



**UNITED STATES
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October 10, 2018

MEMORANDUM TO: Mehdi Reisi-Fard, Acting Chief
PRA Licensing Branch B
Division of Risk Assessment
Office of Nuclear Reactor Regulation

FROM: Shivani Mehta, Engineer **/RA/**
PRA Licensing Branch B
Division of Risk Assessment
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE SEPTEMBER 12, 2019, CATEGORY 2 PUBLIC
MEETING ON FIRE PROBABILISTIC RISK ASSESSMENT
FREQUENTLY ASKED QUESTIONS

On September 12, 2019, the U. S. Nuclear Regulatory Commission (NRC) staff held a public teleconference with industry stakeholders and the public to discuss the closure of the existing fire probabilistic risk assessment (PRA) frequently asked questions (FAQs) and provide an update on the status of research projects.

The agenda included the discussion of the following topics:

- Fire PRA FAQ-18-0014: Time to Detection is Zero for Manual Non-Suppression Probability Calculations
- Update on NRC, Office of Regulatory Research (RES) fire PRA activities
- Closing the Fire PRA FAQ process

Enclosure:
List of Meeting Attendees

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For FPRA FAQ 18-0014, the NRC staff provided its feedback (ML19252A765) on the updated revision 0 (Draft 7), of the Fire PRA FAQ dated March 13, 2019 (ML19101A352) at the meeting. The NRC indicated that discussions have been ongoing on this fire PRA FAQ for over a year and an inadequate technical basis exists for the FAQ. The NRC staff concluded that since the technical issue in the FAQ is lacking an adequate technical basis, the Fire PRA FAQ process has not been effective in addressing technical deficiencies for this issue, and the proposed resolution does not correspond to a clarification, the staff will not evaluate this issue under the FAQ process and the industry may pursue this issue under a more appropriate regulatory process (e.g., research activity). The industry stated that they would convene and decide how to potentially pursue the issue outside of the fire PRA FAQ process.

The staff also raised the issue of closing the fire PRA FAQ process considering conclusion of all open Fire PRA FAQs. The industry once again indicated that they will not submit new fire PRA FAQs. Since the staff will not take any further actions on FPRA FAQ 18-0014 in the FAQ process and no additional fire PRA FAQs will be submitted, the staff considers the fire PRA FAQ process closed. Any further correspondence on such issues will be handled by licensing or other appropriate processes.

NRC/RES provided updates on NUREGs that are currently under development:

- NUREG 2230, "Methodology for Modeling Fire Growth and Suppression Response of Electrical Cabinet Fires in Nuclear Power Plants" – public comments have been resolved. The joint NRC/EPRI working group expects to complete the final version by the end of September and expects the report to be published by mid-October. The Electric Power Research Institute (EPRI) plans to publish report as EPRI Report number 3002016051.
- NUREG 2178, Volume 2/ EPRI 3002016052, "Refining and Characterizing Heat Release Rates from Electrical Enclosures during Fire – Volume 2: Fire modeling guidance for electrical cabinets, electric motors, indoor dry transformers, and the main control board," The public comment period ended on August 28, 2019. The joint NRC/EPRI working group is resolving comments. The report is expected to be submitted for publication by the end of October 2019.
- NUREG 2232, "Heat Release Rate and Fire Characteristics of Fuels Representative of Typical Fire Events in Nuclear Power Plants" - The joint NRC/EPRI working group has resolved comments, and the report has been submitted to NRC Publications. The report is available on the EPRI web site.
- NUREG 2233/EPRI 3002016054, "Methodology for Modeling Transient Fires in Nuclear Power Plant Fire Probabilistic Risk Assessments," The public comment period will open in late October 2019. The joint NRC/EPRI working group will resolve comments and expects to submit to the final report for publication by February 2020.

NRC/RES provided an update on the status of the pre-Generic Issue, High Energy Arc Fault (HEAF). Based on direction from NRC management, testing of some bus ducts and low voltage cabinets has been suspended. The major questions are 1) What are the exact components and how are they being tested and 2) an overall roadmap to envision overall project process needs to be developed.

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ON FIRE PROBABILISTIC RISK ASSESSMENT FREQUENTLY ASKED
QUESTIONS DATED: OCTOBER 10, 2019

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Date	09 /23 / 2019	09 /24 / 2019	10 / 10 / 2019

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**Fire Probabilistic Risk Assessment (PRA) – Frequently Asked Questions(FAQs):
LIST OF MEETING ATTENDEES**

September 12, 2019

U.S. Nuclear Regulatory Commission Staff

Russell Felts
JS Hyslop
Brian Metzger

Mehdi Reisi-Fard
Shivani Mehta
Charles Moulton

Mark Henry Salley
Nicholas Melly
David Stroup

Industry Stakeholders

Andy Ratchford (Jensen Hughes)
Brian Ratte
Francisco Joglar (Jensen Hughes)
Jack Lemmer (Duke Energy)
Jason Floyd (Jensen Hughes)
Jeff Miller (Enercon)
Joelle DeJoseph (Jensen Hughes)
Joseph Renner
Joseph Stringfellow (FPL)
Kiang Zee (Jensen Hughes)
Mark Hulet (APS)
Mark Schairer (Engineering Planning and Management (EPM), Inc.)
Mary Anne Billings (STPNOC)
Patricia Pringle
Rob Cavedo (Exelon)
Roy Linthicum
Tatsuya Sakurahara
Victoria Anderson (Nuclear Energy Institute)
Brendan Overton (NuScale)

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