



4 January 2016

Via email - ccronin@nfpa.org

Dawn Bellis

National Fire Protection Association
One Batterymarch Park
Quincy, MA 02169

Re: *BSR/NFPA 277-201x, Standard Methods of Test for Evaluating Fire and Ignition Resistance of Upholstered Furniture Using a Flaming Ignition Source*

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Pursuant to the recent posting and action by the National Fire Protection Association (hereafter NFPA), the **American Home Furnishings Alliance** (hereafter AHFA) submit comments on behalf of the **Joint Industry Coalition** (hereafter the Coalition) as listed in this letter. The Coalition is a broadly diverse group of stakeholders who have addressed this issue for several years.

The AHFA represents approximately 400 large, medium and small companies, some public and some private. The membership includes domestic manufacturers and importers. These companies manage a sophisticated global supply chain that includes facilities in 31 states and three foreign countries, and provides more than \$11 billion in wholesale shipments of home furnishings products annually to US consumers. While some member companies manufacture products for business, commercial and institutional settings, their primary focus is on the residential furniture market.

The AHFA also has a suppliers division comprised of over 200 diverse companies that provide components and services to the global home furnishings industry. These **'Solution Partners'** offer manufacturing equipment, and component parts (i.e. foam, fabric, frames for upholstered furniture). Many of these Solution Partners are members of the Coalition covered by this letter.

The Coalition strongly objects to NFPA developing a 'new standard' for Fire Ignition Resistance of Upholstered Furniture, expressly one that employs a **'flaming ignition source.'** Outlined below is the rationale of our objection:

1. There already exist several standards for testing upholstered furniture that employ a flaming ignition source (open flame) – TB-133, ASTM E1537, and ANSI/UL 962.
2. In order to demonstrate compliance with these referenced open flame ignition standards, typically 100% of upholstered furniture design requires the use of flame retardant chemistries. As clearly demonstrated by recent consumer/public/press sources, many consumers want to purchase upholstered furniture that does not contain flame retardants. In fact, market pressures are rapidly moving the industry away from reliance on flame retardants, and the overriding consumer sentiment believes the risk to human

health and the environment resulting from the use of these chemicals supersedes the fire risk.

3. The Coalition disagrees with the ***'Project Need' statement*** of the ANSI Standards Action that states that 'consumers want safe furniture.' Upholstered furniture treated with fire retardant chemistry to meet the prescriptive regulatory requirements of an open flame standard are counter to that statement and not in accordance with public interest or consumer needs.
4. NFPA reports that there has been a significant reduction in fires. Since the 1980's, upholstered furniture manufacturers' efforts have directly led to significant declines in both the number of incidents where upholstered furniture was the first article ignited, as well as the severity of those incidents as measured in injuries and deaths.

For additional background and analysis, please reference the January 14, 2014 letter submitted to NFPA by AHFA on behalf of the coalition (attached). If NFPA decides to move forward with BSR/NFPA 277, the Coalition respectfully request a 'PINS' deliberation in accordance with ANSI procedures.

Respectfully,



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Joint Industry Coalition

American Home Furnishings Alliance (AHFA)
American Fiber Manufacturers Association
California Furniture Manufacturers Association (CFMA)
National Cotton Council of America (NCC)
National Council of Textile Organizations (NCTO)
North American Home Furnishings Association (NAHFA)
Polyurethane Foam Association (PFA)
Upholstered Furniture Action Council (UFAC)



January 14, 2014

Via Electronic Mail to NFPA (stds_admin@nfpa.org)

Standards Council – Fire Test Committee
National Fire Protection Association (NFPA)
1 Batterymarch Park
Quincy, MA 02169

Re: *New Test Method to Evaluate Fire/Ignition Resistance of Upholstered Furniture Subject to a Flaming Ignition Source*

These comments have been developed on behalf of the US home furnishings industry (industry stakeholders) by the **American Home Furnishings Alliance** (hereafter AHFA), the Upholstered Furniture Action Council (UFAC), the Polyurethane Foam Association (PFA), the National Council of Textile Organizations (NCTO), and the North American Home Furnishings Association (NAHFA).

The AHFA is the world's largest trade organization serving the home furnishings industry. AHFA member companies primarily operate residential upholstered furniture manufacturing facilities and comprise an extensive global supply chain that provides a wide variety of residential home furnishings to the US consumer.

The issue of upholstered furniture flammability has been a topic of discussion and debate at the US Consumer Product Safety Commission (hereafter CPSC) since it inherited the **Flammable Fabrics Act** from Congress in 1973. The issue of small-open flame and smolder ignition standards have been proposed and evaluated by the CPSC since 1981. For over 30 years, the CPSC has inherently understood that the focus on cigarette-smolder ignition remains the highest value effort in reducing the incidence and severity of residential upholstered furniture fires.

Since the 1980's, upholstered furniture manufacturers' efforts have directly led to significant declines in both the number of incidents where upholstered furniture was the first article ignited, as well as the severity of those incidents as measured in injuries and deaths. In fact, data collected by the **National Fire Protection Association** (hereafter NFPA) from 2005-2009, demonstrates that upholstered furniture was the first ignited item in only 2% of reported home structure fires¹. In numbers, fires reported where upholstered furniture was the first ignited item has decreased from 21,500 in 1980 to 1,500 in 2010. This 93% decrease can largely be attributed to voluntary programs such as the **Upholstered Furniture Action Council** (UFAC) program, as well as voluntary testing standards such as the ASTM E1353 standard. This 93% decrease speaks volumes to the success of the industry in addressing this issue. It is important to note these numbers are actually conservative, as they do not account for the increase in US population or furniture placements within US homes. Also, fire incidents continue to

¹ NFPA-Mary Ahrens; Home Structure Fires; May 2011 P. 42-43 Table 11

trend downward, as older furniture is removed from the marketplace and is replaced with newer models.

