



United States  
CONSUMER PRODUCT SAFETY COMMISSION  
Washington, D.C. 20207

CPSC/OFFICE OF  
THE SECRETARY  
2000 JAN 20 A 10:42

**VOTE SHEET**

DATE: JAN 6 2000

**TO** : The Commission  
Sadye E. Dunn, Secretary

**FROM** : Jeffrey Bromme, General Counsel  
Stephen Lemberg, Assistant General Counsel  
Patricia M. Pollitzer, Attorney, OGC

**SUBJECT**: Revisions to Laundering Requirements in Several FFA Standards; Final Rules. BALLOT VOTE DUE \_\_\_\_\_

Attached is a staff briefing package recommending that the Commission issue final rules updating references to laundering requirements in Flammable Fabrics Act standards for sleepwear, mattresses and mattress pads, and rugs and carpets. Tab E of the package contains draft Federal Register notices.

Please indicate your vote on the following options.

I. Approve the Federal Register notices as drafted.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

II. Approve the draft Federal Register notices with the following changes (please specify).

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

NOTE: This document has not been reviewed or accepted by the Commission.  
Initial JB Date 1/6/00

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1/6/00  
No Airs/Reviews or  
Products Identified  
 Excepted  
Firm's Notice, Pollitzer

III. Do not approve the draft Federal Register notices.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

IV. Take other action (please specify).

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

Attachment



**BRIEFING PACKAGE**  
**FINAL RULE UPDATING**  
**STANDARD DETERGENT AND LAUNDERING PROCEDURES**  
**FOR**  
**FLAMMABLE FABRICS ACT STANDARDS**

For Further Information Contact:  
Margaret L. Neily, Project Manager  
Directorate for Engineering Sciences  
(301) 504-0508

CPSC Form 1010-101 (Rev. 10/97)  
Reviewed or approved by \_\_\_\_\_  
Initials DR Date 7/6/00  
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## EXECUTIVE SUMMARY

In the early 1970's, when the Flammable Fabrics Act standards were developed, flame retardant (FR) treatments were commonly used to achieve the required performance of some sleepwear, carpets and rugs, and mattress pads. To ensure the durability of such treatments through their useful life, products are required to pass flammability tests before and after laundering or cleaning.

Five FFA standards incorporate certain home laundering procedures from American Association of Textile Chemists and Colorists (AATCC) Test Method 124: "Appearance of Durable Press Fabrics after Repeated Home Launderings" (1967, 1969 and 1982 versions). AATCC Test Method 124 specifies a standard phosphate-built reference detergent, laundering equipment, and washing/drying conditions. All of these specifications are outdated. Environmental concerns eliminated phosphate-based detergents to reduce pollution and led to energy-efficient laundering/drying equipment design and operation.

On March 17, 1999, CPSC proposed updates to the various laundering procedures by referencing portions of the AATCC Test Method 124 revised in 1996 to better reflect the detergent formulation, washing/drying equipment, and consumer practices of today. Most commenters supported the proposed revisions. Comments were received from the Soap and Detergent Association, the American Textile Manufacturers Institute, the National Cotton Council, and Shaw Industries. One commenter suggested further changes to lower washing temperatures and to specify water hardness levels and a different wash load size. The high water temperatures proposed reflect the rigorous conditions possible with many consumers' water heater settings and washer controls. The addition of water hardness specifications and changes in load size were not considered in the proposed amendments, and the staff has no evidence that these factors cause significant problems with flammability test results. Another commenter suggested a different cleaning procedure for wall-to-wall carpeting, which is not typically laundered in home laundering equipment. The proposed amendments, however, were intended to update laundering procedures for carpets and rugs that are typically laundered in home laundering equipment. Therefore, the staff does not recommend any changes to the proposed amendments.

The staff recommends that the Commission issue final rules in *the Federal Register* updating the FFA standards to reference applicable sections of AATCC 124-1996, "Appearance of Fabrics after Repeated Home Laundering." This will better represent the current detergent, laundering procedures, and equipment used by consumers today. The staff also recommends a 30-day effective date for the final rules because testing laboratories are already using the updated detergent and laundering procedures.



United States  
**CONSUMER PRODUCT SAFETY COMMISSION**  
 Washington, D.C. 20207

MEMORANDUM

DATE: JAN 6 2000

**TO :** The Commission  
 Sadye E. Dunn, Secretary

**Through:** Jeffrey S. Bromme, General Counsel *JB*  
 Pamela Gilbert, Executive Director *PG*

**FROM :** Ron Medford, Assistant Executive Director *RM*  
 Office of Hazard Identification and Reduction  
 Margaret L. Neily, Project Manager, ESME *MLN*  
 504-0508 Ext. 1293

**SUBJECT:** Final Amendments to Flammable Fabrics Act Standards<sup>1</sup> to Replace  
 Obsolete Standard Detergent and Update Laundering Procedures Required for Tests

**I. INTRODUCTION**

This memorandum provides a review of public comments received in response to the Commission's March 17, 1999, proposed amendments updating certain provisions of Flammable Fabrics Act (FFA) standards. (Tab A) The staff recommends publishing the proposed amendments as final rules to ensure that flame resistant properties of children's sleepwear, mattress pads and carpets are maintained during consumer use as originally intended. The detergent specified in these standards is no longer available for compliance testing; and home laundering/cleaning practices, equipment, and detergents have changed significantly over the past twenty years. Environmental protection and energy conservation concerns have significantly influenced these changes. Because the test conditions in the current standards are different from cleaning methods of today, it is possible for certain products to become flammable (as defined by the applicable test) during actual consumer use.

<sup>1</sup> Laundering procedures for 16 CFR 1610, Standard for the Flammability of Clothing Textiles, will be addressed in a separate proceeding covering more extensive revisions.

*1/6/00*

CPSA 6 (b)(1) Cleared  
 No Mfrs/PrvtLbrs or  
 Products Identified  
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## II. BACKGROUND

When the FFA standards were developed in the early 1970's, flame retardant (FR) treatments were commonly used, and still are to a lesser extent, to achieve the required flammability performance of children's sleepwear, carpets and rugs, and mattress pads. To ensure the durability of such treatments through their useful life, products are required to pass flammability tests before and after laundering or cleaning. The cleaning procedure must reflect actual consumer practice so that fire performance characteristics measured by the tests are indicative of real life. Originally the FFA standards incorporated home laundering procedures specified in the voluntary American Association of Textile Chemists and Colorists (AATCC)<sup>2</sup> Test Method 124: "Appearance of Durable Press Fabrics after Repeated Home Launderings" (1967, 1969 and 1982 versions).

AATCC Test Method 124 specifies a standard reference detergent, laundering equipment, and washing/drying conditions. Test Method 124 was updated in 1996, to specify today's non-phosphate built detergent, energy-efficient laundering equipment, and consumer practices. (Tab C) Portions of FFA standards had become obsolete.

In developing possible amendments to update the regulations, the staff reviewed FFA standards that require laundering/cleaning for testing and changes in home washing/drying equipment, common household detergents, and consumer laundering practices. The staff evaluated existing international and domestic standards and identified AATCC 124-1996 as the most relevant and appropriate method for representing today's home laundering conditions. CPSC staff conducted comparative tests of flame retardant-treated fabrics (only those used in children's sleepwear were available) subject to the FFA laundering requirements. Treated fabrics (that remain on the market today) washed with the updated AATCC 124 equipment, detergent, and laundering/drying conditions showed no adverse effects of the updated laundering procedures on flame resistance. The test conditions continue to offer a rigorous test of flame retardant durability in that they require a hot water wash temperature still possible with many home washers and hot water heater thermostat settings. Based upon this information, the staff recommended that the Commission propose updating the laundering provisions of the FFA standards. (11/30/98 Briefing Package and 1/11/99 Supplement)

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<sup>2</sup> AATCC is a technical, scientific and educational organization that develops nationally and internationally recognized test methods for the measurement of various performance characteristics of fibers and fabrics.



On March 17, 1999, the Commission published proposed amendments to the four FFA standards incorporating updated references to specific provisions of AATCC 124-1996. In response to the request for public comments on the proposed amendments, comments were received from the Soap and Detergent Association, the American Textile Manufacturers Institute, the National Cotton Council, and Shaw Industries, a carpet manufacturer. **(Tab B)** The comments on the proposed amendments were generally supportive and are discussed in the following section.

### **III. RESPONSES TO COMMENTS ON PROPOSED RULES**

#### **A. Standards for the Flammability of Children's Sleepwear**

**Comment:** The National Cotton Council and the American Textile Manufacturers Institute supported the amendments in order to make the specified laundering procedures represent those currently used by consumers.

#### **B. Standard for the Flammability of Carpets and Rugs; Alternate Laundering Procedure for Wool Flokati Rugs**

**Comment:** The National Cotton Council supported the amendments in order to make the specified laundering procedures represent those currently used by consumers.

**Comment:** A major carpet manufacturer suggested that AATCC Test Method 171-1995, Carpets: Cleaning of, Hot Water Extraction Method, is more appropriate for carpets because it represents the cleaning method specified by most carpet manufacturers, and would more realistically replicate real life cleaning.

**Response:** The purpose of the proposed amendments is to make the laundering provisions of the standard more realistic for *machine washable* carpets and rugs. This method is inappropriate for carpets that are damaged by laundering in typical home laundering equipment. Updating the laundering conditions and detergent will better reflect current consumer practices of laundering washable carpets and rugs. For those types of carpets and rugs where laundering in a home washing machine is appropriate, the most relevant laundering method at this time is the AATCC Test Method 124-1996, with specific provisions noted in the draft final rule. **(Tab C)**

The commenter was concerned about an appropriate cleaning method for large carpets that would clearly be damaged by laundering in a home washer. The Standards for the Surface Flammability of Carpets and Rugs provide for the Commission's approval of alternate cleaning methods that are appropriate for a specific type of carpet such as those for hide carpets and rugs (§1630.61) and flokati rugs (§1630.62). An alternate method that is normally used for a specific type of carpet in service can be approved by

the Commission under §1630.4(b)(1)(ii) and §1631.4(b)(1)(ii) of the standards for large and small carpets and rugs, respectively.

### C. Standard for the Flammability of Mattresses and Mattress Pads

**Comment:** The National Cotton Council and the American Textile Manufacturers Institute supported the amendments in order to make the specified laundering procedures represent those currently used by consumers for mattress pads.

### D. Wash and Rinse Temperatures

**Comment:** The Soap and Detergent Association (SDA) recommended warm wash (32° C/ 90° F) and cold rinse (16° C/ 60° F) water temperatures for laundering since their surveys indicate these represent the average temperatures used by consumers today.

**Response:** The wash and rinse water temperatures recommended by the SDA are lower than **all** of the wash and rinse water alternatives from the AATCC Test Method 124-1996, including the hot wash/cold rinse that the staff recommends for the FFA flammability standards. The laundering provisions in the FFA standards are intended to represent a rigorous home laundering, and therefore currently specify the hot water wash alternative (60° C/140° F) from older versions of the AATCC Test Method 124, all of which specified a *warm water rinse* (41° C/ 105° F).

However, due to the increased use of cold water rinses over the years, washing machine operating conditions have changed; and the home laundering equipment specified in the older versions of AATCC 124 is no longer available. Energy efficient washing machines sold today do not have a hot wash/warm rinse setting. The AATCC updated its laundering conditions to better reflect current laundering equipment and consumer practice. These changes were made with input from a number of AATCC and ASTM committees as well as from a survey of consumer practices. The updated laundering alternatives in AATCC Test Method 124-1996 include three machine washing temperature alternatives (41° C /105° F, 49° C/120° F, 60° C/140° F), all of which specify a *cold water rinse* of less than or equal to 29° C (85° F).

Washing machines today do have hot wash/cold rinse settings. Current model washing machines do not dilute the temperature of the hot water entering the machine from the tap or source (i.e., hot water heater) at the hot wash setting. Since 1998 ANSI standards have required electric water heater thermostats to be set at 125° F for shipping; and UL standards have required recommending that gas water heater thermostats be set at 120° F. However, large numbers of water heaters currently in use are set at 60° C/140° F because they were manufactured before the lower temperature settings were required. In order to continue to represent the most rigorous home laundering conditions available to consumers, the FFA regulations should specify the warmest realistic, not necessarily

average, temperatures available to consumers. These are the hot water wash alternative of 60° C/ 140° F from AATCC Test Method 124 –1996 with the cold water rinse. (Tab C)

#### **E. Water Hardness**

**Comment:** The SDA suggests that water hardness can impact reproducibility of the laundering method, and their proposed protocol for home laundering specifies water hardness criteria.

**Response:** Laundering practices can influence the flame resistant properties of certain fabrics. The interaction of many variables such as fiber content, flame retardant (FR) finish, detergent, water hardness, laundry additives, washing conditions and drying methods affect the flammability performance of certain fabrics. The interaction of these variables is complex, and it is difficult to sort out the effects of each variable on the flammability performance of certain fabrics. The SDA provided no specific evidence that water hardness is a significant problem affecting the flammability performance of flame retardant treated products currently marketed. The staff is unaware of any such data from other sources. At this time the staff is updating only the detergent and laundering conditions in the FFA regulations that are completely outdated and, therefore, does not recommend including water hardness criteria in the FFA laundering provisions. (Tab C)

#### **F. Ballast/Wash Load Weight**

**Comment:** The SDA suggests that controlling ballast load weight improves the reproducibility of the method. SDA's proposed laundering protocol specifies a wash load weight of 2.7 kg/6 lb consisting of test specimens and ballast (if needed). The SDA letter suggests a "larger" wash load weight compared to the 1.8 kg/4lb wash load specified in the AATCC Test Method 124, both the updated and older versions.

**Response:** The proposed amendments did not include any change to the maximum wash load weight as currently specified in the FFA flammability standards. The maximum wash load weight currently specified in the laundering provisions of the children's sleepwear, carpet/rug, and mattress/mattress pad flammability standards is 3.64 kg (8 lb), consisting of any combination of test specimens and dummy pieces (ballast). This larger wash load is more economical than the four pounds specified in AATCC 124 and the six pounds recommended by the SDA; and it is well within the capacity of today's home laundering equipment. The SDA provided no evidence of specific problems in flammability test results attributed to load size.

At this time the CPSC is only updating the aspects of the laundering provisions in the FFA standards that are completely outdated based on today's detergents, laundering equipment and consumer practices. The AATCC Test Method 124-1996 specifies a

detergent as well as washing machine and dryer conditions that are representative of the types of products available to and used by consumers today. Therefore, the AATCC Test Method 124-1996 (with specific provisions noted in the proposed rule) still appears to be the most relevant to the CPSC's flammability regulations. (Tab C)

#### **G. Reference the Current Version of AATCC 124**

**Comment:** The SDA suggested that the Commission reference the "current AATCC method" to avoid further need to amend the rules every time AATCC modifies its method.

**Response:** As OGC explains in its memo, the Administrative Procedures Act would require the Commission to adopt specific changes from each AATCC revision.

#### **IV. DISCUSSION/CONCLUSIONS**

Comments received on the proposed updates of laundering procedures and detergent used for the sleepwear, mattress, and carpet flammability standards were generally supportive. The purpose of the proposed amendments is to modify the current procedures only as necessary to reflect the existence of modern equipment and detergent. Wash/rinse temperatures proposed are intended to represent rigorous and realistic, not necessarily average, conditions available to consumers. This will give the best assurance that flame retardant treatments are durable during the product's use. The 8-pound wash load specified in the flammability regulations is economical and well within the capacity of today's laundering equipment. The Commission staff has no specific evidence that water hardness may affect test results or that it is a significant problem for currently marketed flame retardant treated products.

The proposed amendments were intended to address laundering procedures for carpets and rugs normally laundered in home washing equipment. Appropriate cleaning methods for large and small carpets not normally laundered can be established with a specified application to the Commission. See sections 1630.4(b)(1)(ii) and 1631.4(b)(1)(ii) of the standards, respectively, for additional information about Commission approvals of alternate laundering methods.

These amendments updating the laundering/cleaning procedures referenced in the FFA standards are not expected to have any effect on manufacturers, testing laboratories, consumers or other parties. This is because they are already using the AATCC 124-1996 laundering method, equipment, and detergent. (Tab D)

Draft FR notices for each of the affected standards are attached in Tab E. The final rules incorporate specific sections of AATCC 124-1996, where applicable, and update other references to that laundering method. The FR notices also correct obsolete CPSC organization titles (in sleepwear standard sections 1615.32 and 1616.32) and a

citation error in 16 CFR 1616.32(g). The staff continues to believe that a 30-day effective date (rather than one year) would be in the public interest because testing laboratories are already using the updated detergent and laundering procedures, and none of the commenters objected to a 30-day effective date.

## **V. OPTIONS**

1. Issue the FR notices of final rules to make the changes in the standard detergent and laundering procedures for the FFA standards.
2. Withdraw the proposed amendments and make no changes in the existing standards.

## **VI. RECOMMENDATION**

The staff recommends that the Commission issue the Notices of Final Rule(s) in the *Federal Register* as drafted by the staff. The notices for each FFA standard update the references to applicable sections of AATCC 124-1996, "Appearance of Fabrics after Repeated Home Laundering" to better represent current consumer laundering practices. The effective date of the final rules would be 30 days from the date of promulgation.

# Tab A

be received by dairy producers, it should be an inclusive standard for most "small" dairy farmers. For purposes of determining a handler's size, if the plant is part of a larger company operating multiple plants that collectively exceed the 500-employee limit, the plant will be considered a large business even if the local plant has fewer than 500 employees.

For the month of January 1999, 1,248 dairy farmers were producers under Order 65. Of these producers, 1,176 producers (i.e., 94 percent) were considered small businesses having monthly milk production under 326,000 pounds. A further breakdown of the monthly milk production of the producers on the order during January 1999 is as follows: 753 produced less than 100,000 pounds of milk; 322 produced between 100,000 and 200,000; 101 produced between 200,000 and 326,000; and 72 produced over 326,000 pounds. During the same month, 5 handlers were pooled under the order. None are considered small businesses.

This rule would lessen the regulatory impact of the order on certain milk handlers and would tend to ensure that dairy farmers would continue to have their milk priced under the order and thereby receive the benefits that accrue from such pricing.

Interested parties are invited to submit comments on the probable regulatory and informational impact of this proposed rule on small entities. Also, parties may suggest modifications of this proposal for the purpose of tailoring their applicability to small businesses.

#### Preliminary Statement

Notice is hereby given that, pursuant to the provisions of the Agricultural Marketing Agreement Act, suspension for the months of March through September 1999 of the following language from the pool plant provisions of the order regulating the handling of milk in the Nebraska-Western Iowa marketing area is being considered:

In the first sentence of § 1065.7(b)(4), suspending the following language: "each of the months of," "through March," and "for the following months of April."

All persons who want to submit written data, views or arguments about the proposed suspension should send two copies of their views to the USDA/AMS/Dairy Programs, Order Formulation Branch, Room 2971, South Building, P.O. Box 96456, Washington, DC 20090-6456, by the 7th day after publication of this notice in the *Federal Register*. The period for filing comments is limited to 7 days because a longer

period would not provide the time needed to complete the required procedures before the requested suspension is to be effective.

All written submissions made pursuant to this notice will be made available for public inspection in the Dairy Programs during regular business hours (7 CFR 1.27(b)).

#### Statement of Consideration

The proposed suspension was requested by AMPI, a cooperative association that supplies milk for the market's fluid needs. AMPI requests that language be suspended from the Nebraska-Western Iowa order's pool supply plant definition for the purpose of allowing producers who have historically supplied the fluid needs of Nebraska-Western Iowa distributing plants to maintain their pool status. AMPI contends that because a fluid milk plant operator reduced its purchase of fluid milk from AMPI by more than 50 percent, AMPI will not be able to pool milk historically associated with the Nebraska-Western Iowa order for March 1999, and thus will not qualify for the automatic qualification months of April through August.

AMPI maintains that through discussions with other handlers in the order, it is certain that no additional milk is needed at this time.

Accordingly, it may be appropriate to suspend the aforesaid regulatory language for the months of March through September 1999.

#### List of Subjects in 7 CFR Part 1065

Milk marketing orders.

The authority citation for 7 CFR Part 1065 continues to read as follows:

**Authority:** 7 U.S.C. 601-674.

**Dated:** March 11, 1999.

**Richard M. McKee,**  
*Deputy Administrator, Dairy Programs.*  
[FR Doc. 99-6488 Filed 3-16-99; 8:45 am]

**BILLING CODE 3410-02-P**

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## CONSUMER PRODUCT SAFETY COMMISSION

### 16 CFR Parts 1615 and 1616

#### Standard for the Flammability of Children's Sleepwear: Sizes 0 Through 6X; Standard for the Flammability of Children's Sleepwear: Sizes 7 Through 14

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Proposed amendments.

