



Billing Code 6355-01-P

## CONSUMER PRODUCT SAFETY COMMISSION

[Docket No. CPSC-2020-0024]

16 CFR Part 1632

### Standard for the Flammability of Mattresses and Mattress Pads; Proposed Amendment

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Consumer Product Safety Commission (Commission, or CPSC) is proposing to amend its Standard for the Flammability of Mattresses and Mattress Pads. The ignition source cigarette specified in the standard for use in the mattress standard's performance tests, Standard Reference Material cigarette SRM 1196, is no longer available for purchase. The Commission is proposing to amend the mattress standard to require a revised Standard Reference Material cigarette, SRM 1196a, which was developed by the National Institute of Standards and Technology, as the ignition source for testing to the mattress standard.

**DATES:** Comments on the proposal should be submitted no later than [INSERT DATE 75 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Comments, identified by Docket No. CPSC-2020-0024, may be submitted electronically or in writing:

*Electronic Submissions:* Submit electronic comments to the Federal eRulemaking Portal at: <https://www.regulations.gov>. Follow the instructions for submitting comments. The CPSC does not accept comments submitted by electronic mail (e-mail), except through <https://www.regulations.gov>. The CPSC encourages you to submit electronic comments by using the Federal eRulemaking Portal, as described above.

*Mail/hand delivery/courier Written Submissions:* Submit comments by mail/hand delivery/courier to: Division of the Secretariat, Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814; telephone: (301) 504-7479; email: [amills@cpsc.gov](mailto:amills@cpsc.gov).

*Instructions:* All submissions must include the agency name and docket number for this proposed rule. CPSC may post all comments received without change, including any personal identifiers, contact information, or other personal information provided, to:

<https://www.regulations.gov>. Do not submit electronically: confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. If you wish to submit such information, please submit it according to the instructions for written submissions.

*Docket:* For access to the docket to read background documents or comments received, go to: <https://www.regulations.gov>, and insert the docket number, CPSC-2020-0024, into the “Search” box, and follow the prompts.

**FOR FURTHER INFORMATION CONTACT:** Lisa Scott, Directorate for Laboratory Sciences, Office of Hazard Identification and Reduction, U.S. Consumer Product Safety Commission, 5 Research Place, Rockville, MD 20850; telephone: 301-987-2064; email: [lscott@cpsc.gov](mailto:lscott@cpsc.gov).

## **SUPPLEMENTARY INFORMATION:**

### **A. Background**

#### **1. The Standard**

The Standard for the Flammability of Mattresses and Mattress Pads (Standard), 16 CFR part 1632, issued pursuant to the Flammable Fabrics Act (FFA), 15 U.S.C. 1191 *et seq.*, sets forth a test to determine the ignition resistance of a mattress or mattress pad when exposed to a lighted cigarette. Lighted cigarettes are placed at specified locations on the surface of a mattress or mattress pad. The Standard establishes pass/fail criteria for the tests. The Standard currently specifies the ignition source for these tests as Standard Reference Material cigarette SRM 1196, available for purchase from the National Institute of Standards and Technology (NIST). *See* 16 CFR 1632.4(a)(2).

#### **2. Development of the Original Standard Reference Material Cigarette**

The original specification for the Standard's ignition source included physical characteristics of a conventional, commercially available, non-filtered, king-sized cigarette. Although no specific brand was identified in the standard, a Pall Mall Red cigarette, manufactured by R. J. Reynolds Tobacco Company (RJR), was commonly known to meet the specifications. In early 2008, RJR notified CPSC that the company intended to convert its production of Pall Mall Red cigarettes to be Fire Standard Compliant (FSC).

In 2008, CPSC sought to find an alternate ignition source and contracted with NIST to develop an ignition source with an ignition strength equivalent to the conventional Pall Mall Red cigarette. The ignition strength value is on a scale from 0 to 100 and is analogous to the percentage of full-length burns on a laboratory substrate. Lower values indicate a cigarette is more likely to self-extinguish when not actively being smoked, while higher values indicate a

cigarette is more likely to remain lit while unattended. The Pall Mall Red ignition strength varied by vintage from a measured low of 35 to a high of 95, most often falling at the higher end of the range. FSC cigarettes are required to have an ignition strength lower than 25 and in practice are often much weaker to ensure uniform compliance.

In 2010, NIST developed SRM 1196, *Standard Cigarette for Ignition Resistance Testing*. SRM 1196 was available for purchase starting in September 2010. On November 1, 2010, CPSC proposed the use of the SRM 1196 cigarette as the standard ignition source. 75 FR 67047. On September 23, 2011, CPSC issued a final rule amending the Standard to specify SRM 1196 as the standard ignition source, which became effective on September 23, 2012. 76 FR 59014.

