December 10, 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 NOVEMBER 19, 2008 CATEGORY 2 MEETING ON FIRE-INDUCED CIRCUIT FAILURE CLOSURE

On November 19, 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 November 19, 2008, and is available in the Agencywide Documents Access and Management System (ADAMS) Accession Number ML083260533.

Summary of Meeting

The topics covered during the meeting included protection required for flow diversion paths and consideration of multiple spurious actuation combinations (multiplicity). The NRC staff and industry stakeholders reached consensus on these issues to the extent that NEI can complete developing a document that discusses resolving fire-induced circuit failure issues. Some other highlights of the discussions during the meeting were as follows:

The staff questioned the fuel damage criteria for “required for hot shutdown”/”important to safe shutdown” determination. It was discussed that any credited mitigating strategy would need to ensure that hot shutdown could be achieved and maintained, consistent with regulatory requirements/technical specifications. The Staff requested that this topic be clarified in NEI 00-01, Revision 2 and this should be included as part of action Item 1 below.

Enclosures:
As stated

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With regard to multiplicity, the staff questioned whether multiple diversion flow paths could contain cables in close proximity and be subjected to damage in the same fire scenario. The industry responded that the process outlined in NEI 00-01 was designed to capture component combinations where an individual component did not present an impact, but where this component in combination with other components could provide a potential impact.

Industry explained that the generic MSO lists contain multiple combinations and that a manageable list was necessary for successful performance of the expert panel reviews and subsequent vulnerability assessments. It was agreed that the lists should be updated and maintained as additional combinations of importance are determined.

NEI also discussed that Limerick has volunteered to be a pilot plant for the approach that they are documenting. One concern that NEI brought up was the schedule in SECY 08-171, the fire protection "closure plan." The industry is concerned that they may not have their tools for resolving circuit failure issues completed in time to align with the schedule indicated in SECY 08-171.

The NRC plans to review the NEI document which they plan to submit to the NRC before the end of December 2008, and will plan a public meeting following receipt, if needed, to discuss technical details of the document.

Action Items

The following action items for the NRC were discussed:

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

The following action items for the NEI were discussed:

1. NEI will incorporate the results of the discussions during the November 19, 2008, meeting and all previous meetings on the subject into their document.

2. NEI will implement the fire-induced circuit failure resolution pilot program to evaluate their proposed method and share the results with the staff.

3. 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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Fire-Induced Circuit Failure Meeting with the Nuclear Energy Institute
Public Meeting
November 19, 2008
Executive Boulevard Building
6003 Executive Boulevard
Rockville, MD 20852
List of Attendees

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

OTHER

A. Mossa	Pressurized Water Reactors Owners Group - Westinghouse
D. Henneke	GE Hitachi
T. Gorman	PPL Susquehanna
B. White	Erin Engineering
S. Hutchins	Nuclear Energy Institute
B. Najafi	SAIC (EPRI)
A. Ratchford	KGRS
R. Kalantari*	EPM
D. Raleigh*	EPM
S. Dolley*	Platts Nuclear
K. Tapplett*	STP

* participated via phone

ENCLOSURE 1

Technical Meeting with Industry Regarding the Fire-Induced Circuit Failure Issue Closure
November 19, 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:

Treatment of full flow flow-diversion valves

Discuss 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.

Other topics as needed

11:45 Open floor for public comments

12:00 Adjournment