

SUBCHAPTER D—FLAMMABLE FABRICS ACT REGULATIONS

PART 1602—STATEMENTS OF POLICY OR INTERPRETATION

§ 1602.1 Enforcement policy.

(a) On May 14, 1973, the responsibilities of the Federal Trade Commission for enforcement of the Flammable Fabrics Act, as amended (15 U.S.C. 1191–1204), were transferred to the Consumer Product Safety Commission pursuant to section 30(b) of the Consumer Product Safety Act (Pub. L. 92–573), 86 Stat. 1231 (15 U.S.C. 2079(b)).

(b) The Consumer Product Safety Commission intends to discharge its responsibilities under the Flammable Fabrics Act vigorously, expeditiously, and without compromise in order to protect the public from the hazards to life, health, and property caused by dangerously flammable products.

(c) The Consumer Product Safety Commission has determined that its enforcement policy for the Flammable Fabrics Act, will be to have available for use in each case the full range of enforcement procedures under that act without qualification or modification. Accordingly, notice is given that the Consumer Product Safety Commission hereby institutes an enforcement policy of using in each case arising under the Flammable Fabrics Act any and all appropriate enforcement procedures available under that act.

(d) In order to effectuate this policy, the above stated policy has been adopted and substituted for any conflicting determinations and policies of the Federal Trade Commission. The following determinations and policies of the Federal Trade Commission insofar as they apply to this Commission are terminated and set aside pursuant to section 30(e)(2) of the Consumer Product Safety Act (86 Stat. 1232 (15 U.S.C. 2079(e)(2))):

(1) The Federal Trade Commission's "Flammable Fabrics Enforcement Policy" published as a notice in the FEDERAL REGISTER of November 10, 1971 (36 FR 21544), as amended by a notice published April 25, 1973 (38 FR 10184), which was corrected May 8, 1973 (38 FR 11492).

(2) Any Federal Trade Commission policy or directive modifying or inter-

preting said Enforcement Policy, as amended.

(e) All other rules, regulations, orders, and determinations of the Federal Trade Commission under the Flammable Fabrics Act will continue in effect until modified, terminated, superseded, set aside, or repealed by the Consumer Product Safety Commission, by any court of competent jurisdiction, or by operation of law.

(Sec. 1, et seq., 81 Stat. 568–74 (15 U.S.C. 1191–1204, note under 1191))

[40 FR 59884, Dec. 30, 1975]

PART 1605—INVESTIGATIONS, INSPECTIONS AND INQUIRIES PURSUANT TO THE FLAMMABLE FABRICS ACT

Subpart A—Procedures for Investigations, Inspections and Inquiries

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Subpart B—Consent Order Agreements

1605.13 Procedures for Consent Order Agreements.

AUTHORITY: Sec. 5, 67 Stat. 112, as amended (15 U.S.C. 1194); sec. 6, 38 Stat. 721, as amended (15 U.S.C. 46); sec. 9, 38 Stat. 722, as amended (15 U.S.C. 49); sec. 10, 38 Stat. 723, as amended (15 U.S.C. 50); sec. 16, Pub. L. 92–573, 86 Stat. 1222 (15 U.S.C. 2065); sec. 27, Pub. L. 92–573, 86 Stat. 1227 (15 U.S.C. 2076); sec. 30(b), Pub. L. 92–573, 86 Stat. 1231 (15 U.S.C. 2079(b)); sec. 30(d), as amended, Pub. L. 94–284, 90 Stat. 510, (15 U.S.C. 2079(d)).

SOURCE: 42 FR 61023, Nov. 30, 1977, unless otherwise noted.

Subpart A—Procedures for Investigations, Inspections and Inquiries

§ 1605.1 Purposes, delegation, finding and how initiated.

(a) An investigation under these rules is an undertaking by the Commission to obtain information for the purpose of enforcing or determining compliance with the Flammable Fabrics Act (15 U.S.C. 1191 et seq.) (“FFA”); the regulations, rules, standards, and orders promulgated thereunder; and those sections of the Federal Trade Commission Act (15 U.S.C. 41 et seq.) (“FTCA”) which are relevant to the enforcement and administration of the Flammable Fabrics Act. The term investigation includes, but is not limited to inspections (§1605.2); investigational hearings (§1605.6); and inquiries, employing orders of access (§1605.4), subpoenas (§1605.5), depositions (§1605.7), written interrogatories (§1605.9), and general or special orders (§1605.10).

(b) An inspection as described in §1605.2 is initiated when the Commission or its delegee authorizes the issuance of a written notice of inspection (hereinafter notice), described in §1605.2(c). Investigations and inquiries will be initiated by the Commission in such manner as it deems proper.

(c) The Commission hereby delegates to the Associate Executive Director for Compliance and Enforcement, the Director of the Enforcement Division, the Solicitor, and the Directors of Area Offices, the power to initiate inspections in the same manner as the Commission.

(d) Finding. The Commission found on November 3, 1977 pursuant to section 30(d) of the Consumer Product Safety Act, as amended (“CPSA”) (15 U.S.C. 2079(d)) that the risk of injury associated with products regulated under the Flammable Fabrics Act cannot be eliminated or reduced to a sufficient extent by the issuance of procedures for investigations, inspections and inquiries under the Flammable Fabrics Act and the Federal Trade Commission Act (15 U.S.C. 41 et seq.). This finding is made to eliminate any confusion and uncertainty that may exist concerning the scope of the Commission’s statutory authority under

the Flammable Fabrics Act and Federal Trade Commission Act to conduct inspections and collect samples. The Commission is supplementing the authority granted to it under the FFA and FTCA with its powers under the CPSA while retaining the procedural safeguards and requirements of all of these acts. Accordingly, the Commission issues these rules pursuant to sections 16 and 27 of the CPSA (15 U.S.C. 2065 and 2076) and makes them applicable to products regulating under the FFA.

§ 1605.2 Conduct and scope of inspections.

(a) After an inspection is initiated as set forth in §1605.1, an officer or employee duly designated by the Commission shall issue the notice. Upon presenting such notice, along with appropriate credentials, to the person, or agent-in-charge of the sole proprietorship, partnership, or corporation to be inspected, the Commission officer or employee may seek, for the purposes set forth in §1605.1 (a):

(1) To enter, at reasonable times, any factory, warehouse, or establishment in which a product, fabric, or related material is manufactured, processed, packaged, tested or to which it is delivered or in which it is held in connection with its importation, introduction, distribution, transportation, receipt, and/or sale in commerce;

(2) To enter any conveyance being used to transport, deliver, or hold any such product, fabric, or related material in connection with its importation, introduction, distribution, transportation, receipt, and/or sale in commerce;

(3) To inspect at all reasonable times, in a reasonable manner, and within reasonable limits, any factory, warehouse, establishment, or conveyance described in paragraph (a) (1) and (2) of this section and all appropriate records, reports, books, documents and papers including, but not limited to, those relating to production, inventory, testing, distribution, sale, transportation, importation, or receipt of any product, fabric, or related material and all pertinent equipment, materials, substances, products, fabrics, related materials, containers, packages and

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packaging, and labels, and labeling therein:

(4) To have access to and copy at all reasonable times: (i) All records, reports, books, documents, papers, or labeling required by the Commission to be established, made, or maintained; (ii) all documents showing or relating to the production inventory, testing, distribution, sale, transportation, importation, or receipt of any product, fabric, or related material; and (iii) all other appropriate records, reports, books, documents, papers, packages and packaging, and labels and labeling;

(5) To obtain: (i) Information, both oral and written, concerning the production, inventory, testing, distribution, sale, transportation, importation or receipt of any product, fabric or related material and the organization, business, conduct, practices, and management of any person, sole proprietorship, partnership, or corporation being inspected and its relation to any other person, sole proprietorship, partnership, or corporation; (ii) samples of items, materials, substances, products, fabrics, related materials, containers, packages and packaging, labels and labeling, and have the same analyzed, tested, or examined; and (iii) information, both oral and written, concerning any matter referred to in these rules.