### **3. Development of a New Standard Reference Material Cigarette**

All of the SRM 1196 cigarettes were produced in one production run in 2010, with a supply estimated to last approximately 10 years. NIST staff made several attempts to procure a new batch of SRM 1196 cigarettes as the supply dwindled, but in late 2018, the supply of SRM 1196 was depleted before NIST was able to complete a new procurement. NIST was unable to find a manufacturer to produce additional SRM 1196 cigarettes. However, NIST successfully procured SRM 1196a as a replacement for SRM 1196.

NIST conducted tests to determine whether the SRM 1196 properties were replicated in the new SRM 1196a. NIST evaluated the suitability of SRM 1196a by examining the cigarette's ignition strength, tobacco column length and mass, use of unbanded paper, and absence of a filter. Tobacco column length is the length of the cigarette that contains tobacco. Banded paper contains bands that slow the cigarette's combustion when not actively being smoked, while unbanded paper does not contain these bands. NIST affirmed that these SRM 1196 properties were replicated in the new SRM 1196a, because it has a similar ignition strength, tobacco

column length and mass, it uses unbanded paper, and it has no filter. NIST began selling SRM 1196a in February 2020.

#### **4. CPSC Staff Evaluation of SRM 1196a<sup>1</sup>**

CPSC staff evaluated SRM 1196a in a pilot study and then a full-scale study to determine whether it is a comparable, safety-neutral replacement for SRM 1196.

CPSC staff conducted an initial pilot study in late 2019 to evaluate the suitability of SRM 1196a as a substitute for SRM 1196. The goal of the pilot study was to ensure the full-scale study met statistically robust and scientifically meaningful criteria. Staff evaluated the confidence interval and margin of error to utilize in the full-scale study, based on an examination of the 2010 transition from the original ignition source to SRM 1196, CPSC compliance data, and the number of test replicates required by the Standard. Based on this analysis and testing during the pilot study, staff subject matter experts determined that a 90 percent confidence interval and equivalence margin of 35 percent were appropriate.

CPSC staff then conducted a full-scale study in early 2020 to determine whether there is statistical equivalence between SRM 1196 and SRM 1196a. In the full-scale study, staff evaluated both SRM 1196 and SRM 1196a and found statistically equivalent char length pass/fail patterns for all tested mattress substrates. Test results were within a 90 percent confidence interval and equivalence margin of 35 percent. Staff noted that NIST certified the ignition strengths of both SRMs to be comparable based on a 95 percent confidence interval with a 5 percent margin in laboratory testing. While the bounds found by CPSC staff are larger than the NIST confidence interval, staff determined that the NIST tests only examined the cigarette

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<sup>1</sup> Staff Briefing Package, Proposed Amendment to 16 CFR part 1632 Standard for the Flammability of Mattresses and Mattress Pads, is available at <https://www.cpsc.gov/s3fs-public/NPR-Standard-for-the-Flammability-of-Mattresses-and-Mattress-Pads-Proposed-Amendment.pdf?POASWvZmX8ZwwU1OIoDjE9CDMRCHPaGA>.

characteristics on substrates which have little variability. The CPSC testing included representative mattress materials that are inherently more variable than the benchmark substrates in the NIST cigarette tests. Furthermore, staff analysis of both SRM cigarettes found that the physical dimensions of SRM 1196 and SRM 1196a are nearly identical. Based on the evidence provided by the full-scale study, pilot study, and NIST certification, as well as examination of CPSC compliance data and data from the 2010 transition from the original ignition source to SRM 1196, CPSC staff's review showed that SRM 1196a cigarettes are statistically equivalent to SRM 1196. On these bases, the Commission finds that SRM 1196a is a comparable, safety-neutral replacement for SRM 1196.

## **B. Statutory Provisions**

The FFA sets forth the process by which the Commission can issue or amend a flammability standard. In accordance with those provisions, the Commission is proposing to amend the Standard to specify the SRM 1196a cigarette developed by NIST as the ignition source to be used for testing under the Standard. As required by the FFA, the proposed rule contains the text of the amendment, alternatives that the Commission has considered, and a preliminary regulatory analysis. 15 U.S.C. 1193(i). Before issuing a final rule, the Commission must prepare a final regulatory analysis and make certain findings concerning any relevant voluntary standard, the relationship of costs and benefits of the rule, and the burden imposed by the regulation. *Id.* 1193(j). In addition, the Commission must find that the standard: (1) is needed to adequately protect the public against the risk of the occurrence of fire leading to death, injury, or significant property damage; (2) is reasonable, technologically practicable, and appropriate; (3) is limited to fabrics, related materials, or products which present unreasonable risks; and (4) is stated in objective terms. *Id.* 1193(b).

