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Mr. Joseph Giitter  
Director  
Division of Risk Assessment  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Subject:** Industry Response to the July 1, 2016 Letter on Retirement of National Fire Protection Association (NFPA) Standard 805 Frequently Asked Question (FAQ) 08-0046, *Incipient Fire Detection Systems*

**Project Number: 689**

Dear Mr. Giitter:

In a July 1 letter, you indicated NRC's intent to retire National Fire Protection Association (NFPA) Standard 805 Frequently Asked Question (FAQ) 08-0046, *Incipient Fire Detection Systems*, effective July 29, 2016. The basis for this retirement was the anticipated availability of NUREG 2180, *Determining the Effectiveness, Limitations, and Operator Response for Very Early Warning Fire Detection Systems in Nuclear Facilities*, and in the letter, it is suggested that while the NUREG is still in draft form, no methodological changes are anticipated.

During the conduct of a tabletop pilot exercise of NUREG 2180, the results of which were transmitted to NRC Research, it became evident that numerous changes to NUREG 2180 would be necessary to ensure that the methodology outlined in the report would lead to results that comport with operating experience. The methodology is incomplete, as acknowledged in multiple locations in the NUREG itself, and as revealed by the tabletop pilot exercise. Incorporating NUREG 2180 as-is into plant Fire PRAs would be premature, and the industry believes that, given the need to revise the draft NUREG prior to regulatory application, the retirement of FAQ 08-0046 is premature as well.

While it is widely recognized by both the industry and the NRC that installation of incipient detection would result in detection of very early degradation and would enhance plant safety, the draft NUREG, as written, does not reflect this, and as a consequence, plants would be less likely to install and continually maintain VEWFDs as they would see minimal additional analytical benefit to installing VEWFDs over traditional fire protection systems due to this incompleteness. Specific topics that require enhancement in the draft NUREG include characterization of the incipient phase, as well as treatment of component-only end states. The industry compiled operating experience that could address these deficiencies as part of the tabletop pilot

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exercise. Incorporation of this information into the draft NUREG will ultimately improve the realism of the final results.

The July 1 letter indicates that these efforts, including retirement of FAQ 08-0046, are undertaken in the interest of advancing the state of knowledge. Unfortunately, until the NUREG is revised to ensure that the results reflect operating experience, it does not represent advancement in the state of knowledge. Therefore it is premature to incorporate NUREG 2180 into Fire PRAs and contrary to NRC principles of good regulation that note that regulatory decisions should be based on the best available knowledge from research and operational experience.

The industry remains committed to ensuring that plant Fire PRAs reflect a high level of realism, and looks forward to working with NRC to determine the best path forward for considering the new test results in NUREG 2180 along with available operating experience, in a timeframe that supports regulatory stability. In the interim, it is imperative that the retirement of FAQ 08-0046 be delayed until an alternative approach that is both realistic and technically defensible is available. If you have any questions concerning the industry's concerns in this area, please contact me.

Sincerely,



Victoria K. Anderson

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