



NATIONAL ASSOCIATION OF STATE FIRE MARSHALS  
**Executive Committee**

August 17, 2005

Office of the Secretary  
U.S. Consumer Product Safety Commission  
Washington, DC 20207-0001

**RE: Mattress ANPR (Cigarette Ignition)**

The members of the National Association of State Fire Marshals (NASFM) comprise senior, state-level, public safety officials. NASFM's mission is to protect life, property and the environment from fire and other hazards. The comments presented here were prepared in consultation with NASFM's Science Advisory Committee (SAC), whose members are listed on the attached page.

In the above-referenced notice, the U.S. Consumer Product Safety Commission (CPSC) has indicated its interest "in revoking or amending its existing standard for the flammability of mattresses and mattress pads (16 CFR part 1632)," given comments from mattress producers that continuing to test their products against the cigarette ignition standard would be "burdensome and unnecessary" in light of the Commission's proposed open flame ignition fire performance standards for mattresses.

NASFM concurs that the two standards taken together may be administratively burdensome to some mattress producers. However, this is a fact the mattress industry understood and apparently accepted when its trade association, the International Sleep Products Association, and its research and education adjunct, the Sleep Products Safety Council, initiated the research project that led to California Technical Bulletin 603 (TB 603). Whether the current cigarette ignition standard is "unnecessary" is a matter of public safety and will require considerably more data before such a conclusion can be drawn with any confidence.

NASFM's position on this proposal can be summarized in the following points, which highlight the premature nature of any action to revoke the current cigarette standard for mattresses:

- Any Commission action at this point to rescind the current cigarette standard would be speculative in terms of the impact on public safety. Currently, a federal standard for open flame ignition of mattresses doesn't exist. Therefore, this proposal does not appear to make sense, because it potentially eliminates a standard addressing one combustion hazard without having the new standard implemented.

## Mattress ANPR (Cigarette Ignition)

August 17, 2005

Page 2

The two standards differ in many ways, but the most significant difference is the fact that the open flame standard presumes ignition, while the cigarette ignition forbids it. If the existing cigarette standard is rescinded, small but persistent cigarette-ignited fires may occur, generating quantities of carbon monoxide and other highly toxic gases that could kill without ever reaching flashover. The cigarette standard should not be rescinded without some better understanding of the implications of this action.

- The mechanism of smoldering and flaming fires is quite different. Significant fire research over the past 30 years has clearly shown that flame-resistant materials and products are not necessarily smolder resistant, and vice-versa. The application of a flame retardant chemical to a material, for example, may not prevent easy ignition of that same material by a smoldering source such as a cigarette. Conversely, many materials are inherently smolder resistant, but are extremely flammable when ignited by even a small flame – thermoplastic fibers are typical examples.
- Innovative new fire blocking and barrier technologies are still emerging and may not perform well in preventing cigarette ignitions of mattresses. The industry says manufacturers selling in California automatically comply with the federal smoldering standard. However, hundreds of manufacturers are not selling in California, and nobody yet knows how they will be able to comply with a standard, or what technologies they might use to achieve compliance.

At this point, we may know that certain fire blocking systems will provide good protection from both hazards. As alternative barrier materials are developed and used, can we have that same assurance? Just a few years ago, mattress producers had legitimate concerns that the technologies addressing open flame ignitions might increase the risk of smoldering ignitions. Fortunately, the first generation of new materials appears to have resolved that problem.

Many different ways already exist to comply with California's TB 603 – with more being developed all the time. There is no scientific basis to conclude that other practical technologies that could feasibly be used to meet an open flame requirement would ensure that cigarette ignition resistance would be maintained. Until we have a better sense of how these new technologies perform under both tests, a proposal to end the smoldering standard is surely premature and appears to be very risky. The array of available solutions will become smaller and better known through competition, and as mattress producers become comfortable with solutions. Once the industry has pinpointed the best solutions, the Commission can begin considering the end of the cigarette standard.

- Unless and until the CPSC issues a bedclothes rule that addresses ignition of mattress pads by both open flame and cigarettes, the revocation of the federal cigarette ignition standard, which also applies to mattress pads, is premature and possibly dangerous.

**Mattress ANPR (Cigarette Ignition)**

August 17, 2005

Page 3

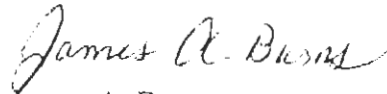
Given that mattress pads run the gamut from “thin, flat mats” to thick foam “egg crate” designs, the federal cigarette ignition standard currently represents the only assurance that these potentially highly flammable products are resistant to any form of ignition. NASFM believes these products should be included in the open flame bedclothes rulemaking that the CPSC has initiated. The Association cautions that assuming mattress pads that pass an open flame standard will also automatically pass a smoldering ignition standard may be premature. The CPSC needs to make sure these products pass both tests.

Regarding any changes to the current standard, NASFM would suggest the following:

- Changes in cigarettes may require a modification of the existing cigarette ignition standard for mattresses to ensure that the safety benefit of the federal standard is not negated. The State of New York currently requires cigarettes to meet “lower ignition strength” standards. Vermont has recently passed similar legislation, and numerous other state legislatures are considering the measure, as well. Until each state has “lower ignition strength” legislation or the industry starts manufacturing only these types of cigarettes, these new products shouldn’t be used in the federal cigarette ignition test for mattresses. Using the “lower ignition strength” cigarettes to test mattresses increases the chances that less fire-resistant materials would pass the standard and be allowed onto the market, and the net effect on fire losses would be zero. NASFM understands that the CPSC, in coordination with the National Institute of Standards and Technology, the California Bureau of Home Furnishings and Thermal Insulation and industry, has developed a surrogate (cotton rope) for the standard cigarettes used in the federal mattress test to ensure that test results are not compromised by changes in the ignition strength of commercial cigarettes. NASFM urges the CPSC to modify its testing requirements to include the surrogate.

Thank you for the opportunity to comment on this ANPR.

Sincerely,



James A. Burns  
President

cc: NASFM Board of Directors  
NASFM SAC

Attachment



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