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70 FR 25622

RULES AND DIRECTIVES  
BRANCH  
USNRC

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Leland, North Carolina  
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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

RECEIVED

Dear Mr. Lesar:

I am providing comments on a proposed generic communication providing clarification of Post-Fire Safe Shutdown Circuit Regulatory Requirements (70 FR 25622). Comments were due July 12; I would appreciate consideration of my comments filed at this late date.

My principal comment is that this draft communication, in "clarifying" existing requirements for circuit failure analysis in a very conservative manner, will serve only to greatly increase the burden of compliance and will result in a reduction in safety. Existing analysis methods are entirely adequate to protect plants against the risk of safety-significant fire-induced circuit failures. It is entirely appropriate to use risk-informed methods to select circuits for evaluation in self-assessments and inspections, using the guidance of RIS 2004-03 and NEI 04-06. Such risk-informed evaluations and inspections, without the additional guidance of this proposed RIS, are more than adequate to accomplish the NRC staff goal of assuring that the consequences of fire-induced circuit failures does not impact the health and safety of the public. This proposed RIS will not improve that capability and will hamper the ability of licensees to comply with the regulations.

This guidance creates a dichotomy between the conservative regulatory interpretation in this proposed communication and the inspection guidance provided by an earlier Regulatory Issue Summary, RIS 2004-03, "Risk-Informed Approach for Post-Fire Safe-Shutdown Associated Circuit Inspections." The dichotomy is, that licensees must postulate and design for circuit failures in a conservative deterministic manner while the inspector can follow risk-informed guidance in conducting the inspections. This has the following impacts:

	Proposed RIS Guidance for Conducting Analysis	Inspector Guidance for Conducting Inspection
Use of risk significance measures	None	Extensive
Number of circuit failures to be considered	Essentially unlimited	Limited by observed results of EPRI/NEI circuit failure testing
Burden of analysis	Very high	Limited
Correlation with actual safety benefit	Very low	Moderate to high

SISF Review Complete

Template = ADM-013

F-RIDS = ADM-03

Call = A. MARKLEY (AWM)

The conservative interpretations of regulatory guidance in the proposed communication would have the licensee responsible for identifying an essentially unlimited number of circuit failures without consideration of risk significance. Since the basic circuit analysis has been in place for many years at most plants, this would force most plants to extensively revise their circuit analyses to meet the new criteria. The NRC apparently believes that by requiring the licensee to consider "any and all" spurious actuations as defined in the proposed RIS, the licensee is therefore more likely not to overlook potentially significant failures than if he adopted a risk significance approach to selecting failures for analysis. The effect will be quite the opposite. By forcing the licensee to consider all possible circuit failures, the resulting extensive analysis will make it more likely that the significant circuit failures, if any, will be buried under the weight of analysis and will be less likely to come to the surface. This makes no sense; even from the standpoint of strict regulatory compliance, and places an impossible burden on the licensee that actually will reduce safety.

By contrast, the inspector is free to select potential circuit failures on a risk-informed basis (RIS 2004-03) and consider the demonstrated likelihood of circuit failures. By focusing on those circuits that are more likely to be safety concerns, the inspector has the greatest chance of identifying potential safety issues quickly. In developing NEI 00-01 and NEI 04-06, NEI recommended that plants use the same methods for circuit selection in self-assessments that the staff uses during inspections. In the same fashion, licensee who selects circuit failures for review using the same criteria has the greatest chance of finding and resolving potential issues quickly.

Unrecognized by this draft guidance is the fact that licensees have been complying for many years with regulations related to circuit failures. Additional conservative guidance such as that proposed in the draft generic communication will only serve to greatly increase the burden of compliance with no additional safety benefit. In previous discussions with NRC staff, they accepted Revision 1 of NEI 00-01 for use in conducting circuit analysis without additional qualification. Therefore the additional RIS qualification that NEI 00-01 deterministic methods are acceptable "in conjunction with the guidance in this RIS" is unnecessary burdensome, as noted above, and therefore inappropriate.

The proposed RIS should continue to recognize the role of adopting a risk-informed licensing basis as one method to address circuit failure issues. For licensees not adopting a risk-informed licensing basis, the proposed RIS should be revised to:

1. Address compliance by accepting NEI 00-01, without additional qualification, as an acceptable method for conducting circuit analysis that complies with the regulations
2. Address safety by recognizing the role of risk-informed licensee self-assessments (using NEI 04-06) and risk-informed inspections (using RIS 2004-03) to identify safety-significant circuit failure issues

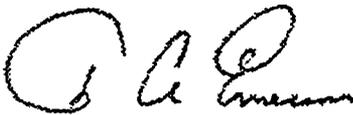
Adopting these recommendations as a basis for the RIS will greatly simplify the resolution of long-standing circuit failure issues, address staff concerns about compliance, and address safety issues. Retention of the current content of the RIS will greatly complicate licensee compliance, blur potential safety issues with unnecessary deterministic analysis, greatly complicate inspection and enforcement, and contribute to continued regulatory instability with regard to this issue.

