

November 22, 2004

Mr. R. T. Ridenoure
Division Manager - Nuclear Operations
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
Post Office Box 550
Fort Calhoun, NE 68023-0550

SUBJECT: FORT CALHOUN STATION, UNIT NO. 1 – REQUEST FOR ADDITIONAL
INFORMATION (TAC NO. MC4506)

Dear Mr. Ridenoure:

By letters dated October 27, 2003, and March 26, 2004, Omaha Public Power District submitted the 2003 steam generator inservice inspection reports for the Fort Calhoun Station, Unit 1. The staff has completed its preliminary review of this submittal and has determined it needs additional information to complete the review. Our request for additional information is enclosed. This request was discussed with Thomas Byrne of your staff on November 22, 2004, and it was agreed that a response would be provided within 30 days of receipt of this letter.

Sincerely,
/RA/

Alan B. Wang, Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosure: Request for Additional Information

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

ANNUAL STEAM GENERATOR INSERVICE INSPECTION SUMMARY REPORT

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT 1

DOCKET NO. 50-285

Pursuant to Technical Specification 3.17(5)(ii), Omaha Public Power District (OPPD) submitted by letter dated March 26, 2004, the Fort Calhoun Station, Unit 1 (FCS) steam generator eddy current test report for the Fall 2003 refueling outage. The staff has completed its preliminary review of this submittal and has determined it needs the following additional information to complete the review.

1. During conference calls conducted between the staff and representatives from OPPD on August 29, 2003, and October 2, 2003, (see conference call summary dated February 5, 2004 [ADAMS Accession No. ML040580502*]), OPPD indicated that ultrasonic inspections were planned to be performed on 7 tubes. These ultrasonic inspections were planned for a tube in Row 94 Line 61 where the circumferential flaw was coincident with the top edge of the tube support. The intent of the examinations was to confirm the degradation mechanism, profile the tube at the location of the defect, and size the flaw. Ultrasonic testing was performed on 12 indications in 7 tubes. Please discuss the results of these ultrasonic inspections including any lessons learned as a result of the inspections and how the results will be factored into future inspections.
2. On page 4 of the March 26, 2004, letter, OPPD indicated that 100 percent of the hot leg drilled support intersections were tested for circumferential outside diameter stress corrosion cracking (ODSCC), axial ODSCC, mechanical wear, and axial primary water stress corrosion cracking (PWSCC). Similar statements were provided for inspections at other locations. Please confirm that the inspection data were also reviewed to identify other potential forms of degradation at these locations (e.g. circumferential PWSCC).
3. In the March 26, 2004, letter, OPPD stated that 114 axial indications were identified. However the locations of only 112 indications are reported (67 freespan, 20 at drilled supports, 17 at eggcrate supports, and 8 near the hot leg top of tubesheet). Please identify the locations of the two axial indications that were not described in the report.
4. During the conference calls discussed above, OPPD indicated that 20 percent of indications previously inspected with a rotating probe which show no change by bobbin coil will be retested with a rotating probe during the 2003 examination to further validate the analysis methodology. Please discuss the results of these examinations.

*(Note: Public access to ADAMS has been temporarily suspended so that security reviews of publicly available documents may be performed and potentially sensitive information removed. Please check the NRC Website for updates on the resumption of ADAMS access).

5. In steam generator B, a single circumferential indication (SCI) was located at the seventh eggcrate support and four SCIs were located in the freespan (areas not encompassed by a support structure). Please discuss any unique circumstances, including dents, associated with these indications and discuss the implications for future susceptibility of the eggcrate supports and freespan region to circumferentially oriented degradation.
6. OPPD indicated that following the outage, a review of the 2002 eddy current test results including primary, secondary, and resolution analysis performance would be conducted. Please discuss the results of this review and any effect it will have on future inspections.
7. Please discuss the results from the rotating probe inspections performed in the U-bend region of rows 1-4.
8. In steam generator B, several indications at the eighth drilled support plate were characterized as being a series of parallel circumferential cracks. Please provide more detail on these multi-layer cracks. Include a discussion of how many parallel cracks are associated with each location. How many tubes are affected by this type of degradation? Please discuss the separation distance of these cracks and whether the proximity of one crack to the next would affect the estimated burst pressure of a single crack.