(b) A separate notice shall be given for each inspection, but a notice shall not be required for each entry made during the course of the same inspection. Each such inspection shall be commenced at a reasonable time and be completed within a reasonable time.

(c) The notice of inspection shall include: the name and address of the person, sole proprietorship, partnership, or corporation being inspected; the name and title of the inspector; the date and time of the anticipated entry; pertinent extracts from the statutory provisions upon which the right to access is based; pertinent extracts from the statutory provisions upon which the penalties for refusal of access are based; pertinent extracts from §1605.2 of these rules setting forth the authority of inspectors and the types of information and items they are authorized to obtain; a statement which sets forth the purposes of the inspection and the nature of the information and items to

be obtained and/or copied; and a statement that those from whom information is requested should state whether any of the information submitted is believed to contain or relate to a trade secret or other matter which should be considered by the Commission to be confidential in accordance with section 4(c) of the Flammable Fabrics Act (15 U.S.C. 1193(c)) and whether any of the information is believed to be entitled to exemption from disclosure by the Commission under the provisions of the Freedom of Information Act (5 U.S.C. 552) or section 6(f) of the Federal Trade Commission Act (15 U.S.C. 46(f)). Any statement asserting this claim of confidentiality must be in writing, and any request for exemption of the information from disclosure must be made in accordance with the Commission's Freedom of Information Act regulations, 16 CFR part 1015, 42 FR 10490, February 22, 1977 or as amended.

(d) If upon being presented with a notice, the person, or agent-in-charge of the sole proprietorship, partnership, or corporation being inspected fails to allow access to documentary evidence for the purpose of inspecting and making copies of such evidence, the inspector shall notify that individual that he or she may be in violation of the law and subject to the penalties therein and immediately thereafter refer such individual to the appropriate provisions of the notice which set forth such penalties. If the individual still refuses to comply, in whole or in part, with the authorized request for access, the inspector shall leave the premises; and the Commission shall take such action as it deems appropriate. If the person in charge refuses to accept the notice upon its presentation, the inspector shall affix the notice to a public entrance way on the premises.

§ 1605.3 Compulsory processes and the service thereof.

(a) In addition to or in lieu of authorizing the issuance of a notice, the Commission may elect to use any of the following means to initiate investigations, inspections, or inquiries to obtain information for the purposes set forth in §1605.1(a):

- (1) Orders for Access;
- (2) Subpoenas;

- (3) Investigational Hearings;
- (4) Depositions;
- (5) Written Interrogatories; and
- (6) General or special Orders.

(b) Service of notice in connection with any of the compulsory processes enumerated in §1605.3(a) shall be effected as follows:

(1) By personal service upon the person, or agent-in-charge of the sole proprietorship, partnership, or corporation being investigated, inspected, or inquired of; or

(2) By mail (registered or certified) or delivery to the last known residence or business address of anyone being investigated, inspected, or inquired of.

(c) The date of service of any form of compulsory process shall be the date on which the document is mailed, or delivered in person, whichever is applicable. Whenever a party is required or permitted to do an act within a prescribed period after service of a document and the document is served by mail, three (3) days shall be added to the prescribed period.

(d) These rules shall be referred to in any form of compulsory process served upon a person, sole proprietorship, partnership, or corporation.

(e) Anyone submitting information in response to any of the compulsory processes referred to in §1605.4(a) hereof should state whether any of the information submitted is believed to contain or relate to a trade secret or other matter which should be considered by the Commission to be confidential in accordance with section 4(c) of the Flammable Fabrics Act (15 U.S.C. 1193(c)) and whether any of the information is believed to be entitled to exemption from disclosure by the Commission under the provisions of the Freedom of Information Act (15 U.S.C. 552) or section 6(f) of the Federal Trade Commission Act (15 U.S.C. 46(f)). Any statement asserting this claim of confidentiality must be in writing, and any request for exemption of the information from disclosure must be made in accordance with the Commission's Freedom of Information Act regulations, 16 CFR part 1015, 42 FR 10490, February 22, 1977 or as amended.

§ 1605.4 Orders for access.

(a) In the event an inspection pursuant to §1605.2 herein is refused, in whole or in part, or prior to any such inspection, the Commission may issue an order requiring any person, sole proprietorship, partnership, or corporation to allow access to a duly-designated officer or employee of the Commission for the purpose of conducting an inspection. Such order will be issued by the Commission upon the demonstration by the staff of a justifiable need to gain access. Inspections conducted after service of an order for access shall be conducted in accordance with the procedures provided in §1605.2.

(b) After issuance of an order for access, the staff may, upon request of the recipient of the order, agree to modify the order to limit its scope, impose conditions or extend the time for compliance. If an agreement cannot be voluntarily reached, the recipient of the order may file a motion to limit or quash the order. Any such motion shall set forth the reasons why the order should be limited or quashed; and may be accompanied by memoranda, affidavits, or other documents submitted in support of the motion. Unless a different period of time for filing a motion is specified in the order, the motion must be received in the Office of the Secretary of the Commission within ten calendar days after the order is mailed or delivered in person to such person, sole proprietorship, partnership, or corporation unless the Commission, upon a showing of good cause, grants an extension of time within which to file a motion to limit or quash an order of access.

(c) Upon receipt of a motion to limit or quash the order for access, the Office of the Secretary shall immediately notify and transmit a copy of the motion to Associate Executive Director for Compliance and Enforcement or the General Counsel, as appropriate. Unless a different period of time is specified in the order, the Associate Executive Director for Compliance and Enforcement or General Counsel shall file an answer with the Office of the Secretary within ten calendar days after receipt of a copy of the motion. A copy of the answer shall be served upon the moving party or the counsel of the moving

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party. No reply to the answer will be permitted.

(d) All motions to limit or quash shall be ruled upon by the Commission. The Office of the Secretary shall serve the decision on the motion to limit or quash the order of access upon the moving party or the counsel of the moving party and shall furnish a copy of the decision to the Associate Executive Director for Compliance and Enforcement or the General Counsel, as appropriate. The decision on the motion to limit or quash shall be the final decision on the matter. Motions for reconsideration will not be received.

§ 1605.5 Subpoenas.

