

July 18, 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: FORT CALHOUN STATION, UNIT 1 – ENVIRONMENTAL ASSESSMENT  
RELATING TO EXEMPTION FROM THE REQUIREMENTS OF APPENDIX G  
TO 10 CFR PART 50 (TAC NO. MB6468)

Dear Mr. Ridenoure:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated October 8, 2002. The proposed exemption would exempt Omaha Public Power District from certain requirements of Appendix G to 10 CFR Part 50 to allow the application of the methodology in CE NPSD-683-A, Revision 6, "Development of a RCS Pressure and Temperature Limits Report for the Removal of P-T Limits and LTOP Requirements from the Technical Specifications," for the calculation of flaw stress intensity factors due to thermal stress loadings ( $K_{It}$ ).

The assessment is being forwarded to the Office of the Federal Register for publication.

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: Environmental Assessment

cc w/encl: See next page

UNITED STATES NUCLEAR REGULATORY COMMISSIONOMAHA PUBLIC POWER DISTRICTDOCKET NO. 50-285FORT CALHOUN STATION, UNIT 1ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption from Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix G for Facility Operating License No. DPR-40, issued to Omaha Public Power District (the licensee), for operation of the Fort Calhoun Station, Unit No. 1 (FCS), located in Washington County, Nebraska. Therefore, as required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

The proposed action would exempt the licensee from certain requirements of Appendix G to 10 CFR Part 50 to allow the application of the methodology in Combustion Engineering (CE) Topical Report NPSD-683-A, Revision 6, "Development of a RCS Pressure and Temperature Limits Report for the Removal of P-T Limits and LTOP Requirements from the Technical Specifications," for the calculation of flaw stress intensity factors due to thermal stress loadings ( $K_{II}$ ).

The proposed action is in accordance with the licensee's application dated October 8, 2002.

The Need for the Proposed Action:

In the associated exemption, the staff has determined that, pursuant to 10 CFR 50.12(a)(2)(ii), the underlying purpose of the regulation will continue to be served by the implementation of the alternative methodology. The proposed action would revise the currently-approved methodology for pressure temperature (P-T) limit calculations to incorporate the methodology approved for use in CE NPSD-683-A, Revision 6. CE NPSD-683-A, Revision 6, allows the use of an alternate methodology to calculate the flaw stress intensity factors due to thermal stress loadings ( $K_{It}$ ). The exemption is needed because the methodology in CE NPSD-683-A, Revision 6, could not be shown to be conservative with respect to the methodology for the determination of  $K_{It}$  provided in Editions and Addenda of ASME Code, Section XI, Appendix G, through the 1995 Edition and 1996 Addenda (the latest Edition and Addenda of the ASME Code which had been incorporated into 10 CFR 50.55a at the time of the staff's review of CE NPSD-683-A, Revision 6). Therefore, in conjunction with the licensee's October 8, 2002, license amendment request, the licensee also submitted an exemption request, consistent with the requirements of 10 CFR 50.60, to apply the  $K_{It}$  calculational methodology of CE NPSD-683-A, Revision 6 as part of the FCS pressure temperature limit report (PTLR) methodology.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that the exemption described above would provide an adequate margin of safety against brittle failure of the reactor pressure vessel at FCS. The details of the staff's evaluation will be provided in the exemption to Appendix G, which will allow the use of the methodology in Topical Report NPSD-683-A, Revision 6, to calculate the flaw stress intensity factors due to thermal stress loadings ( $K_{It}$ ), that will be issued in a future letter to the licensee.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, there are no significant nonradiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resource than those previously considered in the Final Environmental Statement for the FCS dated August 1972.

Agencies and Persons Consulted:

On July 18, 2003, the staff consulted with the Nebraska State official, Howard Shuman of the Nebraska Consumer Health Services Agency, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated October 8, 2002. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737, or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 18th day of July 2003.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Stephen Dembek, Chief, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

July 18, 2003

Mr. R. T. Ridenoure  
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Alan B. Wang, Project Manager, Section 2  
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\* W/Comment

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