

Industry Comments on Draft NUREG 2180

Section from Report or Slides from April 26th Presentation	Comment
Section 7.2 and Slides 88 and 89	Please provide additional clarity on the difference between the reliability under "Detector System Availability, Reliability" vs. the reliability of the incipient system to detect during the incipient phase, which is handled under "System Effective Detecting Incipient Stage." The reliability of the system to detect any fire seems to overlap with the reliability of the system to detect a fire during its incipient phase.
Section 7.2 and Slides 88 and 89	The unreliability of the detector system seems to be revised values for the overall detection systems, as provided in Appendix S of NUREG/CR-6850. Clarify if these revised values should supersede the values provided in NUREG/CR-6850 for typical detection systems.
In-cabinet and Area-wide Excel spreadsheet	It is not clear what the time to damage in the spreadsheets is meant to represent, please clarify how the time to damage should be determined. Additionally, in the situation that a target is 0" above a cabinet, if the incipient phase is not to be included in the time to damage cell then the target would be assumed damaged at t=0. In this case, which is the case for many cabinets that benefited from incipient detection, no credit could be given to the incipient system's ability to successfully suppress the fire prior to damaging the target. Even though the cabinet has an incipient phase greater than 30 minutes, the system effectively detected in its incipient phase, MCR response was successful, field operator response was successful. If the time to damage is not meant to include the incipient phase, please ensure that this is the expected result of this situation.
Slides 85 and 87	Slide 87 of the April 26th presentation states that the column "Fraction of Fires that have an Incipient Stage" is based upon the "Fraction of potentially challenging or greater fires that have an incipient stage of greater than or equal to 30 minutes." That being the case, following the success branch gets us to enhanced suppression, which is dependent upon the time to damage. Since 30 minutes is the assumed incipient phase, because we're in the success branch of the fire event tree (FET), provide guidance on whether or not 30 minutes for the incipient phase can be added to the time to damage.