March 24, 2003

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO FT. CALHOUN STATION INTEGRATED LEAK RATE TEST SURVEILLANCE INTERVAL (TAC NO. MB6473)

Dear Mr. Ridenoure**:**

By letter dated October 8, 2002, Omaha Public Power District (OPPD) submitted for NRC staff review, a license amendment request which would extend the integrated leak rate test surveillance from 10 years to 15 years for the Ft. Calhoun Station, Unit 1 (FCS). OPPD stated that the submittal was consistent with the guidelines provided in NEI 94-01, "Industry Guideline for Implementing Performance Based-Option of 10 CFR 50 Appendix J."

The staff has reviewed the submittal and has determined that additional information is needed to complete our review. A request for additional information is enclosed. This request was discussed with Richard Jarworski of your staff on March 23, 2003, and it was agreed that a response would be provided within 60 days of receipt of this letter.

If you have any questions, please contact me at (301) 415-1445.

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

ONE TIME INCREASE IN INTEGRATED CONTAINMENT LEAK RATE TEST INTERVAL

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT 1

DOCKET NO. 50-285

The inservice inspection (ISI) requirements mandated by 10 CFR 50.55a complement the leak rate testing requirements of Option B of Appendix J in ensuring the leak-tightness and structural integrity of the containment. The staff has reviewed your October 8, 2002, submittal and has determined that the following information with regards to 10 CFR 50.55a inspections is needed to complete its review of the license amendment request.

1. The October 8, 2002, submittal does not provide any information regarding the ISI of the Fort Calhoun Station (FCS) containment as required by 10 CFR 50.55a. Please provide the following information regarding the containment ISI program:

   a. The Edition and the Addenda of Subsections IWE and IWL of Section XI of the ASME Boiler and Pressure Vessel Code used for developing the ISI program.

   b. A summary of the significant degradation (e.g., liner corrosion in excess of 10 percent of the nominal thickness, or prestressing force trend that may not meet the minimum required prestress at the next scheduled tendon inspection) found during the expedited examination of the containment and corrective actions taken.

   c. The areas of containment identified for augmented examination in accordance with IWE-1240.

2. IWE-5200, and IWL-5000, requires an integrated leak rate test (ILRT) (pressure testing) after a major repair/replacement activity. In order for the staff to make a consistent assessment of the amendment request, please provide information about your plan to have major repair/replacement activity to the containment (i.e., cut a hole in the containment for steam generator or reactor pressure vessel head replacement) during the requested ILRT interval extension period.

3. Please provide a summary of the findings of the examination of containment concrete performed in accordance with 10 CFR 50.55a and Subsection IWL. This summary should include the acceptance criteria used for accepting any concrete and reinforcing bar degradation.

4. Recognizing the hardship associated with examining seals, gaskets, and pressure-retaining bolts during each ASME inspection period, and that the examination will be performed prior to Type B testing as required by Option A of Appendix J, the staff had granted ASME relief to a number of licensees. However, implementation of Option B of Appendix J allows flexibility in performing Type B testing based on the leak rate

performance of the penetrations. As the performance-based testing allows certain leak rate through the penetrations, minor initial degradation of the associated seals, gaskets and bolting can go undetected, and 10-year examination interval could be too long for the degraded components. Thus, examination of seals, gaskets and pressure retaining bolting should be scheduled based on their performance (i.e., plant-specific experience, replacement schedules for resilient seals, etc.), to ensure that if Type B testing is not performed during the ILRT extension period, the examination schedule will detect degradation of these components. In view of this discussion, the licensee is requested to provide a schedule for examining (testing) of these components for equipment hatches and other penetrations with resilient seals.

5. The stainless steel bellows have been found to be susceptible to transgranular stress corrosion cracking, and the leakages through them are not readily detectable by Type B testing (see NRC Information Notice 92-20, "Inadequate Local Leak Rate Testing"). The licensee is requested to provide information regarding inspection and testing of the bellows of the FCS containment.

6. Inspections of some reinforced and steel containments (e.g., North Anna, Brunswick, and D. C. Cook, Oyster Creek) have indicated degradation from the uninspectable (embedded) side of the steel shell and liner of primary containments. The major uninspectable areas of the FCS containment would include those at the liner concrete interface in the dome and the cylinder, and in the basemat liner embedded in the concrete. Please provide a quantitative assessment of the impact on the large early release frequency due to age-related degradation in these areas in support of the requested ILRT interval extension.