



12 November 2002

Office of the Secretary  
U.S. Consumer Products Safety Commission  
Room 502  
4330 East-West Highway  
Bethesda, MD 20814

**RE: ANPR on the Standard for the Flammability of Clothing Textiles,**

The American Apparel & Footwear Association (“AAFA”) is pleased to submit comments regarding the upcoming rulemaking on the flammability of clothing textiles, as found in 67 Federal Register 57770-57773. AAFA is the national trade association representing apparel, footwear, and other sewn products companies, and their suppliers, which compete in the global market.

As the Commission notes, the current standard was written in 1953 and has become somewhat outdated due to advances in science and in the textile industry. The purpose of the standard is to “reduce danger of injury and loss of life by providing, on a national basis, standard methods of testing and rating the flammability of textiles and textile products for clothing use, thereby discouraging the use of any dangerously flammable clothing textiles.” Much has changed since 1953, but the goal of the standard remains the same, as it should. **However, it is important to state that the standard has indeed been working correctly in the years since it was adopted, and any changes needed are purely technical in nature, reflecting only the advances in testing equipment and technique.**

In its Advanced Notice of Proposed Rulemaking (“ANPR”), the Commission has asked for public comment in a number of areas, most specifically in the arena of “Regulatory Alternatives.” Below are a number of suggestions that AAFA has gleaned from its membership, in the order in which they appear in the ANPR. For clarification, suggested *language will appear in italics* whereas general comments will remain in normal font.

[The Commission will note that throughout this document, references are often made to the American Society for Testing and Materials (“ASTM”) standard “D1230.” AAFA and its members endorse this standard in general and endorse its use in this rule.]

**1. CHANGES TO THE FLAMMABILITY TESTER.**

The ANPR states that the flammability tester prescribed in the current standard is no longer available. Thus, the Commission is considering requiring something more modern, such as a 45-degree flammability tester or equivalent, which requires attributes that reflect the requirements of 16 CFR1610.4 with the following additions:

*§1610.4 (b) (2) - Movable rack: Refer to the manufacturers' instruction in relation to the adjustment procedure to move the rack into the appropriate position for the indicating finger alignment. (This language is designed to ensure that different brands of testers are operated properly.)*

*§1610.4 (b)(6) - Suggest that the ignition apparatus to be used should be that which is listed in the most current effective version of the ASTM standard D1230, or its successor.*

## **2. CHANGES TO THE DRY CLEANING PROCEDURE.**

The ANPR notes that perchloroethylene, though specifically mentioned in the current standard, is no longer popular amongst consumers as it has been shown by the Environmental Protection Agency ("EPA") to be hazardous. Indeed, the state of California, in recent legislation, is attempting to outlaw the substance. With advances in dry cleaning technology (and with more expected to come), AAFA members recommended not specifying a dry cleaning solvent in the regulations and instead recommend the following:

*§1610.4 (d) Refurbishing: For samples that are labeled "Dry Clean only", samples are not laundered. If samples are labeled "washable", then samples are refurbished by processing the fabric through:*

- a.) a commercial drycleaner using a commercial dry cleaning solvent or;*
- b.) an in-house process comparable to a commercial drycleaner using a commercial dry cleaning solvent.*

*Then, follow the washing procedure listed at §1610.4 (e). All dry clean samples are dry cleaned for one cycle without pressing. If the samples do not withstand the dry cleaning process, (example: layers separate, fabric shreds or distorts or fabric changes severely in appearance), then results and classification will be based on the "wet refurbished" results only. If the samples do not withstand either process, then results and classification will be based on the "as received" results only.*

In addition to the above, please note that the ASTM D1230 has acceptable guidelines for refurbishing methods.

## **3. CHANGES TO THE HAND WASHING PROCEDURE.**

The ANPR noted that the washing procedures under §1610.4 (e) is outdated and should be replaced, possibly with laundering requirements similar to that of the American Association of Textile Chemists and Colorists ("AATCC") 124. AAFA notes that instead of AATCC standards, it may be helpful to follow the guidelines in the ASTM D1230 (or its successor).

## **4. CLARIFYING SELECTION OF SURFACE/DIRECTION FOR TESTING.**

In order to clarify several areas under the "Methods of Test" section of the current standard – section §1610.4 (a) - AAFA suggests a few modifications to the following:

§1610.4 (a) (2) - For plain surface textile fabrics, the long dimension and surface shall be that in which they burn most rapidly. To determine which direction, one specimen in each direction (warp/wale and filling/course) shall be burned as specified in §1610.4 (g) to quantify the rate at which each sample burns.