The Commission also must provide an opportunity for interested persons to make an oral presentation concerning the rulemaking before the Commission may issue a final rule. *Id.*

1193(d). The Commission requests that anyone who would like to make an oral presentation concerning this rulemaking please contact the Commission's Division of the Secretariat (see the ADDRESSES section of this proposed rule) within 45 days of publication of this proposed rule.

If the Commission receives requests to make oral comments, a date will be set for a public meeting via webinar for that purpose, and notice of the meeting will be provided in the *Federal Register*.

### **C. Description of the Proposed Amendment**

Currently, the Standard requires that the ignition source for testing mattresses “shall be a Standard Reference Material cigarette (SRM 1196), available for purchase from the National Institute of Standards and Technology....” 16 CFR 1632.4(a)(2). CPSC now proposes to amend the Standard to require the use of SRM 1196a instead of SRM 1196.

### **D. Preliminary Regulatory Analysis**

Section 4(i) of the FFA requires that the Commission prepare a preliminary regulatory analysis when it proposes to issue or amend a flammability standard under the FFA and that this analysis be published with the proposed rule. 15 U.S.C. 1193(i). CPSC staff conducted this analysis to assess the regulatory impact of the proposed amendment.

#### **1. Market/Industry Information**

The size of the U.S. mattress market increased from \$17.4 billion in 2018 to \$18.1 billion in 2019. Roughly 23.6 million mattress units shipped in 2018. Approximately 29 percent (6.8 million) of units shipped were imported products.

Three industry sectors supply Mattresses and Mattress Pads to the U.S. Market, categorized under the North American Industry Classification System (NAICS): NAICS Sector 337910 – Mattress Manufacturing, NAICS Sector 314120 – Curtain and Linen Mills, and NAICS Sector 423210 – Furniture and Merchant Wholesalers.

The Mattress Manufacturing Sector (337910) includes establishments primarily engaged in manufacturing innerspring, box spring, and non-innerspring mattresses. The Curtain and Linen Mills Sector (314120) comprises establishments primarily engaged in manufacturing household linens, bedspreads, sheets, tablecloths, towels, and shower curtains, from purchased materials. This sector includes mattress pad and mattress protector manufacturing. The Furniture and Merchant Wholesalers Sector (423210) is primarily engaged in the merchant wholesale distribution of furniture, except hospital beds and medical furniture. Importers of mattresses are typically categorized under NAICS code 423210.

According to the Small Business Administration (SBA), a firm in the Mattress Manufacturing sector (NAICS sector 337910) can be defined as “small” if the firm employs fewer than 1,000 workers. Under this definition, among the 250 firms identified by staff in the sector, 240 are small businesses that supply mattress products. The SBA defines a firm within the Curtain and Linen Mills Sector (NAICS sector 314120) as small if the firm employs fewer than 750 workers. Under this definition, among the 20 firms identified by staff, 19 firms are small and currently supply mattress products to the U.S. mattress market. Finally, a firm in the Furniture and Merchant Wholesale Sector (NAICS sector 423210) is defined as small if the firm employs fewer than 100 workers. All of the 88 firms staff identified in this sector meet this definition of small. Under SBA-provided definitions, staff finds the majority of firms supplying the U.S. market for mattresses and mattress pads are small businesses.

## **2. The Mattress Standard**

The mattress standard at 16 CFR part 1632 requires premarket, full-scale prototype testing for each new mattress design. Prototype testing also must be performed for each change in materials of an existing design that may affect cigarette ignition resistance.

Under the Standard, four defined test procedures require the use of an SRM ignition source: the mattress test procedure, the mattress pad test procedure, the ticking classification test procedure, and the tape edge substitution test procedure. The number of test cigarettes required by these test procedures range from 18 SRM test cigarettes consumed during the ticking classification test, to 108 SRM test cigarettes consumed during the mattress or mattress pad test procedures. Furthermore, under the Standard only SRM test cigarettes from unopened packages can be selected for a series of tests, and if a cigarette extinguishes before burning its full length on any mattress surface location, the test must be repeated with a freshly lit cigarette. Therefore, mattress and mattress pad test procedures require, in practice, 6 packs of SRM cigarettes, the ticking classification test procedure requires in practice 1 pack of SRM cigarettes, and the tape edge substitution test requires, at a minimum, 2 packs of SRM cigarettes.