**SUMMARY:** The Commission proposes to amend the flammability standards for

children's sleepwear in sizes 0 through 6X and sizes 7 through 14 by revising the laundering procedure specified in those standards. These laundering procedures help assure that any chemical flame retardants are not removed or degraded with repeated washing and drying, thereby creating a flammability hazard. The Commission is proposing these amendments because the detergent specified by the existing laundering procedure is no longer available and the operating characteristics of the washing and drying machines required by that procedure are no longer representative of machines now used for home laundering.

**DATES:** Written comments concerning the proposed amendments must be received by the Office of the Secretary not later than June 1, 1999.

**ADDRESSES:** Written comments should be captioned "Children's Sleepwear, Laundering Procedures" and mailed to the Office of the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207, or delivered to that office, room 502, 4330 East-West Highway, Bethesda, Maryland. Comments may also be filed by telefacsimile to (301) 504-0127 or by email to cpsc-os@cpsc.gov.

**FOR FURTHER INFORMATION CONTACT:** Margaret Neily, Project Manager, Directorate for Engineering Sciences, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301) 504-0508, extension 1293.

#### SUPPLEMENTARY INFORMATION:

##### A. Background

The Flammable Fabrics Act ("FFA") (15 U.S.C. 1191 *et seq.*) authorizes issuance and amendment of flammability standards and regulations to protect the public from unreasonable risks of death, injury, and property damage from fire associated with products of wearing apparel made from fabric and related materials.

In 1971, the Secretary of Commerce issued a flammability standard for children's sleepwear in sizes 0 through 6X to protect young children from death and serious burn injuries which had been associated with ignition of sleepwear garments such as nightgowns and pajamas, by small open-flame sources. That standard became effective in 1972, and is codified at 16 CFR Part 1615.

In 1973, authority to issue flammability standards under the FFA was transferred from the Department of Commerce to the Consumer Product Safety Commission by section 30(b) of the Consumer Product Safety Act (15

U.S.C. 2079(b)). In 1974, the Commission issued a flammability standard for children's sleepwear in sizes 7 through 14. That standard became effective in 1975 and is codified at 16 CFR Part 1616.

Both standards prescribe a test which requires that specimens of fabrics, seams, and trim of children's sleepwear garments must self-extinguish after exposure to a small open flame. The standards do not require or prohibit the use of any particular type of fabric as long as the manufacturer successfully completes the prescribed prototype and production testing.

Each standard defines the term "children's sleepwear" to mean "any product of wearing apparel" in the sizes covered by the standard "such as nightgowns, pajamas, or similar or related items, such as robes, intended to be worn primarily for sleeping or activities related to sleeping." The standard for sizes 0 through 6X excludes infant garments sized for children nine months of age or younger. Both standards exclude diapers, underwear, and certain tight-fitting garments. See 16 CFR 1615.1(a) and 1616.2(a), as amended September 9, 1996 (61 FR 47634).

**B. Amending the Flammability Standards**

As discussed below, laundering procedures are prescribed by the standards to help assure that any flame retardant treatment used in the production of children's sleepwear does not deteriorate over time and thereby create a flammability hazard. However,

the current procedures are out of date in several respects, and the Commission is therefore proposing to change them.

**1. Current Laundering Procedures**

Each of the children's sleepwear standards describes the apparatus and procedure used to test items for compliance with the standard. See 16 CFR 1615.4 and 1616.5. The standards address the possibility that a flame-retardant treatment used in children's sleepwear might progressively deteriorate by washing or drying. Section 1615.4(g)(4) of the standard for sizes 0 through 6X and section 1616.5(c)(4) of the standard for sizes 7 through 14 require that testing shall be performed on finished items, as produced (or after one washing and drying in the case of garments labeled with instructions to wash before wearing) and after they have been washed and dried 50 times in accordance with a specified laundering procedure. That laundering procedure is AATCC Test Method 124-69, published by the American Association of Textile Chemists and Colorists ("AATCC"). (1) Each standard incorporates specific aspects of that laundering procedure by reference.

The AATCC Test Method was developed in 1967 and revised in 1969. AATCC Test Method 124-69 specifies operating characteristics of the washing machine and dryer to be used, wash water and rinse water temperatures, exhaust temperature of the dryer, and a particular detergent, AATCC Standard Detergent 124. These specifications are representative of the equipment, wash,

rinse, and drying temperatures, and detergent used for home laundering in the 1960s. For example, AATCC Standard Detergent 124 is a high-phosphate powder with optical brightener, similar to the phosphate-based detergents sold to consumers between 1950 and 1970. (3)

Since 1970, environmental concerns about water pollution have resulted in the elimination of phosphate-based detergents for home laundering. Today, all laundry detergents sold to consumers are nonphosphate-based. Additionally, energy-efficient washing machines and dryers currently sold for consumer use have operating characteristics and temperature settings which differ from those specified by AATCC Test Method 124-69. (3)

**2. Revised Laundering Test Method**

In 1996, AATCC revised AATCC Test Method 124, "Appearance of Fabrics After Repeated Home Laundering." (2) The 1996 AATCC test method more closely resembles the equipment and practices currently used for household laundering of fabrics. The revised test method differs from AATCC Test Method 124-69 by specifying the use of a nonphosphate-based detergent. The 1996 test method also specifies use of a washing machine with different operating characteristics than those specified by AATCC Test Method 124-69, and rinse water temperatures which differ from those in the older test method. (3) Table 1, below, provides a summary comparison of the two test methods.

TABLE 1.—AATCC TEST METHOD 124

WASH/DRY CONDITIONS	VERSION 1969	VERSION 1996	
<b>Washing Machine:</b>			
Cycle .....	Normal .....	Normal/Cotton Sturdy.	
Wash Water Temp .....	60 ± 3°C .....	60 ± 3°C.	
Rinse Water Temp .....	41 ± 3°C .....	Less Than 29°C.	
Water Level .....	Full .....	18 ± 1 gal.	
Agitator Speed .....	70 ± 5 spm .....	179± 2 spm.	
Wash Time .....	12 minutes .....	12 minutes.	
Spin Speed .....	500-510 rpm .....	630-660 rpm.	
Final Spin Cycle .....	4 minutes .....	6 minutes.	
<b>Dryer:</b>			
Cycle .....	Normal .....	Cotton Sturdy	Durable Press.
Exhaust Temp .....	140-160°F .....	140-160°F ...	140-160°F.
Cool Down Cycle .....	5 minutes .....	5 minutes ....	10 minutes.

spm = strokes (or cycles) per minute.  
rpm = revolutions per minute.

<sup>1</sup> Numbers in parentheses identify reference documents in the List of Relevant Documents at the

end of this notice. Requests for inspection of any of these documents should be made at the Office

of the Secretary, 4330 East-West Highway, room 502, or by calling that office at (301) 504-0800.



In 1996, AATCC also announced that when that organization's supply of Standard Detergent 124 is depleted, that detergent will no longer be available. AATCC is the only source for Standard Detergent 124. Additionally, washing machines now offered for sale do not have the settings and operating characteristics of the washing machine specified by AATCC Test Method 124-69. (3).

### 3. Review of Existing Standards

In addition to reviewing AATCC Test Method 124-1996, the Commission staff reviewed and analyzed twelve other international and technical association standards or test methods to determine if any were appropriate for consideration in this proceeding. Standards and test methods from AATCC, ASTM, the International Standards Organization, the United Kingdom, Australia, Canada, China and the Soap and Detergent Association were identified. All of these methods could be used for sleepwear fabrics and mattress pads.

All of the identified standards for fabric laundering have significant deficiencies. They are either based on earlier versions of AATCC Test Method 124 (with obsolete detergent and equipment), require equipment not available in the U.S., use only water in the laundering procedure, or specify significantly lower wash and rinse water temperatures than those still available for consumers.

### 4. Comparability of Test Results

In order to compare the results of laundering using AATCC Test Method 124-69 with those of the new AATCC Test Method 124-96 the Commission performed some tests of fabrics using each method. The staff conducted laundering comparisons using sleepwear made of cotton fabrics with the two known FR treatments being used to treat children's sleepwear at the time of the testing (organic phosphorous compound and antimony trioxide) and two untreated flame resistant polyester fabrics. All fabrics met the requirements of the children's flammability test in their original state (as marketed or after one laundering, as appropriate) and after 50 laundings with the old AATCC detergent and equipment specified in AATCC 124-69.

The laundering tests indicated that changes in washing machine and dryer operating conditions between the old and new versions of AATCC Test Method 124 did not make a difference in the flammability performance of the fabrics tested. However, the cotton sleepwear that was treated with the

phosphorous-based Pyrovatex CP-new did not perform well in flammability testing after laundering with the new AATCC detergent. The Pyrovatex-treated sleepwear also did not perform well in flammability testing after laundering with common powder detergents. Liquid detergents did not seem to adversely affect flammability performance. Fabrics treated with the antimony-based FR showed some random failures that, according to laboratory chemical analyses, apparently were unrelated to the detergent and laundering conditions. The new AATCC detergent did not affect the flammability of the untreated polyester fabrics. However, one polyester fabric did show reduced flame resistance when a liquid fabric softener was used. Labels on both liquid and sheet fabric softener packages state that they should not be used on garments labeled as flame resistant.

After conducting these studies CPSC informed the manufacturer of Pyrovatex of the results. The manufacturer conducted additional studies to evaluate its product's performance on children's sleepwear as it is used and laundered by consumers. The manufacturer determined that such factors as the fabric, the application process, storage conditions, and consumer care practices can affect the flame resistance of the light weight fabrics used for children's sleepwear. Because the manufacturer has little control over these factors, the company decided, with one exception, to withdraw Pyrovatex from sale to the sleepwear industry.

With the withdrawal of Pyrovatex for treating children's sleepwear, the change in detergent and laundering equipment from AATCC 124-69 to AATCC 124-96 will not have any effect on the flammability performance of children's sleepwear on the market.

### 5. Proposed Amendment of Standards

The Commission proposes to revise the laundering procedures specified in the children's sleepwear standards at 16 CFR 1615.4(g)(4) and 1616.5(c)(4) to those of AATCC Test Method 124-1996.

The children's sleepwear standards were issued under section 4 of the FFA (15 U.S.C. 1193), which authorizes the issuance or amendment of flammability standards to protect the public against unreasonable risks of fire leading to death, personal injury, or significant property damage. As required by section 4(b) of the FFA, both standards are based on findings that they are needed to adequately protect the public against the unreasonable risk of the occurrence of fire leading to death, personal injury, or significant property damage. That

section further requires findings that a flammability standard issued under the FFA is "reasonable, technologically practicable, and appropriate."

The proposed changes to the standards are needed to make the specified laundering procedures represent those currently used by consumers. The proposed amendments are also needed to assure that the standards will continue to be "technologically practicable," for both the Commission's laboratory and those manufacturers of children's sleepwear required to use the laundering procedures and perform the testing required by the standards.

Section 4(g) of the FFA (15 U.S.C. 1193(g)) states that a proceeding "for the promulgation of a regulation under this section" shall be initiated by publication of an advance notice of proposed rulemaking ("ANPR"), and sets forth requirements for the contents of the ANPR. However, these proposed amendments are necessary because technical advances and the passage of time have rendered the existing test method obsolete. The amendments preserve the original intent and effect of the existing test method, modifying that method only as necessary to reflect the existence of modern equipment and detergent. Moreover, the existing regulations permit the Commission to employ a laundering test method different from AATCC Test Method 124 if it concludes that the test method is substantively as protective. Because the existing regulations allow the Commission to achieve without any amendment the substance of what it now proposes to achieve by amendment, and because the proposed amendments preserve the regulatory status quo, save for the reflection of modern equipment and detergent, the Commission has determined that it is not legally required to commence this proceeding with an ANPR, nor is it necessary for the Commission to make the findings that FFA sections 1193(g) and (h) would otherwise require.

The amendments proposed below would require specimens to be tested as produced (or after one washing and drying) and after washing and drying 50 times using the procedure specified in AATCC Test Method 124-1996. The proposed amendments would incorporate that test method into the sleepwear standard by reference.

The amendments proposed below also include minor changes to the enforcement regulations at 16 CFR 1615.32 and 1616.32 prescribing the procedure for seeking approval from the Commission for use of alternate

laundering procedures. The proposed amendments of those sections:

- (i) update the laundering procedure prescribed by the sleepwear standards to AATCC Test Method 124-1996; and
- (ii) substitute the words "Assistant Executive Director for Compliance" for "Associate Executive Director for Compliance and Enforcement" to reflect the current title for that position.

The proposed amendments of the enforcement rules implementing the standard for sizes 7 through 14 also include a revision of section 1616.32(g), Commission testing for compliance. The proposed amendment corrects an erroneous citation in the regulations to the laundering provisions of the standard. The correct citation in the proposed amendment is to section 1616.5(c)(4)(ii) of the standard rather than 1616.5(c)(4)(iii) in the existing text. No similar error exists in the enforcement rules implementing the standard for sizes 0 through 6X.

#### 6. 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 publishes that finding. Section 4(b) 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 for use by consumers.

One reason for proposing these amendments of the children's sleepwear standards is that the standard detergent specified by the existing laundering method in the standards is no longer available. The Commission has reason to believe that an effective date 30 days after publication of final amendments will be in the public interest. The Commission does not propose to withdraw or limit the exemption for products in inventory or with the trade as provided by section 4(b) of the FFA.

The Commission believes that an effective date of thirty days would provide adequate notice to all interested persons of the change in laundering procedure, and at the same time would assure that the Commission will be able to test for compliance with the standards without interruption. Those manufacturers who perform premarket testing in accordance with the laundering procedures specified in the

standards will also benefit from a relatively short effective date.

The Commission invites comments on the proposed effective date and factual information relating to that issue.

#### C. Other Issues

##### 1. Impact on Small Businesses

In accordance with section 605(b) of the Regulatory Flexibility Act (5 U.S.C. 605(b)), the Commission hereby certifies that the amendments to the children's sleepwear standards and enforcement rules proposed below will not have a significant economic impact on a substantial number of small entities, including small businesses, if issued on a final basis. As noted above, the requirements for washing and drying specimens 50 times before testing were included in the standards to assure that any flame retardant treatment used in children's sleepwear would not be removed by repeated laundering.

When the standards were issued in 1971 and 1974, some fabrics used in the production of children's sleepwear were treated with flame retardants. However, at this time, nearly all fabrics used for children's sleepwear are made without flame retardant treatments. The ability of these fabrics to pass the flammability tests in the standards is not affected by washing or drying. (3) Moreover, the proposed changes are intended to bring the standards promulgated in the 1970s into conformance with current practices. Independent testing laboratories report that they currently use the requirements of the revised test method (AATCC Test Method 124-96) that the Commission is proposing. Because the proposed amendment would codify existing industry testing practices (and reflect current consumer practices), the proposal is not expected to have an effect on small entities.

##### 2. Environmental Considerations

The amendments proposed below fall within the categories of Commission actions described at 16 CFR 1021.5(c) that have little or no potential for affecting the human environment. The amendments are not expected to have a significant effect on production processes or on the types or amounts of materials used for construction or packaging of children's sleepwear. The amendments will not render existing inventories unsalable, or require destruction of existing goods. The Commission has no information indicating any special circumstances in which these amendments may affect the human environment. Accordingly, neither an environmental assessment

nor an environmental impact statement is required.

#### 3. Executive Orders

Executive Order 12988 (February 5, 1996), requires agencies to state in clear language the preemptive effect, if any, to be given to a new regulation. The amendments proposed below, if issued on a final basis, would modify two flammability standards issued under the FFA. With certain exceptions which 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 section 16 of the FFA (15 U.S.C. 1203). Consequently, if issued on a final basis, the amendments proposed below will preempt nonidentical state or local flammability standards or regulations that are intended to address the unreasonable risk of fire associated with ignition of children's sleepwear in sizes 0 through 14.

In accordance with Executive Order 12612 (October 26, 1987), the Commission certifies that the proposed amendments do not have sufficient implications for federalism to warrant a Federalism Assessment.

#### List of Subjects in 16 CFR Parts 1615 and 1616

Clothing, Consumer protection, Flammable materials, Infants and children, Labeling, Records, Sleepwear, Textiles, Warranties

#### Conclusion

Therefore, pursuant to the authority of section 30(b) of the Consumer Product Safety Act (15 U.S.C. 2079(b)) and sections 4 and 5 of the Flammable Fabrics Act (15 U.S.C. 1193, 1194), the Commission hereby proposes to amend title 16 of the Code of Federal Regulations, Chapter II, Subchapter D, Parts 1615 and 1616 to read as follows:

#### **PART 1615—STANDARD FOR THE FLAMMABILITY OF CHILDREN'S SLEEPWEAR: SIZES 0 THROUGH 6X**

1. The authority for subpart A of part 1615 continues to read as follows:

Authority: Sec. 4, 67 Stat. 112, as amended, 81 Stat. 569-570; 15 U.S.C. 1193.

2. Section 1615.4 is amended by revising paragraph (g)(4)(i) and (ii) to read as follows:

**§ 1615.4 Test procedure.****(g) Testing \* \* \***

(4) Laundering. (i) The procedures described in paragraphs (b) through (g) of this section shall be carried out on finished items (as produced or after one washing and drying) and after they have been washed and dried 50 times in accordance with sections 8.2.2, 8.2.3, and 8.3.1(A) of AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," Technical Manual of the American Association of Textile Chemists and Colorists, vol. 73, 1997, which is incorporated by reference. Copies of this document are available from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, North Carolina 27709. This document is also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist in the edition which has been approved by the Director of the Federal Register and which has been filed with the Office of the Federal Register. Items which do not withstand 50 launderings shall be tested at the end of their useful service life.

(ii) Washing shall be performed in accordance with sections 8.2.2 and 8.2.3 of AATCC Test Method 124-1996, using wash temperature V (60°±3°C, 140°±5°F) specified in Table II of that method, and the water level, agitator speed, washing time, spin speed and final spin cycle specified for "Normal/Cotton Sturdy" in Table III. A maximum washer load shall be 3.64 Kg (8 pounds) and may consist of any combination of test samples and dummy pieces. Drying shall be performed in accordance with section 8.3.1(A) of that test method, Tumble Dry, using the exhaust temperature (66°±5°C, 150°±10°F) and cool down time of 10 minutes specified in the "Durable Press" conditions of Table IV.

\* \* \* \* \*

3. The authority for subpart B of part 1615 continues to read as follows:

**Authority:** Sec. 5, 67 Stat. 112-113, as amended, 81 Stat. 570; 15 U.S.C. 1194.

4. Section 1615.32 is amended by revising paragraphs (a)(1), (b)(1), introductory text and (b)(2), the first 3 sentences of (c)(1), (c)(2), the first sentence of (d)(3), the first sentence of (e)(1), the first sentence of (e)(2), and (f) to read as follows:

**§ 1615.32 Method for establishment and use of alternate laundering procedures under section 4(g)(4)(ii) of the standard.**

(a) Scope. (1) Section 1615.4(g)(4)(ii) of the Standard for the Flammability of Children's Sleepwear in sizes 0-6X (16 CFR 1615.4(g)(4)(ii)) requires that all fabrics and certain garments subject to the standard be tested for flammability as produced (or after one washing and drying) and after the items have been washed and dried 50 times in machines, using the procedure specified in AATCC Test Method 124-1996.<sup>5</sup> This section also provides that items may be laundered a different number of times under another washing and drying procedure if the Commission finds that such an alternate laundering procedure is equivalent to the procedure specified in the standard.

\* \* \* \* \*

(b) Application procedure. (1) Applicants seeking approval for use of an alternate laundering procedure under section 1615.4(g)(4)(iii) of the standard must submit the following information to the Assistant Executive Director for Compliance, Consumer Product Safety Commission, Washington, DC 20207:

\* \* \* \* \*

(2) Applications shall be certified by the chief executive officer of the applicant or the official to whom the duty to certify has been delegated in writing. The Commission's Assistant Executive Director for Compliance must be notified in writing of any such delegation.

(c) Use of alternate laundering procedure. (1) The applicant may begin to use the alternate laundering procedure 30 days after the application is received by the Assistant Executive Director for Compliance unless notified to the contrary. The Assistant Executive Director for Compliance will normally furnish an applicant with written notice of approval within 30 days. The applicant may be notified that a longer time is needed for evaluation of the application, and in the discretion of the Assistant Executive Director for Compliance, may be authorized to use the alternate laundering procedure pending the final decision. \* \* \*

(2) As provided in detail in 1615.32(e), applicants must immediately discontinue use of an alternate procedure, and must immediately notify the Assistant Executive Director for Compliance if there are test failures during revalidation testing.