§1610.4 (a) (3) – For raised surface textile fabrics, the direction of the lay of the surface fiber shall be parallel with the long dimension of the specimen on the surface that burns most rapidly during the preliminary test. To determine which direction is the long dimension, it is suggested to:

*Place 2 strips of ½ inch adhesive tape (such as cellophane or equivalent) parallel to each other on the face of the fabric in the same direction. Remove the tape by pulling from opposite ends of the tape. Observe which direction exhibits the most severe condition of raising the surface fibers. Brushing per §1610.4 (f) against the fiber in the most severe direction will be the direction to test the specimens.*

*For textile fabrics with varying depths of pile, tufting, etc., the specimens are taken from each depth of pile/and plain surface area to determine which exhibits the quickest rate of burning. Additional specimens are cut from the quickest burning direction to complete testing. This procedure should be repeated after refurbishing to complete testing.*

*Use the procedure found in §1610.4 (a) (2) if the direction to burn cannot be determined by the above procedures.*

§1610.4 (a) (5) - The specimens used for testing are cut (each 2 x 6 inches) and marked on the back, or at the top right corner on the side of the fabric to be burned, indicating the direction to burn and brush the specimens. Specimens are then placed in the holders, with the side to be burned face up, and the end of the specimen, which is marked to be placed at the top of the holder with the closed end.

NOTE: Because of our recommendation in §1610.4 (a)(3), AAFA believes that §1610.31 (e) should be deleted from the standard.

## **5. CLARIFICATION OF WHEN TO TEST 5 ADDITIONAL SPECIMENS.**

AAFA suggests the following language:

### §1610.32 (b) (4)

*Plain surface textile fabrics – Test 5 specimens. If one specimen ignites and burns the stop cord in less than 3.5 seconds, test 5 additional specimens. Compute the average of the 10 specimens that ignited. Base the classification on those specimens that ignite. If only one specimen out of 10 ignites and has a burn rate of less than 3.5 seconds, then classify the sample as a Class 1.*

*If 2 or more specimens out of 5 ignite and exhibit a burn rate, average those specimens that burn the stop cord and determine the class based on the average that ignite. If the average is greater than 3.5 seconds then classify as a Class 1. If the average is below 3.5 seconds, classify the specimens as a Class 3.*

*Raised surface textile fabric – Test 5 specimens. If one sample ignites and exhibits base burns in less than 4.0 seconds, test 5 additional specimens. If only one of the 10 specimens exhibit a base burn, classify as a Class 1. If 2 or more specimens exhibit base burning, only average those specimens that exhibit a base burn. Determine a classification based on the average of the specimens that exhibit base burns.*

## **6. TEST PROCEDURE**

AAFA suggests the following language:

*§1610.4 (g)(5)- Press the start button to begin the test. This controls the ignition of the flame to the fabric and starts the timing mechanism after the period of one second. Ignition should be performed within 45 seconds of the time the specimen was removed from the desiccator. Timing is automatic and stops when the weight is released by the burning of the stop cord.*

*§1610.4 (g) (6) - Record the time of the flame spread (reading of the timing mechanism) of each specimen and note whether the base of the specimen of a raised fiber surface is ignited or fused to a point where the damage is apparent from the bottom of the specimens. Please note for raised fiber surfaces specimens should continue to be burned to determine if the base fabric will burn even though a timed rate is achieved.*

**NOTE:** Base fabric ignition means the base of the specimen of a raised surface textile fabric is ignited or fused to a point where the damage is apparent from the back of the specimen (See “terms defined” at the end of Section 12 in these comments).

## **7. ADD TEST RESULTS CODE**

While not currently found in the standard, AAFA suggests the following language be incorporated either in §1610.4 (g) (6) or in the section entitled, “Terms defined”:

*The following is the definition for test results codes, which are to be used for recording flammability results for each specimen, which is burned.*

### **Plain Surface Textile Fabrics:**

*DNI                      Did not ignite*

*IBE                      Ignited but self-extinguishes*

*0.0 BB                 Time in seconds, Base Burn (record time in seconds to the tenth of a second)*

Raised Surface Textile Fabrics:

<i>SF poi</i>	<i>Surface flash at the point of impingement (equivalent of DNI)(used for Class 1)</i>
<i>SF pw</i>	<i>Surface flash part way (no timed rate)(used for Class 1)</i>
<i>SF uc</i>	<i>Surface flash under the cord (no timed rate) (used for Class 1)</i>
<i>0.0 SFBB</i>	<i>Time in seconds consisting of surface flash, and base burning from point other than the point of impingement (used for Class 2, and 3)</i>
<i>0.0 SFBB poi</i>	<i>Time in seconds consisting of surface flash and base burning from the point of impingement (this is used for Class 1) This does not qualify as a Base Burn.</i>
<i>0.0 SF only</i>	<i>Time in seconds consisting of surface only with no base burning (used for Class 1 )</i>
<i>*0.0 SFBB poi</i>	<i>Time in seconds, surface flash base burn possibly starting at the point of impingement. The asterisk is accompanied by the following: "Unable to make absolute determination as to the source of base burns." This note is added to the result of any specimen if there is a question as to the origin of the base burning. It does not qualify as a base burn under the current interpretation of CFR §1610.</i>
<i>0.0 BB Only</i>	<i>Base Burn Only</i>

**8. SPECIFICATION OF DIFFERENT DESICCANT.**

The recognition of silica gel as a more effective, reliable and economical desiccant can be done in the following manner:

*§1610.4 (f) - Brushing and drying specimens: Each specimen having a raised fiber surface, in its original condition or after dry cleaning and washing, is placed in the specimen holder and brushed once against the lay of the raised fiber surface. All specimens in the holders are then placed and dried in an oven in a horizontal position for 30 minutes at 221° F (105 °C). The samples are then removed from the oven and placed over a bed of anhydrous silica gel in a desiccator until cool, but not less than 15 minutes.*

*NOTE: Anhydrous silica gel is normally blue in color. It will change to pink color when it loses its power to absorb moisture showing that it needs to be replaced. Silica gel can be restored by spreading it in a flat tray and heating it in an oven (at about 105 °C) until the blue color returns.*

## **9. SPECIFYING THAT TAPE CAN BE USED TO SECURE SPECIMENS IN THE SPECIMEN HOLDER.**

In Section 4 above - involving changes to §1610.4 (a) (3) – it is suggested to use ½ inch adhesive tape (such as cellophane or equivalent) to determine the long dimension of the fiber. The Commission has asked in the ANPR if tape should be used to secure specimens in the specimen holder. AAFA believes that using tape to secure the specimens in the specimen holder is acceptable, provided that the tape does not extend into the area to be burned.

## **10. REORGANIZING SOME TEXT OF THE RULE FOR CLARITY.**

In §1610.3, the regulation lays out basic requirements of the three classes. Although Class 3 states that the trade believes such fabrics are unsuitable for clothing, there is no affirmative statement stating that Classes 1 and 2 CAN be used for clothing. Such statements do not first appear until §1610.62(a)(2). We believe the regulation would be clarified if, after the definition of each class, there appeared a statement inserted into the respective class description that read thus:

- *“Class 1 textiles exhibit normal flammability and are acceptable for use in clothing.”*
- *“Class 2 textiles, applicable only to raised fiber surfaces, are considered to be of intermediate flammability, but may be used for in clothing.”*
- *“Class 3 textiles exhibit rapid and intense burning are dangerously flammable and may not be used in clothing.”*

As a general comment, we believe the regulations should be organized to more clearly draw a distinction between fabrics that are napped and those that are not napped. We note that in §1610.31, paragraphs (g) and (h) created definitions for *“plain surface textile fabric”* and *“raised surface textile fabric”*, respectively. We propose that these terms be used exclusively and repeatedly throughout the various subparts of the regulations. For example, in §1610.3, under the various paragraphs (i) and (ii) in (a)(1), (a) (2), and (a) (3), the terms *“plain surface textile fabric”* and *“raised surface textile fabric”* should be used as the headers instead of the ones that begin *“textile without nap...”* and *“Napped, pile...”*, respectively. Similarly, in §1610.4, as we have noted elsewhere, paragraph (a)(2) should begin *“For plain surface textile fabric...”* while (a)(3) should begin *“For raised surface textile fabric....”* and so on.

In several places, the regulation specifies that records need to be retained but does not provide any definitive time period. For example, in §1610.36 (a) and in §1610.39 (c)(1), the regulations call for records retention but there does not appear to be a time limit for records retention in those sections. In §1610.38, records are required to be maintained for 3 years, but it is unclear that those record retention limits apply with respect to the requirements created in §1610.36(a) and §1610.39(c)(1). We believe language should be added that clarifies a limit for record retention for this section.

§1610.39 makes repeated reference to the Bureau of Customs. We would suggest these references be updated to refer to the *U.S. Customs Service*.