SRM 1196a is available for purchase from NIST at a minimum order of 2 cartons. A carton contains 10 packs, and each pack contains 20 cigarettes; therefore, two cartons from NIST will contain 400 SRM cigarettes. Based on information collected by staff from a selection of domestic third-party testing facilities, a third-party testing facility uses an average of 10 to 40 packs of SRM cigarettes (or between 200 – 800 test cigarettes) per month. These data provide insight into the number of tests cigarettes used by third party testing facilities located in the United States, as an order of magnitude. A testing facility that uses 400 test cigarettes per month would need to purchase two cartons of SRM cigarettes from NIST every month.

### **3. Potential Benefits and Costs**

The SRM cigarette described in the proposal would have approximately the same ignition strength characteristics as originally intended by the Standard. The use of SRM 1196a cigarettes would not change the flammability performance tests or test method required under the Standard.

#### **a. Potential Benefits**

The proposed amendment is “safety-neutral,” so mattresses that passed or failed under the existing Standard would be expected to generate similar results when SRM 1196a is used. The level of protection provided by the Standard would neither increase nor decrease as a result of the change from SRM 1196 to SRM 1196a. Thus, there would be no impact on the level or value of fire safety benefits derived from the 16 CFR part 1632 Standard.

Because NIST has exhausted its supply of SRM 1196, adopting the proposed amendment to require the use of SRM 1196a will allow firms access to an ignition source that would permit them to continue testing mattresses and mattress pads to the Standard. The proposed amendment would thus provide significant benefits to firms, since failing to adopt this amendment would mean that the Standard would require firms to test using an ignition source that is no longer available for purchase.

As an interim measure in 2018, when NIST’s stock of SRM 1196 cigarettes was depleted, CPSC’s Office of Compliance issued guidance stating that testing to the Standard could be completed with commercial king-size, non-filtered FSC cigarettes. CPSC’s Office of Compliance amended its Interim Enforcement Policy guidance, effective September 2020, to allow testing with either reserved stock of SRM 1196 or new stock of SRM 1196a. Accordingly, testing with FSC cigarettes to the Standard is no longer permitted. The Commission welcomes comments concerning whether any entity has a stockpile of SRM 1196 cigarettes and whether

the Commission should continue to allow the use of SRM 1196 cigarettes as an ignition source under the Standard.

SRM cigarettes provide a common ignition source for all laboratories, while commercially available FSC cigarettes do not offer that consistency. The ignition strength of FSC cigarettes vary from one brand to another. Because FSC cigarettes are required to have an ignition strength lower than 25 and are often much weaker, FSC cigarettes would have an ignition strength substantially lower than SRM 1196a. As a result, compliance test results would vary between a test conducted with one brand of FSC cigarette and another, making testing, reporting, and enforcement inconsistent and unreliable.

Furthermore, FSC cigarettes are intended to self-extinguish when left unattended. Under the Standard, results from a cigarette that does not burn its full length are not accepted. Any cigarette which extinguishes before burning its full length on any mattress surface location must be retested with a freshly lit cigarette. As a result, use of the FSC cigarette as the replacement ignition source would likely lead to an increase in the average number of cigarettes used for each complete test. FSC cigarettes would likely self-extinguish, requiring multiple freshly lit cigarettes to complete a test, thereby increasing the costs of testing and time burdens associated with testing.

In contrast to the inconsistency and unreliability of FSC cigarettes, the replacement SRM 1196a is a statistically equivalent replacement for SRM 1196, and would reduce the need for retesting and lighting fresh FSC cigarettes. Furthermore, SRM 1196a allows for consistency in reporting and testing between laboratories. The proposed amendment specifying SRM 1196a as a replacement cigarette would achieve consistency and prevent uncertainty for industry, testing laboratories, and CPSC.

## **b. Potential Costs**

The cost increase associated with the proposed amendment is related to the SRM test cigarettes used as the ignition source for testing. Prices for SRM 1196a are set by NIST. SRM 1196a is available for purchase from NIST at a minimum order of 2 cartons, at a cost of \$400, plus shipping. A carton contains 10 packs, and each pack contains 20 cigarettes; therefore, two cartons from NIST will contain 400 SRM cigarettes. The price charged for SRM 1196a is approximately 74 percent higher than the price for SRM 1196. The price charged by NIST for SRM 1196 had been \$230 for 2 cartons of test material (20 packs of cigarettes), plus shipping.