(d) Revalidation testing. \* \* \*

(3) Records of revalidation testing need not be submitted to the Assistant Executive Director for Compliance. \* \* \*

(e) Revalidation testing failures. (1) If revalidation testing for any fabric or garment does not meet the criteria of paragraph (f) of this section, the applicant must immediately discontinue use of the alternate laundering procedure for the fabric or garment and must immediately notify the Assistant Executive Director for Compliance in writing of the failure to meet the criteria. \* \* \*

(2) When use of an alternate laundering procedure for a particular fabric or garment has been discontinued because of a failure to meet the criteria of paragraph (f) of this section, the alternate laundering procedure shall not be used again unless a new application for approval is submitted to the Assistant Executive Director for Compliance and that officer approves the application in writing. \* \* \*

(f) Commission criteria for evaluating applications. (1) The Assistant Executive Director for Compliance will approve the alternate laundering procedure as equivalent to the laundering procedure specified in section 1615.4(g)(4)(ii) of the standard if testing from 20 specimens laundered by the proposed alternate procedure yields as many or more char lengths in excess of five inches as does testing from the twenty specimens laundered by the 50-laundering cycle method prescribed in the standard.

(2) If the alternate laundering procedure yields fewer char lengths in excess of five inches than does the 50-wash and dry cycle, then the Assistant Executive Director for Compliance will not consider the alternate procedure to be equivalent with the following exception: If the number of five-inch chars from the alternate procedure is within one of the number of five-inch chars obtained from the 50-cycle procedure, the applicant may repeat the original test with new specimens and if the combined results of both tests show the count of chars exceeding five inches from the alternate is equal to, or greater than, the count from the 50-wash cycle procedure, the Assistant Executive Director for Compliance will approve the alternate laundering procedure. \* \* \*

**PART 1616—STANDARD FOR THE FLAMMABILITY OF CHILDREN'S SLEEPWEAR: SIZES 7 THROUGH 14**

1. The authority for subpart A of part 1616 continues to read as follows:

<sup>5</sup> American Association of Textile Chemists and Colorists, Technical Manual, Vol 73, 1997.

Authority: Sec. 4, 67 Stat. 112, as amended 81 Stat. 569-570; 15 U.S.C. 1193.

2. Section 1616.5 is amended by revising paragraphs (c)(4)(i) and (ii) to read as follows:

**§ 1616.5 Test procedure.**

(c) Testing \* \* \*

(4) Laundering. (i) The procedures described under § 1616.4 Sampling and acceptance procedures, paragraph (b) of this section, Mounting and conditioning of specimens, and paragraph (c) of this section *Testing* shall be carried out on finished items (as produced or after one washing and drying) and after they have been washed and dried 50 times in accordance with sections 8.2.2, 8.2.3, and 8.3.1(A) of AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," Technical Manual of the American Association of Textile Chemists and Colorists, vol. 73, 1997, which is incorporated by reference. Copies of this document are available from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, North Carolina 27709. This document is also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist in the edition which has been approved by the Director of the Federal Register and which has been filed with the Office of the Federal Register. Items which do not withstand 50 launderings shall be tested at the end of their useful service life with prior approval of the Consumer Product Safety Commission.

(ii) Washing shall be performed in accordance with sections 8.2.2 and 8.2.3 of AATCC Test Method 124-1996, using wash temperature V (60°±3-C, 140°±5-F) specified in Table II of that method, and the water level, agitator speed, washing time, spin speed and final spin cycle specified for "Normal/Cotton Sturdy" in Table III. A maximum washer load shall be 3.64 Kg (8 pounds) and may consist of any combination of test samples and dummy pieces. Drying shall be performed in accordance with section 8.3.1(A) of that test method, Tumble Dry, using the exhaust temperature (66°±5-C, 150°±10-F) and cool down time of 10 minutes specified in the "Durable Press" conditions of Table IV.

\* \* \* \* \*

3. The authority for subpart B of part 1616 continues to read as follows:

Authority: Sec. 5, 67 Stat. 112-113, as amended, 81 Stat. 570; 15 U.S.C. 1194.

4. Section 1616.32 is amended by revising paragraphs (a)(1), (b)(1) introductory text and (b)(2), the first 3 sentences of (c)(1), (c)(2), the first sentence of (d)(3), the first sentence of (e)(1), the first sentence of (e)(2) (b) and (g)(1) to read as follows.

**§ 1616.32 Method for establishment and use of alternate laundering procedures under section 5(c)(4)(ii) of the standard.**

(a) Scope. (1) Section 1616.5(c)(4)(ii) of the Standard for the Flammability of Children's Sleepwear in sizes 7-14 (16 CFR 1616.5(c)(4)(ii)) requires that all fabrics and certain garments subject to the standard be tested for flammability as produced (or after one washing and drying) and after the items have been washed and dried 50 times in machines, using the procedure specified in AATCC Test Method 124-1996.<sup>3</sup> This section also provides that items may be laundered a different number of times under another washing and drying procedure if the Commission finds that such an alternate laundering procedure is equivalent to the procedure specified in the standard.

\* \* \* \* \*

(b) Application procedure. (1) Applicants seeking approval for use of an alternate laundering procedure under section 1616.5(c)(4)(ii) of the standard must submit the following information to the Assistant Executive Director for Compliance, Consumer Product Safety Commission, Washington, DC 20207:

\* \* \* \* \*

(2) Applications shall be certified by the chief executive officer of the applicant or the official to whom the duty to certify has been delegated in writing. The Commission's Assistant Executive Director for Compliance must be notified in writing of any such delegation.

(c) Use of alternate laundering procedure. (1) The applicant may begin to use the alternate laundering procedure 30 days after the application is received by the Assistant Executive Director for Compliance unless notified to the contrary. The Assistant Executive Director for Compliance will normally furnish an applicant with written notice of approval within 30 days. The applicant may be notified that a longer time is needed for evaluation of the application, and in the discretion of the Assistant Executive Director for Compliance, may be authorized to use

<sup>3</sup> American Association of Textile Chemists and Colorists, Technical Manual, Vol 73, 1997

the alternate laundering procedure pending the final decision. \* \* \*

(2) As provided in detail in paragraph (e) of this section, applicants must immediately discontinue use of an alternate procedure, and must immediately notify the Assistant Executive Director for Compliance if there are test failures during revalidation testing.

(d) Revalidation testing. \* \* \*

(3) Records of revalidation testing need not be submitted to the Assistant Executive Director for Compliance. \* \* \*

(e) Revalidation testing failures. (1) If revalidation testing for any fabric or garment does not meet the criteria of paragraph (f) of this section, the applicant must immediately discontinue use of the alternate laundering procedure for the fabric or garment and must immediately notify the Assistant Executive Director for Compliance in writing of the failure to meet the criteria. \* \* \*

(2) When use of an alternate laundering procedure for a particular fabric or garment has been discontinued because of a failure to meet the criteria of paragraph (f) of this section, the alternate laundering procedure shall not be used again unless a new application for approval is submitted to the Assistant Executive Director for Compliance and that officer approves the application in writing. \* \* \*

(f) Commission criteria for evaluating applications. (1) The Assistant Executive Director for Compliance will approve the alternate laundering procedure as equivalent to the laundering procedure specified in section 1616.5(c)(4)(ii) of the standard if testing from 20 specimens laundered by the proposed alternate procedure yields as many or more char lengths in excess of five inches as does testing from the twenty specimens laundered by the 50-laundering cycle method prescribed in the standard.

(2) If the alternate laundering procedure yields fewer char lengths in excess of five inches than does the 50-wash and dry cycle, then the Assistant Executive Director for Compliance will not consider the alternate procedure to be equivalent with the following exception: If the number of five-inch chars from the alternate procedure is within one of the number of five-inch chars obtained from the 50-cycle procedure, the applicant may repeat the original test with new specimens and if the combined results of both tests show the count of chars exceeding five inches from the alternate is equal to, or greater than, the count from the 50-wash cycle procedure, the Assistant Executive

Director for Compliance will approve the alternate laundering procedure.

(g) Commission testing for compliance. (1) For the purpose of determining compliance with the standard, the Commission will rely on testing employing the laundering procedure now prescribed by section 1616.5(c)(4)(ii) of the standard. (15 U.S.C. 1193, 1194; 15 U.S.C. 2079(b))

\* \* \* \* \*

Dated: March 8, 1999.

Sadye E. Dunn,

Secretary, Consumer Product Safety Commission.

#### List of Relevant Documents

1. American Association of Textile Chemists and Colorists, "Appearance of Durable Press Fabrics After Repeated Home Launderings," AATCC Test Method 124-1969. AATCC Technical Manual, Vol. 46, 1970.

2. American Association of Textile Chemists and Colorists, "Appearance of Fabrics After Repeated Home Laundering," AATCC Test Method 124-1996. AATCC Technical Manual, Vol. 73, 1997.

3. Briefing memorandum from Margaret Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Proposed Amendments to Flammable Fabrics Act Standards to Replace Obsolete Standard Detergent and Update Laundering Procedures Required for Tests," \_\_\_, 1998.

4. Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Amending the Laundering Provisions of the CPSC Flammability Regulations," August 18, 1998.

5. Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Textile Laundering Standards," August 18, 1998.

6. Memorandum from Gail Stafford and Shing-Bong Chen, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Detergent Comparison Tests," August 19, 1998.

7. Log of Meeting on January 21, 1998 concerning Flammability Test of Pyrovatex-treated Flame Resistant Fabrics.

8. Memorandum from Terrance R. Karels, Directorate for Economic Analysis, to Margaret Neily, Project Manager, "Amendments to FFA Standards," August 10, 1998.

9. Memorandum from Margaret Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Briefing Package Supplement: Laundering/Detergent Update for Flammable Fabrics Act Standards—The Soap and Detergent Association (SDA) Laundering Procedures," January 11, 1999.

10. Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Soap and Detergent Association Proposed Laundering Procedure," December 23, 1998.

11. Letter from Jenan Al-Atrash, Director, Human Health & Safety, The Soap and Detergent Association, to Margaret Neily, Technical Program Coordinator, Office of the

Executive Director, including SDA Recommended Wash Conditions for CFR 1615.4, September 15, 1998.

12. Letter from Jenan Al-Atrash, Director, Human Health & Safety, The Soap and Detergent Association, to Margaret Neily, Technical Program Coordinator, Office of the Executive Director, follow-up comments to September 15 1998 letter November 12, 1998.

13. Memorandum from Margaret L. Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Laundering/Detergent Updates—FR notice supplements," February 19, 1999.

[FR Doc. 99-6075 Filed 3-16-99; 8:45 am]

BILLING CODE 6355-01-P

## CONSUMER PRODUCT SAFETY COMMISSION

### 16 CFR Parts 1630 and 1631

#### Standard for the Surface Flammability of Carpets and Rugs; Standard for the Surface Flammability of Small Carpets and Rugs

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Proposed amendments.

**SUMMARY:** The Commission proposes to amend the flammability standards for carpets and rugs and for small carpets and rugs by revising the laundering procedure specified in those standards. The laundering procedures help assure that any fire retardant treatment used on carpets or on fibers used in the manufacture of carpets will not be removed or degraded by cleaning, thereby creating a flammability hazard. The Commission is proposing these amendments because the detergent specified by the existing laundering procedure is no longer available and the operating characteristics of the washing and drying machines required by that procedure are no longer representative of machines now used for home laundering.

**DATES:** Written comments concerning the proposed amendments must be received by the Office of the Secretary not later than June 1, 1999.

**ADDRESSES:** Written comments should be captioned "Carpet and Rug Standards, Laundering Procedures" and mailed to the Office of the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207, or delivered to that office, room 502, 4330 East-West Highway, Bethesda, Maryland. Comments may also be filed by telefacsimile to (301) 504-0127 or by email to cpsc-os@cpsc.gov.

**FOR FURTHER INFORMATION CONTACT:** Margaret Neily, Project Manager,

Directorate for Engineering Sciences, Consumer Product Safety Commission, Washington, DC 20207; telephone (301) 504-0508, extension 1293.

#### SUPPLEMENTARY INFORMATION:

##### A. Background

The Flammable Fabrics Act ("FFA") (15 U.S.C. 1191 *et seq.*) authorizes issuance and amendment of flammability standards and regulations to protect the public from unreasonable risks of death, injury, and property damage from fire associated with products of interior furnishing made from fabric and related materials.

In 1970, the Secretary of Commerce issued two flammability standards for carpets and rugs to protect the public from risks of deaths, injuries, and economic losses associated with ignition of carpets and rugs by small ignition sources. The Standard for the Surface Flammability of Carpets and Rugs, now codified at 16 CFR Part 1630, is applicable to carpets and rugs with a surface area greater than 24 square feet and one dimension longer than six feet. The Standard for the Surface Flammability of Small Carpets and Rugs, now codified at 16 CFR Part 1631, is applicable to carpets and rugs which have an area of 24 square feet or less, and no dimension longer than six feet.

Both standards prescribe a test which involves exposing specimens from a carpet or rug to a standard ignition source. Eight specimens, each measuring nine inches by nine inches, are taken from the product to be tested. A specimen passes the test in the standards if charring does not extend more than three inches in any direction from the ignition source. The flammability standard for large carpets and rugs requires that seven of the eight specimens taken from a carpet or rug must pass the test. See 16 CFR 1630.3.

The standard for small carpets and rugs requires that seven of eight specimens taken from a carpet or rug must pass the test, or that the product must be permanently labeled indicating that it fails the flammability standard. See 16 CFR 1631.3, 1631.5(a) and 1631.34.

In 1973, authority to issue and amend flammability standards under the FFA was transferred from the Department of Commerce to the Consumer Product Safety Commission by section 30(b) of the Consumer Product Safety Act (15 U.S.C. 2079(b)).

##### B. Amending the Flammability Standards

As discussed below, laundering procedures are required by the standards to help assure that any fire-

retardant chemicals used in the production of carpets or rugs will not be removed or degraded by repeated cleaning and create a flammability hazard. However, the current procedures are out of date in several respects, and the Commission therefore proposes to change them

*1. Current Procedures*

The carpet flammability standards describe the apparatus and procedure to be used to test carpets and rugs for compliance with the standards. See 16 CFR 1630.4 and 1631.4.

At the time the carpet standards were issued, some carpets and rugs were treated with fire retardants or made from fibers that were treated with fire retardants. The standards address the possibility that any fire-retardant treatment used on carpets or rugs or on fibers used in the production of carpets or rugs might be progressively reduced by cleaning. Section 1630.4(b)(1)(ii) of the standard for large carpets and rugs and section 1631.4(b)(1)(ii) of the standard for small carpets and rugs require that specimens of a carpet or rug that has a fire-retardant treatment or that is made from fibers which have had a fire-retardant treatment shall be tested after they have been washed and dried 10 times in accordance with a specified laundering procedure, or "such number of times under such other washing and drying procedures as shall have been

found to be equivalent by the Consumer Product Safety Commission."

The laundering procedure specified by the standards is AATCC Test Method 124-67, published by the American Association of Textile Chemists and Colorists ("AATCC"). (1)<sup>1</sup> This procedure involves washing and drying the specimens in a household washing machine and dryer. The AATCC test method is similar to the method that might be used by consumers to clean small carpets and rugs such as bath mats and small area rugs.

Although the AATCC laundering procedure does not resemble the method that consumers could be expected to use for cleaning wall-to-wall carpeting and large carpets or rugs, the Commission has not made a finding that any other washing and drying procedure is equivalent to AATCC Test Method 124-67.

AATCC Test Method 124-67 specifies operating characteristics of the washing machine and dryer to be used, wash water and rinse water temperatures, exhaust temperature of the dryer, and a particular detergent. AATCC Standard Detergent 124. AATCC Test Method 124-67 was developed in 1967. These specifications are representative of the equipment, wash, rinse, and drying temperatures, and detergent used for home laundering in the 1960s. For example, AATCC Standard Detergent 124 is a high-phosphate powder with

optical brightener, similar to the phosphate-based detergents sold to consumers between 1950 and 1970. (3)

Since 1970, environmental concerns about water pollution have resulted in the elimination of phosphate-based detergents for home laundering. Today, all laundry detergents sold to consumers are nonphosphate-based. Additionally, energy-efficient washing machines and dryers currently sold for consumer use have operating characteristics and temperature settings which differ from those specified by AATCC Test Method 124-67. (3)

*2. Revised Laundering Test Method*

In 1996, AATCC revised AATCC Test Method 124, "Appearance of Fabrics After Repeated Home Laundering." (2) The 1996 AATCC test method more closely resembles the equipment and practices used for household laundering of fabrics at this time. The revised test method differs from AATCC Test Method 124-67 by specifying the use of 1993 AATCC detergent, a nonphosphate-based detergent. The 1996 test method also specifies use of a washing machine with different operating characteristics than those specified by AATCC Test Method 124-67, and rinse water temperatures which differ from those in the older test method. (3) Table 1, below, provides a summary comparison of the two test methods.

TABLE 1.—AATCC TEST METHOD 124

Wash/dry conditions	Version 1967	Version 1996	
<b>Washing Machine:</b>			
Cycle .....	Normal .....	Normal/Cotton Sturdy.	
Wash Water Temp .....	60 ± 3°C .....	60 ± 3°C.	
Rinse Water Temp .....	41 ± 3°C .....	Less Than 29°C.	
Water Level .....	Full .....	18 ± 1 gal.	
Agitator Speed .....	70 ± 5 spm .....	179 ± 2 spm.	
Wash Time .....	12 minutes .....	12 minutes.	
Spin Speed .....	500-510 rpm .....	630-660 rpm.	
Final Spin Cycle .....	4 minutes .....	6 minutes.	
<b>Dryer:</b>			
Cycle .....	Normal .....	Cotton Sturdy	Durable Press.
Exhaust Temp .....	140-160°F .....	140-160°F ...	140-160°F.
Cool Down Cycle .....	5 minutes .....	5 minutes .....	10 minutes.

spm = strokes (or cycles) per minute.  
rpm = revolutions per minute.

In 1996, AATCC also announced that when that organization's supply of Standard Detergent 124 is depleted, that detergent will no longer be available. AATCC is the only source for Standard Detergent 124. Additionally, washing

machines offered for sale at this time do not have the settings and operating characteristics of the washing machine specified by AATCC Test Method 124-67. (3)

The laundering procedures specified in the carpet flammability standards must be followed by the Commission when testing carpets manufactured with a fire-retardant treatment to determine their compliance. Information available-

<sup>1</sup> Numbers in parentheses identify reference documents in the List of Relevant Documents at the

end of this notice. Requests for inspection of any of these documents should be made at the Office

of the Secretary, 4330 East-West Highway, room 502, or by calling that office at (301) 504-0800.

to the Commission indicates that at this time, no carpets or rugs treated with a fire retardant or made from fibers which have been treated with a fire retardant are offered for sale. However, it is possible that carpets treated with fire retardants may be marketed in the future.

Section 8 of the FFA (15 U.S.C. 1197) provides that no person shall be subject to criminal prosecution under section 7 of the FFA (15 U.S.C. 1196) if that person holds in good faith a written guaranty to the effect that "reasonable and representative tests conducted in accordance with the applicable standard" show that a product subject to a flammability standard issued under the FFA complies with that standard. Enforcement regulations codified at 16 CFR 1630.31 and 1631.31 establish minimum requirements for reasonable and representative tests to support guaranties of compliance with the carpet flammability standards.

Although issuance of a guaranty is not mandatory, manufacturers who elect to issue guaranties must perform the testing required by the standard, including the laundering procedure specified by the standard for those carpets and rugs manufactured with a fire-retardant treatment unless exempted from the use of that procedure by other provisions of the standards.

### 3. Review of Other Existing Standards

In addition to reviewing AATCC Test Method 124-1996, the Commission staff reviewed and analyzed fourteen other international and technical association standards or test methods to determine if any were appropriate for consideration in this proceeding. Standards and test methods from AATCC, ASTM, the International Standards Organization, the United Kingdom, Australia, Canada, China and the Soap and Detergent Association were identified.

All of the standards designed for fabric laundering have significant deficiencies. They are either based on earlier versions of AATCC Test Method 124 (with obsolete detergent and equipment), require equipment not available in the U.S., use only water in the laundering procedure, or specify significantly lower wash and rinse water temperatures than those still available for consumers.

Two of these methods (AATCC 138 and a Canadian standard CAN/CGSB-4.2 No. 30.2-M90) were specifically developed for carpets. However, they use different liquid detergents, and neither of these methods approximates the typical home laundering used in the Flammability Standard for Carpets and

Rugs. Further, the AATCC 138 was judged to be too harsh for the hand washable flokati rugs because of the brushing specified by the method.

### 4. Proposed Amendment

The carpet flammability standards were issued under section 4 of the FFA (15 U.S.C. 1193), which authorizes the issuance or amendment of flammability standards to protect the public against unreasonable risks of fire leading to death, personal injury, or significant property damage. As required by section 4(b) of the FFA, both standards are based on findings that they are needed to adequately protect the public against the unreasonable risk of the occurrence of fire leading to death, personal injury, or significant property damage. That section further requires findings that a flammability standard issued under the FFA is "reasonable, technologically practicable, and appropriate."

The proposed change to the standards is needed to make the specified laundering procedures represent those currently used by consumers. The proposed amendments are also needed to assure that the carpet flammability standards will continue to be "technologically practicable" for both the Commission's laboratory and those manufacturers of carpets and rugs required to use the laundering procedures when testing for guaranty purposes.

