

June 8, 2005

Mr. Marvin S. Fertel
Senior Vice President and
Chief Nuclear Officer
Nuclear Energy Institute
1776 I Street, NW
Washington, DC 20061

Dear Mr. Fertel:

Thank you for your letter dated March 24, 2005, which discussed and made recommendations on improving the timeliness and efficiency of Significant Determination Process (SDP) evaluations in the Reactor Oversight Process (ROP). Your letter demonstrated that you devoted considerable resources to understanding our process and developing your proposals, and I thank you for those efforts. The timeliness of final SDPs is a critical measure of SDP effectiveness. We agree that the existing timeliness goal of issuing final SDPs within 90 days of the issuance of the inspection report can be difficult to meet. As outlined by the staff at the December 9, 2004, Commission meeting on reactor safety and licensing activities, and in SECY-05-0070, "Reactor Oversight Process Self-Assessment for Calendar Year 2004," the staff has proposed several changes to our process that we believe will improve SDP timeliness. The changes will adjust the definition and scope of SDP Phase 2 evaluations; improve guidance on risk-informed decision-making based on the best available information within the agreed time constraints; and grade the timeliness requirements according to the complexity and risk significance of the finding.

We have completed an initial assessment of your recommendations, which is detailed in the enclosure. We believe that the appropriate forum in which to discuss issues with the SDP is the current monthly meetings with your organization on the ROP. We do not consider the formation of a joint task group in this area necessary.

In closing, thank you again for your comments. The Nuclear Regulatory Commission staff will consider your recommendations, along with those from other stakeholders, in the effort to improve our timeliness in processing findings through the SDP. As we continue to develop and implement new methods, we will discuss the proposed changes with your representatives at the monthly ROP meetings.

Sincerely,

/RA/

Luis A. Reyes
Executive Director
for Operations

Enclosure: Nuclear Regulatory Commission Response

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Senior Vice President and

Chief Nuclear Officer

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Luis A. Reyes

Executive Director

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Enclosure: Nuclear Regulatory Commission Response

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Nuclear Regulatory Commission Response

NEI Recommendation 1

After readily available information has been used to determine the preliminary significance of a finding, and there is a reasonable difference in the results of the licensee and Nuclear Regulatory Commission (NRC) evaluations, the NRC should proceed with its 95001 follow up inspection. If the licensee's corrective action on the initial finding is found adequate, the initial finding should be considered green. If not, the NRC should label the finding as a preliminary white and follow the current process (i.e., choice letter, regulatory conference, final determination).

Nuclear Energy Institute (NEI) Rationale

This approach would restore much of the original intent of the Significant Determination Process (SDP) as a tool to direct inspection resources in an efficient and timely manner. There would be incentive for licensees to allocate more resources to corrective action versus characterization of the significance of the finding. This approach would also allow NRC to conduct closely linked follow up inspection leading to timely final determinations. Finally, this approach would preserve valuable licensee and NRC PRA resources for issues of higher safety significance.

NRC Response

The NRC agrees that the preliminary significance determination should be made based on the best available information at the time of the assessment, allowing for the acceptable timeliness goal of 90 days. However, we disagree that the finding should be finalized as green regardless of the potential final risk-informed outcome because licensee corrective actions are prompt and acceptable. This recommendation would not effectively allow us to fulfill the ROP requirement to assess current licensee performance using the Action Matrix, as described in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program." Therefore, the NRC does not plan to take action on this recommendation.

NEI Recommendation 2

Revise consideration of external events to be more realistic and practical than the current 1E-7 CDF threshold. Use separate thresholds for risk contributors (e.g. internal events, external events, fires, seismic, shutdown), or develop other rules for consideration of external events, such as 50 percent of the internal events risk threshold, versus the existing 10 percent.

NEI Rationale

This change is needed to remove the current artificially low threshold of 1E-7 CDF for consideration of external events. This requires licensee attention to external events issues (which may not be modeled or conservatively modeled in the current PRA) at an unrealistically low level.

