



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

December 21, 1995

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

50-278

SUBJECT: COOPER NUCLEAR STATION - EVALUATION OF CORE SPRAY PIPING INDICATIONS  
(TAC NO. M94097)

Dear Mr. Horn:

By letter dated November 22, 1995, the Nebraska Public Power District (NPPD) submitted an evaluation of three indications in the core spray internal piping identified through in-vessel inspection activities performed during the current refueling outage at the Cooper Nuclear Station (CNS). Additional information was supplied in a letter dated December 18, 1995. Based on this evaluation, you concluded that the structural integrity of the core spray internal piping will be maintained for at least one more operating cycle for CNS without the need for repair.

The inspection of the subject piping was performed in accordance with the requested actions of NRC IE Bulletin 80-13, "Cracking in Core Spray Spargers," dated May 12, 1980. This bulletin requires all licensees of operating boiling water reactors to perform a visual inspection of the core spray spargers and the segment of piping between the inlet nozzle and the vessel shroud every refueling outage. Ultrasonic examinations to size the indications were performed in accordance with the requirements of American Society of Mechanical Engineers (ASME) Code, Section XI, 1989 Edition.

A total of three indications were found during the inspection. Two of the indications were discovered on the thermal sleeves of loop A (one indication on each of the two sleeves) and one indication was near the tee box of Loop B. The flaws were assumed to be through wall and the allowable flaw lengths were determined using IWB-3640 and Appendix C of the ASME Code.

Based on our review of your flaw evaluation, we conclude that the final flaw sizes at the end of the next fuel cycle will not exceed the Code allowable flaw length. Therefore, CNS can be safely operated for the next fuel cycle without repairing the subject flawed welds. Continued plant operation beyond the next fuel cycle should be supported by the results of re-inspection and reevaluation of the indications in accordance with the Code.

The staff previously reviewed an evaluation of the potential impact of reduced core spray flow due to leakage and the potential for loose parts resulting from a break of the core spray line at the identified crack locations for a similar plant. In that case, the staff determined that any resulting leakage from a through-wall crack would not have a significant effect on the performance of the core spray system, and that the likelihood of loose parts resulting from crack propagation was very small. However, NPPD is requested

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to perform similar confirmatory evaluations for CNS and to submit the results for NRC review. In your December 18, 1995, letter, you committed to provide this additional information by February 8, 1996. The staff finds the proposed schedule acceptable.

This completes the NRC staff review of the subject evaluation and closes TAC No. M94097. If you have any questions regarding this issue, please contact me at (301) 415-2736.

Sincerely,

ORIGINAL SIGNED BY:

James R. Hall, Sr. Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure: Safety Evaluation

cc w/encl: See next page

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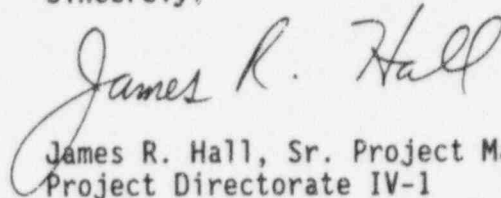
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Sincerely,

A handwritten signature in cursive script that reads "James R. Hall". The signature is written in dark ink and is positioned above the typed name and title.

James R. Hall, Sr. Project Manager  
Project Directorate IV-1  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure: Safety Evaluation

cc w/encl: See next page

Mr. Guy R. Horn  
Nebraska Public Power Company

Cooper Nuclear Station

cc:

Mr. John R McPhail, General Counsel  
Nebraska Public Power District  
P. O. Box 499  
Columbus, NE 68602-0499

Lincoln Electric System  
ATTN: Mr. Ron Stoddard  
11th & O Streets  
Lincoln, NE 68508

Nebraska Public Power District  
ATTN: Mr. John Mueller, Site Manager  
P. O. Box 98  
Brownville, NE 68321

Midwest Power  
ATTN: Richard J. Singer, Manager-Nuclear  
907 Walnut Street  
P. O. Box 657  
Des Moines, IA 50303

Randolph Wood, Director  
Nebraska Department of Environmental  
Control  
P. O. Box 98922  
Lincoln, NE 68509-8922

Nebraska Public Power District  
ATTN: Mr. Robert C. Godley, Nuclear  
Licensing & Safety Manager  
P. O. Box 98  
Brownville, NE 68321

Mr. Larry Bohlken, Chairman  
Nemaha County Board of Commissioners  
Nemaha County Courthouse  
1824 N Street  
Auburn, NE 68305

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
P. O. Box 218  
Brownville, NE 68321

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, TX 76011

Ms. Cheryl Rogers, LLRW Program Manager  
Division of Radiological Health  
Nebraska Department of Health  
301 Centennial Mall, South  
P. O. Box 95007  
Lincoln, NE 68509-5007

Mr. Ronald A. Kucera, Department Director  
of Intergovernmental Cooperation  
Department of Natural Resources  
P.O. Box 176  
Jefferson City, MO 65102