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

KEITH W. AMISH
SENIOR VICE PRESIDENT
ELECTRIC AND STEAM

TELEPHONE
AREA CODE 716 546-2700

February 19, 1974

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

Subject: Abnormal Occurrence 74-2: Abnormal degradation of one of the several boundaries designed to contain the radioactive materials resulting from the fission process.
R. E. Ginna Nuclear Power Plant, Unit No. 1
Docket No. 50-244

Dear Mr. O'Leary:

In accordance with Technical Specifications, Article 6.6.2a, the attached report of Abnormal Occurrence 74-2 is hereby submitted. Since the analyses and investigative action specified in paragraph 8 of the report will take several weeks to complete, this letter constitutes an interim report to fulfill technical specification requirements. A follow-up report will be forwarded prior to startup of the plant.

Very truly yours,

Keith W. Amish

Keith W. Amish

Attachment

xc: Mr. James P. O'Reilly

50-244

COPY SENT REGION I

1. Report Number: 50-244/74-2

2a. Report Date: February 19, 1974

2b. Occurrence Date: Prior to January 1, 1974

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

4. Identification of Occurrence:

This occurrence is defined by Technical Specification Article 1.9e: "Abnormal degradation of one of the several boundaries designed to contain the radioactive materials resulting from the fission process."

5. Conditions Prior to Occurrence:

Eddy current examination of both steam generators was scheduled for the refueling outage originally planned for March-April, 1974. Due to a low pressure turbine problem, the plant was shut down on January 1, 1974. After determining the scope of repairs to the turbine, the decision was made to refuel and to proceed with all work that had been programmed for the refueling period.

6. Description of Occurrence:

Eddy current examination of the steam generator tubes has detected what appears to be wastage on the secondary side of the tubes. This condition is localized approximately 1 to 3 inches above the tube sheet. The most significant indications are noted in the tubes of the hot leg of the "A" steam generator approximately in the center area of the tube sheet and generally above the primary water hot leg inlet nozzle. Lesser amounts of wastage have been detected in corresponding locations in the "B" steam generator hot leg and the "A" cold leg tubes and none in the "B" cold leg tubes.

7. Designation of Apparent Cause of Occurrence:

The cause of the apparent wastage of the tubes has not been determined at this time.

8. Analysis of Occurrence:

Investigation is being conducted in the following areas:

a. All tubes in the "A" steam generator hot leg are being examined by eddy current. Other tube areas are being tested on a statistical basis.

b. Samples of tubes which indicate wastage will be removed for examination and analysis.

c. Analysis is being performed to determine the thickness of tubing required to assure the continued integrity of the primary to secondary boundary during accident conditions.

d. Secondary system chemistry specifications and procedures are being re-evaluated as a result of this problem and the steam generator tube problems experienced by other nuclear plants.

9. Corrective Action:

a. The tube sheets will be cleaned using a high pressure water lance method.

b. Tube plugging will be accomplished if necessary as determined from the above analyses.

c. Secondary system chemistry specifications and procedures will be modified as necessary to prevent or minimize further tube wastage.

10. Failure Data:

There has been no indication of any primary to secondary leakage at Ginna and no evidence of wastage in previous tube examinations. Eddy current examination of approximately 1000 tubes in the "A" steam generator during the Spring 1972 shutdown indicated a possible anomoly

in only one tube. This isolated condition was considered to have been caused by a manufacturing defect.

The Ginna steam generator units are Westinghouse, Series 44, using Inconel 600 tubes, size 0.875 O.D. with 0.050 inch walls.