If SRM 1196a is adopted as the replacement for SRM 1196, manufacturers and importers of mattresses would be responsible for ensuring that their mattress products are tested using SRM 1196a. If a supplier's mattress product does not comply with the requirements, they will need to either modify the product, or cease their manufacture or importation. Additionally, as required by the CPSIA and its implementing regulations, manufacturers and importers of youth mattresses would be required to certify that their mattresses intended for children comply with the requirements of the Standard. Many domestic manufacturers of youth mattresses are small entities as defined by SBA. The following analysis reviews some of the possible impacts using SRM 1196a in the Standard.

The annual cost of adopting the SRM 1196a test cigarette will vary among small firms. Different firms offer a variety of mattress products and have different operational procedures for mattress product development and testing. Among other considerations, the number of mattresses produced annually by small firms is not uniform. Furthermore, some firms perform testing procedures in-house, while others elect or are required to have testing performed by a CPSC-approved conformity assessment body. The number of new prototypes that a firm will

bring to market, and the size of a production run by a small firm, is up to the firm to decide; but the cost per firm of the proposed amendment would be impacted by these individual decisions.

Staff has reviewed a variety of likely cost increases that may be faced by small firms in adopting SRM 1196a, in three separate testing scenarios. The Commission welcomes comments on the number and types of tests performed by firms on a monthly (or annual) basis. The Commission also welcomes comments from small firms on estimates of the number of SRM test cigarettes they use on a monthly (or annual) basis.

To determine the likely costs faced by small firms from use of SRM 1196a cigarettes, staff analyzed testing costs related to the Standard in a manner that is consistent with past economic analysis of the industry. The analysis uses commercial data published online for mattress manufacturing, bedding manufacturing, and wholesale mattress product importers acquired from Dun and Bradstreet. Staff has also reviewed current mattress products available on the market from a variety of small domestic suppliers and has received input from industry on the type and frequency of testing performed by industry under the Standard. Based on all of the information that staff has analyzed, staff has determined that the following three scenarios represent a likely range of costs incurred by small firms.

#### Scenario 1

A small firm produces on average 20 new mattress models per year. Five of these new mattress models are new prototypes, and 14 models are made with new ticking substitutions. The one remaining model requires a tape edge substitution test. Such a firm would consume 46 packs of test cigarettes annually.

*(5 mattress tests x 6 packs + 14 ticking tests x 1 pack + 1 tape substitution test x 2 packs = 30 packs + 14 packs + 2 packs = 46 packs)*

#### Scenario 2

A small firm produces on average 5 new mattress models per year. Two of these new mattress models are new prototypes, and the remaining three models are made with new ticking substitutions. Such a firm would consume 15 packs of test cigarettes annually.

*(2 mattress tests x 6 packs + 3 ticking tests x 1 pack = 12 packs + 3 packs = 15 packs)*

### Scenario 3

A small firm produces on average 3 new mattress models per year. Each mattress model is sold with a protective mattress pad, intended for use with a crib mattress in a standard-size crib. Such a firm would consume 36 packs of test cigarettes annually.

*(3 mattress tests x 6 packs + 3 mattress pad tests x 6 packs = 18 packs + 18 packs = 36 packs)*

As noted, the cost of SRM 1196a is about 74 percent higher than that of SRM 1196. Not accounting for shipping costs, a pack of SRM 1196 costs the firm approximately \$11.50, while SRM 1196a costs the firm \$20. Using the cost of SRM 1196 and SRM 1196a, we can calculate the cost increase faced by firms under the three scenarios above:

- In scenario 1, the firm with 20 new models using 46 test cigarette packs annually would incur increased costs of \$391, from \$529 annually (46 packs x \$11.50 per pack = \$529) to \$920 annually (46 packs x \$20 per pack = \$920).
- In scenario 2, the firm with five new models using 15 test cigarette packs annually would incur increased costs of \$127.50, from \$172.50 annually (15 packs x \$11.50 per pack = \$172.50) to \$300 annually (15 packs x \$20 per pack = \$300).
- In scenario 3, the firm with 3 new mattress models and 3 new mattress pad models using 36 packs annually would incur increased costs of \$306, from \$414 annually (36 packs x \$11.50 per pack = \$414) to \$720 annually (36 packs x \$20 per pack = \$720).

Staff finds the effective increase in the price per pack charged by NIST from \$11.50 to \$20 ranges from roughly \$127.50 to \$391 per year, among small firms in the above scenarios.

Therefore, this is roughly the cost increase that small firms may face if SRM 1196a is adopted as the replacement reference material. The cost to a small firm would vary depending on the testing scenario.

