from Bus 16 was first experienced on June 11, 1973 during the periodic test, PT-2.1, Safety Injection System Monthly Surveillance Requirement. In the course of this test, when the operator attempted to start this pump on the Bus 16 the white disagreement light on the breaker control switch illuminated, indicating that the pump failed to start. The operator immediately cleared the disagreement light and the pump was successfully started on the second try. The surveillance test was then completed. This I-C Safety Injection Pump started satisfactorily from the alternate source of power which is Bus 14.

The electricians then investigated, through the use of the Maintenance Procedure, M-32, to check the overcurrent trip device on the I-C Safety Injection Pump and this was found to be satisfactory. The pump breaker on Bus 16 was then placed in the "test" position and successfully operated ten times. When the breaker was returned to its operating position it again failed to operate from the manual start the first time but did so on two subsequent attempts.

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DATE June 21, 1973
TO Mr. John F. O'Leary

Reinspection of the breaker revealed that the alarm switches were misaligned. These were adjusted and their fasteners secured. Other connections were checked for tightness. Following this, the breaker was successfully operated in both the test and operating positions.

With the indication that the problem was solved, the Plant Operations Review Committee (PORC) further approved that the sealant, "Lock Tite", be installed on the alarm switch fasteners to prevent future disalignment.

On June 12, 1973, pursuant to the direction of the PORC, the sealant was applied to the fasteners for the alarm switches on the Bus 16 breaker. The alignment of the alarm switches was then verified by three operations of this breaker while it was in the "test" position. However, when the breaker was returned to the operating position it failed to operate. This second incidence of failure was then reported as Abnormal Occurrence 73-4.

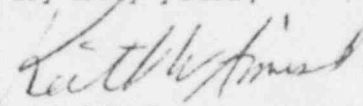
After failure of the breaker to operate, the breaker assembly was removed from its' cubicle for further inspection. The electrical connections were checked and the breaker was visually inspected. There were no apparent discrepancies.

The tripper bar switch in the closing circuit which is operated by the lock-out relay was tested for continuity. The cell switch in the breaker cubicle was inspected and checked for continuity. Continuity was verified across the contacts but the operating arm on the cell switch was bent slightly. The cell switch was removed, the contacts cleaned and coated with contact grease, and the operator arm was straightened. The cell switch was re-installed and continuity in the lock-out relay circuit was again verified. The breaker was tested satisfactorily and returned to service.

The Plant Operations Review Committee concluded that the cause of the abnormal occurrences was the slightly bent operator arm on the cell switch. The committee also concurs that this was most probably the cause of the intermittent failures of the breaker to close on June 11, 1973.

This is the first failure of this nature to occur at Ginna Station. Inspection of the cell switches during the regularly scheduled breaker inspection and maintenance program and post maintenance operation of the breaker should normally assure proper operation of the circuit. However, because of the high degree of reliability required for safeguards equipment, the addition of an indicator light to verify continuity in the lock-out relay scheme is being investigated. Rochester is working with the supplier in examination of this failure, investigating the potential for future failures and in developing other possible corrective measures.

Very truly yours,


Keith W. Amish

xc: Mr. James P. O'Reilly