



SFPE Standards-Making Committee on Calculating Fire Exposures
Risk Working Group
Meeting Report – October 6, 2016

Present: Kevin LaMalva (Working Group Leader), Farid Alfawakhiri, Jeff Halpert, Craig Hofmeister, Panos Kotsovinos, Colleen Wade, Jonathan Weigand, and Chris Jelenewicz (Staff)

Apologies: Charley Fleishmann, Barbara Lane

The purpose of the meeting was to reach an agreement on the Task Group's mission statement moving forward. Four possible options were discussed:

Option 1 – Compose a Report to the NFPA 557 Committee – The current NFPA 557 approach that estimates fuel loads uses a risk-informed methodology. When using NFPA 557 there are two options 1) providing a “nominal-value” based on occupancy or 2) conducting explicit building specific survey. Both options consider the effectiveness of installed active systems; however, it is unclear how reliability of systems is represented. For example, there is no delineation between wet/dry sprinkler systems.

With this option, the committee would compose a report to the NFPA 557 Committee and suggest that additional risk factors be incorporated into the NFPA 557 methodology. These risk factors could be related to criticality of performance objectives (e.g., occupant life safety) and fire sprinkler system reliability. It was noted that first draft comments for NFPA 557 are due June 2017.

It was agreed that this option would not be advantageous as there would be no guarantee that the committee recommendations would make it into NFPA 557.

Option 2 – Bypass calculation of fuel load density, develop a time-temperature curve based on risk factors – With this option, a new framework would be established that includes developing a risk-informed time-temperature curve. As such, this framework would by-pass the need to calculate fuel load that is outlined in NFPA 557. This framework would require the establishment of risk-based factors based on occupancy and the presence of active systems.

It was agreed that this option would not be viable as it would require significant changes to the SFPE methodology including the existing directions of the other Working Groups. It would also rule out the need for NFPA 557.

Option 3 – Work within the existing 557 and S.01 framework to define a risk-informed extent of heating – This would include defining the risk for multi-compartment involvement and multi-floor involvement.

Option 4 – Provide commentary and characterizations of risk in current SFPE methodology – This option includes establishing risk-informed factors that can be incorporated into the existing SFPE S.01 methodology in order to perhaps justify the use of more moderate design fire exposures that are more aligned with those used in European practice. These risk factors would provide for uncertainty in the existing methodology and include risk factors related to ventilation.

It was agreed that Option 4 would be the best use of the Committee's efforts moving forward. If time permits, aspects of Option 3 could also be addressed. Both Options 3 and 4 align within the existing NFPA 557 and SFPE Frameworks and would account for the uncertainty that is in the current methodologies.

Keven and CJ will discuss these options with the committee chair. After this discussion, Kevin will present a final option for the Working Group to consider.

Next Meeting – The next working group meeting will be held in late November. CJ will schedule.

End of Report