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2005 OCT -5 AM 10:19

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RECEIVED

Ref: 70 FR 42596,  
Dated July 25, 2005

STARS-05012

September 26, 2005

Chief, Rules and Directives Branch  
Division of Administrative Services  
Office of Administration  
U.S. Nuclear Regulatory Commission  
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7/25/05  
70 FR 42596  
(6)

**STRATEGIC TEAMING AND RESOURCE SHARING (STARS)  
COMMENTS ON PROPOSED GENERIC COMMUNICATION  
Draft Generic Letter 2005-XX:  
Impact of Potentially Degraded HEMYC and MT Fire Barriers on  
Compliance with Approved Fire Protection Programs  
(70 FR 42596, Dated July 25, 2005)**

Dear Sir or Madam:

The Strategic Teaming and Resource Sharing (STARS)<sup>1</sup> nuclear power plants appreciate the opportunity to provide comments on the proposed generic communication, Draft Generic Letter 2005-XX, "Impact of Potentially Degraded HEMYC and MT Fire Barriers on Compliance with Approved Fire Protection Programs." STARS endorses the comments provided by the Nuclear Energy Institute regarding this proposed generic communication. In addition, specific STARS comments are provided below and in the enclosure to this letter.

The primary objective of Title 10, Code of Federal regulations, Paragraph 50.48 (10 CFR 50.48), Fire Protection, is to minimize the probability and effects of fires and explosions on structures, systems, and components that are important to safety. To meet this objective, licensees have developed fire protection plans and designed their facilities using various fire protection features. Thermolag and the fire barriers described in the subject draft generic letter were installed as a fire protection feature that would provide protection against fire damage to electrical raceway

<sup>1</sup> 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.

ERIDS = ADM-03

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STSP Review Complete  
Template = ADM-013

adm = A. Lavette (AXL3)

fire barriers for a designated period of time. Certain configurations of HEMYC and MT fire barriers, similar to Thermolag, have been shown to be inadequate when subjected to fire tests in accordance with the methodology described in Generic Letter 86-10, Supplement 1, "Fire Endurance Test Acceptance Criteria for Fire Barrier Systems Used to Separate Redundant Safe Shutdown Trains within the Same Fire Area." STARS supports the position that deficient fire barriers should be addressed through a licensee's corrective action program.

STARS is concerned, however, that there appears to be a developing regulatory trend where previously reviewed and approved fire protection features<sup>2</sup> remain subject to continued or new performance testing that includes new or higher performance standards beyond that which was originally required for the installed fire protection feature. STARS agrees that fire protection features should be reviewed when new information regarding potentially degraded performance is presented - the issue should be specifically identified, including the specific configuration or condition that prompted the initial concern. The proposed resolution(s) to the issue should also be specific to the observed deficient condition. It is inappropriate to condemn a range of protective features or an entire manufacturer product line based on a limited number of observed deficiencies, particularly if the installed fire barrier configuration differs from that which was specified by the manufacturer. Continued calling into question of established fire protection features results in regulatory uncertainty and places the licensee in the difficult position of implementing an effective fire protection plan that uses such features.

Another area of concern is the use of risk insights in the general area of fire protection. The current staff position is that risk insights and tools cannot be used as the basis to make changes to the approved fire protection plan for those plants whose licensing basis is established on a deterministic approach, unless the licensee chooses to adopt the risk-informed option provided in 10 CFR 50.48. This position appears to be contrary to the direction of the Commission to move to risk-informed regulation and the use of risk insights and tools in day-to-day plant operations and decision making processes. As an example, the staff relies heavily on risk insights and tools for issuing Notices of Enforcement Discretion. The staff also allows the use of risk insights and tools to form the basis for license amendment requests, such as those that pertain to allowed outage times. In addition, risk insights and tools are used daily by licensees to manage the risk associated with maintenance activities. Although risk insights are an important tool for licensees and regulators, licensees must still ensure that they comply with the applicable regulations and Technical Specifications.

For plants licensed on or after January 01, 1979, the standard license condition allows licensees to make changes to the fire protection program provided that the ability to achieve and maintain safe shutdown is not adversely affected by the changes. The use of risk-informed approaches should be an acceptable approach for determining whether or not an activity is "adverse." Obviously, these approaches must be based on sound principles and available regulatory guidance, such as that provided in Regulatory Guide (RG) 1.174, "An approach for Using

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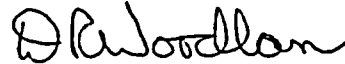
<sup>2</sup> "Fire Protection Features" as used here broadly means those features, such as plant design and layout, fire barriers, detection and suppression, etc., that are used to prevent and mitigate fire and its effects.

Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis,” and RG 1.187, “Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments,” which endorses Nuclear Energy Institute 96-07, Revision 1, “Guidelines for 10 CFR 50.59 Implementation.” The approaches used by the licensee would be subject to NRC review and inspection.

The supposition that the use of risk-informed approaches as the basis for fire protection program changes is “adverse” has no demonstrated basis in fact. 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. The use of risk information is becoming increasingly important to both the regulator and licensees - there should not be a prohibition to the use of risk information as it pertains to fire protection, regardless of whether or not the licensee’s established fire protection plan is based on deterministic approaches.

STARS encourages continued open dialog between key stakeholders and the NRC regarding fire protection issues. STARS appreciates the opportunity to comment on this proposed rule. If there are any questions regarding these comments, please contact me at 254-897-6887, or [dwoodl1@txu.com](mailto:dwoodl1@txu.com), or Rodney Wilferd at 623-393-5744, or [rwilferd@apsc.com](mailto:rwilferd@apsc.com).