Section 4(g) of the FFA (15 U.S.C. 1193(g)) states that a proceeding "for the promulgation of a regulation under this section" shall be initiated by publication of an advance notice of proposed rulemaking ("ANPR"), and sets forth requirements for the contents of the ANPR. However, these proposed amendments are necessary because technical advances and the passage of time have rendered the existing test method obsolete. The amendments preserve the original intent and effect of the existing test method, modifying that method only as necessary to reflect the existence of modern equipment and detergent. Moreover, the existing regulations permit the Commission to employ a laundering test method different from AATCC Test Method 124 if it concludes that the test method is substantively as protective. Because the existing regulations allow the Commission to achieve without any amendment the substance of what it now proposes to achieve by amendment, and because the proposed amendments preserve the regulatory status quo, save for the reflection of modern equipment and detergent, the Commission has determined that it is not legally required to commence this

proceeding with an ANPR, nor is it necessary for the Commission to make the findings that FFA sections 1193(g) and (h) would otherwise require.

The amendments proposed below would require specimens of carpet manufactured with a fire-retardant treatment to be tested after washing and drying 10 times using the procedure specified in AATCC Test Method 124-1996. The proposed amendments would incorporate that test method into the carpet flammability standards by reference.

Existing sections 1630.4(b)(1)(ii) and 1631.4(b)(1)(ii) contain the following language:

*Alternatively, the selected sample or oversized specimens thereof may be washed, dry-cleaned, or shampooed 10 times prior to cutting of test specimens, in such manner as the manufacturer or other interested party shall previously have established to the satisfaction of the Consumer Product Safety Commission is normally used for that type of carpet or rug in service. [Emphasis added.]*

Alternative laundering procedures have been approved in accordance with provisions of sections 1630.4(b)(1)(ii) and 1631.4(b)(1)(ii) for hide carpets and rugs and wool flokati carpets and rugs. See 16 CFR 1630.61, 1630.62 and 1630.63; 16 CFR 1631.61 and 1631.62. The amendments proposed below would change the references in Subpart C of sections 1630 and 1631 to the revised AATCC Test Method 124-1996 so that they are consistent with the other proposed changes.

### 5. 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 publishes that finding. Section 4(b) 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 for use by consumers.

One reason for proposing these amendments of the carpet flammability standards is that the standard detergent specified by the existing laundering method in the standard is no longer available. The Commission has reason to believe that an effective date 30 days after publication of final amendments will be in the public interest. The Commission does not propose to withdraw or limit the exemption for

products in inventory or with the trade as provided by section 4(b) of the FFA.

The Commission believes that an effective date of thirty days would give adequate notice to all interested persons of the change in laundering procedure, and at the same time would assure that the Commission will be able to test for compliance with the standards without interruption. Those manufacturers who perform testing in accordance with the laundering procedure specified in the standard will also benefit from a relatively short effective date.

The Commission invites comments on the proposed effective date and factual information relating to that issue.

### C. Other Issues

#### 1. Impact on Small Businesses

In accordance with section 605(b) of the Regulatory Flexibility Act (5 U.S.C. 605(b)), the Commission hereby certifies that the amendments to the carpet flammability standards proposed below will not have a significant economic impact on a substantial number of small entities, including small businesses, if issued on a final basis.

As noted above, the Commission has not been able to find any carpets or rugs currently offered for sale which have been treated with a fire-retardant treatment or made from fibers treated with a fire-retardant. In the event that some carpets treated with a fire-retardant or made from fibers treated with a fire-retardant treatment come onto the market in the future, manufacturers will be able to apply for approval of any alternate laundering procedure which is normally used for cleaning those products if the procedure specified by the amendments is not appropriate.

Consequently, the Commission estimates that the amendments proposed below will have no economic consequences to any manufacturers, large or small, of carpets and rugs.

#### 2. Environmental Considerations

The amendments proposed below fall within the categories of Commission actions described at 16 CFR 1021.5(c) that have little or no potential for affecting the human environment. The amendments are not expected to have a significant effect on production processes or on the types or amounts of materials used for the manufacture of carpets and rugs. The amendments will not render existing inventories unsalable, or require destruction of existing goods. The Commission has no information indicating any special circumstances in which these amendments may affect the human

environment. For that reason, neither an environmental assessment nor an environmental impact statement is required.

### 3. Executive Orders

Executive Order 12988 (February 5, 1996), requires agencies to state in clear language the preemptive effect, if any, to be given to any new regulation. The amendments proposed below, if issued on a final basis, would modify two flammability standards issued under the FFA. With certain exceptions which are not applicable here, 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 as an FFA standard if the state or local flammability standard or regulation is "designed to protect against the same risk of the occurrence of fire" unless the state or local flammability standard or regulation "is identical" to the FFA standard. See section 16 of the FFA (15 U.S.C. 1203). Consequently, if issued on a final basis, the amendments proposed below will preempt nonidentical state or local flammability standards or regulations that are intended to address the unreasonable risk of the occurrence of fire associated with ignition of carpets and rugs.

In accordance with Executive Order 12612 (October 26, 1987), the Commission certifies that the proposed amendments do not have sufficient implications for federalism to warrant a Federalism Assessment.

#### List of Subjects in 16 CFR Parts 1630 and 1631

Carpets and rugs, Consumer protection, Flammable materials, Floor coverings, Labeling, Records, Rugs, Textiles, Warranties.

#### Conclusion

Therefore, pursuant to the authority of section 30(b) of the Consumer Product Safety Act (15 U.S.C. 2079(b)) and sections 4 and 5 of the Flammable Fabrics Act (15 U.S.C. 1193, 1194), the Commission hereby proposes to amend title 16 of the Code of Federal Regulations, Chapter II, Subchapter D, Parts 1630 and 1631 to read as follows:

#### PART 1630—STANDARD FOR THE SURFACE FLAMMABILITY OF CARPETS AND RUGS

1. The authority for subpart A of part 1630 continues to read as follows:

**Authority:** Sec. 4, 67 Stat. 112, as amended, 81 Stat. 569-570; 15 U.S.C. 1193.

2. Section 1630.4 is amended by revising paragraph (b)(1)(ii), removing

footnote 3, redesignating footnotes 4 and 5 as footnotes 3 and 4 respectively, and adding new paragraph (b)(1)(iii) to read as follows:

#### § 1630.4 Test procedure.

\* \* \* \* \*

(b) *Sampling*—(1)(i) \* \* \*  
 (ii) If the carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment, the selected sample or oversized specimens thereof shall be washed, prior to cutting of test specimens after they have been washed and dried either 10 times in accordance with sections 8.2.2, 8.2.3, and 8.3.1(A) of AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," using wash temperature V (60° ±3° C, 140° ±5° F) specified in Table II of that method, and the water level, agitator speed, washing time, spin speed and final spin cycle specified for "Normal/Cotton Sturdy" in Table III, and drying shall be performed in accordance with section 8.3.1(A) of that test method, Tumble Dry, maximum load 3.64 Kg (8 pounds), using the exhaust temperature (66° ±5° C, 150° ±10° F) and cool down time of 10 minutes specified in the "Durable Press" conditions of Table IV; or such number of times by another washing and drying procedure which the Consumer Product Safety Commission has determined to be equivalent of AATCC Test Method 124-1996. Alternatively, the selected sample or oversized specimens thereof may be washed, drycleaned, or shampooed 10 times, prior to cutting of test specimens, in such manner as the manufacturer or other interested party shall previously have established to the satisfaction of the Consumer Product Safety Commission is normally used for that type of carpet or rug in service.

(iii) AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," is found in Technical Manual of the American Association of Textile Chemists and Colorists, vol. 73, 1997, is incorporated by reference. Copies of this document are available from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, North Carolina 27709. This document is also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist in the edition which has been approved



by the Director of the Federal Register and which has been filed with the Office of the Federal Register.

3. The authority for subpart C of part 1630 continues to read as follows:

**Authority:** Secs. 4, 5, 67 Stat. 112, as amended, 81 Stat. 569-570; 15 U.S.C. 1193, 1194

4. Section 1630.61 is amended by revising the first sentence of paragraph (a) to read as follows:

**§ 1630.61 Hide carpets and rugs—alternative washing procedure.**

(a) The Standard for the Surface Flammability of Carpets and Rugs (FF 1-70) at § 1630.4(b)(1)(ii) provides that if a carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment, the sample or oversized specimens thereof selected for testing under the standard shall be washed prior to the cutting of test specimens either 10 times under the washing and drying procedure prescribed in Method 124-1996 of the American Association of Textile Chemists and Colorists or such number of times under such other washing and drying procedure as shall previously have been found to be equivalent by the Consumer Product Safety Commission.

5. Section 1630.62 is amended by revising the first sentences in paragraphs (a) and (d)(3) as follows:

**§ 1630.62 Wool flokati carpets and rugs—alternative washing procedure.**

(a) The Standard for the Surface Flammability of Carpets and Rugs (FF 1-70) at § 1630.4(b)(1)(ii) provides that if a carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment, the sample or oversized specimens thereof selected for testing under the standard shall be washed prior to the cutting of test specimens either 10 times under the washing and drying procedure prescribed in Method 124-1996 of the American Association of Textile Chemists and Colorists or such number of times under such other washing and drying procedure as shall previously have been found to be equivalent by the Consumer Product Safety Commission.

(d) \* \* \*

(3) Place individual specimen face down in a shallow pan which has been filled to a depth of 2" with a wash solution of 1.1 grams of AATCC (American Association of Textile Chemists and Colorists) Standard

Detergent as specified in AATCC Method 124-1996 (or equivalent) per liter of water preheated to 105 °F. \* \* \*

6. Section 1630.63 is amended by revising the first sentence in paragraph (a)(1) to read as follows:

**§ 1630.63 Suspension of washing requirements for carpets and rugs with alumina trihydrate in the backing.**

(a)(1) The Standard for the Surface Flammability of Carpets and Rugs (FF 1-70) at § 1630.4(b)(1)(ii) provides that if a carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment, the sample or oversized specimens thereof selected for testing under the standard shall be washed prior to the cutting of test specimens either 10 times under the washing and drying procedure prescribed in Method 124-1996 of the American Association of Textile Chemists and Colorists or such number of times under such other washing and drying procedure as shall previously have been found to be equivalent by the Consumer Product Safety Commission.

**PART 1631—STANDARD FOR THE SURFACE FLAMMABILITY OF SMALL CARPETS AND RUGS**

1. The authority for subpart A of part 1631 continues to read as follows:

**Authority:** Sec. 4, 67 Stat. 112, as amended, 81 Stat. 569-570; 15 U.S.C. 1193.

2. Section 1631.4 is amended by revising paragraph (b)(1)(ii), removing footnote 3, redesignating footnotes 4 and 5 as footnotes 3 and 4 respectively, and adding new paragraph (b)(1)(iii) to read as follows:

**1631.4 Test procedure.**

(b) Sampling—(1) \* \* \*  
(ii) If the carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment, the selected sample or oversized specimens thereof shall be washed, prior to cutting of test specimens after they have been washed and dried either 10 times in accordance with sections 8.2.2, 8.2.3, and 8.3.1(A) of AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," using wash temperature V (60° ±3 °C, 140° ±5 °F) specified in Table II of that method, and the water level, agitator speed, washing time, spin speed and final spin cycle specified for "Normal/Cotton Sturdy" in Table III, and drying shall be performed in accordance with section 8.3.1(A) of

that test method, Tumble Dry, maximum load 3.64 Kg (8 pounds), using the exhaust temperature (66° ±5 °C, 150° ±10 °F) and cool down time of 10 minutes specified in the "Durable Press" conditions of Table IV; or such number of times by another washing and drying procedure which the Consumer Product Safety Commission has determined to be equivalent of AATCC Test Method 124-1996. Alternatively, the selected sample or oversized specimens thereof may be washed, drycleaned, or shampooed 10 times, prior to cutting of test specimens, in such manner as the manufacturer or other interested party shall previously have established to the satisfaction of the Consumer Product Safety Commission is normally used for that type of carpet or rug in service.

(iii) AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," is found in Technical Manual of the American Association of Textile Chemists and Colorists, vol. 73, 1997, is incorporated by reference. Copies of this document are available from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, North Carolina 27709. This document is also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist in the edition which has been approved by the Director of the Federal Register, and which has been filed with the Office of the Federal Register.

3. The authority for subpart C of part 1631 continues to read as follows:

**Authority:** Secs. 4, 5, 67 Stat. 112, as amended, 81 Stat. 569-70; 15 U.S.C. 1193, 1194.

4. Section 1631.61 is amended by revising the first sentence of paragraph (a) as follows:

**§ 1631.61 Hide carpets and rugs—alternative washing procedure.**

(a) The Standard for the Surface Flammability of Carpets and Rugs (FF 1-70) at § 1630.4(b)(1)(ii) provides that: if a carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment, the sample or oversized specimens thereof selected for testing under the standard shall be washed prior to the cutting of test specimens either 10 times under the washing and drying procedure

prescribed in Method 124-1996 of the American Association of Textile Chemists and Colorists or such number of times under such other washing and drying procedure as shall previously have been found to be equivalent by the Consumer Product Safety Commission.

\* \* \*

\* \* \* \* \*

5. Section 1631.62 is amended by revising the first sentences in paragraphs (a) and (d)(3) to read as follows:

**§ 1631.62 Wool flokati carpets and rugs—alternative washing procedure.**

(a) The Standard for the Surface Flammability of Carpets and Rugs (FF 1-70) at § 1630.4(b)(1)(ii) provides that if a carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment, the sample or oversized specimens thereof selected for testing under the standard shall be washed prior to the cutting of test specimens either 10 times under the washing and drying procedure prescribed in Method 124-1996 of the American Association of Textile Chemists and Colorists or such number of times under such other washing and drying procedure as shall previously have been found to be equivalent by the Consumer Product Safety Commission.

\* \* \*

\* \* \* \* \*

(d) \* \* \*

(3) Place individual specimen face down in a shallow pan which has been filled to a depth of 2" with a wash solution of 1.1 grams of AATCC (American Association of Textile Chemists and Colorists) Standard Detergent as specified in AATCC Method 124-1996 (or equivalent) per liter of water preheated to 105 °F. \* \* \*

\* \* \*

\* \* \* \* \*

Dated: March 8, 1999.

**Sadye E. Dunn,**

Secretary, Consumer Product Safety Commission.

**List of Relevant Documents**

1. American Association of Textile Chemists and Colorists, "Appearance of Durable Press Fabrics After Repeated Home Launderings," AATCC Test Method 124-1969. AATCC Technical Manual, Vol. 46, 1970.
2. American Association of Textile Chemists and Colorists, "Appearance of Fabrics After Repeated Home Laundering," AATCC Test Method 124-1996. AATCC Technical Manual, Vol. 73, 1997.
3. Briefing memorandum from Margaret Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Proposed Amendments to Flammable Fabrics Act Standards to Replace Obsolete Standard Detergent and Update Laundering

Procedures Required for Tests." \_\_\_\_\_, 1998

4. Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Amending the Laundering Provisions of the CPSC Flammability Regulations," August 18, 1998.

5. Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Textile Laundering Standards," August 18, 1998.

6. Memorandum from Gail Stafford and Shing-Bong Chen, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Detergent Comparison Tests," August 19, 1998.

7. Log of Meeting on January 21, 1998 concerning Flammability Test of Pyrovatex-treated Flame Resistant Fabrics.

8. Memorandum from Terrance R. Karels, Directorate for Economic Analysis, to Margaret Neily, Project Manager, "Amendments to FFA Standards," August 10, 1998.

9. Memorandum from Margaret Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Briefing Package Supplement: Laundering/Detergent Update for Flammable Fabrics Act Standards—The Soap and Detergent Association (SDA) Laundering Procedures," January 11, 1999.

10. Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Soap and Detergent Association Proposed Laundering Procedure," December 23, 1998.

11. Letter from Jenan Al-Atrash, Director, Human Health & Safety, The Soap and Detergent Association, to Margaret Neily, Technical Program Coordinator, Office of the Executive Director, including SDA Recommended Wash Conditions for CFR 1615.4, September 15, 1998.

12. Letter from Jenan Al-Atrash, Director, Human Health & Safety, The Soap and Detergent Association, to Margaret Neily, Technical Program Coordinator, Office of the Executive Director, follow-up comments to September 15, 1998, letter, November 12, 1998.

13. Memorandum from Margaret L. Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Laundering/Detergent Updates—FR notice supplements," February 19, 1999.

[FR Doc. 99-6074 Filed 3-16-99; 8:45 am]

BILLING CODE 6355-01-P

**CONSUMER PRODUCT SAFETY COMMISSION**

**16 CFR Part 1632**

**Standard for the Flammability of Mattresses and Mattress Pads**

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Proposed amendments.

**SUMMARY:** The Commission proposes to amend the flammability standard for mattresses and mattress pads by revising

the laundering procedure specified in that standard for mattress pads which contain a chemical fire retardant. These laundering procedures help assure that any chemical flame retardant is not removed or degraded by repeated washing and drying, thereby creating a flammability hazard. The Commission is proposing these amendments because the detergent specified by the existing laundering procedure is no longer available and the operating characteristics of the washing and drying machines required by that procedure are no longer representative of machines now used for home laundering.

**DATES:** Written comments concerning the proposed amendments must be received by the Office of the Secretary not later than June 1, 1999.

**ADDRESSES:** Written comments should be captioned "Mattress Pads, Laundering Procedures" and mailed to the Office of the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207, or delivered to that office, room 502, 4330 East-West Highway, Bethesda, Maryland. Comments may also be filed by telefacsimile to (301) 504-0127 or by email to cpsc-os@cpsc.gov.

**FOR FURTHER INFORMATION CONTACT:** Margaret Neily, Project Manager, Directorate for Engineering Sciences, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301) 504-0508, extension 1293.

**SUPPLEMENTARY INFORMATION:**

**A. Background**

The Flammable Fabrics Act ("FFA") (15 U.S.C. 1191 *et seq.*) authorizes issuance and amendment of flammability standards and regulations to protect the public from unreasonable risks of death, injury, and property damage from fire associated with products of interior furnishing made from fabric and related materials.

In 1972, the Secretary of Commerce issued a flammability standard for mattresses and mattress pads to protect the public from death and serious burn injuries associated with ignition of mattresses and mattress pads by smoldering cigarettes. That standard became effective in 1973, and is codified at 16 CFR Part 1632.

The standard prescribes a test for mattresses and mattress pads which requires placement of lighted cigarettes at specified locations on the surface of the mattress or mattress pad. An individual mattress or mattress pad prototype passes the test in the standard if no cigarette test location produces a

char length more than two inches in any direction.

In 1973, authority to issue flammability standards under the FFA was transferred from the Department of Commerce to the Consumer Product Safety Commission by section 30(b) of the Consumer Product Safety Act (15 U.S.C. 2079(b)).

On June 8, 1973, the Commission amended the standard by adding requirements for premarket testing of mattresses and mattress pads by manufacturers. As amended in 1973, the standard required manufacturers to perform prototype testing on each combination of materials and construction methods used in the production of mattresses or mattress pads. After successful completion of prototype testing, the standard required manufacturers to obtain samples at specified intervals during production and test those samples for compliance with the standard. See 38 FR 15095 (June 8, 1973).

In 1984, the Commission amended the standard to eliminate the requirements for production sampling and testing. The amended standard requires that manufacturers perform prototype testing with acceptable results before introducing products subject to the standard into commerce, but does not require manufacturers to perform production sampling and testing. See 49 FR 39780 (October 10, 1984).

**B. Amending the Flammability Standard**

As discussed below, laundering procedures are prescribed by the standard to help assure that any fire-retardant chemicals used in the production of mattress pads will not be removed or degraded by repeated washing and drying and create a

flammability hazard. However, the current procedures are out of date in several respects and the Commission therefore proposes to change them.

**1. Current Procedures**

The mattress flammability standard describes the apparatus and procedure used to test mattress pads for compliance with the standard. See 16 CFR 1632.4 and 1632.5(a). The standard addresses the possibility that a fire-retardant chemical used in the production of mattress pads might be progressively reduced or degraded by washing and drying. Sections 1632.5(a) and (b) of the standard require that any mattress pad manufactured with a fire retardant chemical shall be tested in the condition in which it is intended to be sold, and after it has been washed and dried ten times in accordance with a specified laundering procedure. That laundering procedure is AATCC Test Method 124-82, published by the American Association of Textile Chemists and Colorists ("AATCC").<sup>1</sup> The mattress standard incorporates that laundering procedure by reference. See 16 CFR 1632.5(b)(2)(iv).

