



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 3, 2008

SECRETARY

COMMISSION VOTING RECORD

DECISION ITEM: SECY-08-0093

TITLE: RESOLUTION OF ISSUES RELATED TO FIRE-INDUCED  
CIRCUIT FAILURES

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of September 3, 2008.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

A handwritten signature in black ink, appearing to read "Annette Vietti-Cook", written over a horizontal line.

Annette L. Vietti-Cook  
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Klein  
Commissioner Jaczko  
Commissioner Lyons  
Commissioner Svinicki  
OGC  
EDO  
PDR

VOTING SUMMARY - SECY-08-0093

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. KLEIN	X				X	7/29/08
COMR. JACZKO	X				X	8/22/08
COMR. LYONS	X				X	7/25/08
COMR. SVINICKI	X				X	8/26/08

COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation and provided some additional comments. Commissioner Jaczko believed that upon Commission approval, and staff completion of the guidance, enforcement discretion should end, and licensees should find and resolve potential fire-induced circuit failures within six months, and then be subject to enforcement for future non-compliances. He also believes that the Commission should make 10 CFR 50.48(c) mandatory. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on September 3, 2008.

**NOTATION VOTE**

**RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary  
**FROM:** CHAIRMAN KLEIN  
**SUBJECT:** SECY-08-0093 – RESOLUTION OF ISSUES  
RELATED TO FIRE-INDUCED CIRCUIT  
FAILURES

Approved XX Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS: Below \_\_\_ Attached XX None \_\_\_

  
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SIGNATURE

7/29/08  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes \_\_\_ No \_\_\_

**Chairman Klein's Comments on SECY-08-0093**

I approve the staff's recommended actions for licensees that are not adopting the risk-informed methods of National Fire Protection Association Standard (NFPA) 805. The proposed guidance provides a success path toward the final closure of fire protection issues regarding fire-induced circuit failure analysis. Resolution and closure of this issue is needed to restore public confidence in the implementation of the NRC's fire protection regulatory requirements, and is long overdue. The protection of at least one dedicated train of equipment necessary to achieve and maintain hot shutdown conditions after a fire, as described in 10 CFR Part 50, Appendix R, Section III.G.1.a, will ensure the continued safe operation of non-NFPA 805 plants without the routine reliance on compensatory measures.

In addition, I recommend issuing the proposed enforcement discretion guidance related to fire-induced circuit failures. The enforcement discretion is consistent with the Enforcement Policy expectations and its implementation is supported by a sound rationale. The guidance provides an incentive for licensees to identify any additional fire protection problems, enter the items in their corrective action program, and resolve the problem in a reasonable timeframe commensurate with the risk significance of the issue.

The staff should continue its planned efforts and look for opportunities to ensure the timely closure of all remaining fire protection issues. It is imperative that the staff incorporate lessons learned from the past, and applies the knowledge to address internal and external stakeholders' fire protection concerns.

 7/29/08  
\_\_\_\_\_  
Dale E. Klein Date

**NOTATION VOTE**

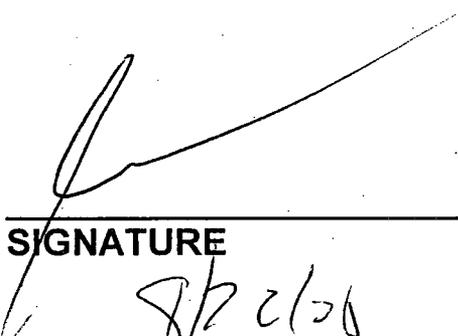
**RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary  
**FROM:** Commissioner Gregory B. Jaczko  
**SUBJECT:** SECY-08-0093 – RESOLUTION OF ISSUES  
RELATED TO FIRE-INDUCED CIRCUIT  
FAILURES

Approved   X   Disapproved        Abstain       

Not Participating       

**COMMENTS:** Below        Attached   X   None       

  
\_\_\_\_\_  
**SIGNATURE**

8/22/08  
\_\_\_\_\_  
**DATE**

Entered on "STARS" Yes   X   No

**Commissioner Jaczko's Vote on SECY-08-0093  
Resolution of Issues Related to Fire-Induced Circuit Failures**

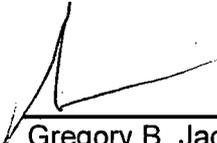
I approve of the staff's proposed steps for providing a method of compliance to resolve fire-induced circuit failures for licensees who choose not to utilize the risk-informed approach contained in Title 10 of the *Code of Federal Regulations* Part 50, Section 48(c) (10 CFR 50.48(c)) – National Fire Protection Association Standard (NFPA) 805.