(a) The Commission may issue to any person, sole proprietorship, partnership, or corporation a subpoena requiring the production of documentary evidence (subpoena duces tecum) and/or the attendance and testimony of witnesses (subpoena ad testificandum) relating to any matter under investigation. The Commission hereby delegates to the Associate Executive Director for Compliance and Enforcement, the Director of the Enforcement Division, the Solicitor, or the General Counsel, depending upon which officer is involved with the subpoena, the power to negotiate and approve the terms of satisfactory compliance with such subpoena.

(b) The person, sole proprietorship, partnership, or corporation upon whom a subpoena is served may file a motion to limit or quash the subpoena. Any such motion shall set forth the reasons why the subpoena should be quashed or limited and may be accompanied by memoranda, affidavits, or other documents submitted in support of the motion. Unless a different period of time for filing a motion is specified in the subpoena, the motion must be received in the Office of the Secretary of the Commission within ten calendar days after the subpoena is mailed or delivered to such person, sole proprietorship, partnership, or corporation unless the Commission, upon a showing of good cause, grants an extension of time within which to file a motion to limit or quash a subpoena.

(c) Upon receipt of any such motion, the Office of the Secretary shall immediately notify and transmit a copy of

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the motion to the Associate Executive Director for Compliance and Enforcement or the General Counsel, as appropriate. Unless a different period of time is specified in the subpoena, the Associate Executive Director for Compliance and Enforcement or the General Counsel shall file an answer with the Office of the Secretary within ten calendar days after receipt of a copy of the motion. A copy of the answer shall be served upon the moving party or the counsel of the moving party. No reply to the answer will be permitted.

(d) All motions to limit or quash a subpoena shall be ruled upon by the Commission. The Office of the Secretary shall serve the decision on the motion to limit or quash the subpoena upon the moving party or the counsel of the moving party and shall furnish a copy of the decision to the Associate Executive Director for Compliance and Enforcement or the General Counsel, as appropriate. The decision on the motion to limit or quash shall be the final decision on the matter. Motions for reconsideration will not be received.

§ 1605.6 Investigational hearings.

(a) The Commission may order, and by subpoena, may compel any person, sole proprietorship, partnership, or corporation to provide information at an investigational hearing. Such hearings shall be for the purpose of taking the testimony, under oath, of witnesses and receiving documents and other data relating to any subject under investigation. Such hearings shall be presided over by the commission, by one or more of its members, an Administrative Law Judge, hearing examiner, attorney-examiner or by a duly designated officer or employee. The hearings shall be stenographically reported, and a transcript thereof shall be made a part of the record.

(b) A Commissioner who participates in such a hearing or other investigation, inspection, or inquiry shall not be disqualified by reason of such participation from subsequently sharing in a Commission decision in the matter.

(c) All investigational hearings shall be closed to the public, unless otherwise ordered by the Commission.

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(d) The release of the record of such hearing shall be governed by the Commission's regulations under the Freedom of Information Act, 5 U.S.C. 552, and/or other applicable laws or regulations.

§ 1605.7 Depositions.

(a) The Commission may order and, by subpoena, may compel testimony to be taken by deposition at any stage of any investigation. Such depositions may be taken before any person designated by the Commission who has the power to administer oaths. The testimony given shall be reduced to writing by the person taking the deposition or under such person's direction and shall then be submitted to the deponent for signature unless the deponent waives the right to sign the deposition. All depositions shall be closed to the public, unless otherwise ordered by the Commission. The release of the record of such depositions shall be governed by the Commission's regulations under the Freedom of Information Act, 5 U.S.C. 552, and/or other applicable laws or regulations.

(b) Any changes in form or substance which the deponent desires to make shall state the reasons for such changes. The deposition shall then be signed by the deponent, unless the deponent waives the right to sign, cannot be found, or is unable or refuses to sign. If the deposition is not signed by the deponent within 30 days of its submission to the deponent, or such shorter time as the Commission may designate, the Commission designee shall sign it and state on the record the fact of the waiver of the right to sign or of the illness or absence of the deponent, or the fact of the deponent's inability or refusal to sign together with the reason, if any, given therefor. The deposition referred to herein may be used in any investigation or any administrative or judicial adjudicative proceeding.

§ 1605.8 Rights of witnesses at investigational hearings and of deponents at depositions.

(a) Any person, or agent or officer of a sole proprietorship, partnership, or corporation who is required to produce documentary evidence or give testimony as a witness at an investiga-

tional hearing conducted under provisions of §1605.6 or as a deponent at a deposition taken in accordance with provisions of §1605.7 may be accompanied by an attorney or an official or employee of the person, sole proprietorship, partnership, or corporation, who may act as counsel for the witness or the deponent. However, a person who is subpoenaed to produce documentary evidence or give testimony at an investigational hearing or deposition cannot act as counsel for another witness or deponent at the same proceeding. The term attorney refers to members of the bar of a Federal Court or the courts of any State or Territory of the United States, the Commonwealth of Puerto Rico, or the District of Columbia. The witness or deponent and his or her counsel may act as follows during the course of an investigational hearing or deposition:

(1) A witness or deponent may confer, in confidence, with his or her counsel concerning any questions asked of the witness or deponent. If the witness or deponent or counsel objects to a question, the objection and basis thereof shall be stated on the record. In the case of an objection based upon the privilege against self incrimination, the privilege must be asserted by the witness or deponent. If a witness at an investigational hearing refuses to answer a question or provide other information, the presiding officer shall have the authority to immediately order the witness or deponent to answer the question or provide the information requested, except in circumstances where an immediate ruling would be unwarranted and except where such refusal is based upon the privilege against self incrimination, which shall be handled in accordance with the procedure set forth in 18 U.S.C. 6002 and 6004. Otherwise, all objections shall be ruled upon by the presiding officer at the time the objection is made.

(2) Objections timely made under the provisions of §1605.8(a) shall be noted on the record, shall be treated as continuing, and shall be preserved throughout the course of the proceeding without the necessity of repetition during similar lines of inquiry.

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(3) Except as provided by this § 1605.8(a), counsel for a witness or a deponent may not interrupt the examination of the witness or the deponent by making objections or statements on the record.

(4) Upon completion of the examination of a witness or a deponent, the witness or deponent may clarify on the record any of his or her answers.

(b) Any such person, agent, or officer who is required to appear in person at an investigational hearing or at a deposition shall testify as to matters and information known and/or reasonably available to the person, sole proprietorship, partnership, or corporation involved.

(c) Any such person, agent, or officer who is compelled by subpoena to appear in person at an investigational hearing or at a deposition shall receive the same fees and mileage allowances as are paid witnesses in the courts of the United States.

(d) Any such person, agent, or officer who is required to appear in person at an investigational hearing or at a deposition shall be entitled to retain a copy of any document submitted by him or her and, upon payment of lawfully prescribed costs, shall be entitled to procure a copy of his or her own testimony as recorded.

(e) The Commission designee who presides at an investigational hearing or before whom a deposition is taken shall take all necessary action to regulate the course of the hearing or the deposition, to avoid delay and to assure that reasonable standards of orderly and ethical conduct are maintained. Such designee shall, for reasons stated on the record, immediately report to the Commission any instance in which counsel for a witness or a deponent has refused to comply with the designee's directions, or to adhere to reasonable standards of orderly and ethical conduct in the course of the hearing or the deposition. The Commission shall thereupon take such action as the circumstances warrant.