AATCC Test Method 124-82 specifies operating characteristics of the washing machine and dryer to be used, wash water and rinse water temperatures, exhaust temperature of the dryer, and a particular detergent, AATCC Standard Detergent 124. AATCC Test Method 124-82 was originally developed in 1967 and subsequently revised. These specifications are representative of the equipment, wash, rinse, and drying temperatures, and the detergent used for home laundering in the 1960s. For example, AATCC Standard Detergent 124 is a high-phosphate powder with optical brightener, similar to the

phosphate-based detergents sold to consumers between 1950 and 1970.<sup>(3)</sup>

Since 1970, environmental concerns about water pollution have resulted in the elimination of phosphate-based detergents for home laundering. Today, all laundry detergents sold to consumers are nonphosphate-based. Additionally, energy-efficient washing machines and dryers currently sold for consumer use have operating characteristics and temperature settings which differ from those specified by AATCC Test Method 124-82.<sup>(3)</sup>

**2. Revised Laundering Test Method**

In 1996, AATCC revised AATCC Test Method 124, "Appearance of Fabrics After Repeated Home Laundering".<sup>(2)</sup> The 1996 AATCC test method more closely resembles the equipment and practices currently used for household laundering of fabrics. The revised test method differs from AATCC Test Method 124-82 by specifying the use of 1993 AATCC detergent, a nonphosphate-based detergent. The 1996 test method also specifies use of a washing machine with different operating characteristics than those specified by AATCC Test Method 124-82, and rinse water temperatures which differ from those in the older test method. <sup>(3)</sup> Table 1, below, provides a summary comparison of the two test methods.

In 1996, AATCC also announced that when that organization's supply of Standard Detergent 124 is depleted, that detergent will no longer be available. AATCC is the only source for Standard Detergent 124. Additionally, washing machines now offered for sale do not have the settings and operating characteristics of the washing machine specified by AATCC Test Method 124-82.<sup>(3)</sup>

TABLE 1.—AATCC TEST METHOD 124

Wash/Dry conditions	Version 1982	Version 1996	
<b>Washing Machine:</b>			
Cycle .....	Normal .....	Normal/Cotton Sturdy.	
Wash Water Temp .....	60 ± 3°C .....	60 ± 3°C.	
Rinse Water Temp .....	41 ± 3°C .....	Less Than 29°C.	
Water Level .....	Full .....	18 ± 1 gal.	
Agitator Speed .....	70 ± 5 spm .....	179 ± 2 spm.	
Wash Time .....	12 minutes .....	12 minutes.	
Spin Speed .....	500-510 rpm .....	630-660 rpm.	
Final Spin Cycle .....	4 minutes .....	6 minutes	
<b>Dryer:</b>			
Cycle .....	Normal .....	Cotton Sturdy	Durable Press.
Exhaust Temp .....	140-160°F .....	140-160°F ...	140-160°F.

<sup>1</sup> Numbers in parentheses identify reference documents in the List of Relevant Documents at the end of this notice. Requests for inspection of any

of these documents should be made at the Office of the Secretary, 4330 East-West Highway, room

502, Bethesda, Md., or by calling that office at (301) 504-0800.

Cool Down Cycle .....	5 minutes .....	5 minutes .....	10 minutes.
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spm = strokes (or cycles) per minute.  
rpm = revolutions per minute.

### 3. Review of Other Existing Standards

In addition to reviewing AATCC Test Method 124-1996, the Commission staff reviewed and analyzed twelve other international and technical association standards or test methods to determine if any were appropriate for consideration in this proceeding. Standards and test methods from AATCC, ASTM, the International Standards Organization, the United Kingdom, Australia, Canada, China and the Soap and Detergent Association were identified. All of these methods could be used for sleepwear fabrics and mattress pads.

All of the identified standards for fabric laundering have significant deficiencies. They are either based on earlier versions of AATCC Test Method 124 (with obsolete detergent and equipment), require equipment not available in the U.S., use only water in the laundering procedure, or specify significantly lower wash and rinse water temperatures than those still available for consumers.

### 4. Comparability of Test Results

The Commission intended to perform some testing of mattress pads manufactured with chemical fire retardants after washing and drying 10 times in accordance with AATCC Test Method 124-82 and after washing and drying 10 times using AATCC Test Method 124-1996 to compare the two test methods. However, the staff has been unable to locate any flame retardant-treated mattress pads for this comparison. The mattress pads located by the staff are made of fabric and filling materials that do not need to be treated to pass the flammability test of the mattress standard. However, since there is a demand for natural fibers such as cotton (which may need to be FR treated to pass the flammability standard) in other products, the Commission believes it is appropriate to propose revising the laundering method so that it is consistent with actual consumer and industry laundering practices should cotton mattress pads return to the market in the future.

### 5. Proposed Amendment

The Commission proposes to revise the laundering procedures specified in 16 CFR 1632.5(b) to those of AATCC Test Method 124-1996.

The mattress flammability standard was issued and amended under section 4 of the FFA (15 U.S.C. 1193), which

authorizes the issuance or amendment of flammability standards to protect the public against unreasonable risks of fire leading to death, personal injury, or significant property damage. As required by section 4(b) of the FFA, the standard is based on findings that it is needed to adequately protect the public against the unreasonable risk of the occurrence of fire leading to death, personal injury, or significant property damage. That section further requires findings that a flammability standard issued under the FFA is "reasonable, technologically practicable, and appropriate."

The proposed change to the standard is needed to make the specified laundering procedures represent those currently used by consumers. The proposed amendments are also needed to assure that the standard will continue to be "technologically practicable" for both the Commission's laboratory and those manufacturers of mattress pads required to use the laundering procedures before prototype testing.

Section 4(g) of the FFA (15 U.S.C. 1193(g)) states that a proceeding "for the promulgation of a regulation under this section" shall be initiated by publication of an advance notice of proposed rulemaking ("ANPR"), and sets forth requirements for the contents of the ANPR. However, these proposed amendments are necessary because technical advances and the passage of time have rendered the existing test method obsolete. The amendments preserve the original intent and effect of the existing test method, modifying that method only as necessary to reflect the existence of modern equipment and detergent. Moreover, the existing regulations permit the Commission to employ a laundering test method different from AATCC Test Method 124 if it concludes that the test method is substantively as protective. Because the existing regulations allow the Commission to achieve without any amendment the substance of what it now proposes to achieve by amendment, and because the proposed amendments preserve the regulatory status quo, save for the reflection of modern equipment and detergent, the Commission has determined that it is not legally required to commence this proceeding with an ANPR, nor is it necessary for the Commission to make the findings that FFA sections 1193(g) and (h) would otherwise require.

The amendments proposed below would require a mattress pad containing a fire retardant chemical to be tested in the condition in which it is intended to be sold and after washing and drying 10 times using the procedure specified in AATCC Test Method 124-1996. The proposed amendments would incorporate that test method into the mattress standard by reference.

The mattress flammability standard and enforcement rules exempt any "one-of-a-kind" mattress or mattress pad manufactured to a physician's written prescription from all requirements of the standard. See sections 1632.2(b)(4) and 1632.31(f). Those sections are not affected by the amendments proposed below.

Additionally, existing section 1632.5(b)(1)(i) exempts from the laundering requirements of the standard any mattress pad intended for "one time use" and any mattress pad which is not intended to be laundered. Existing section 1632.5(b)(1)(ii) states that mattress pads that cannot be laundered and are labeled "dryclean only" shall be drycleaned by a procedure which has been found to be acceptable by the Commission before testing. Existing section 1632.5(b)(2)(v) allows manufacturers of mattress pads manufactured with a chemical fire retardant to test specimens after laundering "a different number of wash and dry cycles using another procedure . . . if that procedure has previously been found to be equivalent by the Consumer Product Safety Commission." These sections are not affected by the amendments proposed below.

### 6. 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 publishes that finding. Section 4(b) 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 for use by consumers.

One reason for proposing these amendments of the mattress flammability standard is that the

standard detergent specified by the existing laundering method in the standard is no longer available. The Commission has reason to believe that an effective date 30 days after publication of final amendments will be in the public interest. The Commission does not propose to withdraw or limit the exemption for products in inventory or with the trade as provided by section 4(b) of the FFA.

The Commission believes that an effective date of thirty days would give adequate notice to all interested persons of the change in laundering procedure, and at the same time would assure that the Commission will be able to test for compliance with the standards without interruption. Those manufacturers who perform prototype testing in accordance with the laundering procedure specified in the standard will also benefit from a relatively short effective date.

The Commission invites comments on the proposed effective date and factual information relating to that issue.

### C. Other Issues

#### 1. Impact on Small Businesses

In accordance with section 605(b) of the Regulatory Flexibility Act (5 U.S.C. 605(b)), the Commission hereby certifies that the amendments to the mattress flammability standard proposed below will not have a significant economic impact on a substantial number of small entities, including small businesses, if issued on a final basis. The requirements for washing and drying mattress pads manufactured with a fire retardant chemical were included in the standards to assure that any flame retardant treatment used in mattress pads would not be removed or degraded by repeated laundering.

At this time, all mattress pads subject to the standard are made without flame retardant treatments. Accordingly, most manufacturers of mattress pads are not required to launder mattress pads before testing, and the Commission does not expect that the proposed amendments will have a significant effect on any businesses, large or small.

#### 2. Environmental Considerations

The amendments proposed below fall within the categories of Commission actions described at 16 CFR 1021.5(c) that have little or no potential for affecting the human environment. The amendments are not expected to have a significant effect on production processes or on the types or amounts of materials used for construction or packaging of mattress pads. The amendments will not render existing inventories unsalable, or require

destruction of existing goods. The Commission has no information indicating any special circumstances in which these amendments may affect the human environment. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

#### 3. Executive Orders

Executive Order 12988 (February 5, 1996), requires agencies to state in clear language the preemptive effect, if any, to be given to a new regulation. The amendments proposed below, if issued on a final basis, would modify a flammability standard issued under the FFA. With certain exceptions which are not applicable here, 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 regulation is "designed to protect against the same risk of the occurrence of fire" unless the state or local standard or regulation is "identical" to the FFA standard. See section 16 of the FFA (15 U.S.C. 1203). Consequently, if issued on a final basis, the amendments proposed below will preempt nonidentical state or local flammability standards or regulations that are intended to address the unreasonable risk of fire from ignition of mattress pads.

In accordance with Executive Order 12612 (October 26, 1987), the Commission certifies that the proposed amendments do not have sufficient implications for federalism to warrant a Federalism Assessment.

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

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

#### Conclusion

Therefore, pursuant to the authority of section 30(b) of the Consumer Product Safety Act (15 U.S.C. 2079(b)) and sections 4 and 5 of the Flammable Fabrics Act (15 U.S.C. 1193, 1194), the Commission hereby proposes to amend title 16 of the Code of Federal Regulations, Chapter II, Subchapter D, Part 1632 to read as follows:

#### PART 1632—STANDARD FOR THE FLAMMABILITY OF MATTRESSES AND MATTRESS PADS

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

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

2. Section 1632.5 is amended by revising paragraphs (b)(2)(i) through (iv) and by removing the undesignated paragraph following (b)(2)(iv) to read as follows:

#### § 1615.5 Mattress pad test procedure.

\* \* \* \* \*

(b) \* \* \*

(2) *Laundering procedure.* (i) Washing shall be performed in accordance with sections 8.2.2 and 8.2.3 of AATCC Test Method 124-1996, using wash temperature V (60° ± 3°C, 140° ± 5°F) specified in Table II of that method, and the water level, agitator speed, washing time, spin speed and final spin cycle specified for "Normal/Cotton Sturdy" in Table III.

(ii) Drying shall be performed in accordance with section 8.3.1(A) of AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," Tumble Dry, using the exhaust temperature (66° ± 5°C, 150° ± 10°F) and cool down time of 10 minutes specified in the "Durable Press" conditions of Table IV.

(iii) Maximum washer load shall be 3.64 Kg (8 pounds) and may consist of any combination of test samples and dummy pieces.

(iv) AATCC Test Method 124-1996 "Appearance of Fabrics After Repeated Home Laundering," is found in Technical Manual of the American Association of Textile Chemists and Colorists, vol. 73, 1997, which is incorporated by reference. Copies of this document are available from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, North Carolina 27709. This document is also available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist in the edition which has been approved by the Director of the Federal Register and which has been filed with the Office of the Federal Register.

\* \* \* \* \*

Dated: March 8, 1999.

Sadye E. Dunn,

Secretary, Consumer Product Safety Commission.

#### List of Relevant Documents

1. American Association of Textile Chemists and Colorists, "Appearance of Durable Press Fabrics After Repeated Home Launderings," AATCC Test Method 124-1969. AATCC Technical Manual, Vol. 46, 1970.

2 American Association of Textile Chemists and Colorists, "Appearance of Fabrics After Repeated Home Laundering," AATCC Test Method 124-1996 AATCC Technical Manual, Vol. 73, 1997.

3 Briefing memorandum from Margaret Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Proposed Amendments to Flammable Fabrics Act Standards to Replace Obsolete Standard Detergent and Update Laundering Procedures Required for Tests," \_\_\_\_\_, 1998.

4 Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Amending the Laundering Provisions of the CPSC Flammability Regulations," August 18, 1998.

5 Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Textile Laundering Standards," August 18, 1998.

6 Memorandum from Gail Stafford and Shing-Bong Chen, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Detergent Comparison Tests," August 19, 1998.

7 Log of Meeting on January 21, 1998 concerning Flammability Test of Pyrovatex-treated Flame Resistant Fabrics.

8 Memorandum from Terrance R. Karels, Directorate for Economic Analysis, to Margaret Neily, Project Manager, "Amendments to FFA Standards," August 10, 1998.

9 Memorandum from Margaret Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Briefing Package Supplement: Laundering/Detergent Update for Flammable Fabrics Act Standards—The Soap and Detergent Association (SDA) Laundering Procedures," January 11, 1999.

10 Memorandum from Gail Stafford, Directorate for Laboratory Sciences, to Margaret Neily, Project Manager, "Soap and Detergent Association Proposed Laundering Procedure," December 23, 1998.

11 Letter from Jenan Al-Atrash, Director, Human Health & Safety, The Soap and Detergent Association, to Margaret Neily, Technical Program Coordinator, Office of the Executive Director, including SDA Recommended Wash Conditions for CFR 1615.4, September 15, 1998.

12 Letter from Jenan Al-Atrash, Director, Human Health & Safety, The Soap and Detergent Association, to Margaret Neily, Technical Program Coordinator, Office of the Executive Director, follow-up comments to September 15, 1998, letter, November 12, 1998.

13 Memorandum from Margaret L. Neily, Project Manager, Directorate for Engineering Sciences, to the Commission, "Laundering/Detergent Updates—FR notice supplements," February 19, 1999.

[FR Doc. 99-6073 Filed 3-16-99; 8:45 am]

BILLING CODE 6355-01-P

## DEPARTMENT OF THE TREASURY

### 19 CFR Part 24

RIN 1515-AC40

#### Expanded Methods of Payment of Duties, Taxes, Interest and Fees

AGENCY: Customs Service, Department of the Treasury.

ACTION: Notice of proposed rulemaking.

**SUMMARY:** This document proposes to amend the Customs Regulations to expand the number of ways that Customs will accept payment of duties, taxes, fees, interest and other charges. Currently, the regulations allow payment by credit or charge cards that have been authorized by the Commissioner of Customs only at designated locations, and then only by non-commercial entities. In this document, Customs is proposing to allow payment by any electronic technology or charge cards (debit cards or credit cards) that are authorized by the Commissioner of Customs and to remove the limitation that these methods of payment may only be used by non-commercial entities. These changes, if adopted, will assist Customs in improving customer service and financial management.

**DATE:** Comments must be received on or before May 17, 1999.

**ADDRESS:** Written comments may be submitted to and comments submitted may be inspected at the Regulations Branch, Office of Regulations and Rulings, U.S. Customs Service, 1300 Pennsylvania Avenue NW., Third Floor, Washington, DC 20229.

**FOR FURTHER INFORMATION CONTACT:** Elizabeth Dichysyn, Accounting Services Division, U.S. Customs Service, 317-298-1200, extension 1339.

#### SUPPLEMENTARY INFORMATION:

##### Background

Section 24.1(a)(7) of the current Customs Regulations (19 CFR 24.1(a)(7)) provides for the use of credit or charge cards that have been authorized by the Commissioner of Customs for the payment of duties, taxes and/or other charges at Customs service locations for non-commercial entries, subject to ultimate collection from the credit card company. Payment by this manner is currently limited to non-commercial entries. Persons paying by charge or credit card remain liable for all such charges until paid.

This proposed regulation would extend this privilege to commercial entries and allow payment through the use of electronic technology or by the

use of credit cards (either debit cards or credit cards) authorized by the Commissioner of Customs. These changes will assist Customs in improving customer service and financial management. The proposal affords Customs customers the broadest range of payment options.

Also, Customs proposes to revise the heading and text of both introductory paragraph (a) and paragraph (a)(1) to include the terms "fees" and "interest" to reflect that the proposed payment methods may be used to pay fees assessed pursuant to 19 U.S.C. 58a through 58c and to pay fees and interest pursuant to 19 U.S.C. 1505, as amended by section 642 of the North American Free Trade Agreement Implementation Act.

#### Comments

Before adopting this proposal, consideration will be given to any written comments timely submitted to Customs. Comments submitted will be available for public inspection in accordance with the Freedom of Information Act (5 U.S.C. 552), § 1.4, Treasury Department Regulations (31 CFR 1.4), and § 103.11(b), Customs Regulations (19 CFR 103.11(b)), on regular business days between the hours of 9:00 a.m. and 4:30 p.m. at the Regulations Branch, Office of Regulations and Rulings, U.S. Customs Service, 1300 Pennsylvania Avenue NW., Third Floor, Washington, DC 20229.

#### Regulatory Flexibility Act

Because this proposal expands the options available for payments due to Customs and facilitates the public payment process, it is certified that the amendment will not have a significant economic impact on a substantial number of small entities. Accordingly, the proposed amendment is not subject to the regulatory analysis or other requirements of 5 U.S.C. 603 or 604.

#### Executive Order 12866

This document does not meet the criteria for a significant regulatory action under Executive Order (E.O.) 12866.

#### Drafting Information

The principal author of this document was Janet L. Johnson, Regulations Branch. However, personnel from other offices participated in its development.

#### List of Subjects in 19 CFR Part 24

Accounting, Claims, Fees, Financial and accounting procedures, Imports, Taxes.

# Tab B



United States  
**CONSUMER PRODUCT SAFETY COMMISSION**  
 Washington, D.C. 20207

6(a) 6(b)  
 Clear 6/2/99 [Signature]

MEMORANDUM

DATE: 6/01/99

TO : ES

Through: Sadye E. Dunn, Secretary, OS

FROM : Martha A. Kosh, OS

SUBJECT: Children's Sleepwear Laundering Procedures  
 Mattress Pads Laundering Procedures, Carpet and Rugs  
 Laundering Procedures

ATTACHED ARE COMMENTS ON THE CF99-2

<u>COMMENT</u>	<u>DATE</u>	<u>SIGNED BY</u>	<u>AFFILIATION</u>
CF99-2-1	5/28/99	Jenan Al-Atrash Director, HHS	The Soap and Detergent Association 475 Park Ave. South New York, NY 10016
CF99-2-2 (Mattress Pads)	5/20/99	Patricia Adair Asst. Director	American Textile Manufacturers Institute 1130 Connecticut Ave, NW Suite 1200 Washington, DC 200360
CF99-2-3 (Carpet & Rugs)	5/20/99	Patricia Adair Asst. Director	American Textile Manufacturers Institute address same as above
CF99-2-4 (Children's Sleepwear)	6/01/99	Suzanne Hough Associate Product Services Division	American Textile Manufacturers Institute address same as above
CF99-2-5 (Mattress Pads)	6/01/99	Phillip Wakelyn Sr. Scientist Environmental Health & Safety	National Cotton Council of America 1521 New Hampshire Ave. N.W. Washington, DC 20036
CF99-2-6 (Carpet & Rugs)	6/01/99	Phillip Wakelyn Sr. Scientist Environmental Health & Safety	National Cotton Council of America address same as above



Children's Sleepwear Laundering Procedures Mattress Pads  
Laundering Procedures, Carpet and Rugs Laundering Procedures

CF99-2-7	6/01/99	Phillip Wakelyn Sr. Scientist Environmental Health & Safety	National Cotton Council of America 1521 New Hampshire Ave. N.W. Washington, DC 20036
(Children's Sleepwear)			
CF99-2-8	7/30/99	Carey Mitchell Director, Tech. Services	Shaw Industries, Inc. 616 East Walnut Ave. P.O. Drawer 2128 Dalton, GA 30722

CPSC/OFFICE OF  
THE SECRETARY

1999 MAY 28 P 2 21

COMMENTS OF THE SOAP AND DETERGENT ASSOCIATION  
On CHILDREN'S SLEEPWEAR, LAUNDERING PROCEDURES,  
CARPET AND RUG STANDARDS, LAUNDERING PROCEDURES  
MATTRESSES AND MATTRESS PADS

Consumer Product Safety Commission  
May 27, 1999



## The Soap and Detergent Association

May 27, 1999

The Commission  
Sadye E. Dunn, Secretary  
Office of the Secretary  
Consumer Product Safety Commission  
Washington, DC 20207

RE: Children's Sleepwear Laundering Procedures  
Mattress Pads Laundering Procedures  
Carpet and Rugs Laundering Procedures

The Soap and Detergent Association (SDA) provides the following comments addressing the Consumer Product Safety Commission's proposed amendments to the flammability standard for children's sleepwear, mattress pads and rugs in regard to its laundering procedures.

