

May 17, 2004

STAKEHOLDERS: Nuclear Energy Institute, Industry Representatives,
and Members of the Public

SUBJECT: SUMMARY OF JANUARY 28, 2004, MEETING WITH NUCLEAR
ENERGY INSTITUTE TO DISCUSS NRC'S INTENT TO USE NEI 00-01,
"GUIDANCE FOR POST FIRE SAFE SHUTDOWN" IN RESOLVING
ASSOCIATED CIRCUIT AND OTHER FIRE PROTECTION ISSUES

On January 28, 2004, the U. S. Nuclear Regulatory Commission (NRC) staff met with representatives of the Nuclear Energy Institute (NEI) at the NRC Headquarters in Rockville, Maryland. This meeting was intended to provide NRC staff comments on NEI 00-01, "Guidance for Post-Fire Safe Shutdown," Revision 0 [ADAMS Accession No. ML032930063].

This meeting was classified as a Category 2 meeting which provided an opportunity for members of the public to discuss regulatory issues with the NRC at designated points identified on the agenda [Accession No. ML040060171]. The comments by members of the public are reflected in this summary. Attachment 1 is a list of attendees and the meeting handouts are contained in Attachment 2 and in ADAMS [Accession No. ML033070406].

The NRC staff began the meeting by providing a status of NRC activities in the area of associated circuits. The status of the NRC staff's efforts concerning a proposal regarding associated circuits made by NEI in a letter dated October 3, 2003 [ADAMS Accession No. ML033070406], was requested. In the October 3, 2003, letter, NEI proposed to perform a "set of industry-sponsored self-assessment pilots to help improve the focus of these inspections and better manage this issue." The NRC staff indicated their appreciation for the comments and that a response to the proposal would be formally issued [ADAMS Accession No. ML040150847], but found that current NRC actions, such as the issuance of the final Regulatory Issue Summary (RIS) 2004-03: "Risk-Informed Inspection Guidance for Post-Fire Safe Shutdown Associated Circuits Inspections," and NUREG-1778, "Knowledge Base for Post-Fire Safe Shutdown Analysis," would provide sufficient guidance on the performance of the inspections. Before resumption of fire protection associated circuit inspections, the NRC staff indicated that the final RIS and NUREG-1778 would be issued. The final RIS issued discusses how the NRC staff intends to apply these results in a risk-informed manner to the associated circuits inspections scheduled to resume when the guidance contained in Enforcement Guidance Memorandum (EGM) 98-002, Revision 2, "Disposition of Violations of Sections III.G and III.L of Appendix R to 10 CFR Part 50 Involving Circuit Failures," July 21, 1999,¹ is lifted in summer 2004. NUREG-1778 provides a knowledge base on fire protection regulatory framework. Initial training for the fire protection (FP) inspection staff was conducted late last year, and the NRC staff has proposed an Associated Circuits Workshop for the public in spring 2004.

¹ EGM 98-002, Revision 2, "Disposition of Violations of Sections III.G and III.L of Appendix R to 10 CFR Part 50 Involving Circuit Failures," July 21, 1999, was subsequently incorporated into Enforcement Manual Section 8.1.7.1.

NEI indicated that the industry would be proceeding with the pilot self-assessments and proposed to provide a draft copy of the industry guidance, which is scheduled to be issued in March 2004. However, NEI indicated that the guidance would be based on the associated circuits' RIS and requested that the issuance of the RIS be accelerated. The NRC staff took an action to review whether issuance of the RIS could be expedited. The results of the industry pilot assessments would be assembled into a lessons-learned report, which would also be made available to the NRC staff.

NEI offered that the current regulatory guidance with regard to associated circuits was not clearly understood. NEI indicated its desire to establish the next steps for moving forward and acknowledged that the most visible step would be the resumption of the associated circuits inspections. Additionally, NEI proposed that NEI 00-01 should be the basis for resolving circuit failure issues and questioned the NRC staff on how NEI 00-01 could be factored into NRC enforcement, regulatory guidance and rulemaking. NEI reiterated that the intended purpose of the guidance is to create a structure with a clear set of regulatory requirements which provide an acceptable level of safety. NEI indicated that NEI 00-01 would provide a basis for resolving circuit failure issues and providing acceptable alternatives, including deterministic and risk methods and providing a significance determination process (SDP) for those issues. It was mentioned by the NRC staff that members of the industry were proactively using the draft RIS. The extent of the use was presented during a public meeting with Progress Energy (PE) [ADAMS Accession No. ML040340478] to discuss the utility's effort to reconstitute its cable validation program. PE indicated that the draft RIS has been successfully integrated into the program with no major process issues discovered to date.

