



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

LEON D. WHITE, JR.
VICE PRESIDENT

TELEPHONE
AREA CODE 716 546-2700

February 21, 1975

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406



Subject: Abnormal Occurrence 75-04, Failure of solenoid test valves to
operate on "A" Main Steam Isolation Valve during surveillance
test
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 75-04 is hereby submitted. Two additional
copies of this letter and the attachment are enclosed.

Very truly yours,

L. D. White, Jr.
L. D. White, Jr.

Attachment

cc: Mr. Donald F. Knuth (40)

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1. Report Number: 50-244/75-04
- 2a. Report Date: February 21, 1975
- 2b. Occurrence Date: February 13, 1975
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:

The unit was operating at a steady state level of 100 percent power.

6. Description of Occurrence:

During the performance of the surveillance test, PT-20, "Main Steam Isolation Valve Solenoid Trip Test", upon actuating the Main Control Board (MCB) control switch for the "A" Steam Line Isolation Valve, one of the two series air supply solenoids did not trip to the closed position although the coil armature did pick up.

An immediate retest resulted in the repeated failure of the same air supply valve to trip and in addition, one of the air exhaust valves failed to operate at this time. The MCB control switch operation and necessary resets were then performed several times with similar and erratic failure results. Instrument and Control Repairman personnel witnessed the operation and then made a minor adjustment to the latching mechanism. Following this the test was satisfactorily performed five times without failure.

The test of the "B" Main Steam Isolation Valve trip was completed without incident.

7. Designation of Apparent Cause of Occurrence:

In all cases the coil armature operated as required. The failure of the "A" solenoid valves was in their mechanical operation. It is believed that a flat spot or burr may have developed on the latching pin of the air supply valve trip mechanism. Rotation of this pin from its fixed position produced the successful retesting. The exhaust valve trip mechanisms appeared stiff in action and responded properly after the several test operations.

8. Analysis of Occurrence:

There was no hazard to plant personnel or the public. Due to the arrangement of the four solenoid valves, failure of the two solenoid valves in question would not have prevented closure of the "A" Main Steam Isolation valve.

The solenoid valves are tested every two months and had operated properly during the last three tests of August, October and December of 1974.

9. Corrective Action:

As described above, a reposition of the latching pin and the exercising of the mechanisms to overcome any linkage friction or binding of valve packings apparently corrected the problem.

The PORC met at 1530 hours on February 13, 1975 to discuss the failure and recommended that the test be repeated prior to our scheduled outage on March 15, 1975 to determine the amount of maintenance to be performed on this system during the shutdown.

10. Failure Data:

Since the valves were mounted on the containment wall to reduce a vibration problem, there has been one other dissimilar failure of these solenoids prior to this occurrence. This failure occurred on June 26, 1974 and was reported as Abnormal Occurrence 74-11.

The valves are Laurence Solenoid Valves, Cat. # 125434W (air vent valves), and Cat. # 110114W (air supply valves) for 125 psi. air. They are manufactured by the R. G. Laurence Company, Inc., Tenafly, New Jersey 07670.