§ 1605.9 Written interrogatories.

(a) The Commission may order any person, sole proprietorship, partnership, or corporation being investigated to answer written interrogatories.

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Such interrogatories shall be answered by the individual or by any agent or officer of the sole proprietorship, partnership, or corporation who shall furnish information on behalf of the sole proprietorship, partnership, or corporation. The information provided shall be that which is known or reasonably available to the person or organization involved and shall be submitted after reasonable inquiry to obtain the information requested.

(b) Each interrogatory shall be answered separately and fully in writing, under oath, unless it is objected to, in which event the reason for the objection shall be stated in lieu of an answer. The answers shall be signed by the individual or the officer or agent making them. The person, sole proprietorship, partnership, or corporation upon whom the interrogatories have been served shall furnish the Commission a copy of the answers and objections, if any, within 30 days after service of the interrogatories or within such shorter time as the commission may designate. Interrogatories submitted hereunder are continuing in character so as to require the person, sole proprietorship, partnership, or corporation answering to file supplementary answers upon obtaining further or different information.

§ 1605.10 General or special orders seeking information.

The Commission may require by the issuance of general or special orders, any person, sole proprietorship, partnership, or corporation to file with the Commission in such form as the Commission may prescribe annual and/or special reports or answers in writing to specific questions which furnish to the Commission such information as it may require as to its organization, business, conduct, practices, management, and relation to any person, sole proprietorship, partnership, or corporation. Such reports and answers shall be made under oath, or otherwise, as the Commission may prescribe and shall be filed with the Commission within such time as the Commission may prescribe, unless additional time may be granted in any case by the Commission.

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§ 1605.11 Remedies for failure to permit authorized investigations.

In the event of failure to comply with any investigative process authorized by these rules, the Commission may seek appropriate action pursuant to the authority conferred by the Federal Trade Commission Act, including actions for enforcement, forfeitures, penalties, or criminal sanctions.

§ 1605.12 Nonexclusive delegation of power.

No provision contained herein delegating any of the Commission's powers shall be construed as limiting the actual authority of the Commission to exercise the same powers.

Subpart B—Consent Order Agreements

§ 1605.13 Procedures for Consent Order Agreements.

(a) The Consent Order Agreement is a document executed by a person, sole proprietorship, partnership, or corporation (Consenting Party) and a Commission staff representative which incorporates both a proposed complaint setting forth the staff's charges and a proposed order by which such charges are resolved. A consent order agreement shall contain the following provisions, as appropriate:

(1) An admission of all jurisdictional facts by the consenting parties;

(2) A waiver of any rights to an administrative or judicial hearing and of any other procedural steps including any rights to seek judicial review or otherwise challenge or contest the validity of the Commission's order;

(3) A statement that the agreement is in settlement of the staff's charges and does not constitute an admission by the Consenting Party that the law has been violated;

(4) A statement that the Commission's order is issued under the provisions of the Federal Trade Commission Act (15 U.S.C. 41 et seq.), the Flammable Fabrics Act (15 U.S.C. 1191 et seq.), and the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and that a violation of such an order subjects the Consenting Party to civil penalties under the provisions of the Federal Trade Commission Act;

(5) An acknowledgement that the consent order agreement only becomes effective upon its final acceptance by the Commission and its service upon the Consenting Party;

(6) An acknowledgement that the Commission may disclose terms of the consent order agreement to the public;

(7) A statement that the Consulting Party shall cease and desist from certain acts and practices;

(8) A statement that the Consenting Party shall perform certain acts and practices pursuant to the consent order agreement;

(9) An acknowledgement that the requirements of the order are in addition to, and not to the exclusion of, other remedies such as criminal penalties which may be pursued under section 7 of the Flammable Fabrics Act.

(b) At any time in the course of an investigation, the staff, with the approval of the Commission may propose to the person, sole proprietorship, partnership, or corporation being investigated, that any alleged violation be resolved by an agreement containing a consent order. Additionally, such a proposal may be made to the Commission staff by such person, sole proprietorship, partnership, or corporation.

(c) Upon receiving an executed agreement, the Commission may: (1) Provisionally accept it; (2) reject it and issue its complaint (in which case the matter will be scheduled for hearing in accordance with the Commission's Rules of Practice for Adjudicative Proceedings (16 CFR part 1025, June 21, 1977, or as later revised)); or (3) take such other action as it may deem appropriate.

(d) If the agreement is provisionally accepted, the Commission shall place the agreement on the public record and shall announce provisional acceptance of the agreement in the FEDERAL REGISTER. Any interested person may ask the Commission not to accept the agreement by filing a request in the office of the Secretary. Such request must be received in the Office of the Secretary no later than the close of business of the fifteenth calendar day following the date the announcement is published in the FEDERAL REGISTER.

(e) Unless the Commission orders otherwise, the agreement shall be

deemed finally accepted by the Commission on the 20th calendar day after the date of announcement in the FEDERAL REGISTER. The Commission shall then issue its complaint and order in such form as the circumstances, may require. The order is a final order in disposition of the proceeding and is effective immediately upon its service upon the Consenting Party pursuant to these rules. The Consenting Party shall thereafter be bound by and take immediate action in accordance with such final order.

(f) If the Commission does not accept the agreement on a final basis, it shall so notify the Consenting Party. Such notification constitutes withdrawal of the Commission's provisional acceptance unless the Commission orders otherwise. The Commission may then issue its complaint, may order further investigation, or may take such other action it considers appropriate.

PART 1608—GENERAL RULES AND REGULATIONS UNDER THE FLAMMABLE FABRICS ACT

Sec.

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AUTHORITY: Sec. 5, 67 Stat. 112, as amended, 81 Stat. 570, 15 U.S.C. 1194.

SOURCE: 40 FR 59887, Dec. 30, 1975, unless otherwise noted.

§ 1608.0 Scope.

The rules and regulations in this part are applicable to all standards issued under the Flammable Fabrics Act.

§ 1608.1 Terms defined.

As used in the rules and regulations in this subchapter D, unless the context otherwise specifically requires:

(a) The term *act* means the Flammable Fabrics Act, sec. 1 et seq., 67 Stat. 111-115, as amended, 68 Stat. 770, 81 Stat. 568-74 (15 U.S.C. 1191-1204, note under 1191).

(b) The terms *rule, rules, regulations, and rules and regulations*, mean the rules and regulations prescribed by the Commission pursuant to section 5(c) of the act.

(c) The term *United States* means, the several States, the District of Columbia, the Commonwealth of Puerto Rico and the Territories and Possessions of the United States.

(d) The terms *marketing or handling* means the transactions referred to in section 3 of the act.

(e) The definition of terms contained in section 2 of the act shall be applicable also to such terms when used in rules promulgated under the act.

§ 1608.2 Form of separate guaranty.

