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DOCKET NUMBER
PROPOSED RULE PR 21, 50, 52, 54 + 100
(65FR11488)

May 17, 2000
NOC-AE-00000861
File No.: G03.15
10CFR50.4
STI: 31113860

The Secretary of the Commission
Attention: Rulemaking and Adjudications Staff,
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Reference: Advance Notice of Proposed Rulemaking, "Risk-informing Special Treatment Requirements", Federal Register: March 3, 2000 (65/43)

The attachment contains comments on the referenced advance notice of proposed rulemaking. The attachment reflects comments from the Strategic Teaming and Resource Sharing (STARS) plants. These plants are the Callaway Plant, Diablo Canyon Power Plant, Comanche Peak Steam Electric Station, STP Nuclear Operating Company and Wolf Creek Nuclear Operating Company.

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KJT/

Attachment: Comments on the Advanced Notice of Proposed Rulemaking for Risk-Informing Special Treatment Requirements

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TEMPLATE = SECY-067

SECY-02

Comments on the Advanced Notice of Proposed Rulemaking for Risk-Informing Special Treatment Requirements

On behalf of the STARS plants (South Texas Project, Comanche Peak, Wolf Creek, Calloway, and Diablo Canyon), the following comments are made on the Advanced Notice of Proposed Rulemaking (ANPR) for Risk-Informing Special Treatment Requirements (65 Fed. Reg. 11,488). In addition, the industry comments from the Nuclear Energy Institute (NEI) and the comments supplied by Morgan, Lewis, & Bockius have been reviewed and are endorsed.

We strongly support the Commission's efforts to risk-inform the special treatment requirements. We believe that the result of implementation will be safety-positive for licensees while at the same time it will reduce the burden for both the licensees and the Commission. While this is an important step in risk-informing the regulatory environment, we do have concerns and reservations about the ANPR as currently written. These concerns are stated in the general comments below:

In general, the ANPR is far too prescriptive and does not afford sufficient flexibility for diverse industry plants to accomplish the categorization process. The proposed Appendix T, particularly concerning the Integrated Decision-Making Process (IDP), is unnecessarily detailed. In order to accommodate new insights, feedback, and lessons learned from the categorization process, the appendix should only define the major elements in the categorization process. An NRC-endorsed industry guideline document (currently being drafted by NEI) should contain the needed implementation details to ensure consistent and expected results are achieved throughout the industry.

If industry guidance documents were available to facilitate SSC categorization and implementation, the need for prior NRC review and approval would be unnecessary. This is based on past regulatory practices which have permitted regulations to be issued and for licensees to implement and comply with the regulations with no prior NRC review and approval. When a licensee chooses to implement 10 CFR 50.69, prior notification would be made to the NRC. This notification would include the list of regulations being adopted, reference to the endorsed guidelines followed and any deviations, a general schedule for implementation, and a technical specification change submittal, if needed. For the categorization process and implementation, NRC inspections would serve to validate that the licensee had satisfied the regulations.

It is also recognized that licensees have varying licensing bases and operational practices. Selective implementation should be permitted both for the listed regulations and for the systems to which the categorization process is applied. The very nature of performing the categorization process is lengthy and is generally completed on a system-by-system basis. Once a system is categorized, the implementation of the special treatment requirement adjustments should be permitted on that system without requiring the categorization process to be completed on all systems. In addition, many of the non-safety-related SSCs that will be categorized as safety

significant (RISC-2) are already included in the maintenance rule and are subject to the additional controls and monitoring needed to satisfy these requirements. Therefore, if the concern with selective implementation is that licensees will 'cherry pick' the systems where special treatment requirements can be removed and will not categorize non-safety-related systems which may contain safety significant SSCs, the concern may be unfounded.

We also do not believe that the ANPR proposal to require pilot plants to commit to satisfying the final risk-informed rule and NEI guidance for categorization and implementation is appropriate or necessary. While the pilot plants will generally comport to the final rule, it is likely that there will be additional insights gained prior to the issuance of the final rule. The pilot plants that began with accepted methodologies should be grandfathered under the final rule with no required changes.

