

Specific Industry Comments on Draft NRC Position on Industry PRA Technical Adequacy Documents

Section 2.2, *Industry Review Programs*

The industry has developed a robust PRA peer review process, which has been endorsed by the NRC in RG 1.200. The closure of Facts and Observations (F&Os) is essentially a continuation of that process. As long as the industry continues to use the processes already developed and endorsed, the NRC should not have any concern about this process.

The document infers that the NRC staff intends to continue to review "closed" F&Os in risk-informed submittals. This defeats the purpose of closing F&Os. Without assurance that a closed F&O does not need to be revisited for each subsequent risk-informed application, there is no value to be gained in formally closing an F&O.

Additionally, the document lays out substantial detail on independence, qualifications and other processes that should simply note the approved references. This document re-writes, and in some cases, conflicts with, existing NEI process documents and NRC-approved consensus standards.

Specific Comments

- The second bullet on page 3, at the very beginning of Section 2.2, confuses the intent of F&O reviews. The F&Os are written on the base PRA model; the finding addressed from that perspective it should be closed. Suggest deleting the parenthetical phrase about applications.
- In the discussion of "team qualifications," the following new sentences have been added in both Sections 2.2.1 (old) and 2.2.2 (new), "Another potential conflict of interest may exist if a peer reviewer (contractor) is assigned an area for review where colleagues or management, from the same organization, performed the actual technical analysis. Although the peer reviewer may not have performed any of the technical analysis, a perception of a conflict could arise from this individual reviewing colleagues or management work." This goes beyond the current definition of "independence" in the PRA Standard, and is more rigorous than what would be required by Appendix B. This should be removed, as should the related discussion in Table 16, given that this would make it untenable to manage the Peer Review processes. Instead, team qualifications and independence should simply reference existing guidance documents, such as the PRA Standard, as there has been no evidence that the existing definition has caused problems with lack of rigor in peer reviews.
- In Section 2.2.1, the statement that the peer review compares the PRA model against the plant design and procedures to validate that they reflect the as-designed, or the as built and as operated plant is redundant to using the PRA Standard and applicable Supporting Requirements (SRs). Suggest replacing the statement with, "The Peer Review team uses the PRA Standard with the supporting requirements to evaluate the PRA model against the various SRs."
- On page 3 "...the peer review needs to address the modifications made to the PRA since the any previous peer review," should be deleted. First, the term "modifications" is not defined and thus the scope of this type review is open ended. Additionally, full scope peer reviews involve a complete look at the model and do not make special emphasis for model changes since last peer review unless a PRA upgrade is part of the scope.
- Table 16, which summarizes attributes of the peer review process, states that a peer review "Determines if the PRA represents as-built and as-operated plant." This should be deleted as it is redundant to the PRA Standard. The Licensee is responsible for that action, the Peer

Review team samples parts of the PRA to ensure the PRA model reflects the as-built and as-operated facility. The Supporting Requirements are designed to facilitate this sampling review.

- On page 6, in the paragraph on F&O Technical Review Process, the third sentence is contrary to the purpose of F&O close out and should be deleted. In that same paragraph, it is stated that, "F&Os characterized as documentation shortcomings are examined to ensure that adequate technical substance existed for the PRA standard peer review to have developed F&Os, or make the determination that the impacted SRs are not met because of lack of documentation." The intent of this statement is unclear. It seems to be saying that for all documentation F&Os to be closed the Technical Reviewer must second guess the PRA standard peer review team and validate that there was sufficient evidence for the original PRA standard peer review team to make the F&O documentation, and if not, issue new F&Os against the individual technical SRs and assign a "not met" for that SR. This could result in significant rework with no added value to the overall product.
- Several statements in Table 17 are problematic and should be revised.
 - "Uses a basis for review a set of desired PRA characteristics and attributes" is confusing and should be reworded to state the use of the Applicable SRs are used.
 - "Ensures that PRA is updated for F&O resolution." This is unnecessary, as an F&O could not considered completed unless applicable PRA model documentation was updated with the F&O resolution.
 - "Assess F&Os characterized as documentation to determine of adequate information was available for peer review development of F&Os to pertinent SRs." This should be deleted. This asks the second reviewer to pass judgment on the voracity of the first peer review team and including the purposeful obstruction of the consensus process.
- Throughout the document, including the title, F&Os are referred to as "findings and observations." The correct term is "facts and observations."

Section 2.3, *Acceptability of New PRA Methods*

The original purpose of the Vetting Panel was to determine by what process and level of effort would be needed for new PRA methods. It was not expected to be approving PRA methods. The NRC document mainly focuses on the Vetting Panel being the new method review and approval panel. This leads to the discussion on qualifications and documentation requirements which are beyond the proposed Vetting Panel charter. Suggest considering a new section for the process for actual approval of a new method.

Specific Comments

- On page 9, the definition of new method is problematic. There are numerous PRA methods to which the NRC does not have NRC available published basis summarizing NRC acceptance. The definition of new methods needs to focus on future efforts where it the method has not been used in a U.S. PRA models before and has not been submitted for NRC review.
- In the last sentence in the second paragraph Page 9, it is implied that a separate, independent review by the NRC will be conducted. The purpose of the Vetting Panel and the subsequent Technical Review Committee/ Panel, where an independent review panel determines technical adequacy and provides a document to NRC Management for final approval. Having the NRC re-review provides no improvements to efficiency. This sentence should be deleted.

- On page 10, the document states that, "This technical expertise includes experience in the work in the element assigned for review which includes knowledge of similar methods." Individuals knowledge and experienced in full scope Level 1 and Level 2 are not likely to include experience and knowledge of similar methods. As written this requirement is likely unable to be possible to meet. Suggest replace a the statement with "*the panel members technical knowledge should include general knowledge of the proposed method or similar methods and the when needed the panel should be supplemented with other experts, which may include the developer of the method and at least one other non-commercial competitor technically knowledgeable individual.*" The discussion on qualifications also specifies that a vetting panel member cannot represent a licensee who has submitted a risk informed license amendment which includes a method being evaluated. This is unnecessarily restrictive, and as long as the vetting panel member meets the definition of independence in the PRA Standard, the member is sufficiently independent to participate on the vetting panel.
- In Table 18, the bullet on "Determine if PRA method represents as-built and as-operated plant" should be deleted as this has no application in the determination of the acceptability of a new PRA method. Also in table 18, the section on documentation is confusing, as the main purpose of the Vetting Panel is to determine what level of review is called for, not to conduct the validation and verification of a new method that results in the approval. Finally, in the section on NRC acceptance, the last bullet "Submit to NRC RES/DRA for staff review coordination and staff acceptance," should be revised to read "Submit to NRC Director Risk Analysis for acceptance of the new method" to be consistent with NEI 16-04.