SDA is the national, non-profit trade association representing approximately 136 manufacturers of household, industrial and institutional cleaning products; the ingredients used in cleaning products; and finished packaging. SDA members produce more than 90% of the cleaning products marketed in the United States. Membership is open to U.S., Canadian and Mexican companies.

Established in 1926, SDA is dedicated to advancing public understanding of the safety and the benefits of cleaning products, and protecting the ability of its members to formulate products that best meet consumer needs. SDA serves both its member companies and the public by developing and sharing scientifically sound information about industry products with the technical community, policy makers, childcare and health professionals, educators, communicators, and consumers.

The SDA information addresses the human and environmental safety of cleaning products and their ingredients; the safe and effective use and disposal of cleaning products and their packaging; and the contributions of cleaning products to personal and public health. The information is distributed in the form of publications, educational programs, reports, seminars and conferences.

The Consumer Product Safety Commission (CPSC) has proposed that it amend the laundering procedures used in testing children's sleepwear, carpet and rug and mattress and mattress pad flammability. The CPSC proposes that it adopt the American Association of Textile Chemists and Colorists (AATCC) test method which was recently revised in 1996 (AATCC Test Method 124-1996).

On September 15, 1998, the SDA urged the CPSC to amend its laundering procedures to reflect various conditions, such as wash temperature, dryer time and detergent type that reflect more closely the actual washing conditions of consumers. At that time, SDA provided the CPSC with information and recommendations with a proposed protocol that suggested methods for washing garments, carpets, rugs, mattresses, and mattress pads. The proposed protocol called for:

1. Lower wash and rinse temperatures than those currently recommended.
2. Control of water hardness.
3. Larger ballast load weight.

These recommendations are based on SDA member companies' best information on current consumer practice in the U.S. The SDA members believe that the laundering conditions set forth in the proposed protocol are more representative of the laundering conditions that Children's Sleepwear (Mattress Pads, Carpets and Rugs) are likely to be exposed to, in the course of their useful life than those offered by AATCC Test Method 124-1996.

Both Government and industry are driving down the normal settings of hot water heaters in the interest of energy conservation, and laundry washing equipment manufacturers and cleaning products manufacturers have recognized this trend and have responded accordingly. The high wash and rinse temperatures recommended by AATCC Test Method 124-1996 is increasingly unlikely to be encountered.

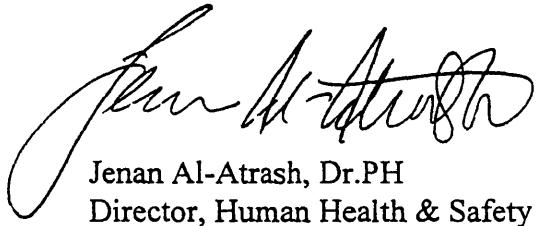
Both water hardness and ballast load weight can impact method reproducibility. Specifying these two variables should eliminate a considerable source of error and improve the method reproducibility.

We understand the rationale for the CPSC proposed adoption of the AATCC Test Method 124-1996, but the AATCC may modify their method to reflect more current consumer habits and industry practices after CPSC has promulgated its final amendments. To avoid further need to amend the rules every time AATCC modifies its method, SDA recommends referencing the most current method year in the final rules, rather than identifying a specific year, which may later, become obsolete.

May 27, 1999

SDA also hopes that the Commission will reconsider our recommendations proposed in the September 15, 1998 letter for the implementation of the revised Laundering Procedure, and we remain available to provide whatever help may be needed to achieve a practical and effective standard.

Respectfully,

A handwritten signature in black ink, appearing to read "Jenan Al-Atrash". The signature is fluid and cursive, with a large initial "J" and "A".

Jenan Al-Atrash, Dr.PH  
Director, Human Health & Safety



AMERICAN TEXTILE  
MANUFACTURERS INSTITUTE

May 20, 1999

Ms. Rockelle Hammond  
Office of the Secretary  
Consumer Product Safety Commission  
Washington, DC 20207-0001

Re: Mattress Pads, Laundering  
Procedures

Dear Ms. Hammond:

The American Textile Manufacturers Institute (ATMI) appreciates the opportunity to comment on the proposed amendments to the Standard for the Flammability of Mattresses and Mattress Pads (*64 Federal Register 13137; March 17, 1999*).

ATMI is the national trade association for the domestic textile industry. Our member companies operate in more than 30 states and account for approximately 80 percent of all textile fibers consumed by mills in the United States.

ATMI supports the Consumer Product Safety Commission's proposal to revise the laundering procedures in 16 CFR 1632.5(b) to those specified in AATCC Test Method 124-1996. ATMI agrees that the proposed amendments are necessary in order to make the specified laundering procedures represent those currently used by consumers.

Thank you for the opportunity to comment on this issue. Should you have any questions or need any additional information, please contact me at 202-862-0518.

Sincerely,

Patricia K. Adair  
Assistant Director  
Textile Products and Standards



CP 11-5-3



AMERICAN TEXTILE  
MANUFACTURERS INSTITUTE

May 20, 1999

Ms. Rockelle Hammond  
Office of the Secretary  
Consumer Product Safety Commission  
Washington, DC 20207-0001

Re: Carpet and Rug Standards,  
Laundering Procedures

Dear Ms. Hammond:

The American Textile Manufacturers Institute (ATMI) appreciates the opportunity to comment on the proposed amendments to the Standard for the Surface Flammability of Carpets and Rugs; Standard for the Surface Flammability of Small Carpets and Rugs (64 Federal Register 13132; March 17, 1999).

ATMI is the national trade association for the domestic textile industry. Our member companies operate in more than 30 states and account for approximately 80 percent of all textile fibers consumed by mills in the United States.

ATMI supports the Consumer Product Safety Commission's proposal to amend the flammability standards for carpets and rugs and for small carpets and rugs by revising the laundering procedures in 16 CFR 1630 and 16 CFR 1631 to those specified in AATCC Test Method 124-1996. ATMI agrees that the proposed amendments are necessary in order to make the specified laundering procedures represent those currently used by consumers.

Thank you for the opportunity to comment on this issue. Please contact me at 202-862-0518 if you have any questions or need any additional information.

Sincerely,

Patricia K. Adair  
Assistant Director  
Textile Products and Standards



CF 77 2-4



AMERICAN TEXTILE  
MANUFACTURERS INSTITUTE

June 1, 1999  
Via FAX

Ms. Rockelle Hammond  
Office of the Secretary  
Consumer Product Safety Commission  
Washington, DC 20207-0001

Re: Amendment to the Standards  
For the Flammability of Children's  
Sleepwear (64 FR 19126)

Dear Ms. Hammond:

The American Textile Manufacturers Institute (ATMI) is the national trade association for the domestic textile industry. Our member companies operate in more than 30 states and account for approximately 80 percent of all textile fibers consumed by mills in the United States.

We appreciate the opportunity to comment on the proposed revisions to the laundering procedures for the standards for the flammability of children's sleepwear, sizes 0-6X and 7-14 (64 FR 19126; March 17, 1999).

ATMI supports the Consumer Product Safety Commission's proposal to amend the standards for the flammability of children's sleepwear by revising the laundering procedures in 16 CFR 1615 and 16 CFR 1616 to those specified in the American Association of Textile Chemists and Colorists (AATCC) Test Method 124-1996. We believe that the proposed amendments are necessary to ensure that the specified laundering procedures (for detergent and operating characteristics of the washing and drying machines) represent those currently in use by consumers for home laundering.

Please feel free to call me at (202) 862-0502 if you have any questions about ATMI's comments.

Sincerely,

Suzanne Hough  
Associate  
Product Services Division





CFR 1632-5



1521 New Hampshire Avenue, NW  
Washington, DC 20036  
202/745-7805  
202/483-4040 (FAX)

June 1, 1999

Ms. Rockelle Hammond  
Office of the Secretary  
Consumer Product Safety Commission  
Washington, DC 20207-0001

Re: Mattress Pads, Laundering Procedures

Dear Ms. Hammond:

These are the comments of the National Cotton Council (NCC) on the proposed amendments to the Standard for the Flammability of Mattresses and Mattress Pads (64 FR 13137; March 17, 1999).

The NCC is the central trade association of the US cotton industry. NCC members include producers of over 75% of the US cotton and cotton processing industries.

NCC supports the Consumer Product Safety Commission's proposal to amend the standard for the flammability of mattresses and mattress pads by revising the laundering procedures in 16 CFR 1632 to those specified in AATCC Test Method 124-1996. We agree that the proposed amendments are necessary in order to make the specified laundering procedures represent those currently used by consumers for home laundering.

Please contact me at 202/745-7805 if you have any questions or need any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "P. J. Wakelyn".

Phillip J. Wakelyn, Ph.D.  
Senior Scientist, Environmental Health and Safety



1521 New Hampshire Avenue, NW  
Washington, DC 20036  
202/745-7805  
202/483-4040 (FAX)

June 1, 1999

Ms. Rockelle Hammond  
Office of the Secretary  
Consumer Product Safety Commission  
Washington, DC 20207-0001

Re: Carpet and Rug Standards, Laundering Procedures

Dear Ms. Hammond:

These are the comments of the National Cotton Council (NCC) on the proposed amendments to the Standard for the Surface Flammability of Carpets and Rugs; Standard for the Surface Flammability of Small Carpets and Rugs (64 FR 13132; March 17, 1999).

The NCC is the central trade association of the US cotton industry. NCC members include producers of over 75% of the US cotton and cotton processing industries.

NCC supports the Consumer Product Safety Commission's proposal to amend the flammability standards for carpets and rugs and for small carpets and rugs by revising the laundering procedures in 16 CFR 1630 and 16 CFR 1631 to those specified in AATCC Test Method 124-1996. We agree that the proposed amendments are necessary in order to make the specified laundering procedures represent those currently used by consumers for home laundering.

Larger carpets and rugs are not normally cleaned (laundered) by washing in a home washing machine. Other dry and wet processes are used by the consumer and contract cleaning services. In a separate action, CPSC will need to address those cleaning operations as acceptable alternative washing procedures.


Please contact me at 202/745-7805 if you have any questions or need any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "P. J. Wakelyn".

Phillip J. Wakelyn, Ph.D.  
Senior Scientist, Environmental Health and Safety

1-7-99-7

**National  
Cotton  
Council**   
OF AMERICA  
1521 New Hampshire Avenue, NW  
Washington, DC 20036  
202/745-7805  
202/483-4040 (FAX)

June 1, 1999

Ms. Rockelle Hammond  
Office of the Secretary  
Consumer Product Safety Commission  
Washington, DC 20207-0001

Re: Children's Sleepwear, Laundering Procedures

Dear Ms. Hammond:

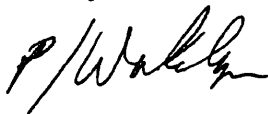
These are the comments of the National Cotton Council (NCC) on the proposed amendments to the Standards for the Flammability of Children's Sleepwear: sizes 0 through 6x and 7 through 14 (64 FR 19126; March 17, 1999).

The NCC is the central trade association of the US cotton industry. NCC members include producers of over 75% of the US cotton and cotton processing industries.

NCC supports the Consumer Product Safety Commission's proposal to amend the flammability standards for children's sleepwear, sizes 0-6x and 7-14 by revising the laundering procedures in 16 CFR 1615 and 16 CFR 1616 to those specified in AATCC Test Method 124-1996. We agree that the proposed amendments are necessary in order to make the specified laundering procedures (for detergent and operating characteristics of the washing and drying machines) represent those currently used by consumers for home laundering.

Please contact me at 202/745-7805 if you have any questions or need any additional information.

Sincerely,



Phillip J. Wakelyn, Ph.D.  
Senior Scientist, Environmental Health and Safety

# Shaw Industries, Inc.

616 East Walnut Avenue  
P.O. Drawer 2128  
Dalton, GA 30722-2128  
706-278-3812



30 July 1999

Margaret L. Neily, Project Manager  
Directorate for Engineering Studies  
US Consumer Product Safety Commission  
Washington DC 20207

Dear Ms. Neily:

The Carpet and Rug Institute passed the Briefing Package on Laundering Procedure for Flammable Fabrics Act Standards to me for review. Shaw Industries is the world's largest producer of carpets and rugs, and are active in industry issues and the Carpet and Rug Institute, as well as the American Association of Textile Chemists and Colorists.

The package indicates that the Commission staff was unable to locate any carpets treated with flame retardants in the marketplace. This is not surprising. When the washing procedure was added to the standard in the early 1970's, method AATCC-124 was the only standard procedure cleaning available which could be used for assessing the possible loss of flame retardants. The test method was originated as a standard test method for evaluating the wash resistant characteristics of wearing apparel and employs a residential washing machine. This method was never intended for carpets and is extremely destructive; few residential carpets survive the 10 required washings, most fall apart before the fifth cycle. Therefore, the washed samples cannot be tested.

Today, we have method AATCC 171-1995, "Carpets: Cleaning of; Hot Water Extraction Method", which is appropriate for carpets and rugs. This method is routinely used for evaluating durability of various treatments to cleaning. Since few carpets are ever cleaned ten times during their life span, ten cycles of exposure to this method should suffice to determine a treatment's durability to cleaning. From the more realistic perspective, I am not aware of any flame retardant treatment that is useful for carpet.

Considering that the washing procedure must be updated to accommodate the newer machinery and detergent specified in the AATCC 124, we would suggest that the washing procedure simply be changed to method AATCC 171. Hot water extraction cleaning is specified by most carpet manufacturers and this lab method would more realistically replicate real life.

I would be happy to discuss this issue further. You can contact me by phone at 706-275-2200, and I am in Washington frequently.

Sincerely,

A handwritten signature in dark ink, appearing to read "Carey R. Mitchell". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Carey R. Mitchell  
Director, Technical Services

# Tab C



UNITED STATES  
CONSUMER PRODUCT SAFETY COMMISSION  
WASHINGTON, DC 20207

**Memorandum**

Date: October 25, 1999

TO : Margaret Neily, Project Manager, Directorate of Engineering Sciences

THROUGH: David A. Walden, Acting Associate Executive Director, Directorate of Laboratory Sciences <sup>DAW</sup>

Robert T. Garrett, Director, Division of Engineering <sup>RTG</sup>

FROM : Gail Stafford, Division of Engineering <sup>GS</sup>

SUBJECT : Response to Comments Received as a Result of the Notice of Proposed Rulemaking (NPR) for the Laundering/Detergent Update for the Flammable Fabrics Act Standards

This memorandum responds to comments received concerning the proposal to update the laundering procedures and standard detergent specified in several Flammable Fabrics Act (FFA) standards.

**COMMENTS RELATING TO LAUNDERING METHOD APPROPRIATE FOR CHILDREN'S SLEEPWEAR, MATTRESS PADS AND WASHABLE CARPETS/RUGS**

The Soap and Detergent Association (SDA) is requesting that the laundering protocol it previously proposed (September 15, 1998) to the CPSC be reconsidered. Prior to publishing the NPR to amend the laundering provisions of several FFA standards, the CPSC received the SDA's proposed laundering protocol. The SDA laundering procedure is different than the procedure recommended in the NPR. Staff evaluated the SDA laundering procedure at the time it was submitted and was not convinced to change the recommendation for adopting the American Association of Textile Chemists and Colorists (AATCC) Test Method 124-1996, Appearance of Fabrics after Repeated Home Laundering.<sup>1</sup> The SDA proposed protocol suggests methods appropriate for laundering garments, mattress pads and washable carpets/rugs. The protocol includes specifications for wash and rinse water temperatures, ballast load weight and water hardness.

**1. Wash and Rinse Water Temperatures**

**Comment:** The SDA proposed protocol specifies a warm wash temperature of 32° C (90° F) and a cold rinse water temperature of 16° C (60° F). The SDA believes that these wash and rinse water temperatures represent average consumer practice in the United States.

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<sup>1</sup> Superscript refers to references on page 4.

**Response:** The wash and rinse water temperatures recommended by the SDA are lower than the wash and rinse water alternatives from the AATCC Test Method 124-1996 that the staff is recommending be specified in the FFA flammability standards. The laundering provisions in the FFA standards are intended to represent a rigorous home laundering, and therefore currently specify the hot water wash ( $60\pm 3^{\circ}\text{C}$  [ $140\pm 5^{\circ}\text{F}$ ]) alternative from older versions of the AATCC Test Method 124 where a warm water rinse ( $41\pm 3^{\circ}\text{C}$  [ $105\pm 5^{\circ}\text{F}$ ]) was specified for all wash alternatives. Due to the increased use of cold water rinses over the years washing machine operating conditions have changed, and energy efficient washing machines sold today do not have a hot wash/warm rinse setting. Because the home laundering equipment specified in the older versions of the AATCC Test Method 124 is no longer available, the AATCC updated its laundering conditions to better reflect current home laundering equipment and consumer practice. The AATCC made these changes with input from a number of AATCC and ASTM committees as well as from a survey of consumer practices. The updated laundering alternatives in the AATCC Test Method 124-1996 include three machine wash temperature alternatives ( $41\pm 3^{\circ}\text{C}$  [ $105\pm 5^{\circ}\text{F}$ ],  $49\pm 3^{\circ}\text{C}$  [ $120\pm 5^{\circ}\text{F}$ ],  $60\pm 3^{\circ}\text{C}$  [ $140\pm 5^{\circ}\text{F}$ ]), all of which specify a cold water rinse of less than or equal to  $29^{\circ}\text{C}$  ( $\leq 85^{\circ}\text{F}$ ). In order to continue to represent the most rigorous home laundering available to consumers, the flammability regulations should specify the hot water wash alternative of  $60\pm 3^{\circ}\text{C}$  ( $140\pm 5^{\circ}\text{F}$ ) from AATCC Test Method 124-1996 with the cold water rinse.

Washing machines today do have a hot wash/cold rinse setting. Staff confirmed that current model washing machines (including model meeting the AATCC Test Method 124-1996 specifications tested at Laboratory Sciences) do not dilute the temperature of the hot water entering the machine at the hot wash setting. The temperature of the hot water entering the washing machine is the same temperature as water from the tap or source (i.e., hot water heater).<sup>2</sup> Since September 1998, electric hot water heaters have been required by a UL standard to be shipped from the factory with the thermostat set at  $52^{\circ}\text{C}$  ( $125^{\circ}\text{F}$ ).<sup>3</sup> There is no such requirement for gas water heaters, although they are shipped from the factory with the thermostat set on the lowest setting. A 1998 ANSI standard for gas water heaters requires a detent (click point) on the thermostat dial at  $49^{\circ}\text{C}$  ( $120^{\circ}\text{F}$ ), and manufacturers recommend the thermostat be set at that temperature.<sup>3</sup> However, large numbers of both kinds of water heaters currently in use are probably set at  $60^{\circ}\text{C}$  ( $140^{\circ}\text{F}$ ) or higher because they were manufactured before the lower temperature settings were required.<sup>4,5</sup> Because higher temperature settings are possible for both electric and gas water heaters<sup>3</sup>, consumers have hotter wash water available to them than the  $32^{\circ}\text{C}$  ( $90^{\circ}\text{F}$ ) that the SDA protocol specifies. By specifying a hot water wash (at  $60\pm 3^{\circ}\text{C}$  [ $140\pm 5^{\circ}\text{F}$ ]) and a cold water rinse, the CPSC proposed changes to the flammability regulations represent the most rigorous real, not necessarily average, wash conditions.

## 2. Water Hardness

**Comment:** The SDA suggests that water hardness can impact reproducibility of the laundering method, and their protocol specifies water hardness criteria.

**Response:** Laundering practices can influence the flame resistant properties of certain fabrics. The interaction of many variables such as fiber content, flame retardant (FR) finish, detergent, water hardness, laundry additives, washing conditions and drying methods affect the

flammability performance of certain fabrics. The interaction of these variables is complex, and it is difficult to sort out the effects of each variable on the flammability performance of certain fabrics. However, the staff has no evidence that water hardness is a significant problem with the flammability performance of the currently marketed FR treated products covered in this proceeding. At this time the CPSC is only updating the detergent and laundering conditions in the FFA regulations that are completely outdated, and therefore is not recommending including water hardness criteria in the laundering provisions of the flammability regulations.

### **3. Ballast Load Weight**

**Comment:** The SDA suggests controlling ballast load weight improves the method reproducibility. Its proposed laundering protocol specifies a wash load weight of  $2.7 \pm 0.1$  kg. ( $6 \pm 0.2$  lb.) consisting of test specimens and ballast (if needed).