The NRC staff discussed the NRC staff's concerns with NEI 00-01. As discussed in a previous public meeting, the NRC staff observed that there was a significant contradiction between NEI 00-01 guidance and NEI-sponsored cable fire testing. This testing was conducted by NEI during the period from January 8 to June 1, 2001, to further investigate the effects of fire conditions on circuit integrity and the potential for fire-induced spurious actuations. The NRC staff indicated that the deterministic approach presented in NEI 00-01 was not consistent with the results of the spurious actuation testing. In addition, the NRC staff has spent almost 4 years trying to resolve the NRC staff's concerns with NEI 00-01. Based on the state of the document and the concerns presented, the NRC staff does not see NRC approval of this document as a requirement to bring the circuit issue to closure, and that it would be of little benefit to continue to expend resources trying to resolve the remaining outstanding issues. NEI questioned what actions would be taken to resolve the associated circuit issues. The NRC staff reiterated the actions already underway and indicated that a letter would be issued providing the NRC staff's integrated plan for resolving the associated circuits issue.

Last year the NRC staff, NEI, and industry representatives developed a fire protection issue management protocol (IMP) [ADAMS Accession No. ML031210232] to define a process for identifying, tracking, and resolving issues that may arise during NRC or industry review of guideline documents, plant specific events, generic trends, and NRC research findings. The IMP does not displace any regulatory processes, but the IMP may supplement the regulatory process for issues that arise that do not yet meet the threshold of requiring regulatory action. NEI indicated perception that the IMP was not meeting the NRC staff's needs. The NRC staff indicated that the process was sound, but the frequency of the public meetings was having an adverse impact on FP resources with little advancement of the issues. A list of current action

items was reviewed and the participants discussed two issues already in the process of being resolved. These items were related to epoxy floor coatings and the lockout of gaseous suppression systems. To improve the process, a suggestion was made to hold monthly calls between members of the NRC and NEI to determine the status of the items, provide any additions or updates, and review/revise priorities. NEI took an action to merge the list presented with NEI's list and take the lead to maintain it and add priority and status information. The public meetings would be scheduled on a reduced frequency, with the next one scheduled for May 2004. This suggestion was met with approval from NEI and the NRC staff.

An industry representative questioned the NRC staff on how circuit failure issues outside the current licensing basis (CLB) would be handled. For example, the CLB for a facility may require that the licensee's program deal with a single cable hot short. Since the NEI test results indicate that this condition does not bound all the possible failures, the industry representative questioned how the NRC staff would handle this finding. The NRC staff indicated that current regulations, such as Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.109, as well as the Reactor Oversight Process, are equipped to handle issues that are outside the licensing basis of the plant. The NRC staff mentioned the pending revision to 10 CFR 50.48. This revision incorporates National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition." The NRC staff indicated that adoption of the new rule, once issued, would provide a risk-informed performance-based means to resolve concerns regarding a single source containing the regulatory requirements, and determination and resolution of design basis issues. The ongoing concerns with significance determination are being resolved through the ongoing SDP revision.

The NRC staff indicated that many enhancements to the FP SDP were under development, including a less labor-intensive way to address plant-wide associated circuit issues. It was acknowledged by the NRC staff that some circuit screening tool should be included in the final version of the FP SDP. Currently, the NRC staff is considering the addition of a circuit risk screening tool based on Section 4 of NEI 00-01. Although these efforts were underway, the NRC staff indicated that the next version of the FP SDP, would not contain these enhancements. An industry representative suggested that the NRC staff use one of the existing SDP task working groups to aid in the development of these tools. NEI took an action to provide knowledgeable individuals to augment the existing SDP working group. Another industry representative questioned when the NRC staff would be providing guidance for resolving high risk, CLB-compliant issues. The NRC staff indicated that the SDP is capable of determining the significance of performance deficiencies regardless of the regulatory designation.

One industry representative questioned whether the NRC would endorse Appendix B of NEI 00-01, which deals with multiple high impedance faults (MHIFs). The representative was concerned that, despite indications from the fire testing that MHIFs would occur infrequently, the current regulations still require the industry to address and correct MHIF performance deficiencies. The NRC staff indicated that MHIFs are categorized in the associated circuits RIS as "Bin 3" items. These MHIFs would occur infrequently and that the success of the screening tool will depend on the licensee's ability to trace and identify circuits in a given fire area. NRC

staff took an action to look at providing guidance for generically addressing correction of performance deficiencies related to MHIFs.

The NRC staff found the meeting highly beneficial in providing feedback to NEI on the implementation guide and self-assessment pilot suggestion.

/RA/

Eva A. Brown, Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachments: 1. Attendance List
2. Action Items

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DISTRIBUTION: See next page

Meeting Notice: ML040060171

Meeting Package: ML041400157

ADAMS Accession No. ML040650164

Attachments: ML033070406, ML032930063

NRC-001

OFFICE	PDII-2\PM	PDII-2\LA	SPLB\SC*	PDII-2\SC
NAME	EBrown	BClayton	SWeerakkody	WBurton (A)
DATE	5/10/04	5/6/04	5/5/04	5/07/04

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RPerch
SRosenberg, OEDO
EMcKenna
JRogge, RI
RFuhrmeister, RI
KO'Donohue, RII
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ATTENDANCE LIST

