

August 14, 2017

MEMORANDUM TO: Greg Casto, Chief
PRA Licensing Branch B
Division of Risk Assessment
Office of Nuclear Reactor Regulation

FROM: Jay E. Robinson, Senior Fire Protection Engineer */RA/*
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SUBJECT: SUMMARY OF THE JULY 13, 2017, CATEGORY 2 MEETING
REGARDING FIRE PROBABILISTIC RISK ASSESSMENT
FREQUENTLY ASKED QUESTIONS

On July 13, 2017, the U.S. Nuclear Regulatory Commission (NRC) staff held a meeting with stakeholders and the public to discuss the fire probabilistic risk assessment (FPRA) frequently asked questions (FAQs) 14-0007, 16-0010, 16-0011, and 17-0013.

NRC/NEI discussed the proposed resolution to previous NRC comments for each FAQ and also future actions.

NRC/NEI discussed fire PRA FAQ 14-0007, Revision E, Transient Fire Frequency Likelihood (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17215B034). Industry agreed with NRC's latest comments, and agreed to revise the FAQ accordingly. In particular, industry agreed to remove the fire ignition source bin, cable fires caused by welding and cutting, from the scope of the FAQ.

NRC/NEI discussed fire PRA FAQ 16-0010, Revision A, Alternative Methodology to NUREG/CR-6850 for Maintaining FPRA Ignition Frequencies Weighting Factors (ADAMS Accession No. ML17215B042). Industry and NRC agreed on the content of this FAQ generally, and NRC agreed to modify the last paragraph of this FAQ to clarify the intent of its comment.

NRC/NEI discussed fire PRA FAQ 16-0011, Revision 0, Cable Tray Ignition (ADAMS Accession No. ML17215B044). The NRC staff discussed its concerns with the proposed method and offered several suggestions to improve the FAQ. In particular, the staff stated that clarification was needed as to whether the referenced ignition criteria were for piloted vs. auto-ignition and gas vs. jacket or surface temperature. It was generally agreed and understood that the intent of the proposed method was to provide a realistic improvement to calculating the time at which a tray filled with cables would ignite and contribute to vertical fire propagation through a stack of cable trays, as opposed to assuming this full tray ignition occurs at the time a single cable is damaged.

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In addition for FAQ 16-0011, industry cited examples of regulatory precedent where a similar method was used and accepted by the NRC staff, which the NRC staff will consider in its evaluation of the proposed method in the FAQ. Industry stated that they understood the staff's concerns and that they would submit a revised FAQ for review as well as any written responses to the staff's written comments.

NRC/NEI discussed fire PRA FAQ 17-0013, Revision 0, Draft B, High Energy Arcing Fault (HEAF) Non-Suppression Probability (NSP) (ADAMS Accession No. ML17215B046). NRC staff suggested breaking out the bus duct HEAF NSP from the electrical cabinet HEAF NSP. Industry recommended a re-review of the events in total to determine the need and impact of splitting into separate bins. The NRC staff agreed to review the severity classification of Fire Event #162 in the updated fire events database (FEDB).

The documents discussed during the meeting are available in ADAMS. A list of meeting attendees is included in Enclosure 1. FAQ 14-0007, Revision E is included in Enclosure 2. FAQ 16-0010, Revision A is included in Enclosure 3. FAQ 16-0011, Revision 0, is included in Enclosure 4. FAQ 17-0013, Revision 0, Draft B, is included in Enclosure 5.

Enclosures:
As stated

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FPRA FAQ MEETING

July 13, 2017

U. S. Nuclear Regulatory Commission Staff

H. Barrett
J. Hyslop
N. Melly
B. Metzger
J. Robinson
D. Stroup
G. Taylor

Stakeholders

V. Anderson (NEI)
R. Cavedo (Exelon)
J. Floyd (Jensen-Hughes)
M. Hulet (Palo Verde Generating Station)
A. Ratchford (Jensen-Hughes)
M. Shaurer (Engineering Planning and Management)
C. Sweely (Areva)
K. Zee (Jensen-Hughes)