

SFPE Standards-Making Committee on Design Fire Scenarios

Meeting Report – January 28, 2015

Present: Beth Tubbs (Chair), Jason Butler, Charles Fleischmann, Jason Floyd, Craig Hofmeister, M.C. Hui, David Stroup, Piotr Tofilo, Collen Wade, Shaun Wrightson and Chris Jelenewicz (Staff).

The following was discussed:

1. Committee Chair Vacancy – Beth recently started a two-year term on the SFPE Board of Directors. As such, she is required to step down as the committee chair. She will remain in the chair position until a replacement is found. SFPE is currently advertising a replacement. The final date to accept applications is March 15. So far we have received one applicant.

Additionally, Brian Meacham has stepped down from the committee to devote more time to the SFPE Board of Directors.

2. Tenability Criteria – Currently the draft outline for this standard includes setting acceptance criteria. Specifically, Section 1.1 Purpose states “The purpose of this standard is to provide a methodology for deriving design fire scenarios, the associated design basis fires, and related exposure limits against which the fire safety design is evaluated.”

Additionally, the committee has already started to develop a methodology that is based on creating sets of Fire Scenario Triplets (fire scenario, design fire and acceptance criteria). This methodology is outlined in a paper by Meacham, Tubbs and Hurley (see attached).

At the same time, the SFPE Human Behavior Committee is drafting the second edition of the Human Behavior Guide. As part of this effort, the Human Behavior Committee is drafting a chapter on tenability. However, the Human Behavior Committee has made it a point to NOT provide standard tenability (and acceptance) criteria in this guide.

Last November, during a presentation at the SFPE Performance-Based Design Conference, Bill Koffel called for SFPE to take the lead in further developing and standardizing tenability criteria. This call-to-action included a significant donation if SFPE accomplishes this task before the next SFPE PBD conference. While SFPE received many notes of support for this effort, we have also heard from some members who wanted further clarification on the process and purpose of this initiative and fund raising effort. As a result, in the next few days, SFPE President Mike Madden will be sending out a letter to SFPE membership in regards to this call-to-action.

Additionally, the SFPE Technical Steering Committee will be meeting on February 25 to discuss this criteria standardization issue and will provide direction on how SFPE will proceed. The TSC has asked our committee to provide a summary of the current activities of the two task groups currently addressing tenability criteria.

Based on this information, the committee discussed the following:

- The majority thought the Committee should remain on course and include acceptance criteria in the Design Fires Standard.
- Some thought that the acceptance criteria could be put in the Appendix but a decision on where to put the criteria could be reserved for a future date.
- There was a fear that splitting the triplets into different committees would result in over conservatism. Having one committee working on the triplet methodology would result in less uncertainty that would result in better results as opposed to having a separate committee work on the acceptance criteria.
- The Design Fires Committee will monitor the work that is being done by the Human Behavior Committee to ensure that the two documents do not conflict.
- At the same time, there was a discussion that developing the triplet methodology would be too large a task for one committee. As such, it is important that the committee focus on dividing the work evenly among committee members.

3. Guidance on Developing Scenarios for Use Groups not listed in the Standard –

Jason Floyd drafted a section that provides a methodology for selecting scenarios for use groups not listed in the standard. It is based on the following steps.

1. Establish a clear goal for the fire modeling
2. Develop a list of potential fire scenarios and their consequences
3. Rank the list of scenarios
4. Down select based on the ranked listing ensuring that selected scenarios cover a range of rankings
5. Develop specific fires for each down selected scenario

This document is attached to this report. Committee members were asked to review this document and provide comments at the next meeting.

4. Path Forward – After the Technical Steering Committee meeting on February 25, the committee will move forward based on the direction of the Technical Steering Committee.

At the same time, Charley will hold a meeting with the Southern Hemisphere Task Group to discuss how they can move forward.

5. Next Meeting – March 19/20 – The next committee meeting will be held on March 19, 2015 at 2pm (US Eastern Time).

- **End of Report** -