I believe the staff provided a reasonable and sound solution in their previous paper to the Commission concerning post-fire safe-shutdown circuits spurious actuations analysis, and I approved their approach with my vote on SECY-06-0196. Although the Chairman and the other Commissioners did not agree with my vote on SECY-06-0196, a common theme in their votes was clear; this is an issue that must be resolved with clear regulatory guidance. The proposal provided by the staff in SECY-08-0093 provides a bright line for licensees to understand Appendix R fire protection requirements. I believe that using enforcement discretion and longstanding interim compensatory measures have gone on too long.

The staff proposal to revise the enforcement guidance regarding circuit failures to allow licensees an additional six months to identify fire-induced circuit failure related noncompliance, an additional 30 month period to resolve, and then staff to review any proposed licensing action only serves to prolong licensee noncompliance with fire protection regulation. These fire protection issues are not new. The industry has had over 10 years of enforcement discretion to identify and resolve potential noncompliances involving fire induced circuit failure vulnerabilities. The regulatory requirements and supporting staff positions are well documented. NRC regulatory requirements recognize that fires can induce multiple hot shorts, shorts to ground, and open circuits. In their recent report, the GAO concluded that the "NRC has not fully resolved the long-standing issues that complicate the commercial nuclear industry's compliance with NRC's fire regulations; moreover, NRC lacks a comprehensive database on the use of exemptions, manual actions, and compensatory measures for long periods of time that would facilitate the study of compliance trends or help NRC's field inspectors in examining unit compliance." Specifically, these issues include the use of operator manual actions, the long-term use of interim compensatory measures, the effectiveness of fire wraps, and mitigating the effects of short circuits on safety-related equipment. Therefore, upon Commission approval, and staff completion of the guidance, enforcement discretion should end, and licensees should find and resolve potential fire-induced circuit failures within six months, and then be subject to enforcement for future non-compliances.

The Commission has already provided licensees with a very good solution by allowing them to utilize the risk-informed approach known as NFPA 805. The main drawback to this rule is that it is voluntary, rather than applicable to all licensees. The Commission should make 10 CFR 50.48(c) mandatory. Since approximately half of the licensees have either committed or expressed their intent to transition to NFPA 805, the burden of the remaining licensees to transition would not be that great, considering that within the remaining fraction, several licensees already have robust fire protection. For those plants, transition to NFPA 805 would be relatively straightforward and they could benefit from many of the aspects of NFPA 805. By making the rule mandatory, the Commission breaks the cycle of enforcement discretion, confusion and further procrastination with the existing rules. Finally, it would require those licensees with weaker fire protection to

establish not only a clear path for compliance, but in many cases, it could also enhance their plant's fire protection through real physical improvements.

  
Gregory B. Jaczko

9/22/08

Date

**NOTATION VOTE**

**RESPONSE SHEET**

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER LYONS  
SUBJECT: SECY-08-0093 – RESOLUTION OF ISSUES  
RELATED TO FIRE-INDUCED CIRCUIT  
FAILURES

Approved  X  Disapproved   Abstain

Not Participating

COMMENTS: Below   Attached  X  None

  
Peter B. Lyons  
SIGNATURE

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DATE

Entered on "STARS" Yes  X  No

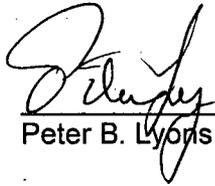
**Commissioner Lyons' Comments on SECY-08-0093**  
**Resolution of Issues Related to Fire-Induced Circuit Failures**

I approve the issuance of changes to the current enforcement guidance as recommended by the staff and in accordance with my comments below.

I was pleased to see in this proposal a glimmer of light at what I hope will be the end of a frustratingly long tunnel. I find the staff's proposed two-tiered approach to be reasonable and it is my hope that this approach will help bring long overdue improvement to the clarity of the regulatory guidance for this complex issue and to the consistency of its application. It is unfortunate that the current prescriptive Appendix R regulation and the similar licensing bases for later vintage plants, in general, are not clearer on this particular issue. I recognize the extraordinary difficulty this lack of clarity has caused in staff's application of these requirements to a large number of unique plant designs. Looking forward to the possibility of a next generation of standardized nuclear plants, the question arises as to whether we should seek to modify the rule itself for long-term improved clarity in its applicability to advanced reactor designs. I would encourage the staff to examine this question as part of their lessons-learned activities. More importantly, it is imperative that the staff's proposed approach, which is described as a clarification, be fully understood by the affected licensees if they are to meet the expected goal of fully resolving this issue within three years of the date the staff issues the clarification. **Therefore, the staff should be directed to engage industry stakeholders in one or more public meetings to discuss the draft language of the staff's planned communication to industry, to ensure common understanding of the path to closure for this issue.**