§1610.61 contains paragraphs (c)(1), (c)(2), (c)(3) that provide information that we believe should be incorporated into the body of the regulations at the appropriate spot. For example, the language in (c)(1), relating to the stop cord, should be amended to §1610.4(b)(7), which also relates to the stop cord. The language in (c)(2), relating to brushing, should appear as part of §1610.4(f), which also relates to brushing. Finally, the language in (c)(3), which strikes as a key language to this regulation, should probably appear as part of a new paragraph in §1610.32.

## **11. CLARIFYING OR AMENDING THE EXEMPTIONS FROM THE REQUIREMENTS FOR TESTING TO SUPPORT GUARANTIES.**

§1610.62(a)(4) contains the statement “A guaranty issued by a person who is not a resident of the United States may not be relied upon as a bar to prosecution.” We encourage the Commission to review this statement. The Flammable Fabrics Act dates back to a time when most clothing, and the fabric used in that clothing, was produced in the United States. In 2001, about 90 percent of all clothing consumed in the United States was imported. Moreover, with the globalization of this industry, a number of world-class laboratories capable of performing flammable fabric testing have been established around the world. We recommend this provision be modified to permit the use of foreign flammable testing off shore such that a guaranty issued by a non U.S. resident would have legal standing. We note that, late in this section in the “Suggestions” paragraph, there is a suggestion that companies “purchase fabrics or garments that have been guarantied and/or tested by the supplier...” In many cases, those suppliers are offshore so this suggestion makes the most sense when the import guaranty restrictions are modified to permit the use of such guaranties.

## **12. OTHER SUGGESTIONS BY AAFA.**

a.) AAFA suggests the following changes to the standard:

\* §1610.62 contains a general statement on applicability (in paragraph (b)). We urge the Commission to update the information about recalls over the past few years and to use statements that will remain evergreen. For example, instead of stating “Since August 1994...” the statement should instead read “*Between August 1994 and August 2002 there have been xx recalls*” or “*There have been numerous recalls*” or language to that effect.

\* §1610.37 (d)(2) exempts textiles (both raised surface and plain surface fiber textiles) made from certain fibers. AAFA proposes adding 4 more textile products to this exemption. They are:

- 1.) *specialty wool fibers;*
- 2.) *leather;*
- 3.) *fur and;*
- 4.) *suede*

b.) AAFA recommends the following new sections be added at the appropriate sections to reflect developments in the industry:

\* ADD NEW SECTION stating that, “*trim fabrics less than 2 inches in width in either direction are not tested.*” (This language can either be added as a part of a new “Exceptions” section or under §1610.4 (a) (5).

\* ADD NEW SECTION – §1610.36 (g) - *Fringe fabrications greater than 6 inches length require separate testing from the base fabric as per the regulation. A special procedure to rack and support the regulation is as follows: Using the stop cord thread, wrap the lower frame with the thread spacing each wrap 1 inch apart at its’ widest. Place the specimen to be tested over the bottom frame and thread, and cover with the top frame and place in oven for required time. If necessary, wrap the thread around the bottom of the top frame (2 times below the point of impingement) to stabilize the position of the fringe and hold it in place. Remove from oven and condition as normal by placing samples in the dessicator. Complete testing as normal.*

\* ADD NEW SECTION - §1610.36 (h) - *Feather samples / fabric trim samples which form an integral part of wearing apparel should be tested and refurbished as per the regulation, and retested after one drycleaning/ laundering using the racking procedure outlined in §1610.36 (h).*

1. *If the garment is labeled “ Dry-clean “ only, with a feather trim, then the feathers/trim may be tested after 1 Dry cleaning.*
2. *If the care label states the following “ garment may be dangerously flammable if Dry-cleaned or washed”, then the sample is tested as received only.*
3. *If a care label states” Remove feather/ fabric trim before laundering or dry-cleaning”, then full testing will be required on the base garment. Trim would be processed as received only.*

\* NEW DEFINITIONS TO ADD - § 1610.31 “Terms Defined” -

1. *The term Base Burn means the point of which the flame burns the ground (base) fabric and provides a self-sustaining flame. Base burns are those base burns that occur on specimens in places other than the point of impingement.*

2. *The term Surface Flash means the spread of the flame on the surface fibers of the specimens from the flame impingement has no base burning.*

3. The term Ignition means a self-sustaining flame is propagated from impingement of the test flame.

### **Conclusion**

AAFA and its members appreciate this opportunity to comment on the ANPR. We are available to answer any questions or concerns that the Commission may have regarding the contents of this submission. If needed, AAFA's Government Relations Department can be reached at 703.797.9039.

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