

January 11, 2018

MEMORANDUM TO: Jay Robinson, Acting Chief
PRA Licensing Branch B
Division of Risk Assessment
Office of Nuclear Reactor Regulation

FROM: Angela Wu, Fire Protection Engineer */RA/*
PRA Licensing Branch B
Division of Risk Assessment
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE DECEMBER 13, 2017, CATEGORY 2 PUBLIC
MEETING ON FIRE PROBABILISTIC RISK ASSESSMENT

On December 13, 2017, the U.S. Nuclear Regulatory Commission (NRC) staff held a meeting with industry stakeholders and the public to discuss outstanding fire probabilistic risk assessment (PRA) topics, including existing fire PRA frequently asked questions (FAQs), new proposed fire PRA FAQs, and upcoming research projects.

The staff and industry initially discussed the existing fire PRA FAQs: fire PRA FAQ 16-0011, "Cable Tray Ignition" and fire PRA FAQ 14-0007, "Transient Fire Frequency Likelihood." For fire PRA FAQ 16-0011, the staff agreed to provide industry with any remaining comments or questions by January 12, 2018. For fire PRA FAQ 14-0007, both the staff and industry committed to modifying separate parts of the latest version of this FAQ by January 12, 2018. The staff and industry held no discussions on existing fire PRA FAQ 17-0013, "High Energy Arcing Fault (HEAF) Non-Suppression Probability (NSP)," but agreed to review certain applicable fire events by December 29, 2017 in order to support a revision by January 12, 2018.

Industry presented the white paper, "Data Collection in Support of Integrating Operating Experience into NUREG 1280, "Determining the Effectiveness, Limitations, and Operator Response for Very Early Warning Fire Detection Systems in Nuclear Facilities (DELORES-VEWFIRE)." The staff requested that industry clarify whether their planned efforts related to Very Early Warning Fire Detection Systems, will be pursued under the Memorandum of Understanding, between the NRC and Electric Power Research Institute (EPRI) and whether industry intends to withdraw draft FAQ 17-0012 while they perform the proposed work. Industry agreed to send NRC an enhanced incipient detection white paper by December 29, 2017.

Enclosure:
List of Meeting Attendees

CONTACT: Angela Wu, NRR/DRA
301-415-2995

Industry made presentations on each of the new proposed fire PRA FAQs. The topics of those new proposed FAQs were:

- High Energy Arcing Fault (HEAF) Initiating Event Frequency Based on Equipment Classification
- Conservatism in Non-Suppression Probability (NSP) Data
- Time of Detection Should be Zero for Manual Non-Suppression Likelihoods
- Improving Realism Through the Use of Conditional Probabilities for Plant Trip Due to Operator Discretion
- Reduction in the NSP Floor
- Moving Towards More Realistic Cabinet Damage

In addition, industry made a presentation on the “Proposed Prioritization of Fire PRA FAQ Efforts” which included a schedule for resolution of these proposed FAQs.

The staff communicated important concerns with respect to these proposed FAQs, and indicated that industry’s schedule for resolving the new FAQs was very ambitious. The staff did not object to industry further developing these FAQs, but indicated it could not assure industry that it would eventually accept these FAQs based on the information provided. The staff did indicate that it would continue to work fire PRA FAQs to resolve outstanding issues efficiently.

The final presentation was made by EPRI on “Fire PRA Research Plans for 2017 – 2019.” The staff and industry engaged on those research topics in their plan.

All meeting materials are publicly available at Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML17340B096 and ML17341A894.

As a Category 2 meeting, the public was invited to participate in the meeting by discussing regulatory issues with the NRC staff at designated points identified on the agenda. No members of the public participated in the meeting.

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Office	NRR/DRA/APLB	NRR/DRA/APLB	NRR/DRA/APLB
Name	AWu	JHyslop	JRobinson
Date	01 / 11 / 2018	01 / 11 / 2018	01 / 11 / 2018

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FIRE PRA PUBLIC FAQ MEETING: LIST OF MEETING ATTENDEES

December 13, 2017

U.S. Nuclear Regulatory Commission Staff

Harry Barrett
Michael Cheok
Susan Cooper
Kevin Coyne
JS Hyslop
Naeem Iqbal
Nick Melly
Brian Metzger
Mark Salley
Nathan Siu
David Stroup
Gabriel Taylor
Angela Wu

Industry Stakeholders

Victoria Anderson (Nuclear Energy Institute)
Paul Bemis (PG&E)*
Rob Cavedo (Exelon)
Jason Floyd (Jensen Hughes)
Jeff Gromatzky (Enercon)*
Nathan Hall (SWRI)
Francisco Joglar (Jensen Hughes)
Eugene Kelly (Exelon)*
Greg Kvamme (Xcel Energy)*
Woody Layne (Energy Northwest)*
Chris LaFleur (Sandia National Laboratories)
Ashley Lindeman (Electric Power Research Institute)
Jaiho Lee (Korea Hydro Nuclear Power)
Beth Meade (EPM)*
Andrew Ratchford (Jensen Hughes)*
Mark Schairer (EPM)
Harold Stiles (Duke Energy)

*Participated by Telephone

ENCLOSURE