The number of new prototypes that a small firm will bring to market is up to the individual firm to decide, but the cost per firm of the proposed amendment would be impacted by these individual business decisions. The small firm may choose to make new prototypes every year and bring them to market, or it may elect to substitute ticking and modify existing models of mattress products that are selling well or are customer favorites.

In summary, the proposed amendment to specify the SRM 1196a cigarette is not expected to have a significant impact on expected benefits or costs of the Standard in 16 CFR part 1632. Both the expected benefits and likely economic costs of the amendment are small, and the likely effect on testing costs per new prototype mattress or ticking substitution would be minor, especially when the projected cost is allocated over a production run of complying mattresses.

#### **4. Regulatory Alternatives**

The Commission could consider two basic alternatives to the proposed amendment: (1) allow for the use of FSC cigarettes as the ignition source; or (2) take no action on the smoldering ignition source issue.

Neither the proposed amendment nor alternative one would likely have a substantial economic impact. There would, however, be some relative differences in terms of resource costs and potential effects on the level of benefits the Standard affords. Alternative two would impose a significant economic impact, as it would require firms to use an ignition source that is no longer available, effectively making it impossible for firms to comply with the Standard. The advantages and disadvantages of these two basic alternatives are discussed below.

**a. Allow for the Use of FSC Cigarettes**

Under the first alternative, manufacturers and testers could conduct tests with any available FSC cigarettes.

A possible advantage of the Commission taking this alternative action is that some of the projected minor increase in resource costs of testing would not be incurred, since FSC cigarettes are less expensive than SRM 1196a. As noted, however, firms would likely have to use many more FSC cigarettes than SRM 1196a cigarettes due to the likelihood that FSC cigarettes would extinguish before testing is complete.

Disadvantages of the Commission taking this action include an increase in test result variability due to differences in cigarettes. Tests would be less reliable and results would vary depending on which cigarette was used. This would create uncertainty and confusion surrounding the reliability of tests for compliance with 16 CFR part 1632. Manufacturers and testing firms would have to conduct tests that are either wasteful (in terms of extra cigarettes required to complete a test due to cigarettes prematurely extinguishing) or have irreproducible and unreliable results.

**b. No Action**

If the CPSC took no action, firms would be required to use an ignition source that is no longer available for purchase. Firms would be unable to comply with the Standard.

In summary, there are no readily available or technically feasible alternatives to the proposed amendment that would have lower estimated costs and still address the need for a consistent ignition source that retains the “safety-neutral” approach of the proposed amendment.

## **E. Regulatory Flexibility Act Certification**

Under the Regulatory Flexibility Act (RFA), 5 U.S.C. 601 et seq., an agency that engages in rulemaking generally must prepare initial and final regulatory flexibility analyses describing the impact of the rule on small businesses and other small entities. Section 605 of the RFA provides that an agency is not required to prepare a regulatory flexibility analysis if the head of an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.

The proposed rule would retain the current mattress test procedure, but require that entities performing cigarette ignition tests (including the CPSC, other state agencies, and industry testing organizations) purchase and use SRM 1196a cigarettes at a higher cost than the price at which SRM 1196 cigarettes had been sold. No additional actions would be required of small entities. The costs associated with the proposed rule would essentially be borne by mattress manufacturers and importers that perform (or pay fees for) compliance testing.

All of the suppliers of mattress products to the U.S. market identified by staff are domestic firms. We limit our analysis to domestic firms because U.S. Small Business Administration (SBA) guidelines pertain to U.S.-based entities.

To determine whether a regulatory flexibility analysis or a certification statement of no significant impact on a substantial number of small entities is appropriate for a proposed rule, staff determines a threshold for “no significant economic impact.” The SBA provides leeway in determining the threshold and provides several varied examples of screening measures, including the one percent of gross revenue measure. Staff has chosen the gross revenue calculation because we have data to support its calculation.

For each market segment, staff is able to demonstrate that the proposed rule would impose an economic impact of less than 1 percent of gross revenue for the affected firms. Therefore, staff recommends certification for the rule. The following analysis provides the basis for this conclusion.

### **1. Small Mattress Manufacturers**

Staff identified 240 firms in the Mattress Manufacturing Sector that meet SBA size standards for small business. Among small mattress manufacturing firms, 220 firms employed fewer than 100 workers. Across small firms in the Mattress Manufacturing sector, staff found annual revenue averaged \$10.49 million.

The lowest reported annual revenue for any small domestic firm in this mattress product supplying sector was \$128,000. One percent of annual revenue for the firm is \$1,280 (\$128,000 x 1 percent). Therefore, for this small domestic supplier, any increase in cost that exceeds \$1,280 should be considered significant.