**Response:** The proposed amendments did not include any change to the wash load weight as currently specified in the FFA standards. The wash load weight currently specified in the laundering provisions of the children's sleepwear, carpet/rug and mattress/mattress pad flammability standards is a maximum wash load weight of 3.64 kg. (8 lb.), consisting of any combination of test specimens and ballast. This larger wash load is more economical than the six pounds recommended by the SDA as well as the four pounds specified in the AATCC Test Method 124 (both the updated and older versions), and it is well within the capacity of today's home laundering equipment.

At this time the CPSC is only updating the aspects of the laundering provisions in the FFA standards that are completely outdated based on today's detergents, laundering equipment and consumer practices. The AATCC Test Method 124-1996 specifies a detergent as well as washing machine and dryer conditions that are representative of the types of products available to and used by consumers today. Therefore, the AATCC Test Method 124-1996 (with specific provisions noted in the proposed rule) still appears to be the most relevant to the CPSC's flammability regulations.

### **COMMENT RELATING TO CLEANING METHOD FOR INSTALLED CARPETS**

**Comment:** Shaw Industries, Inc. suggests the CPSC adopt a new cleaning method for carpets. Instead of amending the reference in the carpet and rug standards to include the updated 1996 version of the AATCC Test Method 124, Shaw Industries, Inc. suggests the cleaning method be changed to the AATCC Test Method 171-1995. They feel that the AATCC Test Method 171-1995, Carpets: Cleaning of; Hot Water Extraction Method, is more appropriate for carpets because it represents the cleaning method specified by most carpet manufacturers, and it would more realistically replicate real life.

**Response:** The purpose of this proceeding is not intended to develop a new laundering method for carpets that are not machine washable. For the carpet and rug flammability standards, the purpose of the proposed amendments is to make the laundering provisions more realistic for machine washable carpets and rugs.



The AATCC Test Method 171-1995 provides a laboratory procedure to clean floor coverings by a technique simulating cleaning of installed floor coverings by hot water extraction. It is intended to duplicate the most popular means of actual on-floor cleaning of carpets. Test Method 171 specifies AATCC Standard Detergent 171 for all synthetic fiber carpets, hot water extraction unit, carpet brush or pile rake and mounting boards. Carpet specimens that have been subjected to the cleaning procedure of Test Method 171 may be tested for many properties including permanency of finishes.<sup>6</sup>

It is true the AATCC Test Method 124 does not resemble the method consumers would use for cleaning installed or wall-to-wall carpeting or large carpets and rugs. Updating the laundering conditions and detergent, however, will better reflect current consumer practice of laundering washable carpets and rugs. For those types of carpets and rugs where laundering in a home washing machine is appropriate, the most relevant laundering method at this time is the AATCC Test Method 124-1996 (with specific provisions noted in the proposed rule).

## REFERENCES

1. Memorandum to Margaret Neily, ES, From Gail Stafford, LSE, Soap and Detergent Association Proposed Laundering Procedure, December 23, 1998, U.S. Consumer Product Safety Commission.
2. LS personal communication with Larry Lataak, August 12, 1999, Whirlpool.
3. LS personal communication with Donald Switzer, October 14, 1999, Directorate for Engineering Sciences, U. S. Consumer Product Safety Commission.
4. "Energy Efficient Water Heating", Consumer Energy Information: EREC Fact Sheet, Department of Energy, 1995.
5. "Home Energy Brief #4 Water Heating", Rocky Mountain Institute, 1998.
6. AATCC Test Method 171-1995: Carpets: Cleaning of; Hot Water Extraction Method.

# Appearance of Fabrics after Repeated Home Laundering

Developed in 1967 by AATCC Committee RA61; revised 1969, 1975, 1982, 1989 (with title change), 1992, 1996; editorially revised 1974, 1983, 1985, 1988, 1991; reaffirmed 1973; editorially revised and reaffirmed 1978, 1984. Similar to ISO 7768.

## 1. Purpose and Scope

1.1 This test method is designed for evaluating the smoothness appearance of flat fabric specimens after repeated home laundering.

1.2 Any washable fabric may be evaluated for smoothness appearance using this method.

1.3 Fabrics of any construction, such as woven, knit and nonwoven, may be evaluated according to this method.

1.4 This test method shall not be construed to provide a standard of performance for any textile item, but only a standard method by which to evaluate performance of the item.

## 2. Principle

2.1 Flat fabric specimens are subjected to standard home laundering practices. A choice is provided of hand or machine washing, alternative machine wash cycles and temperatures, and alternative drying procedures. Evaluation is performed using a standard lighting and viewing area by rating the appearance of specimens in comparison with appropriate reference standards.

## 3. Terminology

3.1 **ballast**, *n.*—*in procedures for processing or testing of textiles*, material that is used to bring the total weight or volume of the textiles to an amount specified in the procedure.

3.2 **dryer creases**, *n.*—sharp folds or lines running in any direction in a laundered or dried specimen. *Note:* Dryer creases are an unintended result of restricted movement of specimens in the washer or the dryer.

3.3 **durable press**, *adj.*—having the ability to retain substantially the initial shape, flat seams, pressed-in creases and unwrinkled appearance during use and after laundering or drycleaning.

3.4 **laundering**, *n.*—*of textile materials*, a process intended to remove soils and/or stains by treatment (washing) with an aqueous detergent solution and normally including rinsing, extracting and drying.

3.5 **smoothness appearance**, *n.*—*in fabrics*, the visual impression of planarity

of a specimen quantified by comparison with a set of reference standards.

## 4. Safety Precautions

**NOTE:** These safety precautions are for information purposes only. The precautions are ancillary to the testing procedures and are not intended to be all inclusive. It is the user's responsibility to use safe and proper techniques in handling materials in this test method. Manufacturers **MUST** be consulted for specific details such as material safety data sheets and other manufacturer's recommendations. All OSHA standards and rules must also be consulted and followed.

4.1 Good laboratory practices should be followed. Wear safety glasses in all laboratory areas.

4.2 The 1993 AATCC Standard Reference Detergent may cause irritation. Care should be taken to prevent exposure to skin and eyes.

4.3 All chemicals should be handled with care.

4.4 Manufacturer's safety recommendations should be followed when operating laboratory testing equipment.

## 5. Uses and Limitations

5.1 This test method is designed to be used only for evaluating the appearance of washable fabrics after repeated home laundering.

5.2 The test procedure is designed to reflect the capabilities of home laundry equipment which is currently used by consumers. In general, it is preferable to conduct the test under relatively severe laundering conditions.

5.3 Prints and patterns may mask the mousiness present in fabrics. The rating process is, however, based on the visual appearance of specimens including such effects.

5.4 The small specimen sizes used for fabric tests occasionally will cause wrinkles or creases (dryer creases) to develop which are not considered to be characteristic of fabric performance in use. Precautions are given in the text of the method to reduce the occurrence of dryer creases.

5.5 The interlaboratory reproducibility of the results of this test method depends upon mutual agreement by users of the method on the washing and drying conditions as outlined in section 8.1.

## 6. Apparatus and Materials

6.1 Automatic washing machine: (see 12.1).

6.2 Automatic tumble dryer (see 12.1).

6.3 Drip dry and line dry facilities.

6.4 A 9.5 liter (10.0 qt) pail.

6.5 1993 AATCC Standard Reference Detergent (see 12.2 and 12.8).

6.6 Ballast of 92.0 × 92.0 cm (36.0 × 36.0 in.) hemmed pieces of bleached cotton sheeting (Wash load ballast type 1) or 50/50 polyester/cotton bleached and mercerized poplin (Wash load ballast type 2), or 50/50 polyester/cotton plain weave (Wash load ballast type 3) (see 12.3).

6.7 Lighting and evaluation area in an otherwise darkened room using the overhead lighting arrangement shown in Fig. 1 (see 12.4). It has been the experience of many observers that light reflected

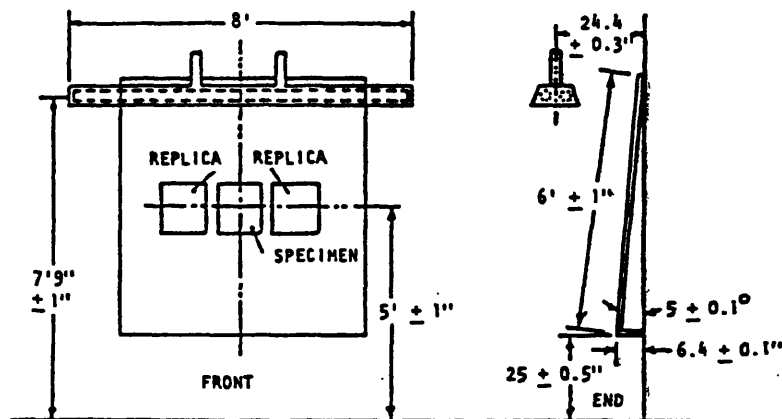


Fig. 1. Lighting equipment for viewing test specimens. Materials list: (a) Two 8-ft Type F96 CW (Cool White) preheat Rapid Start fluorescent lamps (without baffle or glass). (b) One white enamel reflector (without baffle or glass). (c) One general type swatch mount, spring loaded. Fabricate using light sheet metal (22 ga.) (d) One 1/4 in. plywood mounting board painted to match No. 2 gray chip on AATCC Gray Scale for Staining.

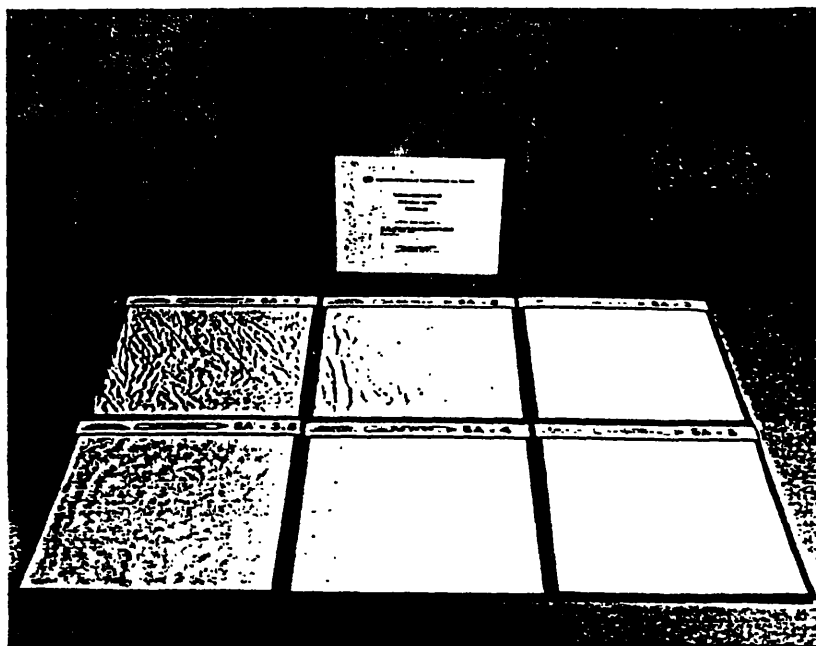


Fig. 2. AATCC 3-D smoothness appearance replicas.

from the side walls near the viewing board can interfere with the rating results. It is recommended that the side walls be painted matte black (85° gloss less than 5 units) or that blackout curtains be mounted on both sides of the viewing board to eliminate the reflective interference.

6.8 Standard AATCC Three-Dimensional Smoothness Appearance Replicas, set of six (see Fig. 2 and 12.2).

6.9 Steam or dry iron with appropriate

fabric temperature settings.

6.10 Detergent (for hand wash).

6.11 Scale with at least 5.0 kg or 10.0 lb capacity.

### 7. Test Specimens

7.1 Three representative 38.0 × 38.0 cm (15.0 × 15.0 in.) fabric specimens cut parallel to the fabric length and width are prepared. Where possible, each specimen should contain different groups of

Table I. Wash Load Ballast: Finished Fabric Specification

	Wash Load Ballast Type 1	Wash Load Ballast Type 2	Wash Load Ballast Type 3
Fiber Content	100% Cotton	50/50 ± 3% poly/cotton	50/50 ± 3% poly/cotton
Yarns	16/1 ring spun	16/1 ring spun	30/2 ring spun
Fabric Construction	52 (± 2) X 48 (± 2)	52 (± 2) X 48 (± 2)	48 (± 2) X 48 (± 2)
Fabric Weight	155 ± 5 g/m <sup>2</sup> (4.55 ± 0.15 oz/yd <sup>2</sup> )	155 ± 5 g/m <sup>2</sup> (4.55 ± 0.15 oz/yd <sup>2</sup> )	155 ± 5 g/m <sup>2</sup> (4.55 ± 0.15 oz/yd <sup>2</sup> )
Piece Size	92.0 X 92.0 cm (36.0 X 36.0 in.)	92.0 X 92.0 cm (36.0 X 36.0 in.)	92.0 X 92.0 cm (36.0 X 36.0 in.)
Piece Weight	130 ± 10 g	130 ± 10 g	130 ± 10 g

Table II. Alternative Washing and Drying Conditions (see 8.1)

Machine Cycle	Wash Temperatures	Drying Procedures
Hand, in pail	(III) 41 ± 3C (105 ± 5F)	(A) Tumble:
(1) Normal/ Cotton Sturdy	(IV) 49 ± 3C (120 ± 5F)	i. Cotton Sturdy
	(V) 60 ± 3C (140 ± 5F)	ii. Delicate
(2) Delicate		iii. Permanent Press
(3) Permanent Press		(B) Line
		(C) Drip
		(D) Screen

Table III. Washing Machine Conditions (see 8.1)

	Normal/Cotton Sturdy	Delicate	Permanent Press
Water Level	18 ± 1 gal	18 ± 1 gal	18 ± 1 gal
Agitator Speed	179 ± 2 spm	119 ± 2 spm	179 ± 2 spm
Washing Time	12 min	8 min	10 min
Spin Speed	645 ± 15 rpm	430 ± 15 rpm	430 ± 15 rpm
Final Spin Cycle	6 min	4 min	4 min

lengthwise and widthwise yarns. The specimens should be marked to indicate the lengthwise direction. If fraying is expected in laundering, see 12.5.

## 8. Procedure

8.1 Tables II, III and IV summarize the alternate washing and drying conditions and settings. Additional information on the machine and laundering conditions may be found in the monograph, *Standardization of Home Laundry Test Conditions*, elsewhere in this TECHNICAL MANUAL.

8.1.1 It is recognized that special cycles or features are available on current washing machines and dryers to achieve improved performance on certain items; i.e., gentle cycles with reduced agitation to protect delicately constructed items, and durable press cycles, with cool-down or cold rinses and reduced spin speeds, to minimize wrinkling. In evaluating appearance retention, however, the more severe Normal or Cotton Sturdy machine cycle is considered most appropriate. If modifications to any of the cycles (see 8.2) are used, these must be reported in the results (see Section 10).

### 8.2 Standard washing.

8.2.1 Hand Wash—(see 12.6). Dissolve 20.0 ± 0.1 g of 1993 AATCC Standard Reference Detergent in 7.57 ± 0.06 L (2.00 ± 0.02 gal) of water at 41 ± 3C (105 ± 5F) in a 9.5 L (10.0 qt) pail and then add the three fabric test specimens. Wash for 2.0 ± 0.1 min with no twisting or wringing. Rinse once using 7.57 ± 0.06 L (2.00 ± 0.02 gal) of water at 41 ± 3C (105 ± 5F). Remove the specimens and dry by Procedure C, Drip (see 8.3.3).

8.2.2 Machine Wash—Use specified water level, the selected water temperature for the washing cycle and a rinse temperature of less than 29C (85F). If this rinse temperature is not attainable, record available rinse temperature.

8.2.3 Add 66 ± 0.1 g of 1993 AATCC Standard Reference Detergent. In soft water areas this may be reduced to avoid excessive sudsing, but in that case the amount should be stated in the report of test results.

8.2.4 Add test specimens and enough ballast to make a 1.8 ± 0.06 kg (4.00 ± 0.13 lb) load. Set the washer for the selected washing cycle and time (see Tables II and III). Normal or Cotton Sturdy is recommended. For very critical evaluations and in arbitration, limit the number of specimens per washer load to those from one sample.

8.2.5 For specimens to be dried by Procedures A, B or D, allow washing to proceed automatically through the final spin cycle. Remove the test specimens immediately after the final spin cycle, separate tangled pieces, taking care to minimize distortion, and dry by Procedure A, B or D (see Tables II and IV).

Table IV. Dryer Conditions (see 8.1)

	Cotton Sturdy	Delicate	Durable Press
Exhaust Temperature	High 66 ± 5C (150 ± 10F)	Low < 60C (140F)	High 66 ± 5C (150 ± 10F)
Cool Down Time	5 min	5 min	10 min

Table V. Fabric Smoothness Grades by SA Replica Equivalents

Grade	Description
SA-5	Equivalent to the SA-5 Replica. Very smooth, pressed, finished appearance.
SA-4	Equivalent to the SA-4 Replica. Smooth, finished appearance.
SA-3.5	Equivalent to the SA-3.5 Replica. Fairly smooth but nonpressed appearance.
SA-3	Equivalent to the SA-3 Replica. Mussed, nonpressed appearance.
SA-2	Equivalent to the SA-2 Replica. Rumpled, obviously wrinkled appearance.
SA-1	Equivalent to the SA-1 Replica. Crumpled, creased and severely wrinkled appearance.

8.2.6 For specimens to be dried by Procedure C, Drip Dry, remove the specimens from the washer just before the water begins to drain for the final rinse cycle. Remove specimens soaking wet.

8.2.7 Washer creases. Specimens may be in a folded or creased conformation after removal from the washer. Such creases present after laundering should be straightened out prior to drying.

### 8.3 Drying.

8.3.1 (A) Tumble Dry. Place the washed load (test specimens and ballast) in the tumble dryer and set the temperature control to generate the correct exhaust temperatures as specified in Table IV. For fibers that are heat sensitive, lower temperatures consistent with producers' recommendations are required, and must be reported. Operate the dryer until the total load is dry. Remove the load immediately after the machine stops. Avoid overdrying. Static cling becomes a problem with overdrying, particularly with lightweight fabrics, because it prevents the specimens from tumbling freely.

8.3.2 (B) Line Dry. Hang each fabric specimen by two corners with the fabric length in the vertical direction. Allow specimens to hang in still air at room temperature until dry.

8.3.3 (C) Drip Dry. Hang each dripping wet fabric specimen by two corners with the fabric length in the vertical direction. Allow specimens to hang in still air at room temperature until dry.

8.3.4 (D) Screen Dry. Spread each specimen on a horizontal screen or perforated surface, removing wrinkles but not distorting or stretching the specimen. Allow the specimen to dry in still air at room temperature.

8.3.5 Dryer creases. If specimens are folded or creased after any drying cycle but the last, they should be rewet and an attempt should be made to remove the creases prior to additional washing and drying. No attempt to remove wrinkles or creases should be made after the fifth

cycle of drying.

8.4 Repeat the selected washing and drying cycles four more times or to an agreed number of cycles.

8.5 Prior to evaluation, precondition and then condition test specimens as directed in ASTM D 1776, Conditioning Textiles for Testing (see 12.7). Condition the test specimens for a minimum of four hours in the standard atmosphere for textile testing [ $21 \pm 1C$  ( $70 \pm 2F$ ) and  $65 \pm 2\%$  RH], hanging each specimen from two corners with the fabric length in vertical direction to avoid distortion.

## 9. Evaluation

9.1 Three trained observers should rate each test specimen independently.

9.2 The overhead fluorescent light should be the only light source for the viewing board. All other lights in the room should be turned off.

9.3 The observer is to stand directly in front of the specimen  $120.0 \pm 3.0$  cm ( $4.0$  ft  $\pm 1.0$  in.) away from the board. It has been found that normal variations in the height of the observer above and below the arbitrary 1.5 m (5.0 ft) eye level have no significant effect on the grade given.

9.4 Mount the test specimen on the viewing board as illustrated in Fig. 1, with the fabric length in the vertical direction. Place the most similar three-dimensional plastic replicas on each side of the test specimen to facilitate comparative rating.

9.5 Although the 3-D Smoothness Appearance (SA) replicas were cast from woven fabrics, it is understood that these wrinkled surfaces do not duplicate all possibilities of fabric surfaces. The replicas are to be used as guides which represent various levels of fabric smoothness or freedom from wrinkles. The observer should mentally integrate degree and frequency of wrinkles in the specimen to determine a level of smoothness that can be identified with the SA replica

number which most nearly represents that smoothness appearance level; see Table V.

9.6 Assign the numerical grade of the replica which most nearly matches the smoothness appearance of the test specimen, or assign a grade midway between those whole-number standards which have no half-number standards separating them (SA-1.5, SA-2.5, SA-4.5) if the appearance of the test specimen warrants it.

9.7 An SA-5 grade is equivalent to the SA-5 replica and represents the smoothest appearance, while an SA-1 replica represents very poor appearance.

