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Secretary,  
U. S. Nuclear Regulatory Commission  
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ATTN: Rulemakings and Adjudications Staff.

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OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

**STRATEGIC TEAMING AND RESOURCE SHARING (STARS)  
COMMENTS ON PROPOSED RULE PERTAINING TO  
RISK INFORMED CHANGES TO LOSS-OF-COOLANT TECHNICAL  
REQUIREMENTS  
(RIN 3150-AH29, 70 FR 67598)**

Gentlemen:

The Strategic Teaming and Resource Sharing (STARS)<sup>1</sup> nuclear power plants hereby provide comments on the proposed rule pertaining to risk informed changes to the loss-of-coolant technical requirements published in the Federal Register November 7, 2005 (70 FR 67598). The STARS plants have worked with the Westinghouse Owner's Group (WOG) and the Nuclear Energy Institute (NEI) in reviewing this proposed rulemaking. STARS endorses the statements concerning 10CFR50.46 in NEI letter dated February 28, 2006 from Marvin Fertel to Nils J. Diaz and the specific rule-change alternatives and their bases proposed by NEI. The comments below address general areas of the proposed rule that are of concern to STARS.

The STARS plants are particularly concerned about the change control process and the risk management requirements being proposed in the rule. The Federal Register Notice includes the following:

1. Federal Register, Volume 70, (70 FR), page 67602, the last paragraph of the right-hand column states the following:

<sup>1</sup> STARS is an alliance of six plants (eleven nuclear units) operated by TXU Power, AmerenUE, Wolf Creek Nuclear Operating Corporation, Pacific Gas and Electric Company, STP Nuclear Operating Company and Arizona Public Service Company.

*The rule would require that all future changes<sup>4</sup> to a facility, technical specifications,<sup>5</sup> or operating procedures made by licensees who adopt 10 CFR 50.46a be evaluated by a risk-informed integrated safety performance (RISP) assessment process which has been reviewed and approved by the NRC via the routine process for license amendments.<sup>6</sup>*

Foot note<sup>4</sup> reads as follows:

*<sup>4</sup> The scope of changes subject to the change criteria in paragraph (f) of the proposed rule would be greater than the changes currently subject to § 50.59, which applies only to changes to "the facility as described in the FSAR." The change criteria in the proposed rule would apply to all facility and procedure changes, regardless of whether they are described in the FSAR.*

The requirement to review all future changes, regardless of safety or risk significance, creates a situation for the licensee that is both unnecessary and potentially adverse to safety. By requiring evaluation of changes beyond even the criteria set down in § 50.59, the rule will force licensees to divert valuable resources from monitoring plant safety to tracking a multitude of items that have no safety or risk significance. This requirement is not commensurate with the risk significance of the proposed rule change. Furthermore, it appears to be contrary to the direction of the Commission to move to risk-informed regulation and the use of risk insights and tools in day-to-day decision making processes. The applicability and screening process approved for the § 50.59 process has proven to be an effective process which enhances safety by focusing the licensee resources and attention on those things that are important to plant safety.

2. Federal Register, Volume 70, (70 FR), page 67608, starting with the first full paragraph of the center column states the following:

*One circumstance where the ability to comply with the acceptance criteria might be called into question would be if an ECCS train or component was removed from service (such as for maintenance) while the plant is in operation. For this time period, the assumed set of mitigation systems would not be available to respond should a beyond TBS LOCA occur, and the acceptance criteria might not be satisfied. Thus, the licensee would either have to demonstrate that under such conditions the acceptance criteria would not be exceeded, or not place the facility in that configuration. To satisfy this requirement a licensee might prepare analyses showing acceptable results with expected complements of equipment that might be taken out of service or could propose suitable Technical Specifications as part of its application for the facility change that would restrict plant operation to acceptable conditions.*