The forms which follow are suggested forms of separate guaranties under section 8 of the act for use by guarantors residing in the United States. Representations contained in these suggested forms of separate guaranties with respect to reasonable and representative tests may be based upon a guaranty received and relied upon in good faith by the guarantor, tests performed by or for a guarantor, or class tests, where permitted under these rules. Where the forms are used as part of an invoice or other paper relating to the marketing or handling of products, fabrics, or related materials subject to the act, wording may be varied to limit the guaranty to specific items in such invoice or other paper. The name, address of the guarantor, and date on the invoice or other paper will suffice to meet the signature, address, and date requirements indicated on the forms.

(a) *General form.*

The undersigned hereby guarantees that reasonable and representative tests, made in accordance with procedures prescribed and applicable standards or regulations issued, amended, or continued in effect under the Flammable Fabrics Act, as amended, show that the product, fabric, or related material covered and identified by, and in the form delivered under this document conforms to the applicable standard or regulation issued, amended, or continued in effect.

Date: _____
Name _____
Address _____

(b) *Form for guaranty based on guaranty.*

Based upon a guaranty received, the undersigned hereby guarantees that reasonable

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and representative tests, made in accordance with procedures prescribed pursuant to the Flammable Fabrics Act, as amended, show that the product, fabric, or related material covered and identified by, and in the form delivered under this document conforms to the applicable standard or regulation issued, amended, or continued in effect.

Date: _____
Name _____
Address _____

(Sec. 5 of the Act, 67 Stat. 112, as amended by 81 Stat. 570, 15 U.S.C. sec. 1194; sec. 8 of the Act, 67 Stat. 114, as amended by 81 Stat. 572, 15 U.S.C. sec. 1197)

§ 1608.3 Continuing guaranties.

(a) Any person residing in the United States may file with the Office of the Secretary of the Consumer Product Safety Commission a continuing guaranty under section 8 of the act applicable to any product, fabric, or related material marketed or handled by such person. When filed with the Commission, a continuing guaranty shall be fully executed in duplicate and execution of each copy shall be acknowledged before a notary public. Forms for use in preparing continuing guaranties to be filed with the Commission will be supplied by the Office of the Secretary of the Commission upon request. To remain in effect, such guaranties must be renewed every 3 years and at such other times as any change occurs in the legal business status of the person filing the guaranty. It is therefore required that any person who has filed a continuing guaranty with the Commission shall promptly advise the Commission in writing of any change in the legal status of the guarantor or in the address of the guarantor's principal office and place of business. Representations contained in the prescribed form of continuing guaranty with respect to reasonable and representative tests may be based upon (1) a guaranty received and relied upon in good faith by the guarantor, (2) tests performed by or for a guarantor, or (3) class tests, where permitted under these rules.

(b) The following is the prescribed form of continuing guaranty for filing with the Commission:

CONTINUING GUARANTY UNDER THE FLAMMABLE FABRICS ACT FOR FILING WITH CONSUMER PRODUCTS SAFETY COMMISSION

The undersigned, _____, a _____ (Corporation, partnership, proprietorship) residing in the United States and having principal office and place of business at _____ (Street and number) _____, (City) _____, (State or territory, ZIP code) and being engaged in the marketing or handling of products, fabrics, or related materials subject to the Flammable Fabrics Act, as amended, and regulations thereunder,

Hereby guarantee(s) that with regard to all the products, fabrics, or related materials [described as follows: _____]

(If guaranty is limited to certain products, fabrics, or related materials, list the general categories here. If guaranty is not so limited, leave these lines blank.)

hereafter marketed or handled by the undersigned, and for which flammability standards have been issued, amended, or continued in effect under the Flammable Fabrics Act, as amended, reasonable and representative tests as prescribed by the Consumer Product Safety Commission have been performed, which shows that the products, fabrics, or related materials conform to such of the above-mentioned flammability standards as are applicable thereto.

Dated, signed, and executed this _____ day of _____, 19____, at _____ (City), _____ (State or Territory)

(Impression of corporate seal, if corporation.) (Name under which business is conducted.) _____

(If firm is a partnership list partners below.) (Signature of proprietor, partner, or authorized official of corporation.) _____

State of _____, ss:
County of _____

On this _____ day of _____, 19____, before me personally appeared the said _____, (Signer of guaranty) proprietor, partner (strike nonapplicable words) _____ (If corporation, give title of signing official) of _____, (Firm name) to me personally known, and acknowledged the execution of the foregoing instrument on behalf of the firm, for the uses and purposes therein stated.

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(Impression of notary seal required here.) Notary Public in and for County of _____ State of _____. My commission expires _____.

(c) Any person who has a continuing guaranty on file with the Commission may, during the effective period of the guaranty, give notice of such fact by setting forth on the invoice or other paper covering the marketing or handling of the product, fabric, or related material guaranteed the following:

Continuing guaranty under the Flammable Fabrics Act filed with the Consumer Product Safety Commission.

Provided, however, That such statement may not be used where the guaranty is limited and the invoice or other paper covers any product, fabric, or related material, subject to a flammability standard under the act, which is not covered by the guaranty because of its limited nature.

(d) Any person who falsely represents that he has a continuing guaranty on file with the Commission when such is not a fact, or who falsely represents that a limited continuing guaranty he does have on file with the Commission covers any product, fabric, or related material when such is not the case, shall be deemed to have furnished a false guaranty under section 8(b) of the act.

(e) Any seller residing in the United States may give a continuing guaranty under section 8 of the act to a buyer applicable to any product, fabric, or related material sold or to be sold to said buyer by seller. All such continuing guaranties shall be fully executed in duplicate and execution of each copy shall be acknowledged before a notary public. To remain in effect, such guaranties must be renewed every 3 years and at such other times as any change occurs in the legal business status of the person giving the guaranty. Representations contained in the prescribed form of continuing guaranty from seller to buyer with respect to reasonable and representative tests may be based upon: (1) A guaranty received and relied upon in good faith by the guarantor, (2) tests performed by or for a guarantor, or (3) class tests, where permitted under these rules.

(f) The following is the prescribed form of continuing guaranty from seller to buyer:

CONTINUING GUARANTY FROM SELLER TO BUYER UNDER THE FLAMMABLE FABRICS ACT

The undersigned, _____

a _____ (Corporation, partnership, proprietorship) residing in the United States and having its principal office and place of business at _____,

(Street and number) _____ (City), _____ (State or Territory and ZIP code), and being engaged in the marketing or handling of products, fabrics, or related materials subject to the Flammable Fabrics Act, as amended, and Regulations thereunder,

Hereby guarantee(s) to _____ (Name and address), buyer, that with regard to all the products, fabrics, or related materials [described as follows: _____ (If guaranty is limited to certain products, fabrics, or related materials, list the general categories here. If guaranty is not so limited, leave these lines blank.) hereafter sold or to be sold to buyer by the undersigned, and for which flammability standards have been issued, amended, or continued in effect under the Flammable Fabrics Act, as amended, reasonable and representative tests as prescribed by the Consumer Product Safety Commission have been performed show that the products, fabrics, or related materials, at the time of their shipment or delivery by the undersigned, conform to such of the above-mentioned flammability standards as are applicable thereto.

