Strategic Teaming and Resource Sharing

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Chief, Rules and Directives Branch
Division of Administrative Services
Office of Administration
U.S. Nuclear Regulatory Commission
Mail Stop T6–D59
Washington, DC 20555–0001

STRATEGIC TEAMING AND RESOURCE SHARING (STARS)
COMMENTS ON PROPOSED GENERIC COMMUNICATION
Post-Fire Safe-Shutdown Circuit Analysis Spurious Actuations
(70 FR 60859, Dated October 19, 2005)

Dear Sir or Madam:

The Strategic Teaming and Resource Sharing (STARS)[1] Alliance appreciates the opportunity to provide additional comments on the proposed generic communication, "Post-Fire Safe-Shutdown Circuit Analysis Spurious Actuations." Although STARS has previously commented on the proposed generic communication (*see* STARS letter STARS-05016, dated December 19, 2005), the Alliance finds that additional comments are warranted. The additional comments are provided in the enclosure to this letter. In addition, the Alliance endorses the comments provided by the Nuclear Energy Institute (NEI) regarding this proposed generic communication.

STARS encourages continued open dialog between key stakeholders and the NRC regarding fire protection issues. STARS appreciates the opportunity to comment on this proposed generic communication. If there are any questions regarding these comments, please contact me at 254-897-6887, or dwoodla1@txu.com, or Rodney Wilferd at 623-393-5744, or rwilferd@apsc.com.

Sincerely,

DRWoodlan

D. R. Woodlan, Chairman
Integrated Regulatory Affairs Group
STARS

Enclosure

[1] 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.

SISP Review Complete
Template = ADM-013

E-RIDS = ADM-03
Add = A. Markley (AWM)
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Enclosure to STARS-06004

Comments on Proposed Generic Communication:
"Post-Fire Safe-Shutdown Analysis Spurious Actuations"

(70 FR 60859)

The STARS Alliance respectfully submits the following additional comments:

1. The STARS Alliance endorses the comments provided by the Nuclear Energy Institute (NEI) on behalf of the industry regarding this proposed generic communication.

2. Federal Register, Volume 70, (70 FR), page 60859, the last paragraph of the right-hand column states the following:

   "The objective of the fire protection requirements and guidance is to provide reasonable assurance that one train of systems necessary to achieve and maintain hot shutdown is free of fire damage."

   Hot shutdown is the condition for boiling water reactors (BWRs), while hot standby is the condition for pressurized water reactors (PWRs) (Refer to Regulatory Guide 1.189, "Fire Protection for Operating Nuclear Power Plants"). Consider changing the word "hot" to "safe," since the overall object is to achieve and maintain *safe* shutdown.

3. 70 FR 60860, the first full paragraph in the left-hand column states the following:

   "In 1998 the NRC staff started to interact with interested stakeholders in an attempt to understand the problem and develop an effective risk-informed solution to the circuit analysis issue."

   The draft GL does not meet this objective, as it provides no risk informed solution for circuit analysis other than the adoption of National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition." As stated in STARS letter STARS-05016, D. Woodlan, Chairman, Integrated Regulatory Affairs Strategic Issues Group, STARS, to Chief, Rules and Directives Branch, NRC, "Strategic Teaming and Resource Sharing (STARS) Comments on Proposed Generic Communication Post-Fire Safe-Shutdown Circuit Analysis Spurious Actuations (70 FR 60859, Dated October 19, 2005)," dated December 19, 2005, risk-informed approaches are used throughout the industry for a multitude of different purposes, including serving as the basis for making a change to the licensing basis. Risk-informed approaches should not be treated any differently in the area of fire protection than they are in other areas where these approaches are used, particularly for plants that have the standard license condition. A strict deterministic approach actually presents a solution that is contrary to the stated goal of developing an effective risk-informed solution, i.e., the deterministic approach requires all multiple spurious actuations to be considered simultaneously even though this may not be a credible scenario given the location of the fire and the type and configuration of the potentially affected cables. STARS reiterates the position that risk-informed approaches are an acceptable method for determining if a proposed change "adversely affects the ability to achieve and maintain safe shutdown" in accordance with the standard license condition. STARS letter STARS-05016 provides a suggestion on an acceptable risk threshold for determining whether a change adversely affects the ability to achieve and maintain safe shutdown.

4. 70 FR 60860, the first paragraph of the center column states the following:

   "However, current NRC regulations only allow these interpretations with respect to the design of alternate shutdown capability."

   The specific NRC regulations should be clearly identified and stated to eliminate the potential for future interpretation and confusion.

5. 70 FR 60861, the first paragraph of the center column states the following:

   "Furthermore, the licensees' risk assessment tools have not been reviewed or inspected against quality standards found acceptable to the NRC staff. Consequently, the staff believes that the use of risk informed approaches without prior NRC approval may result in changes that could adversely affect safe shutdown."

   The above statement is not entirely correct, as the NRC is clearly endorsing specific analytical methods and tools for a risk-informed approach in Draft Regulatory Guide DG-1139, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants." If these NRC-endorsed risk informed applications were to be utilized, there should not be any quality standard concerns. This demonstrates a flaw in the rationale that risk informed approaches without prior NRC approval may result in changes that could adversely affect safe shutdown. If this is the NRC's primary concern in not allowing plants with a deterministic fire protection program and the standard license condition to use a risk-informed approach (unless accompanied by a license amendment), then the basis for the current 10 CFR 50.48 limitations related to using risk-informed methods should be revisited.

6. 70 FR 60862, the last paragraph prior to "Requested Actions" in the first column states the following:

   "The remaining sections of NEI 00-01 provide acceptable circuit analysis guidance on both the deterministic approach and the risk-informed, performance-based approach."

   Does this endorsement include the appendices? If so, please clearly state that the remaining sections, including appendices, of the NEI 00-01 provide acceptable circuit analysis guidance on both approaches.

7. 70 FR 60863, the second full paragraph of the center column states the following:

"Consequently, to demonstrate compliance with the regulatory requirement that one safe shutdown train remain free of fire damage (which has always been the NRC's position), and with licensees' licensing bases, licensees must address the potential for multiple concurrent spurious actuations by analyzing these failures and providing adequate protection where required."

The "which has always been the NRC's position" statement appears to be incorrect. Section 5 of Regulatory Guide 1.189 requires the analysis to demonstrate that one success path of equipment that can be used to bring the reactor to hot shutdown (BWRs) or hot standby (PWRs) remains unaffected by the fire. One success path versus one safe shutdown train presents two distinctly different criterions. These two distinctly different criterions demonstrate that the NRC position regarding post fire safe shutdown capability has changed.