August 20, 2009

MEMORANDUM TO: Chairman Jaczko
Commissioner Klein
Commissioner Svinicki

FROM: Eric J. Leeds, Director **/RA by J. Wiggins for/**
Office of Nuclear Reactor Regulation

SUBJECT: PROGRESS ON EFFORTS TO CLARIFY REGULATORY EXPECTATIONS AND PROPOSED GUIDANCE REGARDING FIRE-INDUCED CIRCUIT FAILURES

The purpose of this memorandum is to provide a progress update on efforts to clarify regulatory expectations regarding fire-induced circuit failures and proposed guidance, thus ensuring a common understanding of the path to closure for this issue.

The U.S. Nuclear Regulatory Commission (NRC) staff has completed the following tasks:

- communicated with industry stakeholders through public meetings and letters;
- developed a draft regulatory guide;
- worked with industry on implementation guidance, and
- revised enforcement discretion guidance.

The enclosure discusses these tasks.

At this time, the NRC staff plans to endorse portions of Nuclear Energy Institute (NEI) 00-01, Revision 2, "Guidance for Post-Fire Safe Shutdown Circuit Analysis," in the next revision of Regulatory Guide 1.189, "Fire Protection for Nuclear Power Plants." The issuance of the regulatory guide would complete the clarification of the fire-induced circuit failure issues. The staff expects to issue the regulatory guide in final form in the 1st quarter of Fiscal Year 2010.

Enclosure:
As stated

cc: SECY
EDO
OGC
OCA
OPA
CFO

CONTACT: Daniel M. Frumkin, NRR/DRA
(301) 415-2280

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Memorandum to the Commission from Eric Leeds dated August 20, 2009.

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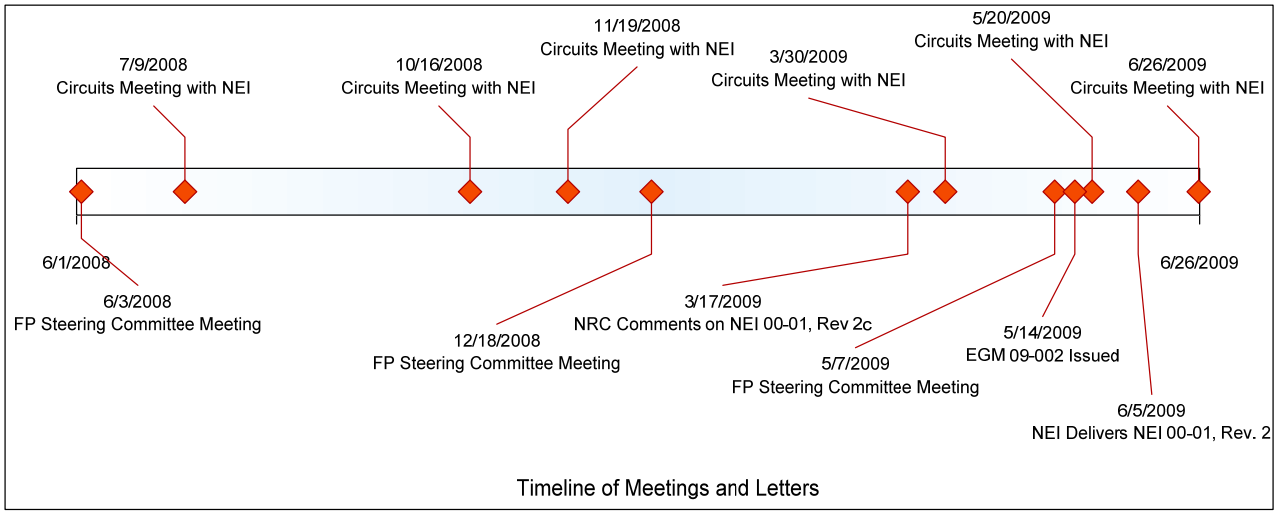
Description of Tasks to Clarify Guidance Related to Fire-Induced Circuit Failures

1. Communicating with Industry Stakeholders through Public Meetings and Letters

The U.S. Nuclear Regulatory Commission (NRC) staff has had numerous interactions with industry stakeholders since June 2008 to clarify the guidance related to fire-induced circuit failures. The meetings and communications between the NRC staff and industry stakeholders are listed below, with their corresponding Agencywide Documents Access and Management System (ADAMS) accession numbers.

Meeting or Letter Title	Date	Accession Number
FP Steering Committee Meeting	06/03/08	ML081720057
Circuits Meeting with NEI	07/09/08	ML082120019
Circuits Meeting with NEI	10/16/08	ML083110464
Circuits Meeting with NEI	11/19/08	ML083300596
FP Steering Committee Meeting and NEI Delivers NEI 00-01, Rev. 2c	12/18/08	ML090230219
NRC Comments on NEI 00-01, Rev. 2c	03/17/09	ML090780012
Circuits Meeting with NEI	03/30/09	ML091030255
FP Steering Committee Meeting	05/07/09	ML091310090
EGM 09-002 Issued	05/14/09	ML090300446
Circuits Meeting with NEI	05/20/09	ML091480283
NEI Delivers NEI 00-01, Rev. 2	06/05/09	ML091770265
Circuits Meeting with NEI	06/26/09	ML091890202



Timeline of Meetings and Letters

Enclosure

2. Developing a Draft Regulatory Guide

A regulatory guide is the NRC's primary repository for guidance for licensees. NRC regulatory guides represent one acceptable way to meet NRC regulations. Regulatory Guide 1.189, "Fire Protection for Nuclear Power Plants," applies to plants that have not adopted, as their licensing basis, Title 10 of the *Code of Federal Regulations* (10 CFR) 50.48(c) regarding National Fire Protection Association (NFPA) Standard 805.