For the non-NFPA 805 plants, the proposed timeline in this paper to resolve the circuit-failure issue is consistent with Commission direction in SRM-SECY-06-0196 to be about the same time it will take for licensees to implement the NFPA 805 approach. However, as noted by the staff this is clearly contingent upon further industry and staff progress in developing acceptable guidance consistent with the staff's proposed approach. I am comfortable with taking this time if it will finally and permanently address this issue. As I noted in my notation vote on SECY-06-0196, there are several levels of defense-in-depth for fire protection that are unaffected by this issue. These include fire prevention measures and various combinations of detection, automatic suppression, suppression and extinguishment by trained personnel, barriers, and the associated administrative controls. As noted in the recent GAO audit of fire protection, actual U.S. industry performance since the 1975 Browns Ferry fire has been that no fire has threatened safe shutdown and all have been of limited safety significance. In my plant visits, I have been consistently impressed with the cleanliness standards, controls on combustible materials, and fire protection features. Resolution of fire barrier material deficiencies involves testing the material in its specific installed configuration in accordance with established test protocols and standards that have been accepted by the staff. Thus, the technical resolution path for this issue is clear: such materials may be credited, with appropriate validation testing, in a plant's licensing basis. The remaining deficiencies are compensated until final resolution is achieved. The schedule for final resolution is subject to Commission approval when the staff's proposed fire protection closure plan is submitted. Thus the current defense-in-depth measures that remain unaffected by the circuit failure issue continue to provide adequate assurance of public health and safety. **Therefore, staff should be directed to continue working with stakeholders to develop clear regulatory guidance on an analysis methodology that can resolve the fire-induced circuit failure issue with reasonable assurance of public health and safety and to report progress to the Commission in one year.**

For the remaining plants, i.e. those transitioning to 10 CFR 50.48(c) – NFPA 805, the fire-induced circuit failure issue as well as other fire protection licensing issues will be addressed through this transition. It is, therefore, extremely important that the NFPA 805 approach succeed. This risk-informed and performance-based approach tailors a fire protection licensing basis to the unique design of a plant and should assure that required fire measures are commensurate with the likelihood and potential consequences of the fire hazard. I continue to support the earlier Commission guidance in SRM-SECY-06-0196, directing staff to encourage licensee transitions to NFPA 805. Nearly half of the units (48 at last count, with the recent addition of Kewaunee Power Station) intend to make this transition, although the non-pilot plants are still carefully watching the pilot activities at Shearon Harris Nuclear Power Plant and Oconee Nuclear Station. The staff's recent report on their results of an initial review of the supporting fire PRA models for these pilot efforts is instructive in highlighting areas that need further work by both staff and industry. The adequacy of these PRA models is crucial to the success of the NFPA 805 initiative and thereby to the resolution of the fire-induced circuit failure issue. **Therefore, staff should be directed to continue working with stakeholders to improve the clarity of the PRA requirements necessary to comply with 10 CFR 50.48(c), in a manner that supports predictable regulatory review and oversight.**

  
Peter B. Lyons      7/25/08  
Date

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER SVINICKI  
SUBJECT: SECY-08-0093 – RESOLUTION OF ISSUES  
RELATED TO FIRE-INDUCED CIRCUIT  
FAILURES

Approved XX Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS: Below \_\_\_\_\_ Attached XX None \_\_\_\_\_

  
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SIGNATURE

08/26/08  
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DATE

Entered on "STARS" Yes  No \_\_\_\_\_

**Commissioner Svinicki's Comments on SECY-08-0093  
Resolution of Issues Related to Fire-Induced Circuit Failures**

I join my colleagues in approving staff's proposed changes to the enforcement discretion guidance regarding fire-induced circuit failure violations for licensees who choose not to utilize the risk-informed approach contained in 10 CFR 50.48(c) – National Fire Protection Association Standard 805. Specifically, I approve the issuance of new enforcement discretion guidance which will provide six months for licensees to identify noncompliances, implement compensatory measures and place the noncompliances in the licensee's corrective action program. This would be followed by 30 months for the licensees to resolve the fire-induced circuit failure related noncompliances without being cited with a violation. For both of these time periods, compensatory measures must be in place in order to receive enforcement discretion. At the end of 30 months, the enforcement discretion will end for all related, unresolved noncompliances.

I agree with Chairman Klein that this guidance will provide an incentive for licensees to identify any additional fire protection noncompliances, and to track the items through to closure in the licensee's corrective action program, within a finite window of enforcement discretion. In addition, the proposed timeline to resolve the circuit-failure issue is consistent with Commission direction in SRM-SECY-06-0196 and is approximately equivalent to the time needed for licensees to implement NFPA 805 approaches to this issue, as noted by Commissioner Lyons. I also strongly support the proposal by staff to hold public meetings with stakeholders regarding this new guidance, under the direction of the NRC Fire Protection Steering Committee.

  
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Kristine L. Svinicki                      08/26/08