*Accordingly, in § 50.46a(d)(2) of the proposed rule, the Commission would require that the facility may not operate in any at-power configuration of operable ECCS components where the ECCS cooling performance for LOCAs larger than the TBS has not been demonstrated to meet the acceptance criteria in § 50.46a(e)(4). The evaluation must be calculated in accordance with § 50.46a(e)(2). Bounding analyses may be performed to reduce the number of model calculations.*

The Technical Specifications for the ECCS system already reflect completion times that bound an acceptable risk-informed completion time for a greater than transition break size (TBS) LBLOCA initiator. Further, the Technical Specification should permit a reasonable risk-informed completion time for a condition where the greater than TBS design is not met. Since the Commission stated breaks larger than this TBS design should be removed from the design basis event category and that the mitigation capabilities for beyond design-basis events should be controlled based on the safety significance of these capabilities, permitting a reasonable risk-informed completion time for this condition should be acceptable.

As-written, the requirement could preclude a licensee from performing on-line maintenance on the ECCS. The improvement in the ECCS reliability and availability would be expected to offset the small increase in risk associated with the allowed outage time. Consequently, the effect of the operational restriction is likely to be risk-adverse.

3. Federal Register, Volume 70, (70 FR), page 67610, starting with the last full paragraph of the center column states the following:

*Paragraph 50.46a(f)(ii) would also require that the increase in risk from each change is minimal compared to the overall plant-specific risk profile. For licensed facilities which have very low overall risk estimates, the proposed criteria of  $10^{-7}$  per year and  $10^{-8}$  per year for CDF and LERF, respectively, may permit increases that are significantly large compared to the overall plant risk profile. Permitting a licensee to make changes without NRC review that are not minimal compared to the overall plant risk is contrary to the intent of the proposed rule. Therefore, the Commission proposes that, when quantified, a "minimal" increase in CDF and LERF must also be an increase of less than 1 percent of the overall plant-specific risk.*

This requirement would seem to be contrary to the rule's stated goal of enhancing safety. If enacted, it will allow plants with the highest overall plant-specific risk to make changes that are more risk-significant than plants with the lowest overall plant-specific risk.

4. Federal Register, Volume 70, (70 FR), page 67611, starting with the first full paragraph of the center column states the following:

*The Commission requests specific public comments on whether there is an alternative to tracking the cumulative risk increase that is sufficient to provide reasonable assurance of protection to public health and safety and common defense and security. (See Section III.J.12 of this supplementary information.)*

*The Commission also requests specific public comments on the acceptability of combining § 50.46a related and unrelated changes to meet the risk acceptance criteria. (See Section III.J.11 of this supplementary information.)*

Requiring licensees who adopt the optional rule to track cumulative risk is not in and of itself unreasonable. However, establishing a threshold above which any change requires prior NRC approval is burdensome on the licensee and the NRC and is counter to the stated

purpose of the rule, improving safety. This requirement, by its very nature, will cause licensees to create a "zero sum" risk management program focused on low and non-risk-significant items, instead of the high risk-significant items it was proposed to handle. This approach is very difficult to enforce due to the complexities introduced by trying to quantify the risk of inconsequential changes and the increased complexities caused by methodology changes this will require in the PRA model. In addition, enforcement at this low level of risk significance does not benefit public safety.

A better approach to track cumulative risk would be for Reg Guide 1.174 to require the licensee to monitor something like a yearly rolling average CDF and LERF for trends and address any adverse trends in the corrective action program.

5. Federal Register, Volume 70, (70 FR), page 67611, starting half way down the center column states the following:

*Consequently, licensees who adopt § 50.46a before implementing other risk-informed applications, will effectively have a smaller risk increase "available" compared to licensees that have already incorporated some risk-informed changes into their overall plant risk before adopting § 50.46a. The Commission does not consider this a safety issue but requests specific public comment on whether this potential inconsistency should be addressed and, if so, how? (See Section III.J.14 of this supplementary information.)*

This issue only exists because of the structure being proposed by the NRC for tracking and approving risk increases above an arbitrary threshold. Licensees and the NRC have effectively managed incremental risk without the need for this structure to date. The redefinition of the LBLOCA design bases does not by itself increase risk, nor does it render all of the long standing process in place ineffective. Any changes that seek to apply the revised design bases should be evaluated using the same methods proven effective in the past.

