November 13, 2008

MEMORANDUM TO: Alexander R. Klein, Chief
Fire Protection Branch
Division of Risk Assessment
Office of Nuclear Reactor Regulation

FROM: Brian Metzger, Fire Protection Engineer ***/RA/***
Fire Protection Branch
Division of Risk Assessment
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF OCTOBER 16, 2008 CATEGORY 2 MEETING ON FIRE-INDUCED CIRCUIT FAILURE CLOSURE

On October 16, 2008, the U.S. Nuclear Regulatory Commission (NRC) held a meeting with the Nuclear Energy Institute (NEI) staff, industry stakeholders, and the public to discuss the status and NRC staff views of the NEI method for resolution of the fire-induced circuit failures issue. An attendance list and meeting agenda are provided in Enclosures 1 and 2 respectively and are enclosed in this summary.

The NEI approach for the resolution of fire-induced circuit failures is provided in the presentation slides dated October 16, 2008, and is available in the Agencywide Documents Access and Management System (ADAMS) Accession Number ML083110498. An excerpt from a draft of Regulatory Guide 1.189 is also available for reference in the ADAMS Accession Number ML083110485.

Summary of Meeting

Some highlights of the discussions during the meeting were:

The staff, industry and public (group) reached a consensus on the circuit failure nomenclature and concluded that NEI had enough information to proceed with the development of NEI 00-01 Rev 2 without further interaction with the NRC on this item.

The group agreed that additional effort was necessary to address full flow-diversion valves such as well-defined criteria and detailed definitions for specific terms and components.

Enclosures:
As stated

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The group reached a consensus regarding process monitoring and Information Notice 84-09 and concluded that NEI had enough information to proceed with the development of NEI 00-01 Rev 2 without further interaction with the NRC on this item.

The group reached consensus with regard to the definitions of components requiring III.G type protection and concluded that NEI had enough information to proceed with the development of NEI 00-01 Rev 2 without further interaction with the NRC on this item.

An issue was raised with regard to whether multiple actuations of equipment important to safe shutdown can result in a single function that would require III.G protection. It was agreed that this issue would require further conversation and/or consideration.

The group reached consensus with regard to the application of fire modeling and concluded that NEI had enough information to proceed with the development of NEI 00-01 Rev 2 without further interaction with the NRC on this item.

The group reached consensus with regard to the application of Regulatory Guide 1.174 and concluded that NEI had enough information to proceed with the development of NEI 00-01 Rev 2 without further interaction with the NRC on this item.

The group agreed that primary/secondary control circuit and hot short protection is important to safe shut down, although not “green box”, and that licensees will continue to develop an approach for consistency within the industry.

Consideration of NEI proposed hot short combinations will be addressed in the same manner as primary/secondary control circuit protection above.

NEI stated that the Multiple Spurious Operations (MSO) lists for boiling water reactor (BWRs) and pressurized-water reactor (PWRs) had been reviewed for consistency between the lists with regard to consideration of spurious actuations causing overloading of emergency diesel generators

The group concluded that the NEI 00-01, Multiple Spurious Operations list would not be an item for NRC approval, should categorize green/orange box items, could serve as a screening/starting point and would be maintained as a living document.

Action Items

The following action items for the NRC were discussed:

1. Coordinate the next meeting on the subject proposed for mid – late November.

The following action items for the NEI were discussed:

1. NEI will work to provide additional information to address full flow-diversion valves such as well-defined criteria and detailed definitions for specific terms and components.

2. NEI will continue to develop a means for consistency within the industry with regard to primary/secondary control circuit and hot short protection.

3. NEI will evaluate the issue of multiplicity with regard to whether multiple actuations of equipment important to safe shutdown can result in a single function that would require III.G protection.

4. The NEI 00-01, Multiple Spurious Operations list should categorize green/orange box items and should be maintained as a living document.

2. NEI will continue to develop a means for consistency within the industry with regard to primary/secondary control circuit and hot short protection.

3. NEI will evaluate the issue of multiplicity with regard to whether multiple actuations of equipment important to safe shutdown can result in a single function that would require III.G protection.

4. The NEI 00-01, Multiple Spurious Operations list should categorize green/orange box items and should be maintained as a living document.

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DATE:	11 / 06 /08	11/ 10 /08	11/ 13 /08

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Fire-Induced Circuit Failure Meeting with the Nuclear Energy Institute
Public Meeting
October 16, 2008
Executive Boulevard Building
6003 Executive Boulevard
Rockville, MD 20852
List of Attendees

NRC STAFF
A. Klein
D. Frumkin
R. Radlinski
H. Barrett
T. Dinh
P. Qualls*
B. Metzger
G. Taylor

OTHER

A. Mossa	Pressurized Water Reactors Owners Group - Westinghouse
D. Henneke*	General Electric Hitachi
T. Gorman	PPL Susquehanna
J. Riley	Nuclear Energy Institute
D. Shumaker	Public Service Enterprise Group
N. Chapman*	Bechtel Power Corp.
K. Sullivan	BNL
B. White	Erin Engineering
S. Hutchins	Nuclear Energy Institute
R. Jamison	FPLE Seabrook
R. Dean	Duke Energy
A. Ratchford*	Kleinsorg Group
R. Kalantari*	EPM
F. Pellizzari*	EPM
S. Dolley*	Platts Nuclear
K. Elliott*	Entergy
R. Ladd*	Nuclear Management Co.

* participated via phone

ENCLOSURE 1

Technical Meeting with Industry Regarding the Fire-Induced Circuit Failure Issue Closure
October 16, 2008
U.S. Nuclear Regulatory Commission Executive Boulevard Building - Rockville, Maryland
Agenda

Purpose: To discuss with the Nuclear Energy Institute (NEI) and industry stakeholders the technical items involved in fire-induced circuit failure issue closure.

9:00 Welcome

9:15 Discuss technical issues associated with fire-induced circuit failure closure:

Circuit failure nomenclature

Treatment of full flow-diversion valves

Treatment of process monitoring and Information Notice 84-09

Definitions of components requiring III.G type protection

Application of fire modeling

Application of Regulatory Guide 1.174

Treatment of primary/secondary control circuit protection

Consideration of NEI proposed hot short combinations

Consideration of spurious actuations causing overloading of emergency diesel generators

Application of NEI 00-01, Multiple Spurious Operations list

Other topics as needed

11:45 Open floor for public comments

12:00 Adjournment

ENCLOSURE 2