Barrier Research Study

Open Flame Test Method for Barrier Materials – Work Plan

Background:

As part of adopting Technical Bulletin 117-2013 regulations, the Bureau states the following in its initial statement of reasons:

> The Bureau understands that fire-barrier technology is still evolving and that fire data, trends and studies of residential fires continue to emerge. In view of that, the Bureau will continue its ongoing efforts to evaluate and re-evaluate its flammability standards through research, testing and keeping abreast of new technologies. As part of this ongoing effort, the Bureau will commence a two-year study on available and emerging fire barrier materials and other relevant technologies to examine their open flame fire resistant properties, to monitor and evaluate cost effectiveness, and determine their applicability in open flame testing of upholstered furniture. These efforts will be in-conjunction with other governmental agencies and interested stakeholders.

Proposed Work Plan:

Phase 1 (Complete):

- Send an email invitation to all interested parties requesting comments and ideas regarding the draft test method developed referred to as "Proposed Open Flame Test for Barrier Materials."
- Consider responses before implementing this test method to be used for research on barriers available in the marketplace.

Timeline: Completed October 31, 2014.

Phase 2:

- Select a representative workgroup that will be productive and manageable to enable the collecting of existing and emerging barrier materials and technologies available in the marketplace (Complete).
- Work in conjunction with the barrier industry to collect existing barrier materials.
- Examine the barriers utilizing the proposed open flame test standard and the smoldering test standard (TB117-2013 Section 2).
- Conduct correlation studies; compare actual real-life furniture scenarios to the draft open flame test for barrier materials.
- Conduct inter-laboratory testing (once a robust regiment is established).

Timeline: Commence March 2015 and complete by December 31, 2015 (approximately 9 months).

Phase 3:

- Determine if a representative work group is needed. If so, select membership.
- Address concerns of the test method: feasibility and ease of use of barriers in the manufacturing world.
- Address national studies and data regarding open-flame issues, justification, regulatory aspects, and consumer costs.
- Perform flame retardant chemical evaluation of barriers.
- Consider lifecycle analysis of barrier usage in furniture.
- Depending on the Bureau's budget condition, a cost benefit analysis will be sought to comprehensively evaluate the impact of barrier usage in furniture to the market and consumers.

Timeline: Complete by May 31, 2016 (approximately 5 months).

Phase 4:

- Outcome; what is achievable, working hypothesis; all interested parties.

Timeline: Complete by September 30, 2016 (approximately 4 months).

Phase 5:

- Final conclusion and implementation; all interested parties.

Timeline: Complete by December 31, 2016 (approximately 3 months).

Other Considerations:

- Are barriers available that meet both open flame and smoldering test standards / methods?
- How will the small open flame test method correlate with large scale testing?
- Can manufacturers use a barrier that encases the entire product effectively, considering consumer comfort and still be acceptable for the consumer and industry?
- Can industry provide barrier materials that are economically feasible?

Stakeholder feedback and assistance will be sought in every phase of this project and the Bureau plans to continually publish draft findings and analysis at the conclusion of each phase of the project to ensure open discussion and transparency. However, the performance of the study and drafting of the final report will be performed by Bureau personnel or contractors whenever feasible.