Specific recommendations for the RIS include:

1. Recognize the efforts by licensees to comply with existing regulations
2. Eliminate additional guidance (including the definition of "any and all") that would impose unnecessarily burdensome new "requirements" for circuit analysis over and above the existing analysis
3. Eliminate guidance related to operator manual actions while that rulemaking is in progress
4. Endorse the use of NEI 00-01 without qualification to perform circuit analysis and evaluate the significance of findings
5. Recognize the value of risk methods in selecting circuits for evaluation and reviewing their significance, consistent with RIS 2004-03 and the fire protection SDP
6. Endorse NEI 04-06 as an acceptable method for conducting licensee self-assessments
7. Encourage licensees to continue to conduct circuit failure assessments using risk-informed methods, and find and fix any potential safety issues resulting from this self-assessment
8. Extends the use of enforcement discretion beyond the end of 2005 to achieve the goal of recommendation #6
9. Encourage the use of risk methods for supporting exemption requests, as long as an appropriate regulatory treatment is found for the hundreds of cases where exemptions are needed for low-significance circuit failure issues

I have noted additional specific comments on the draft communication in the attachment. Please contact me at [emersonc@earthlink.net](mailto:emersonc@earthlink.net) or 571-334-9311 with any questions on this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Frederick A. Emerson". The signature is stylized and cursive.

Frederick A. Emerson

c: Suzanne Black  
John Hannon  
Sunil Weerakkody

Robert Radlinski

**COMMENTS ON PROPOSED GENERIC COMMUNICATION,  
"CLARIFICATION OF POST-FIRE SAFE-SHUTDOWN CIRCUIT REGULATORY  
REQUIREMENTS"**

1. The statement the "this RIS clarifies the requirements for compliance with Appendix R" is not accurate. In fact this statement creates new requirements for compliance with Appendix R. This document appears simply to be a re-interpretation of the regulatory requirements.
2. The document states in several locations that the deterministic methodology in NEI 00-01, in conjunction with the guidance in this RIS, is one acceptable approach to achieving regulatory compliance. Staff members have previously informed NEI that NEI 00-01, Revision 1, provides an acceptable method for performing circuit analysis. The acceptability of using NEI 00-01 should not be qualified by the use of this RIS, since the requirements in the RIS go well beyond the NEI 00-01 intent and potentially add a crushing burden of analysis without any safety benefit.
3. The staff states, "The staff positions presented in this RIS are justified based on the potential safety significance of these issues and on compliance with the current regulations applicable to these circuits." This is a curious statement, using "safety significance" to justify conservative deterministic requirements that do not in fact permit the consideration of safety significance in postulating circuit failures. The actual safety significance of circuit failures is in the large majority of cases very low, and does not justify these conservative regulatory interpretations. Further, the use of this RIS will actually complicate compliance.
4. The staff states that risk-informed or performance-based methodologies can be used to support exemption requests for plants that have not adopted an NFPA 805 licensing basis. While this is an appropriate use of risk methods in deterministic regulations, it will result in hundreds of cases where exemptions are needed for low-significance issues. This will force licensees and staff to spend hundreds or thousands of hours to address exemption requests on low-significance issues. An acceptable regulatory method for dealing with this likelihood must be found.
5. The proposed RIS states that "it does not change any staff position on the terms addressed herein and does not require an action or written response from licensees," and therefore "is not a backfit under 10 CFR 50.109." Most licensees would likely consider this a significant change in staff position, compared with the NRC intent and inspection practice in the 1980's when the current regulations and guidance became effective.
6. The proposed RIS provides additional and conservative "guidance" related to operator manual actions through its definition and discussion of "any and all" and "emergency control station." The proposed rulemaking for operator manual actions is intended to provide for the acceptability of III.G.2 operator

manual actions when certain acceptance requirements are met. This has the impact of imposing one set of "requirements" while the rulemaking is in progress, and a different set of requirements when the rule becomes effective. This places the licensee in a very difficult position. The RIS should remain silent on the acceptability of III.G.2 operator manual actions while the rulemaking is in progress.