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

LEON D. WHITE, JR.
VICE PRESIDENT

October 4, 1974

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 74-17: Incorrect Accumulator water level operational band
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 74-17 is hereby submitted.

Very truly yours,

Leon D. White, Jr.

Leon D. White, Jr.

Attachment

50-244
incident

COPY SENT REGION I

10113

1. Report Number: 50-244/74-17

2a. Report Date: October 4, 1974

2b. Occurrence Date: September 25, 1974

3. Facility: R. E. Ginna Nuclear Power Plant, Unit No. 1

4. Identification of Occurrence:

This abnormal occurrence is defined by Technical Specification 1.9 in that the operational band for water level of the two accumulators had been incorrectly established.

5. Conditions Prior to Occurrence:

The Plant was operating at 91% power.

6. Description of Occurrence:

The licensee initiated an investigation to determine the actual volume of borated water in the two accumulators after receiving a telephone notification from Westinghouse Electric Corporation on September 24, 1974, informing us that other Westinghouse PWR plants had found discrepancies in the level alarm set points on their accumulators. Calculations performed by Westinghouse and Rochester Gas and Electric Corporation revealed that the information stated in the basis of Technical Specification 3.3 was incorrect. Although the basis to Specification 3.3 states, "The minimum 1-inch level corresponds to a volume of 1008 ft.^{3} and the maximum 5.5 inch level corresponds to a volume of 1030 ft.^{3}", the calculations indicate that 1-inch corresponds to 972 ft.^{3} and 5.5-inch corresponds to 999 ft.^{3} in the accumulator.

As a result of this discovery, the PORC met and recommended that a Technical Specification change request be made to increase the operating band in the accumulators to 7-inch minimum level and 11.5-inch maximum level which corresponds to 1008 and 1035 cubic feet in each accumulator.

Notification of this condition was given within twenty-four hours in accordance with the requirements of the Technical Specification even though later analysis revealed that this was not a violation of a limiting condition for operation because during operation the accumulator water levels have been maintained between the settings set forth in Technical Specification 3.3.

7. Designation of Apparent Cause of Occurrence:

The error in the set points was caused by erroneous calculations supplied by Westinghouse.

8. Analysis of Occurrence:

The Technical Specification limits for the accumulator water volume are

established to assure the required amount of water injection during an accident and are based upon the 1000 ft.^{3} value used for [redacted] accident analyses. As a result of the error in the Technical Specification basis the accumulators have been operated at a level corresponding to approximately 990 ft.^{3}. At least 8 ft.^{3} of additional water has been available for injection in the delivery piping between the accumulator and the first check valve although credit had not been taken for this volume in establishing the 1-inch and 5.5-inch levels. Taking credit for the delivery piping volume, the volume of borated water in each accumulator has been approximately 2 ft.^{3} less than that assumed for the safety analysis. This difference in volume would not have significantly altered the results of accident analyses, since the estimated difference in volume corresponds to a peaking factor difference of only 0.002. The present Technical Specification sets a limit of 2.54.

9. Corrective Action:

A Technical Specification change request was filed with the AEC on September 30, 1974. The level in the accumulator and the alarm set points will be raised as soon as the Technical Specification change is approved by the AEC. In addition, the level in the accumulators is presently being maintained near the top of the present set points of 1-inch and 5.5-inch so that the volume of water available for injection, including that between the accumulator and the first check valve, exceeds 1000 ft.^{3}.

10. Failure Data:

None.