Additional detailed comments are delineated below:

Option 2 is a scope issue
In SECY-98-300, 'Options for Risk-Informed Revisions to 10 CFR part 50 – Domestic Licensing of Production and Utilization Facilities' dated December 23, 1998, the staff proposed the options for making the NRC's regulations risk-informed. It is important to note, and it should be emphasized in the ANPR, that the focus of Option 2 is to determine the scope of Structures, Systems, and Components (SSCs) to which the regulations apply. The Option 2 effort requires a consistent means to appropriately categorize the safety significance of SSCs, to document the technical bases for the decisions made, to adjust the scope (via removal of the Low Safety Significant SSCs from the scope of the Special Treatment Requirements), and to monitor and evaluate feedback to determine if any further adjustments in either categorization or treatment is necessary. Option 2 does not intend to risk-inform the regulations – it is intended to adjust the scope to which the regulations (i.e., special treatment requirements) apply. Option 3, once initiated, will assess the need to adjust the technical requirements of NRC regulations and appropriately risk-inform the regulations.

Clarify the Rulemaking Plan Vision
Section II.A identifies the vision for the ANPR effort to '. . .modify the requirements for special treatment to focus on those SSCs that have been identified as important to protect public health and safety by using a risk-informed approach.' The vision as stated correctly identifies that special treatment requirements will be focused on SSCs that have been identified as safety significant, however, the vision must also include a statement of reduction/elimination of special treatment requirements on those SSCs that have been determined to be low/not safety significant.

Pilot Plant Program
Section II.G discusses the use of pilot plants to demonstrate the viability of the risk categorization process. While we support the pilot plant program approach, we do consider the South Texas Project to have already demonstrated the categorization process as a proof-in-concept. Additional industry participants will validate the categorization process specifically against the proposed rule and appendix. This Section also states that the 'categorization processes must also be applied to a variety of plant systems, including mechanical (active and

passive), fluid, and electrical systems, and safety-related and nonsafety related systems, so that technical aspects of the categorization processes and their implementation can be thoroughly exercised.' Based on the South Texas Project experience with categorization, many primary-side fluid systems contain both safety-related and non-safety-related components. These systems will include both active mechanical components (pumps, MOVs, AOVs, etc) and passive mechanical components (piping, manual valves, orifices, etc), and will include electrical components (pump motors, valve motors, etc) and instrumentation components (transmitters, gauges, actuation devices, etc). By appropriately selecting systems which satisfy the intent of the categorization diversity, pilot plants should be able to demonstrate a sound categorization process with five or fewer systems.

In addition, Section II.H specifically addresses the South Texas Project Exemption Request which is before the Commission for approval. This Section states 'The NRC believes that, if approved, the South Texas exemption request will serve as a proof-of-concept prototype which will provide useful information and experience when the rulemaking for this effort is developed'. We believe that the South Texas Project efforts to date have demonstrated the proof-of-concept for SSC categorization and eventual implementation. Other potential industry pilot plants are closely watching the status of the STP exemption request. If the eventual outcome is that the South Texas Project is not granted the exemption request, other potential pilot plants will likely consider the ability to categorize SSCs and adjust the special treatment requirements to be overtly difficult and will not pursue this possibility.

Approach to Categorization

Section III.A addresses the 'four-box' approach to segregate SSCs into an appropriate safety significant category. For Box 1, the statement made is that 'In addition, it is possible that some of these SSCs may have some additional requirements concerning reliability and availability if attributes that cause the SSC to be safety significant are not sufficiently controlled by current special treatment requirements.' In the South Texas Project experience to date with SSC categorization, no cases were identified where the current full application of special treatment requirements applied to these safety-related, safety significant components was either inadequate or identified as deficient. The above referenced statement infers that the NRC expects pilot plants to find cases where current safety related treatments are insufficient, and when found additional regulatory requirements will be required. The potential to identify additional regulatory requirements is remote, and it is requested that this statement be revised or struck from the ANPR.

For Box 3 components, we agree that it is not the intent that RISC-3 components be removed from the facility or to be removed from maintenance programs, but rather, the functional capabilities of these components will be maintained. In addition, the statement is made that 'RISC-3 SSCs will need to receive sufficient regulatory treatment'. It is our position that RISC-3 components will no longer be subjected to regulatory controls and that commercial grade treatment programs will be sufficient to provide reasonable assurance that these SSCs will continue to reliably satisfy their functional requirements.

Process for Categorization

The ANPR itemizes the elements in the process to categorize SSCs. The comments on these elements are as follows:

Element 1
The ANPR states 'For each SSC where changes to the treatment requirements are considered, current requirements must be identified and documented so that the effect of the changes can be more easily understood.' This requirement places an undue burden on licensees to identify and document special treatment requirements for as a minimum any SSC that will potentially be categorized as RISC-2 or RISC-3. Recognizing the special treatment requirements that are currently applied is not necessary to support the categorization process. The categorization process will appropriately segregate a component based on probabilistic and deterministic insights only, not on currently applied special treatment. The categorization of SSCs should be based on the importance of the function performed by that SSC, without regard to the special treatment applied. Once the SSC is categorized, then the appropriate special treatment will be applied to ensure that the functional requirements of the SSC are maintained. It is anticipated that minimal to no special treatment requirements will be necessary to provide reasonable assurance that RISC-3 SSCs can reliably perform their function, while some additional special treatment requirements may be necessary to ensure that RISC-2 SSCs can reliably perform their function.