Dated, signed, and executed this _____ day of _____, 19____, at _____, (City) _____ (State or Territory).

(Impression of corporate seal, if corporation.) _____ (Name under which business is conducted.)

 (If firm is a partnership list partners below.) _____ (Signature of proprietor, partner, or authorized official of corporation.)

STATE OF _____, ss:
 County of _____,
 On this _____ day of _____, 19____, before me _____ personally appeared the said _____ (Signer of guaranty), proprietor, partner (Strike non-applicable words) _____ (If corporation, give title of signing official) of _____ (Firm name), to me personally known, and acknowledged

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the execution of the foregoing instrument on behalf of the firm, for the uses and purposes therein stated.

(Impression Notary Public in and for County of _____, State of _____. My seal re-quired here.)
commission expires _____

(Sec. 5 of the Act, 67 Stat. 112, as amended by 81 Stat. 570, 15 U.S.C. 1194: section 8 of the Act 67 Stat. 114, as amended by 81 Stat. 572, 15 U.S.C. 1197)

[40 FR 59887, Dec. 30, 1975, as amended at 52 FR 48810, Dec. 28, 1987]

§ 1608.4 Guaranties furnished by non-residents of the U.S. no bar to prosecution.

A guaranty furnished under section 8 of the act by a person who is not a resident of the United States may not be relied upon as a bar to prosecution under section 7 of the act for a violation of section 3 of the act.

§ 1608.5 Salvage operations of common carriers and others.

For the purposes of this act the ordinary course of business of common carriers, contract carriers or freight forwarders, as referred to in section 11 of the act, shall not include the marketing or handling of products, fabrics, or related materials subject to the act in the course of performance of salvage or lien realizing operations.

§ 1608.6 Reference to guaranty by Government prohibited.

No representation nor suggestion shall be made in advertising or otherwise marketing or handling products, fabrics or related materials subject to the act that the act, the Government, or any branch thereof, guarantees, in any manner that such product, fabric, or related material conforms to a flammability standard in effect under the act.

PART 1609—TEXT OF THE FLAMMABLE FABRICS ACT OF 1953, AS AMENDED IN 1954, PRIOR TO 1967 AMENDMENT AND REVISION

§ 1609.1 Text of the Flammable Fabrics Act of 1953, as amended in 1954.

The following is the text of the Flammable Fabrics Act of 1953, ch. 164, 67 Stat. 111, as amended, ch. 833, 68 Stat. 770 (1954):

AN ACT

To prohibit the introduction or movement in interstate commerce of articles of wearing apparel and fabrics which are so highly flammable as to be dangerous when worn by individuals, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Flammable Fabrics Act."

DEFINITIONS

Sec. 2. As used in this Act—

(a) The term *person* means an individual, partnership, corporation, association, or any other form of business enterprise.

(b) The term *commerce* means commerce among the several States or with foreign nations, or in any Territory of the United States or in the District of Columbia, or between any such Territory and another, or between any such Territory and any State or foreign nation, or between the District of Columbia and any State or Territory or foreign nation.

(c) The term *Territory* includes the insular possessions of the United States and also any Territory of the United States.

(d) The term *article of wearing apparel* means any costume or article of clothing worn or intended to be worn by individuals except hats, gloves, and footwear: Provided, however, That such hats do not constitute or form part of a covering for the neck, face, or shoulders when worn by individuals: Provided further, That such gloves are not more than fourteen inches in length and are not affixed to or do not form an integral part of another garment: And provided further, That such footwear does not consist of hosiery in whole or in part and is not affixed to or does not form an integral part of another garment.

(e) The term *fabric* means any material (other than fiber, filament, or yarn) woven, knitted, felted, or otherwise produced from or in combination with any natural or synthetic fiber, film, or substitute therefor

which is intended or sold for use in wearing apparel except that interlining fabrics when intended or sold for use in wearing apparel shall not be subject to this Act.

(f) The term *interlining* means any fabric which is intended for incorporation into an article of wearing apparel as a layer between an outer shell and an inner lining.

(g) The term *Commission* means the Federal Trade Commission.

(h) The term *Federal Trade Commission Act* means the Act of Congress entitled "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," approved September 26, 1914, as amended.

PROHIBITED TRANSACTIONS

SEC. 3. (a) The manufacture for sale, the sale, or the offering for sale, in commerce, or the importation into the United States, or the introduction, delivery for introduction, transportation or causing to be transported in commerce or for the purpose of sale or delivery after sale in commerce, of any article of wearing apparel which under the provisions of section 4 of this Act is so highly flammable as to be dangerous when worn by individuals, shall be unlawful and shall be an unfair method of competition and an unfair and deceptive act or practice in commerce under the Federal Trade Commission Act.

(b) The sale or the offering for sale, in commerce, or the importation into the United States, or the introduction, delivery for introduction, transportation or causing to be transported in commerce or for the purpose of sale or delivery after sale in commerce, of any fabric which under the provisions of section 4 of this Act is so highly flammable as to be dangerous when worn by individuals, shall be unlawful and shall be an unfair method of competition and an unfair and deceptive act or practice in commerce under the Federal Trade Commission Act.

(c) The manufacture for sale, the sale, or the offering for sale, of any article of wearing apparel made of fabric which under section 4 is so highly flammable as to be dangerous when worn by individuals and which has been shipped or received in commerce shall be unlawful and shall be an unfair method of competition and an unfair and deceptive act or practice in commerce under the Federal Trade Commission Act.

STANDARD OF FLAMMABILITY

SEC. 4. (a) Any fabric or article of wearing apparel shall be deemed so highly flammable within the meaning of section 3 of this Act as to be dangerous when worn by individuals if such fabrics or any uncovered or exposed part of such article of wearing apparel exhibits rapid and intense burning when tested under the conditions and in the manner prescribed in the Commercial Standard promul-

gated by the Secretary of Commerce effective January 30, 1953, and identified as "Flammability of Clothing Textiles, Commercial Standard 191-53," or exhibits a rate of burning in excess of that specified in paragraph 3.11 of the Commercial Standard promulgated by the Secretary of Commerce effective May 22, 1953, and identified as "General Purpose Vinyl Plastic Film, Commercial Standard 192-53." For the purposes of this Act, such Commercial Standard 191-53 shall apply with respect to the hats, gloves, and footwear covered by section 2(d) of this Act, notwithstanding any exception contained in such Commercial Standard with respect to hats, gloves, and footwear.

(b) If at any time the Secretary of Commerce finds that the Commercial Standards referred to in subsection (a) of this section are inadequate for the protection of the public interest, he shall submit to the Congress a report setting forth his findings together with such proposals for legislation as he deems appropriate.

(c) Notwithstanding the provisions of paragraph 3.1 Commercial Standard 191-53, textiles free from nap, pile, tufting, flock or other type of raised fiber surface when tested as described in said standard shall be classified as class 1, normal flammability, when the time of flame spread is three and one-half seconds or more, and as class 3, rapid and intense burning when the time of flame spread is less than three and one-half seconds. [Approved August 23, 1954.]