Sincerely,



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

Enclosure

**Enclosure to STARS 05012**

**Comments on Proposed Generic Communication**

**Draft Generic Letter 2005-XX:**

**“Impact of Potentially Degraded HEMYC and MT Fire Barriers on  
Compliance with Approved Fire Protection Programs”**

**(70 FR 42596)**

STARS respectfully submits the following comments:

1. A limited number of licensees use HEMYC or MT fire barrier systems as fire protection features within their respective facility. STARS recommends that the proposed generic communication distribution be limited to only those licensees that use these fire barrier systems, and that the draft generic letter be revised accordingly to minimize the impact on those licensees that are not impacted by this issue. The Nuclear Energy Institute has identified the licensees that may be impacted by this issue.
2. The fire tests sponsored by the NRC were performed in accordance with Generic Letter 86-10, Supplement 1, "Fire Endurance Test Acceptance Criteria for Fire Barrier Systems Used to Separate Redundant Safe Shutdown Trains within the Same Fire Area."  
Therefore, these fire tests were most likely performed to standards that are much more restrictive than those that were required for the initial testing and qualification of these fire barrier systems. The proposed generic communication should clearly indicate that the fire tests performed by the NRC did not duplicate the original fire tests that were performed to originally certify the HEMYC and MT fire barrier system product line.
3. 70 FR 42598, first column, fourth complete paragraph, "Hemyc Construction" – this paragraph is confusing. It appears that two different fire barrier configurations are being discussed. Please clarify, and provide additional information regarding the use and configuration of the second fire barrier.
4. 70 FR 42598, second column, second complete paragraph – this paragraph discusses "three failure modes" of the fire barriers, but it implies only two "types" of failures, i.e., shrinkage of the outer material, and inadequate protection of intruding steel members. Please provide additional information regarding the "three failure modes," or clarify that only two "types" of failures were observed.
5. 70 FR 42598, second column, second complete paragraph, fourth sentence – this sentence implies that non-standard configurations were used during the tests sponsored by the NRC. Specifically, the sentence states that "the standard used by some utilities" required protection of intruding steel. Are the stated configurations the manufacturer's rated configurations for intruding steel, or are the tested configurations based on configurations that were developed by the utilities? Please clarify as to what configuration standard was used during the tests, and consider limiting the discussion to the tested configuration.

6. 70 FR 42598, second column, second complete paragraph, fourth sentence – refer to comment 4 above. If the tested configuration was based on the configuration developed by the utility, and if that configuration did not receive review and approval of the manufacturer, and if it was not subjected to appropriate fire tests, then it is inappropriate to declare the entire product line of HEMYC and MT fire barriers systems deficient since these configurations were not the same as, or bounded by, those configurations that were originally tested, rated, and specified by the manufacturer.
7. 70 FR 42598, third column, second complete paragraph, beginning with "NRC regulations." Within the context of the surrounding paragraphs, this paragraph appears to be misplaced, and its meaning is unclear. Please consider deleting this paragraph, or relocate it and provide additional information as to the intent of this paragraph. Is the intent to state that an exemption or license amendment is an acceptable approach to resolving this issue?
8. 70 FR 42598, third column, second complete paragraph, last sentence – should the word "ratings" more appropriately be "barriers"? The issue is that the fire barriers do not perform to the intended rating, not what the barrier systems are rated at. In the larger context of this paragraph which focuses on regulatory requirements, it may be more appropriate to remove all references to HEMYC and MT fire barrier systems, and simply state that "Fire barrier systems are expected to perform to the intended rating" to provide time to extinguish fires...
9. 70 FR 42599, first column, last paragraph – refer to the STARS comments regarding the use of risk information provided in the cover letter.
10. 70 FR 42599, second column, "Applicable Regulatory Guidance," first paragraph, first reference to "GL 86-10" – The reference to "GL 86-10" is incomplete. STARS suggest providing the complete reference: Generic Letter (GL) 86-10, "Implementation of Fire Protection Requirements."
11. "Requested Actions" and "Requested Information" – the 60-day time period for the initial response is arbitrary, and it may not allow sufficient time for licensees who are affected by this issue to adequately respond and provide the requested information. Depending on the extent of condition and the proposed corrective action(s), it may take a licensee a significant amount of engineering and support resources to perform the operability determinations and to design, schedule, and implement the corrective action solution. STARS recommends extending the initial response period to 90 days at a minimum so that an adequate and complete response can be developed by the licensee.

The NRC staff should work with the industry during the public resolution process to develop a time period that is risk-based and that would provide licensees with sufficient time to provide a complete and adequate response.

12. "Requested Actions" and "Requested Information" – the compliance deadline of December 01, 2007 is arbitrary. While it is reasonable to expect that approximately two years would be sufficient to evaluate, design, and implement appropriate corrective actions, this date may not allow sufficient time for implementation of corrective actions based on the following factors:

- a. The actual issue date of this proposed generic communication.
- b. Refueling outage schedules (particularly for multi-unit sites) for those corrective actions that may require a plant shutdown.
- c. NRC review, approval, and implementation of licensee exemption request or other required licensing action.

STARS recommends that the NRC staff work with the industry during the comment resolution process to develop a realistic deadline that is based on risk and that would provide licensees sufficient time to obtain the necessary resources and develop and implement appropriate corrective action solutions to this issue.