Element 2
The ANPR states that the 'PRA must reflect the as-built and as-operated plant.' While the ANPR goes on to address periodic PRA updates, it must be understood that the time in between these periodic PRA updates, the PRA model may not fully and completely reflect the as-built and as-operated plant. While it is expected that these deviations will be minor, modifications and changes in performance do occur during a plant cycle that may cause deviations from the PRA model or its assumptions.
In addition, the PRA periodic update frequency should be clarified to read as 'the PRA must be updated within nine months following every other refueling outage (based on one Unit for multiple Unit sites with a common PRA) provided the interval between successive updates does not exceed 36 months.'

Element 5(a)
The ANPR states 'the IDP must document and justify the target SSC reliability and availability.' This requirement is unduly burdensome. Once the SSC has been categorized, the special treatment requirements are adjusted to provide reasonable assurance that the SSC will reliably perform its function. Requiring the IDP to deterministically target an acceptable reliability and availability number per SSC is a daunting task with no value added. The Maintenance Rule requirements will appropriately monitor the RISC-2 and RISC-3 SSCs – the RISC-2 SSCs will be monitored at the component level, while the RISC-3 SSCs will be monitored at the train/system/plant level.
In addition, this section states that the 'IDP must document the functional requirements for the SSCs and describe the process to assure that these requirements are preserved.' While it is

agreed that the IDP must document the critical attributes for each safety significant SSC, the IDP will likely not be the group with the best insights to properly implement and control the changes. A separate implementing group or organization would better accomplish assuring that the functional requirements are preserved.

Element 6 Requirements of the Integrated Decision-Making Panel

This section is far too prescriptive in the areas of Plant Procedure, Membership, Training, and Documentation to effectively be implemented in the industry while factoring in the diversity of the various plant organizations. It is highly recommended that the prescriptive nature be reduced in the ANPR, and that any additional 'guidance' that is offered to be provided in a separate guidelines document.

Based on the South Texas Project categorization experience to date, a couple of insights on the sub-parts of this Element are offered:

- The IDP membership should be maintained as consistent as possible. It is recommended that the use of alternate members be minimized, and that in general, the only alternate position permitted would be the Chairman position.
- The selection of the IDP chairman and IDP members should be the responsibility of a more-senior team that either offers oversight of the IDP, or serves as a sponsoring organization for the IDP
- The training of IDP members should be a combination of technical training prior to beginning the overall categorization process, and just-in-time training that addresses the specifics of the PRA insights for each particular system as it is addressed.
- IDP decision making should encourage the documentation of differing opinions when professional technical differences exist among IDP members that can not be resolved to each member's satisfaction. The ANPR states that 'If a resolution cannot be achieved concerning the safety significance of an SSC, then the SSC shall be classified as safety significant.' This deterministically drives any difference of opinion to categorize an SSC as safety significant. An avenue should exist (i.e. IDP oversight group) that can serve as 'arbitrator' for differences of professional opinion with the allowance to appropriately categorize the component as either safety significant or as low safety significant. This will eliminate driving SSCs to a safety significant categorization just because an IDP member 'feels' that an SSC is important.
- The documentation of the IDP process as stated in the ANPR is far too prescriptive and unduly burdensome. The ANPR states 'The following shall be documented and available for NRC review: ... Functional requirements for each SSC receiving revised treatment, the original treatment requirements for these SSCs, the revised requirements for these SSCs, target values for SSC reliability and availability, and the process that will be used to assure these functional requirements and target values will be preserved/met.' These documentation requirements are excessive and likely beyond the capabilities of the IDP as previously stated.
- The ANPR also states that the overall change in plant risk as a result of changes in treatment requirements including changes in the baseline CDF and LERF shall be documented and available for NRC review. While some plants may desire to follow this approach, the use of

sensitivity studies to bound the overall change in treatment and CDF/LERF should be permitted. We have found that the use of sensitivity studies provides reasonable insights and limit the onerous nature of specific evaluations.

NOTE

Responses to each specific question itemized at the back of the ANPR are being addressed by NEI on behalf of the industry.