

Rulemaking Comments

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**From:** Spanner, Jack [jspanner@epri.com]  
**Sent:** Wednesday, September 10, 2008 12:17 PM  
**To:** Rulemaking Comments  
**Cc:** Mark Kirk; HOLTHAUS, KEVIN C; weaklandd@firstenergycorp.com; Ahluwalia, Kawaljit  
**Subject:** PTS Rule comments RIN3150-AI01  
**Attachments:** 2008 MRP Comments to 10CFR60 61 ltrr1.pdf

<<2008 MRP Comments to 10CFR60 61 ltrr1.pdf>>

I have attached comments from the EPRI Materials Reliability Program to the PTS rulemaking for USNRC consideration.

DOCKETED  
USNRC

September 10, 2008 (3:30pm)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

September 10, 2008

Secretary, U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
ATTN: Rulemakings and Adjudications Staff

Subject: Proposed Rulemaking Comments RIN 3150- AI01

Reference: NRC Proposed Rulemaking for 10 CFR 50.61a, "Alternative Fracture Toughness Requirements for Protection Against Thermal Shock Events" dated August 11, 2008

Dear Sir or Madam:

This letter provides the EPRI Materials Reliability Program comments on the subject proposed rulemaking. The comments are attached to this letter.

Should you have any questions please contact me at 704-595-2065.

Sincerely,



Jack Spanner  
EPRI MRP Program Manager

JS/SD

Attachment

c: Al Ahluwalia  
Dennis Weakland  
Kevin Holthaus

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**Comments on the Proposed Alternative PTS Rule 10CFR50.61a**  
**September 4, 2008**

1.) Page 46561, Subsection VI, Column 3

*Comment:*

The industry is moving forward to provide guidance to enable licensees to account for the effects of sizing uncertainties and other uncertainties in meeting the requirements of Tables 2 and 3. This guidance to ensure that the risk associated with PTS is acceptable will be provided to the Director of the NRC Office of Nuclear Reactor Regulation (NRR) for review and approval when completed.

*Proposed Change:*

Language should be added to 10CFR50.61a(e) to allow licensees to account for the effects of flaw sizing uncertainties and other uncertainties in meeting the requirements of Tables 2 and 3. This language should allow the use of applicable data from ASME qualification tests, vendor specific performance demonstration tests, and other current and future data that may be applicable for assessing these uncertainties. This language should permit flaw sizes to be adjusted to account for the sizing uncertainties and other uncertainties before comparing the estimated size and density distribution to the acceptable size and density distributions in Tables 2 and 3.

2.) Pages 46564 and 46566, Section (a)(10) and Section (f)6(i)

*Comment:*

Test reactor data is included under "(a) definitions, (10) surveillance data". This would seem to imply that test reactor data should be included in the evaluations described in Section (f)6. We do not believe it is technically correct to require evaluation of test reactor data in conjunction with power reactor data. Adams document ML081120289 shows that test reactor data significantly deviates from the power reactor data at high fluence and would likely cause impacted heats to violate the (f)(6)(ii) criteria.

*Proposed Change:*

Either remove test reactor data from the definition of "surveillance data" in (a)(10) or add language to (f)6 to limit the required evaluations to surveillance data generated in commercial power reactor surveillance programs.

3.) Pages 46566 to 46569, Section (f)6 and Equations 10, 11, 12, Tables 5, 6 and 7

*Comment 3a:*

The proposed methodology for assessing potentially significant deviations of actual surveillance data for plant-specific heats from the predicted values has not been extensively tested by industry. It is apparent that guidance will be needed to perform the evaluation required in (f)6(vi). The industry intends to prepare such guidance for licensees to perform the data review and evaluation discussed in (f)6(vi) when these types of deviations are identified. This guidance will be provided to the Director of the NRC Office of Nuclear Reactor Regulation (NRR) for review and approval.

*Proposed Change 3a:*

None

*Comment 3b:*

The approach covers three types of potential deviations from trend curve predictions. The first approach is to address Offset Bias. No changes are proposed with respect to Offset Bias but guidance will be needed to perform the evaluation required in (f)6(vi).

*Proposed Change 3b:*

None

*Comment 3c:*

The second approach is to address Slope Change. The intent of this section appears to be to identify potential increases in the embrittlement rate at high fluence. The industry intends to move forward with an initiative to populate the power reactor vessel surveillance program database with higher neutron fluence surveillance data (extending to fluence values equivalent to 60-80 EFPY) that will adequately cover materials variables for the entire PWR fleet. This database should provide a more effective means of evaluating the potential for enhanced embrittlement rates at high fluence values than using an individual surveillance data set to modify the trend with fluence. Data from this initiative will be available in the next few years to assess the likelihood of enhanced embrittlement rates for the PWR fleet.

*Proposed Change 3c:*

The slope change evaluation in the proposed rule appears to be of limited value and should be eliminated.

*Comment 3d:*

The third approach is to address Significant Outlier(s). No changes are proposed with respect to Significant Outliers but guidance will be needed to perform the evaluation required in (f)6(vi).

*Proposed Change 3d:*

None

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