The NRC published a draft regulatory guide, DG-1214, "Fire Protection for Nuclear Power Plants," in the *Federal Register* (FR) for public comment on April 21, 2009 (74 FR 18262). DG-1214 represents Revision 2 of Regulatory Guide 1.189, of the same title.

Only the nuclear industry stakeholders provided comments: the Nuclear Energy Institute (NEI), on May 29, 2009 (ADAMS Accession No. ML091540236); Florida Power and Light, on May 27, 2009 (ADAMS Accession No. ML091520039); and Dominion, on June 4, 2009 (ADAMS Accession No. ML091700025).

The NRC staff has dispositioned public comments and is scheduled to present the regulatory guide to the Advisory Committee on Reactor Safeguards on September 10, 2009. The NRC staff plans to issue Revision 2 of Regulatory Guide 1.189 in the fourth calendar quarter of 2009.

3. Working with Industry on Industry Implementation Guidance

In January of 2005, NEI published Revision 1 of NEI 00-01, "Guidance for Post-Fire Safe Shutdown Circuit Analysis," (ADAMS Accession Number ML050310295). In March 2007, the NRC staff endorsed Chapter 3 of Revision 1 of NEI 00-01, in Revision 1 of Regulatory Guide 1.189.

On December 18, 2008, NEI sent Draft Revision 2b of NEI 00-01 to the NRC for review and comment (ADAMS Accession No. ML083660046). On January 13, 2009, NEI sent Draft Revision 2c of NEI 00-01 to the NRC for review and comment (ADAMS Accession No. ML090410330).

On March 27, 2009, the NRC staff provided comments to NEI on Draft Revision 2c of NEI 00-01 (ADAMS Accession No. ML090780012).

On June 5, 2009, NEI sent Revision 2 of NEI 00-01 to the NRC. NEI considered this revision final and intended it for use by licensees. NEI incorporated into the final Revision 2 of NEI 00-01 most of the comments made by the NRC staff in its letter of March 27, 2009.

The NRC comments that were not incorporated into Revision 2 of NEI 00-01 related to implementation guidance for operator manual actions, consideration of concurrent hot shorts, and consideration of the duration of hot shorts for direct current circuits. The NRC staff will continue to work with industry stakeholders regarding these differences. Although two of these issues involve circuit clarifications, concurrent hot shorts may be addressed using risk methods submitted to the NRC for approval. The NRC Office of Nuclear

Regulatory Research has ongoing studies regarding the duration of hot shorts for direct current circuits.

Overall, the NRC staff is satisfied with the information in NEI 00-01, Revision 2, and plans to endorse relevant portions of the document in the current revision of Regulatory Guide 1.189.

4. Revising Enforcement Discretion Guidance

The NRC has used enforcement guidance memoranda (EGM) in the area of fire protection for a number of years. The purpose of an EGM is to provide enforcement guidance, typically for the use of discretion, to inspectors for specific issues when NRC requirements have not been clear or when they are changing.

The NRC staff issued EGM 98-002, Revision 2, "Disposition of Violations of Appendix R, Sections III.G and III.L, Regarding Circuit Failures," on February 2, 2000 (ADAMS Accession No. ML003710123), to provide enforcement discretion for all circuit-related findings where the licensee implemented compensatory measures. The memorandum did not include an end date for this enforcement discretion.

The NRC staff issued EGM 07-004, "Enforcement Discretion for Post-Fire Manual Actions Used as Compensatory Measures for Fire Induced Circuit Failures," on June 30, 2007 (ADAMS Accession No. ML071830345), to provide enforcement guidance for noncompliant operator manual actions. As a consequence of this EGM, circuit-related findings were separated into single or multiple spurious actuations. EGM 07-004 superceded EGM 98-002 for noncompliances related to single spurious actuations, such that, at the end of the enforcement discretion period for EGM 07-004, which was March 6, 2009, the discretion for single spurious actuations allowed by EGM 98-002 ended. Therefore, enforcement discretion in EGM 98-002 only applied to multiple spurious actuations.

On May 14, 2009, the NRC issued EGM 09-002, "Enforcement Discretion for Fire Induced Circuit Faults" (ADAMS Accession No. ML090300446). This EGM states that licensees will have 6 months from the issuance of Revision 2 of Regulatory Guide 1.189 to identify noncompliances related to multiple spurious actuations and enter those noncompliances into their corrective action programs. The licensees will have an additional 2.5 years (30 months) to resolve the noncompliances. At that time, 3 years from the issuance of Revision 2 of Regulatory Guide 1.189, enforcement discretion for fire protection issues, other than NFPA Standard 805, will end.