9.8 If dryer creases are present on any specimens to be evaluated, take care in rating the specimens. Some dryer creases can be disregarded (commonly called "reading out"). When the grade of a dryer creased specimen differs from the other specimens by more than one grade, the test should be repeated with new specimens, taking all precautions to avoid the occurrence of dryer creases.

## 10. Report

10.1 Average the nine observations made on each test fabric (three grades on each of three test specimens). Report the average to the nearest tenth of a grade. This average is the unit of measure of this test method.

10.2 State washing procedure (Arabic number and Roman numeral) and drying procedure (capital letter and subscript) from Table II, as well as type of wash load ballast (Arabic number). Any deviations from stated procedures, such as use of a modified wash cycle, a reduced amount of detergent or a higher than usual load limit, should be explained completely.

10.2.1 For example, smoothness appearance grade SA-3.8 (1-IV-A(a)-2) denotes a smoothness appearance grade of 3.8 for specimens washed using a Normal (Cotton Sturdy) cycle at 49C (120F) with Wash load ballast type 2 and tumble dried using the Normal (Cotton Sturdy) cycle.

## 11. Precision and Bias

11.1 *Interlaboratory tests*—Tests were conducted in 1980 with eight laboratories evaluating four fabrics under washing and drying conditions I-III-A and 1-IV-A of AATCC Method 124. The analysis of variance technique was judged not to be applicable to this data set because its distribution was not normal, and because of the limited and discontinuous scale of replica grades. The data were analyzed by calculating expected laboratory test results from the distribution of individual specimen grades. This analysis has been deposited for reference in the RA61 committee files.

11.2 *Observer repeatability*—From the data it was determined that single observers rated three specimens on the following frequency:

- 3 specimens to same replica ..... 0.55
- 2 specimens to same replica and one different ..... 0.40
- 3 specimens different ..... 0.05

Only rarely did the separation in specimen grades exceed the next replica step. This is indicative of the high degree of repeatability in observer rating of smoothness appearance.

11.3 *Laboratory test result distribution (Within-laboratory repeatability)*—From the observed grade distribution, a distribution of laboratory test results was calculated for each replica level with half grades included. Precision over the whole SA replica range was improved.

11.4 *Precision*—From the frequency distribution of laboratory test results, a calculation was made of the critical difference, D, between two laboratory test results. With laboratories at the same level:

Critical Difference	Confidence Level
D > 0.17	P ≥ 0.95
D ≥ 0.25	P ≥ 0.99

When two or more laboratories wish to compare test results, it is recommended that laboratory level be established between them prior to commencing test comparisons. Fabrics of known history and performance may be used for this purpose.

Differences between laboratory test results (on the same fabric, under the same washing and drying conditions) equal to or greater than a quarter replica unit are

statistically significant at  $P \geq 0.99$ . A difference of this magnitude or greater suggests a difference in laboratory levels and indicates the need for laboratory level comparisons.

11.5 *Bias*—The true value of smoothness appearance in durable press fabrics after repeated home launderings can be defined only in terms of a test method. There is no independent method for determining the true value. As an estimate of this property, this test method has no known bias.

## 12. Notes

12.1 Contact AATCC, P.O. Box 12215, Research Triangle Park NC 27709; tel: 919/549-8141; fax: 919/549-8933, for model number(s) and source(s) of approved washer(s) and dryer(s). Any other washer or dryer which is known to give comparable results can be used. Washing machine conditions given in Table III represent the actual speeds and times available on the current specified model(s). Other washers can vary in one or more of these settings. Dryer machine conditions given in Table IV represent the actual temperatures and cool-down times available on the current specified model(s). Other dryers can vary in one or more of these settings.

12.2 Available from AATCC, P.O. Box 12215, Research Triangle Park NC 27709; tel: 919/549-8141; fax: 919/549-8933. For further information on detergent selection see the monograph, *AATCC Standard Reference Detergent 124 and Laundry Detergents in General*, elsewhere in this TECHNICAL MANUAL.

12.3 Ballast are available from Testfabrics Inc., P.O. Box 420, Middlesex NJ 08846; tel: 908/469-6446; fax: 908/469-1147; and Textile Innovators Corp., P.O. Box 8, Windsor NC 27983; tel: 919/794-9703; fax: 919/794-9704. Ballast fabrics should conform to specifications in Table I.

12.4 The use of 8-foot fixtures for viewing laundered specimens is specified in this method. It is recognized, however, that physical limitations in certain laboratories will prevent the use of 8-foot fixtures. In those situations, 4-foot fixtures may be used but replicas identified as SA-4, SA-3 and SA-1 should always be placed on the left side of the viewing board as the board is viewed from the front. Replicas identified as SA-5, SA-3.5 and SA-2 should always be placed on the viewing board to the right side as the board is viewed from the front.

12.5 If excessive fraying occurs in laundering, specimen edges should be pinked, slashed or stitched as appropriate. If edges of laundered specimens appear distorted, clip as necessary before evaluating.

12.6 Like other hand wash procedures, this procedure has inherent limitations; e.g., limited reproducibility of the type of action involved due to the human element.

12.7 ASTM standards are available from ASTM, 100 Barr Harbor Dr., West Conshohocken PA 19428; tel: 610/832-9500; fax: 610/832-9555.

12.8 The AATCC Technical Center conducted a study to compare the 1993 AATCC Standard Reference Detergent, AATCC Standard Reference Detergent 124 and two different types of fabrics (current and proposed) to be used as ballast, under the following test conditions:

Machine cycle:	(I)—Normal/Cotton Sturdy
Washing Temp:	(V)— $60 \pm 3C$ ( $140 \pm 5F$ )
Drying Procedure:	(A)i—Tumble dry, cotton sturdy cycle
Fabrics tested:	White Twill (100% cotton) Beige Twill (100% cotton) Grey Poplin (100% cotton) Blue Twill (50/50 poly/cotton)

No significant differences were found in the results using either detergent or ballast load fabrics.

# Tab D



UNITED STATES  
CONSUMER PRODUCT SAFETY COMMISSION  
WASHINGTON, DC 20207

**Memorandum**

Date: January 5, 2000

TO : Margaret L. Neily, ESME  
Project Manager, Wearing Apparel

THROUGH: Warren J. Prunella, Associate Executive Director for Economic Analysis *WJP*

FROM : Terrance R. Karels, EC *TRK*

SUBJECT : Amendments to FFA Standards

Attached is a memorandum from Economic Analysis, dated August 10, 1998, addressing the potential effects of proposed amendments to the standards issued under the Flammable Fabrics Act. These standards addressed the flammability of children's sleepwear, carpets and rugs, and mattresses and mattress pads. The amendments modify laundering requirements included in those regulations.

The Notice of Proposed Rulemaking (NPR, March 19, 1999) solicited comments on the proposal. No comments were received relevant to information provided in the memorandum, and we are not aware of any other information that would alter the conclusions in the memorandum.

As noted in that memo (and reported in the NPR), the amendments are not expected to have any effect on manufacturers, consumers, or other parties. The changes would bring those standards, promulgated in the 1970s, into conformance with current practices in the industry; further, independent testing laboratories currently use the requirements of the proposed amendments. In addition, the amendments are not expected to have a potential impact on the environment, since the amendments only codify existing market practices.



United States  
CONSUMER PRODUCT SAFETY COMMISSION  
Washington, D.C. 20207

MEMORANDUM

DATE: August 10, 1998

TO : Margaret L. Neily, ESME  
Project Manager, Wearing Apparel

Through: Warren J. Prunella, Associate Executive Director  
for Economic Analysis *WJP*

FROM : Terrance R. Karels, Economic Analysis *TRK*

SUBJECT: Amendments to FFA Standards

The Commission is considering amendments to the standards issued under the Flammable Fabrics Act (FFA) for children's sleepwear, carpets and rugs, and mattresses and mattress pads (CFR 1615, 1616, 1630, 1631, and 1632). The proposed amendments would address the laundering requirements for fabrics that use flame retardant chemicals in order to comply with the regulations. Repeated launderings are used to determine whether the fabrics would maintain their flame resistance in normal use.

The amendments are not expected to have any effect on manufacturers, consumers or other parties. This is because the proposed changes are intended to bring standards promulgated in the 1970s into conformance with current practices. Independent testing laboratories report that they currently use the requirements of the proposed amendments.

**Detergents**

The proposal would modify the specified "standard reference" laundry detergent used to measure test fabric compliance to the flammability standards. The original testing requirements specified the use of a reference detergent containing phosphates. The sale of detergents containing phosphates is banned by many state and local ordinances to reduce water pollution. In 1993, the American Association of Textile Chemists and Colorists (AATCC, a technical, scientific, and educational organization for the textile industry) developed a new non-phosphate "standard reference" detergent. Independent testing laboratories report that it is current industry practice to test with this new non-phosphate detergent. In fact, the AATCC reports that its stock of the old reference detergent is depleted; thus, it is nearly impossible for manufacturers and others to test to the existing standards under the FFA.



Since the amendments regarding the type of detergents reflect that which is now being used in compliance testing, there would be no effect to the detergent itself or to the fabrics being tested. The modification of the detergent formulation is not expected to result in either costs or benefits to society; however, it would update the standard to reflect the type of detergent currently available to consumers.

#### **Laundry Equipment**

The amendments also propose changes in the rinse water temperature, agitator and spin speed, and the duration of spin. These changes reflect changes in home laundering equipment over the years. The standard home laundering equipment reflected in the standards is no longer manufactured.

The laundering methods referenced in the FFA standards were earlier versions of AATCC Test Method 124. The proposed amendments regarding laundry equipment are identical to those specified in AATCC Test Method 124-96, the most recently updated version.

The proposed amendments regarding water temperature, speeds, and duration of cycles are identical to those to which fabrics are currently tested. Thus, there would be no effect on the types of equipment needed or fabrics tested. These proposals are not expected to result in any costs or benefits to society, but would result in tests which more closely resemble consumer use.

#### **Small Entities**

The Regulatory Flexibility Act (RFA) requires that the Commission consider whether a proposed rule would have a significant effect on a substantial number of small entities, including small businesses. However, since the proposals merely codify existing industry testing practices, the proposed amendments are expected to have no effect on small entities.

Consequently, staff estimates that the proposed amendments will have no economic consequences to any manufacturer, or other entity, large or small.

#### **Environmental Impact**

The National Environmental Policy Act requires that the Commission consider the potential impact to the environment as a result of a proposed rule. Since this proposal continues current industry practices without any additional requirements, the proposed rule would have no significant impact on the environment. The amendments are not expected to have a significant effect on production processes or on the types or amounts of materials used in production or packaging. It will not render existing inventories unsalable or require destruction of existing products.

# Tab E

**CONSUMER PRODUCT SAFETY COMMISSION**

**16 CFR Parts 1615 and 1616**

**Standard for the Flammability of Children's Sleepwear: Sizes 0 Through 6X; Standard for the Flammability of Children's Sleepwear: Sizes 7 Through 14**

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Final amendments.

**SUMMARY:** The Commission is amending the flammability standards for children's sleepwear in sizes 0 through 6X and sizes 7 through 14 by revising the laundering procedure specified in those standards. These laundering procedures help assure that any chemical flame retardants are not removed or degraded with repeated washing and drying, thereby creating a flammability hazard. The Commission is issuing these amendments because the detergent specified by the existing laundering procedure is no longer available and the operating characteristics of the washing and drying machines required by that procedure are no longer representative of machines now used for home laundering.

**DATES:** The rule will become effective on [insert date 30 days after publication in the FEDERAL REGISTER] and will apply to products manufactured or imported after that date.

**FOR FURTHER INFORMATION CONTACT:** Marilyn Borsari, Office of Compliance, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301) 504-0400, extension 1370.

**SUPPLEMENTARY INFORMATION:**

**A. Background**

The Flammable Fabrics Act ("FFA") (15 U.S.C. 1191 et seq.)

authorizes the Commission to issue and amend flammability standards and regulations to protect the public from unreasonable risks of death, injury, and property damage from fire associated with products of wearing apparel made from fabric and related materials.

In 1971, the Secretary of Commerce issued a flammability standard for children's sleepwear in sizes 0 through 6X to protect young children from death and serious burn injuries which had been associated with ignition of sleepwear garments such as nightgowns and pajamas, by small open-flame sources. That standard became effective in 1972, and is codified at 16 CFR Part 1615.

In 1973, authority to issue flammability standards under the FFA was transferred from the Department of Commerce to the Consumer Product Safety Commission by section 30(b) of the Consumer Product Safety Act (15 U.S.C. 2079(b)). In 1974, the Commission issued a flammability standard for children's sleepwear in sizes 7 through 14. That standard became effective in 1975 and is codified at 16 CFR Part 1616.

#### **B. Amending the Flammability Standards**

As discussed below, laundering procedures are prescribed by the standards to help assure that any flame retardant treatment used in the production of children's sleepwear does not deteriorate over time and thereby create a flammability hazard. However, the current procedures are out of date in several respects.

## 1. Current Laundering Procedures

Each of the children's sleepwear standards describes the apparatus and procedure used to test items for compliance with the standard. See 16 CFR 1615.4 and 1616.5. Section 1615.4(g)(4) of the standard for sizes 0 through 6X and section 1616.5(c)(4) of the standard for sizes 7 through 14 require that testing shall be performed on finished items, as produced (or after one washing and drying in the case of garments labeled with instructions to wash before wearing) and after they have been washed and dried 50 times in accordance with a specified laundering procedure. That laundering procedure is AATCC Test Method 124-69, published by the American Association of Textile Chemists and Colorists ("AATCC").<sup>(1)</sup> Each standard incorporates specific aspects of that laundering procedure by reference.

The AATCC Test Method was developed in 1967 and revised in 1969. AATCC Test Method 124-69 specifies operating characteristics of the washing machine and dryer to be used, wash water and rinse water temperatures, exhaust temperature of the dryer, and a particular detergent, AATCC Standard Detergent 124. These specifications are representative of the equipment, wash, rinse, and drying temperatures, and detergent used for home laundering in the 1960s. For example, AATCC Standard Detergent 124 is a high-phosphate powder with optical brightener, similar:

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<sup>1</sup>Numbers in parentheses identify reference documents in the List of Relevant Documents at the end of this notice. Requests for inspection of any of these documents should be made at the Office of the Secretary, 4330 East-West Highway, room 502, or by calling that office at (301) 504-0800.

to the phosphate-based detergents sold to consumers between 1950 and 1970. (3)

Since 1970, environmental concerns about water pollution have resulted in the elimination of phosphate-based detergents for home laundering. Today, all laundry detergents sold to consumers are nonphosphate-based. Additionally, energy-efficient washing machines and dryers currently sold for consumer use have operating characteristics and temperature settings which differ from those specified by AATCC Test Method 124-69. (3)

## **2. Revised Laundering Test Method**

In 1996, AATCC revised AATCC Test Method 124, "Appearance of Fabrics After Repeated Home Laundering." (2) The 1996 AATCC test method more closely resembles the equipment and practices currently used for household laundering of fabrics. The revised test method differs from AATCC Test Method 124-69 by specifying the use of a nonphosphate-based detergent. The 1996 test method also specifies use of a washing machine with different operating characteristics than those specified by AATCC Test Method 124-69, and rinse water temperatures which differ from those in the older test method. (3) Table 1, below, provides a summary comparison of the two test methods.

**Table 1. AATCC TEST METHOD 124**

WASH/DRY CONDITIONS	VERSION		
	1969	1996	
<b>Washing Machine</b>			
Cycle	Normal	Normal/Cotton Sturdy	
Wash Water Temp.	60 ± 3°C	60 ± 3°C	
Rinse Water Temp.	41 ± 3°C	Less Than 29°C	
Water Level	Full	18 ± 1 gal	
Agitator Speed	70 ± 5 spm	179 ± 2 spm	
Wash Time	12 minutes	12 minutes	
Spin Speed	500-510 rpm	630-660 rpm	
Final Spin Cycle	4 minutes	6 minutes	
<b>Dryer</b>			
Cycle	Normal	Cotton Sturdy	Durable Press
Exhaust Temp.	140-160°F	140-160°F	140-160°F
Cool Down Cycle	5 minutes	5 minutes	10 minutes

spm = strokes (or cycles) per minute

rpm = revolutions per minute

In 1996, AATCC also announced that when that organization's supply of Standard Detergent 124 is depleted, that detergent will no longer be available. AATCC is the only source for Standard

Detergent 124. Additionally, washing machines now offered for sale do not have the settings and operating characteristics of the washing machine specified by AATCC Test Method 124-69. (3)

### **3. Review of Existing Standards**

As explained in the notice of proposed rulemaking, the Commission staff reviewed and analyzed twelve other international and technical association standards or test methods to determine if any were appropriate for consideration in this proceeding. All of the identified standards for fabric laundering have significant deficiencies. They are either based on earlier versions of AATCC Test Method 124 (with obsolete detergent and equipment), require equipment not available in the U.S., use only water in the laundering procedure, or specify significantly lower wash and rinse water temperatures than those still available for consumers.

### **4. Comparability of test results**

In order to compare the results of laundering using AATCC Test Method 124-69 with those of the new AATCC Test Method 124-96 the Commission performed some tests of fabrics using each method. The laundering tests indicated that changes in washing machine and dryer operating conditions between the old and new versions of AATCC Test Method 124 did not make a difference in the flammability performance of the fabrics tested. However, the cotton sleepwear that was treated with the phosphorous-based Pyrovatex CP-new did not perform well in flammability testing after laundering with the new AATCC detergent or after laundering



with common powder detergents. Liquid detergents did not seem to adversely affect flammability performance. Fabrics treated with the antimony-based FR showed some random failures that, according to laboratory chemical analyses, apparently were unrelated to the detergent and laundering conditions. The new AATCC detergent did not affect the flammability of the untreated polyester fabrics. However, one polyester fabric did show reduced flame resistance when a liquid fabric softener was used. Labels on both liquid and sheet fabric softener packages state that they should not be used on garments labeled as flame resistant.

After CPSC informed the manufacturer of Pyrovatex of the results the manufacturer conducted additional studies and determined that such factors as the fabric, the application process, storage conditions, and consumer care practices can affect the flame resistance of the light weight fabrics used for children's sleepwear. Because the manufacturer has little control over these factors, the company decided, with one exception, to withdraw Pyrovatex from sale to the sleepwear industry.

With the withdrawal of Pyrovatex for treating children's sleepwear, the change in detergent and laundering equipment from AATCC 124-69 to AATCC 124-96 will not have any effect on the flammability performance of children's sleepwear on the market.

##### **5. Proposed Amendment of Standards**

On March 17, 1999, the Commission proposed to revise the laundering procedures specified in 16 CFR 1632.5(b) to those of

AATCC Test Method 124-1996. 64 FR 13132. As explained in the preamble to the proposed rule, the Commission determined that an advance notice of proposed rulemaking was not necessary to begin this proceeding. Id. at 13128. The amendments preserve the original intent and effect of the existing test method, modifying that method only as necessary to reflect the existence of modern equipment and detergent. Moreover, the existing regulations permit the Commission to employ a laundering test method different from AATCC Test Method 124 if it concludes that the test method is substantively as protective.

The Commission received comments on the proposed rule from the Soap and Detergent Association ("SDA"), American Textile Manufacturers Institute ("ATMI"), and the National Cotton Council ("NCC"). ATMI and NCC both expressed their support for the proposed revision. SDA's comments are discussed below.

Wash and rinse water temperatures.

SDA suggested that the Commission consider a laundering protocol different than AATCC Test Method 124. SDA's suggested protocol calls for cooler wash and rinse temperatures, stating that they are more representative of today's laundering conditions.

The Commission declines to make this change. Many water heaters in use today are set at 60C/140F. Thus, consumers have hotter wash water available to them than the 32C/90F that SDA recommends. It is appropriate that the laundering requirements reflect not necessarily the average conditions, but the most

rigorous that a consumer is likely to use. By specifying a hot water wash and a cold water rinse, the revised CPSC standard represents the most rigorous real, although not necessarily average, wash conditions.

Water hardness.

SDA also suggested that the revised standard should specify water hardness criteria. While water hardness is one factor that may affect the flammability performance of some fabrics, the Commission has no evidence that water hardness is a significant problem for flame retardant treated products currently marketed. At this time, the Commission is only correcting the outdated detergent and laundering conditions in the current FFA standards. It is not within the scope of this proceeding to consider additional criteria.

Ballast load weight.

The SDA suggested changing the ballast load weight to  $2.7 \pm 0.1$  kg ( $6 \pm 0.2$  lb). CPSC's current standard specifies 3.64 kg (8 lb) while the AATCC Test Method 124 only requires 1.8kg (4 lb). SDA may not have realized that CPSC is retaining the larger load requirement. As explained above, the Commission is only correcting the outdated aspects of the laundering standard. It is not altering other criteria.

Omit reference to a specific date.

Finally, SDA suggested that the Commission not refer to the specific year of the AATCC standard but simply refer to the most current method. This would alleviate the need to revise the