Estimating a cost increase of \$391, the high end estimated cost of incorporating SRM 1196a into the Standard, the increase would amount to less than 1 percent of annual revenue, \$1,280, and would not be considered significant.

### **2. Small Textile Manufacturers**

Staff identified 19 firms in the Textile Manufacturing Sector that meet SBA size standards for small business. Among small textile manufacturing firms, 14 firms employed fewer than 20 workers. Across small firms in the Textile Manufacturing sector, staff found annual revenue averaged \$2.83 million.

The lowest reported annual revenue for any small domestic firm in this mattress product supplying sector was \$200,000. One percent of annual revenue for the firm is \$2,000 (\$200,000

x 1 percent). Therefore, for this small domestic supplier, any increase in cost that exceeds \$2,000 should be considered significant.

Estimating a cost increase of \$391, the high end estimated cost of incorporating SRM 1196a into the Standard, the increase would amount to less than 1 percent of annual revenue, \$2,000, and could not be considered significant.

### **3. Small Importers**

Staff identified 88 firms in the Mattress Wholesale Sector that meet SBA size standards for small business. Among small wholesale importers of mattress products, 72 firms employed fewer than 20 workers. Across small firms in the Mattress Wholesale sector, staff found annual sales averaged \$7.84 million.

The lowest reported annual revenue for any small domestic firm in this mattress product supplying sector was \$322,000. One percent of annual revenue for the firm is \$3,220 (\$322,000 x 1 percent). Therefore, for this small domestic supplier, any increase in cost that exceeds \$3,220 should be considered significant.

Estimating a cost increase of \$391, the high end estimated cost of incorporating SRM 1196a into the Standard, the increase would amount to less than 1 percent of annual revenue, \$3,220, and could not be considered significant.

### **4. Conclusion**

Based on this information, the proposal would have little or no effect on small producers because the design and construction of existing, compliant mattress products would remain unchanged and because the resource cost increase of using SRM 1196a cigarettes would represent a minimal increase in total testing costs. Thus, the Commission preliminarily

concludes that the proposed rule would not have a significant impact on a substantial number of small businesses or other small entities.

#### **F. Environmental Considerations**

Pursuant to the National Environmental Policy Act, and in accordance with the Council on Environmental Quality regulations and CPSC procedures for environmental review, the Commission has assessed the possible environmental effects associated with the proposed rule.

The Commission's regulations state that amendments to rules providing performance requirements for consumer products normally have little or no potential for affecting the human environment. 16 CFR 1021.5(c)(1). Nothing in this proposed rule alters that expectation. Therefore, because the proposed amendment would have no adverse effect on the environment, neither an environmental assessment nor an environmental impact statement is required.

#### **G. Executive Orders**

According to Executive Order 12988 (February 5, 1996), agencies must state in clear language the preemptive effect, if any, of new regulations. The proposed rule, if finalized, would modify a flammability standard issued under the FFA. With certain exceptions that are not applicable in this instance, no state or political subdivision of a state may enact or continue in effect "a flammability standard or other regulation" applicable to the same fabric or product covered by an FFA standard if the state or local flammability standard or other regulations is "designed to protect against the same risk of the occurrence fire" unless the state or local flammability standard or regulation "is identical" to the FFA standard. *See* 15 U.S.C. 1476(a). The proposed rule would not alter the preemptive effect of the existing mattress standard.

Thus, the proposed rule would preempt nonidentical state or local flammability standards for mattresses or mattress pads designed to protect against the same risk of the occurrence of fire.

## **H. Effective Date**

Section 4(b) of the FFA (15 U.S.C. 1193(b)) provides that an amendment of a flammability standard shall become effective one year from the date it is promulgated, unless the Commission finds for good cause that an earlier or later effective date is in the public interest, and the Commission publishes the reason for that finding. Section 4(b) of the FFA also requires that an amendment of a flammability standard shall exempt products “in inventory or with the trade” on the date the amendment becomes effective, unless the Commission limits or withdraws that exemption because those products are so highly flammable that they are dangerous when used by consumers for the purpose for which they are intended. The Commission believes that an effective date of thirty days would give adequate notice to all interested persons for firms to obtain SRM 1196a cigarettes from NIST. The purpose of this amendment is to allow manufacturers to replace SRM 1196 cigarettes which are no longer available. Accordingly, manufacturers are already purchasing SRM 1196a cigarettes as the SRM 1196 stock is depleted. Therefore, the Commission proposes that the amendment to the ignition source provision of the standard would become effective 30 days after publication of a final amendment in the *Federal Register*. The Commission seeks comment on the proposed effective date.