6. Federal Register, Volume 70, (70 FR), page 67612, starting with the first paragraph in the center column states the following:

*The section requires that the monitoring programs be designed to detect degradation of SSCs before plant safety is compromised. Permitting degradation to advance until plant safety could be compromised would be inconsistent with the Commission's regulatory responsibility of protecting public safety.*

This requirement is not necessary. Appendix B Criterion XVI for Corrective Action already contains this requirement.

7. Federal Register, Volume 70, (70 FR), page 67618, starting with the last paragraph in the right hand column states the following:

*5. The proposed § 50.46a includes an integrated, risk-informed change process to allow for changes to the facility following reanalysis of beyond design basis LOCAs larger than the*

*TBS. However, the current regulations in 10 CFR Part 50 already have requirements addressing changes to the facility (§ 50.59 and § 50.90). It might be more efficient to include the integrated, risk-informed change (RISP) requirements, for plants that use § 50.46a, under these existing change processes. The Commission solicits specific public comments on whether to revise existing § 50.59 and § 50.90 to accommodate the requirements for making plant changes under § 50.46a.*

The existing 10CFR50.59 process is adequate for change control. No additional requirements are needed to accommodate the proposed 10CFR50.46a. The § 50.59 process has been reviewed by all parties and guidance exists for both the industry and the NRC. The existing guidance (i.e. NEI 96-07 and associated Regulatory Guide) could be augmented to address the risk evaluations for changes to the facility for licensees who adopt § 50.46a; however, STARS does not think that augmentation is required.

8. Federal Register, Volume 70, (70 FR), page 67619, starting with the last part of paragraph 6 in the left hand column states the following:

*The NRC is seeking specific public comments on whether it would be better to consolidate all PRA requirements into a single location in the regulations so that they were consistent for all applications or to locate them separately with the specific regulatory applications that they support.*

A single location would be preferable and more user-friendly than locating the requirements in multiple locations according to the specific regulatory application involved. However, STARS does not believe that the proposed change to 10CFR50.46 should be the vehicle to achieve this regulatory change.

9. Federal Register, Volume 70, (70 FR), page 67618, starting with the first full paragraph in the center column states the following:

*Given the potential impact to the licensee (since the backfit rule would not apply) of the NRC's periodic reevaluation of estimated LOCA frequencies which could cause the NRC to increase the TBS, should the rule require licensees to maintain the capability to bring the plant into compliance with an increased transition break size (TBS), within a reasonable period of time?*

Either the backfit rule should be applied to this rule, or a set of criteria that defines how and when the NRC would determine the TBS is no longer acceptable should be created. Even if the NRC should make the determination the TBS is no longer acceptable, it is very unlikely that the conditions would be such that imminent concern is warranted. Consequently, there should be an appropriate time for licensees to evaluate their own conditions and establish appropriate corrective actions, if required.

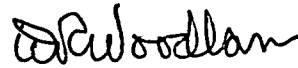
10. Federal Register, Volume 70, (70 FR), page 67618, starting with paragraph 16 in the right hand column states the following:

*Should the § 50.45a rule itself include high-level criteria and requirements for the risk evaluation process and acceptance criteria described in Reg Guide 1.174, as is currently proposed? If these criteria were included in the regulatory guide only, and not in the rule, how could the NRC take enforcement action for licensees who failed to meet the acceptance criteria?*

The requirements of item 4 are essentially the same as this item. Please see the response to item 4.

The STARS plants appreciate the opportunity to comment on this proposed rule. If there are any questions regarding these comments, please contact me at 254-897-6887 or [dwoodla1@txu.com](mailto:dwoodla1@txu.com).

Sincerely,



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Integrated Regulatory Affairs Group  
STARS