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March 12, 1990
LIC-90-0202

Secretary
U. S. Nuclear Regulatory Commission
Attn: Docketing and Service Branch
Washington, DC 20555

Reference: Docket No. 50-285

Gentlemen:

SUBJECT: Proposed Rule Change to the Title 10 Code of Federal Regulations
Part 50.61; RIN 3150-AD01

Omaha Public Power District (OPPD) has reviewed the proposed rule change to 10CFR50.61 "Fracture Toughness Requirements for Protection Against Thermal Shock Events" as contained in Volume 54 Number 246 of the Federal Register dated December 26, 1989 pages 52946-52950, and has the following comments:

1. OPPD agrees that the Regulatory Guide 1.99 Revision 02 shift correlation is presently the most appropriate method for predicting irradiation damage, since it is both the best fit to power reactor surveillance data and contains separate correlations to account for varying embrittlement sensitivity in the base metal and weldments. Thus, the Regulatory Guide 1.99 Revision 02 shift correlation is the proper procedure for calculating irradiation damage and is appropriate for incorporation into the PTS rule.
2. The NRC states that the proposed amendment makes the procedure for calculating the amount of embrittlement for PTS consistent with the procedure given in Regulatory Guide 1.99 Revision 02. However, the Regulatory Guide Revision 02 position on the use of available surveillance data is not presently included in the rule. This difference causes an inconsistency between the PTS rule and other evaluations based on the use of Regulatory Guide 1.99 Revision 02. Specifically, the inconsistency would not permit reduction of the applied margin term when two or more credible surveillance data sets are available. Thus, the improved accuracy of Regulatory Guide 1.99 Revision 02 would not be fully available to OPPD for incorporation into the Fort Calhoun Station (FCS) RT_{PTS} calculation. This could result in an overly conservative prediction of the irradiation shift and unnecessarily high and artificial RT_{PTS} values.

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It is therefore recommended that the use of credible surveillance data be allowed to establish a consistent calculational method with Regulatory Guide 1.99 Revision 02 and the calculation of the RT_{PTS} value under the proposed amendment.

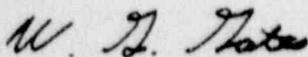
3. The reason for the change in the rule to require the use of measured values of the initial reference temperature, RT_{NDT} , is not identified. The present rule states that if a measured value is not available then specified generic values for initial RT_{NDT} must be used. The proposed rule changes the use of initial RT_{NDT} values by requiring the use of measured values, if available; if not, then specific generic values must be used.

This proposed change in the PTS rule forces the use of a specific measured value when available. The proper use of initial RT_{NDT} values should be based on a technical justification for using a measured or generic value on a case-by-case basis. This type of approach would be consistent with the philosophy used in determining residual element content of reactor pressure vessel steels. Therefore, it is recommended that the second sentence in paragraph 2(b)(2)(i) be revised to include the use of either a generic or measured mean value, whichever is justified.

4. A general comment is provided with respect to the Regulatory Analysis. The Regulatory Analysis presents the perception that the current PTS rule is nonconservative. This focus may not be appropriate for some nuclear plants, however for FCS it is appropriate because there will be an increase in the calculated RT_{PTS} values if Regulatory Guide 1.99 Revision 02 is incorporated into 10CFR50.61. It is anticipated that if detailed risk analyses are performed for FCS, the integrated risk of vessel failure would be less than presently perceived and the true risk to the plant due to PTS events would be considerably below the risk value associated with the PTS screening criterion. It is perceived by OPPD that this lower risk is consistent with the PTS basis document SECY-82-465, "NRC Staff Evaluation of Pressurized Thermal Shock" and US NRC Regulatory Guide 1.154, "Format and Content of Plant Specific Pressurized Thermal Shock Safety Analysis Reports for Pressurized Water Reactors".

OPPD appreciates the opportunity to comment on the proposed rule change to 10CFR50.61 "Fracture Toughness Requirements for Protection Against Thermal Shock Events". If you should have any questions, please contact me.

Sincerely,



W. G. Gates
Division Manager
Nuclear Operations

WGG/pjc

c: LeBoeuf, Lamb, Leiby & MacRae
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