## **I. Proposed Findings**

Section 4(a) and (j)(2) of the FFA require the Commission to make certain findings when it issues or amends a flammability standard. The Commission must find that the standard or amendment: (1) is needed to adequately protect the public against the risk of the occurrence of fire leading to death, injury, or significant property damage; (2) is reasonable, technologically practicable, and appropriate; (3) is limited to fabrics, related materials, or products which present unreasonable risks; and (4) is stated in objective terms. 15 U.S.C. 1193(b). In addition, the

Commission must find that: (1) if an applicable voluntary standard has been adopted and implemented, that compliance with the voluntary standard is not likely to adequately reduce the risk of injury, or compliance with the voluntary standard is not likely to be substantial; (2) that benefits expected from the regulation bear a reasonable relationship to its costs; and (3) that the regulation imposes the least burdensome alternative that would adequately reduce the risk of injury. Because section 4(a) of the FFA refers to proceedings for the determination of an appropriate flammability standard “or other regulation or amendment,” and because this proposed rule would be an amendment rather than a new flammability standard, for purposes of this section of the preamble, we will refer to the proposed rule as a “proposed amendment.” These findings are discussed below.

*The amendment to the Standard is needed to adequately protect the public against unreasonable risk of the occurrence of fire.* The current Standard specifies as the ignition source cigarettes that are no longer being produced. In order for the Standard to continue to be effective (and for labs to test mattresses and mattress pads to determine whether they comply with the Standard), it is necessary to change the ignition source specification. Changing the ignition source to SRM 1196a, rather than FSC cigarettes, will ensure that testing is reliable and that results will not vary from one lab or manufacturer to another. Such variation would be likely if labs or manufacturers were able to use different ignition sources that have similar physical properties but different burning characteristics.

*The amendment to the Standard is reasonable, technologically practicable, and appropriate.* The proposed amendment is based on technical research conducted by NIST and CPSC staff, which established that the SRM 1196a cigarette is capable of providing reliable and reproducible results in flammability testing of mattresses and mattress pads. The proposed SRM

1196a ignition source represents an equivalent, safety-neutral ignition source for use in testing to establish compliance with the Standard.

*The amendment to the Standard is limited to fabrics, related materials, and products that present an unreasonable risk.* The proposed amendment would continue to apply to the same products as the existing Standard.

*Voluntary standards.* There is no applicable voluntary standard for mattresses. The proposal would amend an existing federal mandatory standard.

*Relationship of benefits to costs.* Amending the Standard to specify SRM 1196a cigarettes as the ignition source would allow testing to the Standard to continue without interruption, would maintain the effectiveness of the Standard, and would not significantly increase testing costs to manufacturers and importers of mattresses and mattress pads. Thus, there is a reasonable relationship between benefits and costs of the proposed amendment. Both expected benefits and costs of the proposed amendment are likely to be small. The likely effect on testing costs would be minor.

*Least burdensome requirement.* No other alternative would allow the Standard's level of safety and effectiveness to continue. Thus, the proposed amendment imposes the least burdensome requirement that would adequately address the risk of injury.

## **J. Conclusion**

For the reasons discussed above, the Commission preliminarily finds that amending the mattress flammability standard (16 CFR part 1632) to specify SRM 1196a cigarettes as the ignition source is needed to adequately protect the public against the unreasonable risk of the occurrence of fire leading to death, injury, and significant property damage. The Commission also preliminarily finds that the amendment to the Standard is reasonable, technologically

practicable, and appropriate. The Commission further finds that the amendment is limited to the fabrics, related materials, and products that present such unreasonable risks.

**List of Subjects in 16 CFR Part 1632**

Consumer protection, Flammable materials, Labeling, Mattresses and mattress pads, Records, Textiles, Warranties.

For the reasons given above, the Commission proposes to amend 16 CFR part 1632 as follows:

**PART 1632—STANDARD FOR THE FLAMMABILITY OF MATTRESSES AND MATTRESS PADS (FF 4-72, AMENDED)**

1. The authority citation for part 1632 continues to read as follows:

Authority: 15 U.S.C. 1193, 1194; 15 U.S.C. 2079(b).

2. Revise § 1632.4(a)(2) to read as follows:

**§ 1632.4 Mattress test procedure.**

(a) \* \* \*

(2) *Ignition source.* The ignition source shall be a Standard Reference Material cigarette (SRM 1196a), available for purchase from the National Institute of Standards and Technology, 100 Bureau Drive, Gaithersburg, MD 20899.

\* \* \* \* \*

**Alberta E. Mills,**

*Secretary,*

*Consumer Product Safety Commission.*