



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 14, 1996

Mr. Guy R. Horn
Vice President - Nuclear
Nebraska Public Power District
P. O. Box 499
Columbus, NE 68602-0499

SUBJECT: COOPER NUCLEAR STATION - INDIVIDUAL PLANT EXAMINATION (IPE) FOR
INTERNAL EVENTS (TAC NO. M74400)

Dear Mr. Horn:

On March 31, 1993, the Nebraska Public Power District (NPPD) submitted its response to NRC Generic Letter (GL) 88-20, "Individual Plant Examination for Severe Accident Vulnerabilities," and its associated supplements, for the Cooper Nuclear Station (CNS). On October 21, 1994, the NRC staff sent a request for additional information (RAI) regarding that submittal to NPPD. NPPD responded to the RAI in a letter dated February 20, 1995.

The staff's evaluation of the Cooper IPE is documented in the enclosed reports. Enclosure 1 is the Staff Evaluation Report; Enclosures 2, 3 and 4 are the contractor Technical Evaluation Reports (TERs) for the front-end, back-end and human reliability analyses, respectively. Based on these reviews, the staff concludes that: (1) the CNS IPE submittal for internal events including internal flooding is complete with respect to the information requested by GL 88-20 (and associated guidance in NUREG-1335), and (2) the IPE results are reasonable, given the CNS design, operation, and history. The staff concludes that NPPD's IPE process is capable of identifying the most likely severe accidents and severe accident vulnerabilities, and that the CNS IPE has met the intent of GL 88-20.

The Cooper IPE has estimated a total core damage frequency (CDF) of 8E-5 per reactor year, excluding internal flooding; the highest CDF calculated by any licensee for a boiling water reactor. The high CDF is the result of a number of factors and assumptions, such as suppression pool lost at 200°F as a source of water for core cooling, no credit for hardened vent, and no credit for load shedding.

In its review, NPPD used the criteria in Nuclear Management and Resources Council (NUMARC) 91-04, "Severe Accident Issue Closure Guidelines," to screen for plant-specific vulnerabilities. On the basis of these criteria, NPPD did not identify any vulnerabilities and stated that "no modifications are planned based on these insights." NPPD has indicated that it plans to maintain a "living" probabilistic risk analysis (PRA) for CNS and will continue to consider plant modifications or changes, as appropriate, based on revised risk insights.

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Mr. Guy R. Horn

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In accordance with GL 88-20, NPPD proposed to resolve Unresolved Safety Issue (USI) A-45, "Shutdown Decay Heat Removal Requirements," for CNS. Based on the IPE process used to search for decay heat removal (DHR) vulnerabilities, and our review of CNS plant-specific features, the staff finds that NPPD's DHR evaluation is consistent with the intent of the USI A-45 resolution, and is therefore acceptable. No other specific USIs or generic safety issues were proposed for resolution as part of the CNS IPE.

This completes the staff review of TAC No. 74400. If you have any questions, please call me at (301) 415-1301.

Sincerely,

ORIGINAL SIGNED BY:

David L. Wigginton, Acting Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-298

- Enclosures:
1. Staff Evaluation Report
 2. TER (Front-End)
 3. TER (Back-End)
 4. TER (Human Reliability Analysis)

cc w/encl 1: See next page

DISTRIBUTION:

w/Enclosures 1, 2, 3 and 4:

<u>Docket File</u>	PUBLIC	ACRS	D. Wigginton
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w/Enclosure 1:

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OGC (15B18)	J. Dyer, RIV	
E. Adensam (EGAI)	W. McNeil, RIV	

Document Name: C0074400.IPE

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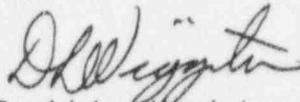
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cc w/encl 1: See next page

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Cooper Nuclear Station

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