(i) Reduced sampling. (A) The level of sampling required for garment acceptance may be reduced provided the previous 15 units of the garments have all been accepted using the Normal Sampling Plan. The Reduced Sampling Plan shall be the same as for Normal Sampling except that the quantity of garments under test may be increased to up to two production units containing garments which have the same specific identity except for size, trim, findings, color, and print patterns as specified in paragraph (a) of this section.

(B) Select and test three samples in the same manner as in Normal Sampling. Accept or reject both units on the same basis as with Normal Sampling. Reduced Sampling shall be discontinued and Normal Sampling resumed if a unit is rejected.

(4) Disposition of rejected units. Rejected units shall not be retested, used, or promoted for use in children’s sleepwear as defined in §§1616.2(a) and 1615.1(a) of the Standard for the Flammability of Children’s Sleepwear: Sizes 0 through 6X (FF 3–71) (subpart A of part 1615 of this chapter) except after reworking to improve the flammability characteristics and subsequent retesting in accordance with the procedures set forth in Garment production testing [Paragraph (3)(c) of this section.

(5) Records. Written and physical records related to all tests performed under this Standard must be maintained by the manufacturer, importer, or other persons initially introducing items into commerce which are subject to this Standard, beginning on the effective date of this Standard. Such records shall include results of all tests, sizes of all units, and the disposition of all rejected pieces and units. Rules and regulations regarding recordkeeping may be established by the Consumer Product Safety Commission.

(d) Compliance market sampling plan. Sampling plans for use in market testing of items covered by this Standard may be issued by the Consumer Product Safety Commission. Such plans shall define noncompliance of a production unit to exist only when it is shown, with a high level of statistical confidence, those production units represented by tested items which fail such plans will, in fact, fail this Standards. Production units found to be noncomplying under the provisions of paragraph (d) of this section, shall be deemed not to conform to this Standard. The Consumer Product Safety Commission may publish such plans in the FEDERAL REGISTER.

(Sec. 30(d), (15 U.S.C. 2079(b)), 86 Stat. 1231) [40 FR 59917, Dec. 30, 1975, as amended at 43 FR 4855, Feb. 6, 1978]
VENTILATION PORTS

SUPPORT FOR SPECIMEN HOLDER

GUIDE FOR SPECIMEN HOLDER

VENTILATION PORTS

BURNER

VERTICAL TEST CABINET

FIGURE I
(2) Specimen holder. The specimen holder to be used in this test method is detailed in Engineering Drawing Number 7. It is designed to permit suspension of the specimen in a fixed vertical position and to prevent curling of the specimen when the flame is applied. The specimen shall be fixed between the plates, which shall be held together with side clamps.

(3) Burner. The burner shall be the same as that illustrated in Figure 1 and detailed in Engineering Drawing Number 6. It shall have a tube of 1.1 cm. (0.43 in.) inside diameter. The input line to the burner shall be equipped
with a needle valve. It shall have a variable orifice to adjust the height of the flame. The barrel of the burner shall be at an angle of 25 degrees from the vertical. The burner may be equipped with an adjustable stop collar so that it may be positioned quickly under the test specimen. The burner shall be connected to the gas source by rubber or other flexible tubing.

(4) Gas supply system. There shall be a pressure regulator to furnish gas to the burner under a pressure of 103–259 mm. Hg. (2–5 lbs. per sq. in.) at the burner inlet. (Caution. Precautionary laboratory practices must be followed to prevent the leakage of methane. Methane is a flammable gas which can be explosive when mixed with air and exposed to a source of ignition, and can cause asphyxiation because of the lack of air.)

(5) Gas. The gas shall be at least 97 percent pure methane.

(6) Hooks and weights. Metal hooks and weights shall be used to produce a series of loads for char length determinations. Suitable metal hooks consist of No. 19 gauge steel wire, or equivalent, made from 7.6 cm. (3 in.) lengths of the wire, bent 1.3 cm. (0.5 in.) from one end to a 45-degree angle hook. The longer end of the wire is fastened around the neck of the weight to be used and the other in the lower end of each burned specimen to one side of the burned area. The requisite loads are given in table 1.

<table>
<thead>
<tr>
<th>Grams per square meter</th>
<th>Ounces per square yard</th>
<th>Loads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 101</td>
<td>Less than 3</td>
<td>54.4</td>
</tr>
<tr>
<td>101 to 207</td>
<td>3 to 6</td>
<td>113.4</td>
</tr>
<tr>
<td>207 to 338</td>
<td>6 to 10</td>
<td>226.8</td>
</tr>
<tr>
<td>Greater than 338</td>
<td>Greater than 10</td>
<td>340.2</td>
</tr>
</tbody>
</table>

1 Weight of the original fabric, containing no seams or trim, is calculated from the weight of a specimen which has been conditioned for at least 8 hr at 21°C (70°F) and 65±2 pct relative humidity. Shorter conditioning times may be used if the change in weight of a specimen in successive weighings made at intervals of not less than 2 hr does not exceed 0.2 pct of the weight of the specimen.