NUCLEAR REGULATORY COMMISSION STAFF MEETING

WITH THE NUCLEAR ENERGY INSTITUTE

AT NRC HEADQUARTERS

JANUARY 28, 2004

NRC

Suzanne Black
Michael Johnson
John Hannon
Sunil Weerakkody
Raymond Gallucci
Daniel Frumkin
Alex Klein
Allen Howe
Mark Reinhart
Robert Perch
Eva Brown
Roy Fuhrmeister (by phone)
J. S. Hyslop
Rodney Fanner

EXTERNAL STAKEHOLDERS

Fred Emerson, Nuclear Energy Institute
Gary Cooper, Constellation Energy
Frank Garrett, Arizona Public Service Company
Dean Tolete, Dominion
Robert Richter, Southern California Edison
Patricia Campbell, Winston & Strawn, LLP
Deann Raleigh, Scientech
Sheldon L. Trubatch, Law Offices of Sheldon Trubatch
Nancy Chapman, SERCH/Bechtel
Chris Pragman, Exelon Corp.
Bijan Najafi, Science Applications International Corp.
Denis Shumaker, Public Service Enterprise Group
Dayna Herrick, Duke Energy Services

NRC/NEI Meeting Action Items

Number	Description	Assigned	Status
08/21-1. a.	Issue response letter to NEI's NFPA-805 incentives letter	NRR	Complete - 8/28/03 ADAMS Accession: ML032450186
08/21- 1. b.	Submit one additional incentive for NRC review	NEI	Complete - 9/11/03
08/21- 2	Issue response letter to NEI letters dated April 9, 2003 and May 22, 2003 regarding NEI 00-01 prior to September 2003 NEI Fire Protection Information Forum	NRC	Completed-9/11/03 ADAMS Accession: ML032541229
08/21- 3	Set-up a staff/working group level discussion on NEI 00-01	NRC/ NEI	Completed - 10/17/03
08/21- 4	Issue response to NEI June 17, 2003 letter regarding Change Guide	NRC	Completed- 8/27/03 ADAMS Accession: ML032400012
08/21- 5	Determine if compensatory measure white paper will be issued as an Information Notice or Regulatory Issue Summary or remain as white paper	NRC	Discussed again 10/10/03
08/21-6	Determine what, if any, guidance Institute of Nuclear Power Operations is contemplating in the area of fire protection assessments	NEI	INPO will issue self-assessment document in Feb. 2004
08/21- 7 and 8	Summarize the epoxy coating and gaseous suppression system lockout issues in e-mail to NEI.	NRC	Completed - 10/08/03 E-mail available in ADAMS
08/21-9	Obtain industry feedback (industry concerns/recommendations) regarding 2003 National Regional Utility Group action item on NRC regional public workshops.	NEI	

NRC/NEI Meeting Action Items

Number	Description	Assigned	Status
10/10-10	Provide summary for Epoxy issue	NEI	
10/10-11	Provide Summary for Gaseous Suppression issue	NEI	
10/15-01	Consider posting the current rulemaking language again for public comment	NRC	Complete- 10-16-02 e-mail to F. Emerson
10/15-02	Provide feedback regarding timeframe for moratorium on enforcement	NEI	Complete- 13/18/2003 ML040120012
10/15-03	Provide high level comments on Draft NEI 04-01 Rev. d by end of November	NRC	Complete - 1/7/2004 ML033300357
10/15-04	Provide examples of inconsistencies in Draft NEI 04-01 Rev. d with existing regulatory guidance	NRC	Complete(?) - 1/7/2004 ML033300357
10/15-05	Consider adding guidance to the Rule Statements of Consideration regarding its place in the regulatory hierarchy	NRC	
10/15-06	Remove statement from Draft NEI 04-01 indicating the new rule supersedes 10 CFR 50 Appendix A criteria	NEI	Ongoing
10/15-07	Remove guidance that implied endorsement of NEI fire models	NEI	Ongoing
10/15-08	Move guidance on the use of NFPA 805 tools by licensees not transitioning to NFPA 805 to one place	NEI	Ongoing
10/15-09	Review NRC guidance on defense-in-depth and safety margin	NRC	Complete
10/15-10	Add a discussion in 8.3.6.2 to more fully address the potential risk implications as to the limiting fire scenario	NEI	

NRC/NEI Meeting Action Items

Number	Description	Assigned	Status
10/15-11	Provide examples demonstrating the complexity in following document as a result of its different layout from NFPA 805	NRC	Complete? - 1/7/2004
10/15-12	Review complexity in following NEI 04-01 as a result of its different layout from NFPA 805	NEI	
10/17-01	Review the treatment of model and parameter uncertainty with regards to sensitivity.	NRC	
10/17-02	Provide NEI with some comments to return the tone of NEI 00-01 to guidance versus a policy document and provide comments regarding changes needed in NEI 00-01 to conform with regulatory policy.	NRC	
10/17-03	Review how the implementation guide will be treated should the NRC decide to endorse its use.	NRC	
10/17-04	Provide a schedule for interim criteria comments	NRC	Complete
10/17-05	Provide feedback to industry on the regulatory standing and issue date for NUREG-1778	NRC	Complete