

October 11, 2006

Mr. Randall K. Edington  
Vice President-Nuclear and CNO  
Nebraska Public Power District  
P.O. Box 98  
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION - ENVIRONMENTAL ASSESSMENT AND  
FINDING OF NO SIGNIFICANT IMPACT RELATED TO THE ISSUANCE OF  
EXEMPTION TO 10 CFR PART 50, APPENDIX J (TAC NO. MD0568)

Dear Mr. Edington:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application, dated March 15, 2006, for exemption from certain requirements of Title 10 of the *Code of Federal Regulations*, paragraph 50.54(o), as defined in 10 CFR Part 50, Appendix J. The proposed exemption would exempt Nebraska Public Power District from requirements to include main steam isolation valve leakage in (a) the overall integrated leakage rate test measurement required by Section III.A of Appendix J, Option B; and (b) the sum of local leak rate test measurements required by Section III.B of Appendix J, Option B.

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

Sincerely,

*/RA/*

Brian Benney, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure: Environmental Assessment

cc w/encl: See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION  
NEBRASKA PUBLIC POWER DISTRICT  
DOCKET NO. 50-298  
COOPER NUCLEAR STATION  
ENVIRONMENTAL ASSESSMENT AND FINDING OF  
NO 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), paragraph 50.54(o), and 10 CFR Part 50, Appendix J, for Facility Operating License No. DPR-46, issued to Nebraska Public Power District (NPPD or the licensee) for operation of the Cooper Nuclear Station (CNS), located in Nemaha County, Nebraska. Therefore, as required by 10 CFR Section 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would exempt NPPD from requirements to include main steam isolation valve (MSIV) leakage in (a) the overall integrated leakage rate test measurement required by Section III.A of Appendix J, Option B, and (b) the sum of local leak rate test measurements required by Section III.B of Appendix J, Option B.

The proposed action is in accordance with the licensee's application, dated March 15, 2006, for exemption from certain requirements of 10 CFR 50.54(o) as defined in 10 CFR Part 50, Appendix J.

The Need for the Proposed Action:

Paragraph 50.54(o) of 10 CFR Part 50 requires that primary reactor containments for

water cooled power reactors be subject to the requirements of Appendix J to 10 CFR Part 50. Appendix J specifies the leakage test requirements, schedules, and acceptance criteria for tests of the leak tight integrity of the primary reactor containment, and of systems and components which penetrate the containment. Option B, Section III.A requires that the overall integrated leak rate not exceed the allowable leakage ( $L_a$ ) with margin, as specified in the Technical Specifications (TSs). The overall integrated leak rate, as specified in the 10 CFR Part 50, Appendix J definitions, includes the contribution from MSIV leakage. By letter dated March 15, 2006, the licensee has requested an exemption from Option B, Section III.A, requirements to permit exclusion of MSIV leakage from the overall integrated leak rate test measurement. Option B, Section III.B of 10 CFR Part 50, Appendix J, requires that the sum of the leakage rates of Type B and Type C local leak rate tests be less than the performance criterion ( $L_a$ ) with margin, as specified in the TSs. The licensee's letter also requests an exemption from this requirement, to permit exclusion of the MSIV contribution to the sum of the Type B and Type C tests.

The above-cited requirements of Appendix J require that MSIV leakage measurements be grouped with the leakage measurements of other containment penetrations when containment leakage tests are performed. These requirements are inconsistent with the design of the CNS and the analytical models used to calculate the radiological consequences of design-basis accidents. At CNS, and similar facilities, the leakage from primary containment penetrations, under accident conditions, is collected and treated by the secondary containment system, or would bypass the secondary containment. However, the leakage from the MSIVs is collected and treated via an Alternative Leakage Treatment (ALT) path having different mitigation characteristics. In performing accident analyses, it is appropriate to group various leakage effluents according to the treatment they receive before being released to the environment (i.e., bypass leakage is grouped, leakage into secondary containment is grouped,

and ALT leakage is grouped), with specific limits for each group defined in the TSs. The proposed exemption would permit ALT path leakage to be independently grouped with its unique leakage limits.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that the environmental impacts would not be significant. 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. 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 non-radiological impacts, the proposed action does not have a potential to affect any historical sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological 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:

This action does not involve the use of any different resources than those previously considered in the Final Environmental Statement dated February 1973 for CNS.

Agencies and Persons Consulted:

In accordance with its stated policy, on September 26, 2006, the NRC staff consulted with the Nebraska State official, Ms. Julia Schmitt the Nebraska Department of Public Service, regarding the environmental impact of the proposed action. The State official had no comments on the environmental impact of the proposed exemption.

#### 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 this action, see the licensee's letter dated March 15, 2006. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publically available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on 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 11<sup>th</sup> day of October 2006.

FOR THE NUCLEAR REGULATORY COMMISSION

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Cooper Nuclear Station

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February 2006



Cooper Nuclear Station

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February 2006