ADMINISTRATION AND ENFORCEMENT

SEC. 5. (a) Except as otherwise specifically provided herein, sections 3, 5, 6, and 8(b) of this Act shall be enforced by the Commission under rules, regulations and procedures provided for in the Federal Trade Commission Act.

(b) The Commission is authorized and directed to prevent any person from violating the provisions of section 3 of this Act in the same manner, by the same means and with the same jurisdiction, powers and duties as though all applicable terms and provisions of the Federal Trade Commission Act were incorporated into and made a part of this Act; and any such person violating any provision of section 3 of this Act shall be subject to the penalties and entitled to the privileges and immunities provided in said Federal Trade Commission Act as though the applicable terms and provisions of the said Federal Trade Commission Act were incorporated into and made a part of this Act.

(c) The Commission is authorized and directed to prescribe such rules and regulations as may be necessary and proper for purposes of administration and enforcement of this Act.

(d) The Commission is authorized to—

(1) cause inspections, analyses, tests, and examinations to be made of any article of

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wearing apparel or fabric which it has reason to believe falls within the prohibitions of this Act; and

(2) cooperate on matters related to the purposes of this Act with any department or agency of the Government; with any State, Territory, or possession or with the District of Columbia; or with any department, agency, or political subdivision thereof; or with any person.

INJUNCTION AND CONDEMNATION PROCEEDINGS

SEC. 6. (a) Whenever the Commission has reason to believe that any person is violating or is about to violate section 3 of this Act, and that it would be in the public interest to enjoin such violation until complaint under the Federal Trade Commission Act is issued and dismissed by the Commission or until order to cease and desist made thereon by the Commission has become final within the meaning of the Federal Trade Commission Act or is set aside by the court on review, the Commission may bring suit in the district court of the United States or in the United States court of any Territory for the district or Territory in which such person resides or transacts business, to enjoin such violation and upon proper showing a temporary injunction or restraining order shall be granted without bond.

(b) Whenever the Commission has reason to believe that any article of wearing apparel has been manufactured or introduced into commerce or any fabric has been introduced in commerce in violation of section 3 of this Act, it may institute proceedings by process of libel for the seizure and confiscation of such article of wearing apparel or fabric in any district court of the United States within the jurisdiction of which such article of wearing apparel or fabric is found. Proceedings in cases instituted under the authority of this section shall conform as nearly as may be to proceedings in rem in admiralty, except that on demand of either party and in the discretion of the court, any issue of fact shall be tried by jury. Whenever such proceedings involving identical articles of wearing apparel or fabrics are pending in two or more jurisdictions, they may be consolidated for trial by order of any such court upon application seasonably made by any party in interest upon notice to all other parties in interest. Any court granting an order of consolidation shall cause prompt notification thereof to be given to other courts having jurisdiction in the cases covered thereby and the clerks of such other courts shall transmit all pertinent records and papers to the court designated for the trial of such consolidated proceedings.

(c) In any such action the court upon application seasonably made before trial shall by order allow any party in interest, his attorney or agent, to obtain a representative sam-

ple of the article of wearing apparel or fabric seized.

(d) If such articles of wearing apparel or fabrics are condemned by the court they shall be disposed of by destruction, by delivery to the owner or claimant thereof upon payment of court costs and fees and storage and other proper expenses and upon execution of good and sufficient bond to the effect that such articles of wearing apparel or fabrics will not be disposed of for wearing apparel purposes until properly and adequately treated or processed so as to render them lawful for introduction into commerce, or by sale upon execution of good and sufficient bond to the effect that such articles of wearing apparel or fabrics will not be disposed of for wearing apparel purposes until properly and adequately treated or processed so as to render them lawful for introduction into commerce. If such products are disposed of by sale the proceeds, less costs and charges, shall be paid into the Treasury of the United States.

PENALTIES

SEC. 7. Any person who willfully violates section 3 or 8(b) of this Act shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not more than \$5,000 or be imprisoned not more than one year or both in the discretion of the court: Provided, That nothing herein shall limit other provisions of this Act.

GUARANTY

SEC. 8. (a) No person shall be subject to prosecution under section 7 of this Act for a violation of section 3 of this Act if such person (1) establishes a guaranty received in good faith signed by and containing the name and address of the person by whom the wearing apparel or fabric guaranteed was manufactured or from whom it was received, to the effect that reasonable and representative tests made under the procedures provided in section 4 of this Act show that the fabric covered by the guaranty, or used in the wearing apparel covered by the guaranty, is not, under the provisions of section 4 of this Act, so highly flammable as to be dangerous when worn by individuals, and (2) has not, by further processing, affected the flammability of the fabric or wearing apparel covered by the guaranty which he received. Such guaranty shall be either (1) a separate guaranty specifically designating the wearing apparel or fabric guaranteed, in which case it may be on the invoice or other paper relating to such wearing apparel or fabric; or (2) a continuing guaranty filed with the Commission applicable to any wearing apparel or fabric handled by a guarantor, in such form as the Commission by rules or regulations may prescribe.

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(b) It shall be unlawful for any person to furnish, with respect to any wearing apparel or fabric, a false guaranty (except a person relying upon a guaranty to the same effect received in good faith signed by and containing the name and address of the person by whom the wearing apparel or fabric guaranteed was manufactured or from whom it was received) with reason to believe the wearing apparel or fabric falsely guaranteed may be introduced, sold, or transported in commerce, and any person who violates the provisions of this subsection is guilty of an unfair method of competition, and an unfair or deceptive act or practice, in commerce within the meaning of the Federal Trade Commission Act.

SHIPMENTS FROM FOREIGN COUNTRIES

SEC. 9. Any person who has exported or who has attempted to export from any foreign country into the United States any wearing apparel or fabric which, under the provisions of section 4, is so highly flammable as to be dangerous when worn by individuals may thenceforth be prohibited by the Commission from participating in the exportation from any foreign country into the United States of any wearing apparel or fabric except upon filing bond with the Secretary of the Treasury in a sum double the value of said products and any duty thereon, conditioned upon compliance with the provisions of this Act.

INTERPRETATION AND SEPARABILITY

SEC. 10. The provisions of this Act shall be held to be in addition to, and not in substitution for or limitation of, the provisions of any other law. If any provision of this Act or the application thereof to any person or circumstances is held invalid the remainder of the Act and the application of such provisions to any other person or circumstances shall not be affected thereby.

EXCLUSIONS

SEC. 11. The provisions of this Act shall not apply (a) to any common carrier, contract carrier, or freight forwarder with respect to an article of wearing apparel or fabric shipped or delivered for shipment into commerce in the ordinary course of its business; or (b) to any converter, processor, or finisher in performing a contract or commission service for the account of a person subject to the provisions of this Act: Provided, That said converter, processor, or finisher does not cause any article of wearing apparel or fabric to become subject to this Act contrary to the terms of the contract or commission service; or (c) to any article of wearing apparel or fabric shipped or delivered for shipment into commerce for the purpose of finishing or processing to render such article or fabric not so highly flammable, under the

provisions of section 4 of this Act, as to be dangerous when worn by individuals.

EFFECTIVE DATE

SEC. 12. This Act shall take effect one year after the date of its passage.