(7) Stopwatch. A stopwatch or similar timing device shall be used to measure time to 0.1 second.

(8) Scale. A linear scale graduated in mm. or 0.1-inch divisions shall be used to measure char length.
them. Place the mounted specimens in the drying oven in a manner that will permit free circulation of air at 105 °C. (221 °F.) around them for 30 minutes. 4

(2) Remove the mounted specimens from the oven and place them in the desiccator for 30 minutes to cool. No more than five specimens shall be placed in a desiccator at one time. Specimens shall remain in the desiccator no more than 60 minutes.

(c) Testing—(1) Burner adjustment. With the hood fan turned off, use the needle valve to adjust the flame height of the burner to 3.8 cm. (1½ in.) above the highest point of the barrel of the burner. A suitable height indicator is shown in Engineering Drawing Number 6 and Figure 1.

(2) Specimen burning and evaluation.

(i) One at a time, the mounted specimens shall be removed from the desiccator and suspended in the cabinet for testing. The cabinet door shall be closed and the burner flame impinged on the bottom edge of the specimen for 3.0±0.2 seconds. 5 Flame impingement is accomplished by moving the burner under the specimen for this length of time, and then removing it.

(ii) When flaming has ceased, remove the specimen from the cabinet, except for specimens which exhibit afterglow. If afterglow is evident, the specimen shall be removed from the cabinet 1 minute after the burner flame is impinged on the specimen if no flaming exists at that time. Upon removal from the cabinet, the afterglow shall be promptly extinguished. The afterglow shall be extinguished by placing the specimen while still in the specimen holder on the bottom extinguishing plate and immediately covering it with the top plate until all evidence of afterglow has ceased. After removing the specimen from the cabinet and, if appropriate, extinguishing afterglow, remove it from the holder and place it on a flat clean surface. Fold the specimen lengthwise along a line through the highest peak of the charred or melted area; crease the specimen firmly by hand. Unfold the specimen and insert the hook with the correct weight as shown in table 1 in the specimen on one side of the charred area 6.4 mm. (¼ in.) from the lower edge. Tear the specimen by grasping the other lower corner of the fabric and gently raising the specimen and weight clear of the supporting surface. 6 Measure the char length as the distance from the end of the tear to the original lower edge of the specimen exposed to the flame. After testing each specimen, vent the hood and cabinet to remove the smoke and/or toxic gases.

(3) Report. Report the value of char length, in centimeters (or inches), for each specimen, as well as the average char length for each set of five specimens.

(4) Laundering. (i) The procedures described under §§1616.4 Sampling and acceptance procedures, 1616.5(b) Conditioning and mounting of specimens, and 1616.5(c) 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or

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4 If the specimens are moist when received, permit them to air dry in laboratory conditions prior to placement in the oven. A satisfactory preconditioning procedure may be found in ASTM D 1776–67, “Conditioning Textiles and Textile Products for Testing”. (1972 Book of ASTM Standards, part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia Pennsylvania 19161.)

5 If more than 30 seconds elapse between removal of a specimen from the desiccator and the initial flame impingement, that specimen shall be reconditioned prior to testing.

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§ 1616.6 Labeling requirements.

(a) All items of children’s sleepwear shall be labeled with precautionary instructions to protect the items from agents or treatments which are known to cause significant deterioration of their flame resistance. If the item has been initially tested under §1616.5(c)(4) Laundering, after one washing and drying, it shall be labeled with instructions to wash before wearing. Such labels shall be permanent and otherwise in accordance with rules and regulations established by the Consumer Product Safety Commission.

(b) [Reserved]

[40 FR 59917, Dec. 30, 1975, as amended at 61 FR 1117, Jan. 16, 1996]

Subpart B—Rules and Regulations


§ 1616.31 Labeling, recordkeeping, retail display and guaranties.

(a) Definitions. For the purpose of this section, the following definitions apply:

(1) Standard means the Standard for the Flammability of Children’s Sleepwear: Sizes 7 through 14 (FF 5–74) (subpart A of part 1616 of this chapter) promulgated by the Consumer Product Safety Commission in the Federal Register of May 1, 1974 (39 FR 12214), and amended in the Federal Register of March 21, 1975 (40 FR 12811) (correction notice published for technical reasons on March 27, 1975, 40 FR 13547).

(2) Children’s sleepwear means “children’s sleepwear” as defined in §1616.2(a) of the Standard, that is, “any product of wearing apparel size 7 through 14, such as nightgowns, pajamas, or similar or related items, such as robes, intended to be worn primarily for sleeping or activities related to sleeping. Diapers and underwear are excluded from this definition.”

[40 FR 59917, Dec. 30, 1975, as amended at 61 FR 1117, Jan. 16, 1996]