NRC Response

We are developing new methodologies for considering the risk contribution from external events. The staff will consider your comments. We will discuss our proposed methodology and schedules with you at an upcoming ROP monthly meeting. We also suggest that licensees evaluate their external event models for realistic conservatism and make appropriate adjustments to the model. Such changes would result in more effective and efficient assessments.

NEI Recommendation 3

Increase NRC timeliness goals to 180 days for more risk-significant findings (potential yellow or red) and complicated evaluations such as fire protection to allow more thorough analysis.

NEI Rationale

This recommendation is aimed at solving NRC's timeliness issues by invoking a more realistic schedule for the identification of risk significant findings, which, by their nature, will generally justify more involved methods to determine their significance.

NRC Response

We agree that we need more time than the current 90 days to complete certain complex or potentially safety significant SDP evaluations. A process which allows for extensions beyond the 90-day goal, overseen by the Significance and Enforcement Review Panel (SERP) and closely monitored by NRC management, has been proposed by the staff and is currently under consideration.

NEI Recommendation 4

Collect additional data on the SDP to obtain a better understanding of the process elements leading to NRC timeliness concerns.

NEI Rationale

Identification of the pertinent process steps and bottlenecks could lead to simple and effective solutions, such as augmentation of key NRC resources.

NRC Response

The staff generally understands the delays within the NRC SDP process, starting with the identification of an issue by the inspector until the issuance of the final SDP letter. The staff completed an informal review of the reasons certain SDP evaluations did not meet the timeliness goal. The staff determined that most of the delays were caused by highly complex issues (e.g. fire related issues); the industry's desire to conduct extensive engineering analysis for some issues; or the industry's desire to provide information that was not readily available at

the time of the SDP assessment. The staff recommendations include enhancements to eliminate or minimize such delays. While we do not believe a collection of additional data on the SDP is necessary before implementing changes, the staff will continue to evaluate the SDP process flow.

NEI Recommendation 5

Reconsider need for NRC press releases at the preliminary determination phase for white findings. These press releases are controlled by the NRC Office of Public Affairs (OPA) which is an independent office reporting directly to the Commission.

NEI Rationale

Press releases are one of the primary drivers for major licensee actions to contest potential findings. Press releases for preliminary determinations can be misleading, especially when final determinations are different. Press releases should be limited to final determinations of the SDP. A simple public meeting notice would suffice for regulatory conferences.

NRC Response

This issue has been raised with OPA.

NEI Recommendation 6

Establish the ability in Phase 2 to credit degraded condition as something other than 1 or 0 success likelihood. Allow the SRA to apply judgment.

NEI Rationale

Many issues of threshold determination involve equipment whose performance was degraded in some manner, but would have still allowed the safety function to be performed for some period of time prior to failure. There is no option in the current Phase 2 process to give some partial credit for this equipment performance. Allowing partial credit (e.g., setting the availability/reliability to 0.5) would be a reasonable compromise for many situations, and would avoid the need to enter Phase 3.

NRC Response

The SDP Phase 2 process is designed to be somewhat conservative to prevent underestimation of the risk associated with a performance deficiency. The guidance in IMC 0609, Appendix A, Attachment 1, supports this by recommending that an initial bounding determination of significance be made by assuming a worst-case condition such as a complete loss of function, even if the assumption is unsupported by the facts known at that time. If the bounding analysis screens a finding as green, no further analysis is necessary. Therefore, the use of 1.0 (i.e. assumed failure) or 0.0 (i.e. assumed success) is appropriate for a Phase 2 screening process. However, if a bounding analysis results in a greater-than-green characterization, more facts may be necessary to complete the SDP. We encourage the SRAs to use risk-informed judgement to make adjustments to the Phase 2 evaluation when the inputs

are known to be conservative. In these cases, because the Phase 2 input was modified, the resulting SDP analysis is referred to as a Phase 3 SDP. However, the Phase 2 analysis may not necessarily require any additional changes or review to be sufficient for the preliminary and final significance determination. Since the current process allows SRA judgement to be applied as described, no changes are necessary from this recommendation.