

July 25, 2018

MEMORANDUM TO: Greg Casto, 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 JULY 10, 2018, CATEGORY 2 PUBLIC MEETING  
ON NATIONAL FIRE PROTECTION ASSOCIATION 805 AND FIRE  
PROBABILISTIC RISK ASSESSMENT FREQUENTLY ASKED  
QUESTIONS

On July 10, 2018, the U.S. Nuclear Regulatory Commission (NRC) staff held a teleconference meeting with industry stakeholders and the public to discuss existing and new National Fire Protection Association (NFPA) 805 and fire probabilistic risk assessment (PRA) frequently asked questions (FAQs) and research projects.

The agenda included the discussion of five existing FAQs, the introduction of two new FAQs, and an update on the industry's incipient detection paper.

The existing FAQs discussed include:

- NFPA 805 FAQ 16-0076, "NFPA 805 Fire PRA Update Process"
- FPRA FAQ18-0014, "Time to Detection is Zero for Manual Non-Suppression Probability Calculations"
- FPRA FAQ 18-0017, "Conditional Trip Probability for Modeling Operator Discretion"
- FPRA FAQ 18-0015, "More Realistic Contained Fire Duration Limits"
- NFPA 805 FAQ 10-0059, "NFPA 805 Monitoring"

NEI introduced two additional FAQs for consideration:

- NFPA 805 FAQ 18-0078, "Insulation Materials"
- FPRA FAQ-18 0018, "Electrical Non-Suppression Probability (NSP)"

To begin, the industry communicated their plan to withdraw NFPA 805 FAQ 16-0076. In response, the NRC staff concurred with the withdrawal. Thus, NFPA 805 FAQ 16-0076 has been removed from the FAQ program.

Enclosure:  
List of Meeting Attendees

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301-415-2995

In regards to FPRA FAQ18-0014, the NRC staff and industry discussed several technical issues related to treating detection under the approach described in the FAQ. Moving forward, the NRC staff and industry agreed that the effort would be pursued solely under the NRC's Office of Research and Electric Power Research Institute's Memorandum of Understanding, under which the work is already proceeding. Once further developed, the NRC staff will review the results of the research and consider its public release prior to the development of a NUREG report.

For FPRA FAQ18-0017, the industry has taken an action to consider and address the NRC staff's comments in a new revision of the FAQ. The NRC staff conveyed several issues regarding the purpose of the FAQ, as well as its technical basis. The new revision will be discussed at the next public FAQ meeting.

In relation to FPRA FAQ 18-0015, the NRC staff identified a concern with the approach proposed by industry. The solution appears to be changing directions to focus on the transient heat release rate profile and resulting duration rather than the suppression duration. The NRC staff and industry will discuss the new direction further in the next FAQ meeting.

During the discussion of NFPA 805 FAQ10-0059, the NRC staff learned that the industry's latest revision addressed comments provided by NRC staff a couple of years ago. Thus, the NRC staff will review the current revision of the FAQ and provide additional comments, if necessary.

The industry introduced two new FAQs for the NRC's consideration: NFPA 805 FAQ18-0078 and FPRA FAQ18-0018. After providing an initial introduction, the industry engaged with the NRC staff in a brief discussion of the basis and content of the FAQs. The NRC staff will review the FAQs and provide the industry with comments.

Additionally, NEI provided a status update on its proposal regarding a refinement of the credit allowed for Very Early Warning Detection Systems in NUREG-2180, "Determining the Effectiveness, Limitations, and Operator Response for Very Early Warning Fire Detection Systems in Nuclear Facilities (DELORES-VEWFIRE)" that would include a domestic and international fire events database review, piloting the proposed methodology, an expert elicitation, and interim and final reports. The industry shared its intention to withdraw the FPRA FAQ 17-0012, "Incipient Detection for Fire Prevention and Suppression," and move forward with issuing the pilot results in a Nuclear Energy Institute (NEI) report.

All meeting materials are publicly available at Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML18180A320 and ML18198A393.

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.

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QUESTIONS, DATED July 25, 2018

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Date	07/ 23 / 2018	07/ 25 / 2018	07/ 25 / 2018

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NFPA 805 + FIRE PRA PUBLIC FAQ MEETING:  
LIST OF MEETING ATTENDEES

July 10, 2018

U.S. Nuclear Regulatory Commission Staff

Greg Casto  
Susan Cooper  
JS Hyslop  
Nicholas Melly  
Brian Metzger  
Jay Robinson  
Timothy Rubottom  
David Stroup  
Gabriel Taylor  
Angela Wu  
Sunil Weerakkody

Industry Stakeholders

Victoria Anderson (Nuclear Energy Institute)  
Rodney Brown (Energy Compliance Consultants)  
Robert Cavedo (Exelon)  
Robert Dukes (Enercon)  
Joelle DeJoseph (Jensen Hughes)  
Nathan Hall (SWRI)  
Mark Hulet (Palo Verde)  
Marc Janssens (SWRI)  
Alan Jelalian (EPM)  
John Kneeland (Entergy)  
Greg Kvamme (Xcel Energy)  
James Lechner (Jensen Hughes)  
Harold Lefkowitz (Appendix R Solutions)  
Ashley Lindeman (Electric Power Research Institute)  
Rodney Pletz (American Electric Power)  
Jeff Quinn (EPM)  
Andy Ratchford (Jensen Hughes)  
Joshua Ross (Davis Besse)  
Mark Schairer (EPM)  
Thomas Shudak (Cooper)  
Harold Stiles (Duke)  
Tracy Stclair (First Energy)  
Carl Sweely (Framatome)  
Travis Weber (EPM)  
Jeff Voskuil (Entergy)

Members of the Public

Jana Bergman (Curtiss-Wright)  
John Conly (Certrec Corporation)  
Paul Gunter (Beyond Nuclear)  
Richard Neild (RNR Consulting)

ENCLOSURE