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

SUBJECT: ADDITIONAL OPEN ITEM REGARDING A PRESSURIZER WELD REPAIR AT

FORT CALHOUN STATION, UNIT 1

Dear Mr. Ridenoure:

In reviewing the license renewal application (LRA) for Fort Calhoun Station, Unit 1, we have identified a time-limited aging analysis (TLAA) which was not identified in the LRA. The TLAA is related to a repair of an Alloy 600 weld on the liquid space temperature element TE-108. A full description of the issue is enclosed.

We request that you add this issue to the open items provided to you in the staff's safety evaluation report issued on April 21, 2003.

If you have any questions regarding this issue, please contact William Burton of my staff. He can be reached at 301-415-2853

Sincerely,

### /RA/

Pao-Tsin Kuo, Program Director License Renewal and Environmental Impacts Program Division of Regulatory Improvement Programs Office of Nuclear Reactor Regulation

Docket No.: 50-285

Enclosure: As stated

cc w/enclosure: See next page

May 15, 2003

Mr. Ross T. Ridenoure
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Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
Post Office Box 550
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Distribution: Accession no.: ML031360600

See next page

\*See previous concurrence

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| DATE   | 5/15/03      | 5/15/03      | 5/12/03      | 5/14/03      |
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| DATE   | 5/14/03      | 5/14/03      | 5/15/03      | 5/15/03      |

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## Fort Calhoun License Renewal Open Item

### **Summary of Issue**

10 CFR 54.3(a) defines Time -Limited Aging and Analyses (TLAA) as those licensee calculations and analysis that:

- (1) Involve systems, structures and components within the scope of license renewal, as delineated in 54.4(a);
- (2) Consider the effects of aging;
- (3) Involve time-limited assumptions defined by the current operating term, for example, 40 years;
- (4) Where determined to be relevant by the licensee in making a safety determination;
- (5) Involve conclusions or provide the basis for conclusions related to the capability of the system, structure, and component to perform its intended functions, as delineated in 54.4(b); and
- (6) Are contained or incorporated by reference in the CLB.

In response to telephone calls to the applicant from April 24 through May 12, 2003 and an email from J. Jaworski (OPPD) to Alan Wang dated May 12, 2003, the applicant indicated that during a reactor coolant system hydrostatic test at nominal operating pressure of 2100 psia, on October 25, 2000, the pressurizer liquid temperature nozzle was observed to be leaking from the annulus between the sleeve and the pressurizer shell. The plant was returned to cold shutdown and the leak was repaired in accordance IWA-4000 and dispositioned using an analysis which considered the exposure of the ferritic vessel materials to reactor coolant system boric acid resulting in an estimated lifetime of the repair of 86 years. This analysis documents that the exposure of the carbon steel material of the vessel to borated water does not reduce the life of the vessel based on anticipated corrosion rates.

In April, 2002, it was determined that the flaw was not correctly evaluated under the provisions of ASME Section XI and a follow-up analysis was performed. This analysis evaluated the flaw for acceptability under provisions of IWB-3610 and IWB-3612, 1989 Edition, which provides guidelines for the acceptance of an existing flaw. It was recently discovered that the final analysis had not been transmitted to OPPD. This transmittal was received by OPPD on May 5, 2003 and has been reviewed in accordance with FCS engineering procedures.

Based on the above, the staff concludes that the corrosion analysis and the ASME Section XI analysis for the flaw in the pressurizer liquid temperature nozzles appear to meet the TLAA criteria in 10 CFR 54.3(a) and should be evaluated in accordance with 10 CFR 54.21(c)(1).

### Ft. Calhoun Station, Unit 1

CC:

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