Nebraska Public Power District

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NLS950234
December 4, 1995

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Use of Tip Diffraction Flaw Sizing Techniques for UT Examination Indications
Cooper Nuclear Station, NRC Docket No. 50-298, License No. DPR-46

References:
1) Generic Letter 83-15, issued March 23, 1983: Implementation of Regulatory Guide 1.150, "Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations, Revision 1"

2) Letter (No. NLS9100527) to USNRC Document Control Desk from Nebraska Public Power District, dated August 21, 1991: Inservice Inspection Program Revision

Gentlemen:

The purpose of this letter is to inform the Nuclear Regulatory Commission (NRC) that the Nebraska Public Power District (District) intends to use tip diffraction sizing techniques, when applicable, for the evaluation of flaws detected during ultrasonic examination of reactor pressure vessel (RPV) welds at Cooper Nuclear Station (CNS). The justification for the use of these techniques is provided below.

In the August 1991 addenda to the CNS Second Ten-Year Interval Inservice Inspection (ISI) program (Reference 2), the District stated that "CNS will apply Regulatory Guide 1.150 requirements to all RPV examinations beginning with the 1991 Refueling Outage." Since the promulgation of Regulatory Guide 1.150, Revision 1 (Reference 1), there have been significant advances in ultrasonic examination and evaluation techniques. The regulatory guide specifies the use of amplitude based techniques for sizing flaw indications, whereas the industry has adopted the generally more accurate and repeatable tip diffraction sizing techniques. Amplitude based methods of sizing are affected by the shape, orientation, and reflectivity of a flaw. Tip diffraction techniques are based on the characteristics of the flaw itself. Per ASME Section XI Code, Subsection IWA-2240, tip diffraction has been demonstrated for CNS, and accepted by, the Authorized Nuclear Inservice Inspector (ANII) to be a Code acceptable sizing technique.

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Please contact me if your office has any questions, or require any additional information regarding the District's plan to use the tip diffraction sizing techniques.

Sincerely,

John H. Mueller
Site Manager

/dnm
Attachment

cc: Senior Project Manager
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector
USNRC - Cooper Nuclear Station

Regional Administrator
USNRC - Region IV

NPG Distribution

Correspondence No: NLS950234

The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
NONE	