It should also be noted that the contribution of upholstered furniture as the material first ignited in home smoking materials fires has decreased significantly since 1980². In 1980, 30% of fire events identified upholstered furniture as the primary ignition source. In 2010, that number had decreased to 8.5%². ***The number of fire events is decreasing!*** The percentage of those events where upholstered furniture was the material first ignited in home smoking materials fires is also dropping, showing a 72% reduction over 30 years². All of this occurred while the number of US homes and the number of articles of furniture within those homes continues to rise. In 2010, there were 0.387 fire deaths per million pieces of furniture placed within US homes^{1,3}.

The two primary modes of furniture ignition remain smolder and small-open flame. However, these two modes have significant differences in their contribution to overall upholstered furniture fires. In its 2008 ANPR, the CPSC noted that of those fires considered addressable, 90% of the deaths that occurred were ignited by smoking materials⁴. In other words, 90% of the deaths within addressable fires were caused by a fire that began with a smoldering ignition source. It should be noted that recent evidence on smolder ignition sources is promising. The reduced ignition propensity (RIP) cigarette, while introduced in 2003, did not see complete implementation across all 50 states until 2011⁵. For example, in 2008 only 38% of the United States population lived in states that mandated the RIP cigarette⁵. With the complete implementation of the RIP cigarette legislation now completed, in combination with fewer smokers, continuously more aggressive anti-smoking campaigns, higher tax rates on these products, improved use of smoke detectors and sprinkler systems, these improvements will continue to drive the decrease of smolder ignited furniture events.

That takes us to the remaining 10% of fires, attributed to all other sources including open flame. Since 1994 barrier technology has been discussed, but has proven inconclusive at best and ineffective at worst in addressing the primary cause of residential upholstered furniture fires. Currently available barrier technology utilized by the mattress industry, with its simple uniform shape, limited types of ticking fabrics and use, is not well-suited for application to upholstered furniture. The various geometries, spatial relationships, design, construction, cover fabric options and varying consumer use all specifically prevent a simple uniform application of barriers. These primary differences prevent a one size fits all solution to barrier technology within upholstered furniture. Additionally, consumer preferences and comfort remain the driving force behind design advancements. Upholstered furniture flammability performance has improved 93% without consumer sacrifice of hand, drape, seat or price of residential upholstered furniture. There is little data to support that an inconclusive solution that requires compromises by the consumer within selection, comfort, style AND price will find a great level of demand in the marketplace.

This leads us to a discussion of upholstered furniture that is involved in a 'fire event' not as the primary source of ignition but as the second or third item ignited. Current estimates of fires or deaths where upholstered furniture is the primary contributor to fire or flame spread but not the first item ignited are pure speculation. The assumptions made when generating these estimates are not

² National Fire Protection Association, John R. Hall, Jr., *'The Smoking-Material Fire Problem'*, pg.21, Table 6.

³ UFAC Upholstered Furniture Items Sold, 2004-2010.

⁴ §73 Fed. Reg. 11704 (March 4, 2008).

⁵ National Fire Protection Association, *'Smoking-Materials'*, fire deaths drop to 30 year low, pg.1.

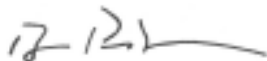
supported by data. Additional data collection and extensive research with fire departments participating in NFIRS would be needed before any standard development could be justified.

In conclusion, the AHFA believes NFPA should not pursue the development of a 'small open flame test method' because it shifts the focus from arguably the greatest risk, smolder ignition:

1. Smoldering ignition rather than small open flame ignition is still responsible for the majority of fire deaths from fires originating in upholstered furniture.
2. The State of California updated TB-117 by eliminating the requirement for a small open flame standard. In their research and in the interest of fire safety, they determined to move to a smolder ignition standard.
3. Open flame testing will require a full scale 'build one-burn one' testing scheme that will create a significant testing burden on manufacturers. With the vast number of different constructions and styles utilized in the industry, a single cover fabric may be used on numerous builds and a single build could be sold with numerous cover fabrics. Without the ability to meet a standard using a component level testing scheme, the marketplace is hurt by limiting availability and options.
4. With the technology currently available, an open-flame standard can only be met using flame retardant chemicals. Many states are looking at various restrictions on flame retardant chemicals. This could leave manufacturers in a situation of being required to meet an open-flame standard for one state and required to meet chemical requirements in another; an obvious untenable situation.
5. Other options to address open flame ignition of upholstered furniture, such as barriers, have been proven not to be cost effective and limit the styling and comfort demanded by consumers.
6. Several UK studies indicate high concentrations of flame retardant chemicals are used to meet the open flame requirements of BS 5852.
7. AHFA believes NFPA should evaluate and understand why California moved away from an open-flame standard. It is clear that in their complete evaluation of available research, they determined the best benefit to fire-risk was a smolder ignition test method similar to UFAC.

AHFA appreciates the opportunity to provide comment on this important subject. We greatly respect the important work and research performed by NFPA and its members. Should NFPA decide to pursue the development of an open flame standard we respectfully request that industry be invited to participate so that real world manufacturing and design issues can be considered during the process.

Respectfully,



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