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 FACJL: 50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244  
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 MECREDDY, R.C. Rochester Gas & Electric Corp.  
 RECIP. NAME RECIPIENT AFFILIATION  
 JOHNSON, A.R. Project Directorate I-3

SUBJECT: Notifies of change to Eddy Current insp frequency of thimble tubes for Ginna Station commencing w/1993 refueling outage per NRC Bulletin 88-009.

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April 8, 1993

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Attn: Allen R. Johnson  
Project Directorate I-3  
Washington, D.C. 20555

Subject: NRC Bulletin 88-09: Thimble Tube Thinning in Westinghouse  
Reactors dated July 26, 1988  
R.E. Ginna Nuclear Power Plant  
Docket No. 50-244

Ref.(a): Letter from R.C. Mecredy (RG&E) to A.R. Johnson (NRC),  
Subject: NRC Bulletin 88-09, dated June 1, 1990

(b): Letter from R.C. Mecredy (RG&E) to A.R. Johnson (NRC),  
Subject: NRC Bulletin 88-09, dated June 6, 1989

Dear Mr. Johnson,

The purpose of this letter is to notify you of a change to our Eddy Current inspection frequency of the thimble tubes for Ginna Station commencing with the 1993 refueling outage. In our letter dated June 1, 1990 (Reference a) in response to the NRC Bulletin, Rochester Gas and Electric Corporation (RG&E) established an Eddy Current inspection frequency and criteria for judging the integrity of the incore instrumentation thimble tubes. The acceptance criterion established is a 65% through-wall wear as discussed in our letter dated June 6, 1989 (Reference b).

Based upon the three successive years of tests performed during our 1988, 1989, and 1990 outages, the originally established frequency consisted of inspection of the tubes once every other refueling outage, i.e. once every two years; when the previous inspection indicated less than 45% through-wall in the wear area. Thimble tubes with greater than or equal to 45% but less than 55% through-wall in the wear area were to be inspected annually, unless through-wall wear had not changed between the previous two tests. In that case, that thimble tube would be inspected every other refueling outage. In addition, appropriate corrective action would be performed for any tube whose inspection indicated equal to or greater than 55% through-wall in the wear area.

RG&E performed a series of Eddy Current inspections on the thimble tubes during the 1991 and 1992 refueling outages, to add to those results obtained during 1988 through 1990. The results of those inspections and an examination of all data to date indicates that the inspection frequency may be modified as follows:

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- a) previous indication less than 45% - 4 years
- b) previous indication 45% to less than 55% - 2 years
- c) previous indication 55% or greater - perform corrective action and conduct inspections in accordance with a) and b)
- d) tubes whose past inspections never exceeded 10% through-wall - based upon RG&Es periodic assessment

The 2 year inspection frequency established in 1990 was based upon applying a 10% annual increase in wear for each tube, whose inspection indicated less than 45% through-wall. With this assumption the criteria of 65% would not be exceeded in 2 years. The technical evaluation previously performed (Reference b) documented a 75% maximum allowable through-wall loss, from which our 65% indication criteria is established to account for Eddy Current measurement uncertainties.

The application of the 10% annual increase was based upon the results of the G-6 tube which in 1990 showed an increase from 50% to 56% as compared to 1989 results. Corrective action was performed on that tube during the April 1990 refueling outage by repositioning the tube. Since that time, the G-6 tube has indicated Eddy Current inspections of 51% (1991) and 52% (1992). These indications demonstrate that a 10% assumed annual increase is not supported by the inspections over the last 5 years, and the indications are within the Eddy Current measurement uncertainty.

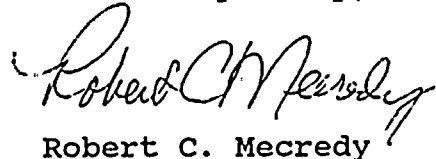
RG&E has evaluated the safety significance of the modification to the original Eddy Current inspection frequency. Justification is based upon the fact that none of the 36 thimble tubes have indicated a discernible increasing wear trend outside of the band of uncertainty (10%) assumed for the Eddy Current measurement technique. It is also based on the cumulative test results showing that a conservatively predicted annual increase in wear is less than 5%. Therefore, for a tube whose inspection indicated less than 45%, there is adequate assurance that the 65% criteria would not be exceeded in 4 years. The data obtained in 1992 shows that only 2 tubes exceed an indication of 20%; tube H-10 at 22%, and tube C-11 at 23%. The next inspection interval for the G-6 tube would be 2 years or during the 1994 refueling outage, by applying the modified frequency of 2 years for indications between 45% and less than 55%.

It has been the practice of the inspection team to examine as many tubes as practicable during a particular scheduled inspection of the tubes designated by the established frequency. This practice has provided us with additional data beyond that which our original inspection frequency would have established. To date only tube G-6 exceeds an indication of 50%. Of the remaining 35 tubes, 2 tubes exceed 20% but are less than 25%, 7 tubes exceed 10%, and 26 tubes are less than 10% based upon the 1992 data.



Based upon the above summary, we have concluded that there is adequate assurance that the inspection frequency as currently modified will provide the inspection information necessary to monitor the integrity of the thimble tubes. We view the inspection interval established as one that may require adjustment as additional inspection data is obtained and assessed. We will inform you of any such future changes should they occur.

Yours very truly,

  
Robert C. Mecredy

GAH\273

xc: Mr. Allen R. Johnson (Mail Stop 14D1)  
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Ginna Senior Resident Inspector

