

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

KEITH W. AMISH
SENIOR VICE PRESIDENT
ELECTRIC AND STEAM

August 15, 1974

TELEPHONE
AREA CODE 716 546-2700

Mr. James P. O'Reilly, Director
Directorate of Regulatory Operations
Region I
U. S. Atomic Energy Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Subject: Abnormal Occurrence 74-14: Failure of I-C Injection Pump
to start manually from Bus 16
R. E. Ginna Nuclear Power Plant, Unit No. 1
Docket No. 50-244

Dear Mr. O'Reilly:

In accordance with Technical Specifications, Article 6.6.2a, the
attached report of Abnormal Occurrence 74-14 is hereby attached.

Very truly yours,

Keith W. Amish
Keith W. Amish

Attachment

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1. Report No.: 50-244/74-14
- 2a. Report Date: August 15, 1974
- 2b. Occurrence Date: August 7, 1974
3. Facility: R. E. Ginna Nuclear Power Plant, Unit No. 1
4. Identification of Occurrence:

This abnormal occurrence is defined by Technical Specifications Article 1.9d: Failure of one or more components of an engineered safety feature or plant protection system that causes or threatens to cause the feature or system to be incapable of performing its intended function.

5. Conditions Prior to Occurrence:

At the time of the occurrence, the plant was at approximately 70% reactor power.

6. Description of Occurrence:

While conducting Periodic Test (PT 2.1), and following the satisfactory test of the 1A and 1B Safety Injection Pumps, the 1C Safety Injection Pump which can be operated from either Bus 14 or Bus 16, failed to start manually on Bus 16 the first time it was tried. It had started properly from Bus 14, but the first time it was tried from Bus 16, it failed to start. The second try was successful and the surveillance of the 1C pump was completed. The 1C pump was again started from Bus 14 and then twice more from Bus 16.

7. The 1C Safety Injection Pump can be operated from either Bus 14 or Bus 16. During a safeguard operating sequence, Bus 14 is the preferential Bus and Bus 16 is considered the alternate Bus. A lockout scheme exists between the two supply breakers to insure that only one breaker can be closed at a time. When the system is functioning properly, the lockout relay will energize when a breaker closure is called for, providing that all interlocks are satisfied.

The sequence for proper operation is as follows:

- a. The lockout relay's plunger will force the trip bar downward and properly latch the breaker's mechanical closing mechanism.
- b. The movement of the trip bar closes a trip bar switch which then permits the breaker control relay to operate ("X" coil).
- c. Operation of the control relay reflects a closed "X" contact in the circuit for the breaker closing coil.
- d. The closing coil is then energized and the coil's armature will travel upward resulting in actuation of the breaker closing mechanism.

During the investigation of the cause, the circuit breaker was operated five times in the test position with no failures. The test position eliminates the lockout interlock scheme. The lockout interlock scheme is part of the closing sequence when the circuit breaker is in the operating position.

The breaker assembly was completely inspected by the station electricians. No abnormal condition was found.

8. Analysis of Occurrence:

There were no safety implications because the pump did start from Bus 14, and also both the 1A and 1B Safety Injection pumps started satisfactorily. There were no consequences or potential consequences from the standpoint of public health and safety.

9. Corrective Action:

The Plant Operations Review Committee reviewed the occurrence and has recommended the following:

- a. The 1C Safety Injection Pump be started from Bus 16 on a weekly basis until the next scheduled monthly periodic test.
- b. Westinghouse be contacted, to provide a specialist to examine this breaker.
- c. Investigate the possible replacement of the lockout and tripper bar assembly.

10. Failure Data:

- a. The failure of the 1C Safety Injection Pump to start from Bus 16 has occurred previously on the following dates: June 11, 1973 (Abnormal Occurrence 73-3); June 12, 1973 (Abnormal Occurrence 73-4); April 6, 1974 (Abnormal Occurrence 74-4); and June 3, 1974 when a faulty contact was found in the W-2 control switch. This last failure only affected the manual start and was intermittent, so it was not reported as an abnormal occurrence.
- b. Equipment identification - Westinghouse DB-50 Air Circuit Breaker, 500 amp. rating.