

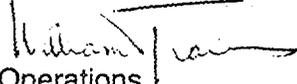


UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

AF 94-2
PDR
SUPPLEMENT TO
SECY-99-054

March 12, 1999

MEMORANDUM TO: Chairman Jackson
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

FROM: William D. Travers 
Executive Director for Operations

SUBJECT: FEEDBACK CONCERNING MEETING WITH THE NUCLEAR ENERGY INSTITUTE (NEI) ON APPLICATION OF PROPOSED APPROACHES FOR "MARGIN OF SAFETY" IN 10 CFR 50.59 (Tasking Memo Item IV.B) - 10 CFR 50.59 RULEMAKING (SECY-99-054)

On March 10, 1999, NEI and NRC staff met to discuss the specifics of proposals related to revised language for 10 CFR 50.59 dealing with margin of safety (criteria 7 and 8). Specifically, the staff and NEI met to obtain additional clarification related to concerns the staff had as to the breadth of the NEI proposals and the specific implementation process that NEI would use for mitigation and support systems. NEI wanted additional clarification related to the staff proposals (as contained in SECY-99-054) for maintaining the design basis capabilities contained in the FSAR. During the meeting, examples of changes were used to probe how the respective processes would be implemented. This meeting reflected a continuation of discussions held with NEI on January 8 and January 28, 1999, on the NEI proposal for "margin of safety." These prior meetings were useful in informing the staff of the rationale underlying NEI's approach, but did not involve sufficient exploration, by way of demonstrative examples, for the staff to test implementation of the NEI approach.

The outcome of the March 10, 1999, meeting was a greater understanding of the NEI approach as it relates to evaluation of changes to mitigation and support systems. As a result, the staff is now in a position of supporting its use with some limitations as discussed below.

Also addressed at the March 10, 1999 meeting was implementation of terminology for permitting increases in frequency of occurrence of accidents, or likelihood of malfunction of systems, structures and components ("minimal" v. "negligible"), with the conclusion that further effort would be needed in this area. The staff and NEI plan an additional meeting in the near future to address additional NEI proposals on this matter.

Three specific conclusions were reached from the meeting. First, while the NEI process would be technically sound and thus could be endorsed, the proposed rule language submitted by NEI during the comment period is not sufficient to assure satisfactory implementation of their process. In a similar light, the NEI process would not be sufficient to satisfy the proposed staff

rule in SECY-99-054. Therefore, the staff would need to modify the language of both proposed Criterion 7 and Criterion 8 in order to permit use of the process described by NEI.

Second, the staff examples were successful in demonstrating that controlling methodologies utilized by licensees is essential in assuring a consistent application of the NEI process. Previously, NEI had stated that a Criterion 8 was not necessary. NEI now appears to be convinced that Criterion 8 is not only necessary, but that it should not permit "minimal" changes to methodology. NEI expressed the view that it would support a revised Criterion 8 that would require staff review of any change from use of a methodology previously used as part of the licensing process. Third, the staff determined that the development of regulatory guidance that clearly articulates the process is critical for licensees and the staff to assure consistent implementation of the rule.

To weigh the benefits of either the staff's approach in SECY 99-054 or the NEI proposal as it is now understood by the staff, the staff examined both against four outcome goals. These were: would the proposal (1) maintain safety, (2) reduce unnecessary regulatory burden, (3) improve effectiveness or efficiency, and (4) improve public confidence? The staff concludes that both the approach in SECY-99-054 and the NEI approach will maintain safety because they will preserve the design basis capabilities that protect the integrity of fission product barriers, and thus those features that protect against release of radioactive material, through control of the methods and required response of the barriers as previously established by NRC review. The staff's approach would have taken this assurance to a lower level of control through the focus upon capability at the system, structure or component (SSC) level, whereas the NEI approach looks at the propagation of effects of changes to SSC capabilities on the ultimate barrier response. The NEI approach will provide burden reduction that the staff proposal would not because fewer license amendments would occur under the NEI approach. However, the level of internal licensee review would be the same under either proposal. The staff has concluded that there are more efficiencies to be gained in the NEI approach than under the staff proposal. The NEI proposal would shift the oversight responsibility for some changes to the inspection process rather than the currently structured licensing review process. The staff concludes that the inspection process would provide a reasonable approach to assure that the appropriate evaluations are being performed by licensees instead of a formal staff review as a license amendment for changes where the results continue to meet established design basis limits in the manner that they were determined when reviewed by the staff. Finally, the staff notes that the NEI approach may be viewed by the public as a reduction in the NRC assurance that a licensee is maintaining its design and licensing basis because it affords the licensee more opportunity to modify some design basis information without prior NRC review than would the staff's proposal. The staff believes that the design basis values and functions fundamental to maintaining safety could not be modified without prior NRC review through such an approach. In particular, those specific design basis requirements that assure the integrity of the barriers, such as the fuel, the reactor coolant system pressure boundary, and containment (as well as all items covered by the TS) could not be changed without prior staff review.

In light of the above information and the staff's better understanding of the NEI approach, the staff concludes:

1. The staff is now in a position to support a final rule which assures that the NEI process is performed as described during the March 10 meeting. The proposed final rule language in Criterion 7 and 8 must be revised to assure the process is accurately captured by the rule.
2. The present staff proposal for Criterion 8 will need to be modified to reflect the conclusion that any change to an established methodology requires prior approval. The staff will need to remove the concept of "minimal" changes to methodology from the final rule, and may want to add a definition of "change to evaluation method."
3. In recognition of the need to develop rule language to permit use of the NEI proposed approach, a revision to the language presently contained in SECY-99-054 is being undertaken by the staff, in anticipation of potential Commission direction to this end.

SECY, please track.

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