AUTHORIZATION OF NECESSARY APPROPRIATIONS

SEC. 13. There is hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

[40 FR 59889, Dec. 30, 1975]

PART 1610—STANDARD FOR THE FLAMMABILITY OF CLOTHING TEXTILES

Subpart A—The Standard

- Sec.
- 1610.1 Purpose, scope and applicability.
- 1610.2 Definitions.
- 1610.3 Summary of test method.
- 1610.4 Requirements for classifying textiles.
- 1610.5 Test apparatus and materials.
- 1610.6 Test procedure.
- 1610.7 Test sequence and classification criteria.
- 1610.8 Reporting results.

Subpart B—Rules and Regulations

- 1610.31 Definitions.
- 1610.32 General requirements.
- 1610.33 Test procedures for textile fabrics and film.
- 1610.34 Only uncovered or exposed parts of wearing apparel to be tested.
- 1610.35 Procedures for testing special types of textile fabrics under the standard.
- 1610.36 Application of Act to particular types of products.
- 1610.37 Reasonable and representative tests to support guaranties.
- 1610.38 Maintenance of records by those furnishing guaranties.
- 1610.39 Shipments under section 11(c) of the Act.
- 1610.40 Use of alternative apparatus, procedures, or criteria for tests for guaranty purposes.

Subpart C—Interpretations and Policies

- 1610.61 Reasonable and representative testing to assure compliance with the standard for the clothing textiles.
- FIGURE 1 TO PART 1610—SKETCH OF FLAMMABILITY APPARATUS
- FIGURE 2 TO PART 1610—FLAMMABILITY APPARATUS VIEWS
- FIGURE 3 TO PART 1610—SPECIMEN HOLDER SUPPORTED IN SPECIMEN RACK

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FIGURE 4 TO PART 1610—AN EXAMPLE OF A TYPICAL INDICATOR FINGER
FIGURE 5 TO PART 1610—AN EXAMPLE OF A TYPICAL GAS SHIELD
FIGURE 6 TO PART 1610—IGNITER
FIGURE 7 TO PART 1610—BRUSHING DEVICE
FIGURE 8 TO PART 1610—BRUSH
FIGURE 9 TO PART 1610—BRUSHING DEVICE TEMPLATE

SOURCE: 73 FR 15640, Mar. 25, 2008, unless otherwise noted.

AUTHORITY: 15 U.S.C. 1191–1204.

Subpart A—The Standard

§ 1610.1 Purpose, scope and applicability.

(a) *Purpose.* The purpose of this 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 prohibiting the use of any dangerously flammable clothing textiles.

(b) *Scope.* The Standard provides methods of testing the flammability of clothing and textiles intended to be used for clothing, establishes three classes of flammability, sets forth the requirements which textiles shall meet to be classified, and warns against the use of those textiles which have burning characteristics unsuitable for clothing. Hereafter, “clothing and textiles intended to be used for clothing” shall be referred to as “textiles.”

(c) *Specific exceptions.* This standard shall not apply to: (1) Hats, provided they do not constitute or form part of a covering for the neck, face, or shoulders when worn by individuals;

(2) Gloves, provided they are not more than 14 inches in length and are not affixed to or do not form an integral part of another garment;

(3) Footwear, provided it does not consist of hosiery in whole or part and is not affixed to or does not form an integral part of another garment;

(4) Interlining fabrics, when intended or sold for use as a layer between an outer shell and an inner lining in wearing apparel.

(d) *Specific exemptions.* Experience gained from years of testing in accordance with the Standard demonstrates that certain fabrics consistently yield acceptable results when tested in ac-

cordance with the Standard. Therefore, persons and firms issuing an initial guaranty of any of the following types of fabrics, or of products made entirely from one or more of these fabrics, are exempt from any requirement for testing to support guaranties of those fabrics:

(1) Plain surface fabrics, regardless of fiber content, weighing 2.6 ounces per square yard or more; and

(2) All fabrics, both plain surface and raised-fiber surface textiles, regardless of weight, made entirely from any of the following fibers or entirely from combination of the following fibers: acrylic, modacrylic, nylon, olefin, polyester, wool.

(e) *Applicability.* The requirements of this part 1610 shall apply to textile fabric or related material in a form or state ready for use in an article of wearing apparel, including garments and costumes finished for consumer use.

§ 1610.2 Definitions.

In addition to the definitions given in Section 2 of the Flammable Fabrics Act as amended (15 U.S.C. 1191), the following definitions apply for this part 1610.

(a) *Base burn* (also known as base fabric ignition or fusing) means the point at which the flame burns the ground (base) fabric of a raised surface textile fabric and provides a self-sustaining flame. Base burns, used to establish a Class 3 fabric, are those burns resulting from surface flash that occur on specimens in places other than the point of impingement when the warp and fill yarns of a raised surface textile fabric undergo combustion. Base burns can be identified by an opacity change, scorching on the reverse side of the fabric, or when a physical hole is evident.

(b) *Burn time* means the time elapsed from ignition until the stop thread is severed as measured by the timing mechanism of the test apparatus.

(c) *Dry cleaning* means the cleaning of samples in a commercial dry cleaning machine under the conditions described in § 1610.6.

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(d) *Film* means any non-rigid, unsupported plastic, rubber or other synthetic or natural film or sheeting, subject to the Act, or any combination thereof, including transparent, translucent, and opaque material, whether plain, embossed, molded, or otherwise surface treated, which is in a form or state ready for use in wearing apparel, and shall include film or sheeting of any thickness.

(e) *Flammability* means those characteristics of a material that pertain to its relative ease of ignition and relative ability to sustain combustion.

(f) *Flame application* time means the 1 second during which the ignition flame is applied to the test specimen.

(g) *Ignition* means that there is a self-sustaining flame on the specimen after the test flame is removed.

(h) *Interlining* means any textile which is intended for incorporation into an article of wearing apparel as a layer between an outer shell and an inner lining.

(i) *Laundering* means washing with an aqueous detergent solution and includes rinsing, extraction and tumble drying as described in § 1610.6.

(j) *Long dimension* means the 150 mm (6 in) length of test specimen.

(k) *Plain surface textile* fabric means any textile fabric which does not have an intentionally raised fiber or yarn surface such as a pile, nap, or tuft, but shall include those fabrics that have fancy woven, knitted or flock-printed surfaces.

(l) *Raised surface textile fabric* means any textile fabric with an intentionally raised fiber or yarn surface, such as a pile, including flocked pile, nap, or tufting.

(m) *Refurbishing* means dry cleaning and laundering in accordance with § 1610.6.

(n) *Sample* means a portion of a lot of material which is taken for testing or for record keeping purposes.

(o) *Specimen* means a 50 mm by 150 mm (2 in by 6 in) section of sample.

(p) *Stop thread supply* means No. 50, white, mercerized, 100% cotton sewing thread.

(q) *Surface flash* means a rapid burning of the pile fibers and yarns on a raised fiber surface textile that may or may not result in base burning.

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(r) *Textile fabric* means any coated or uncoated material subject to the Act, except film and fabrics having a nitrocellulose fiber, finish, or coating, which is woven, knitted, felted or otherwise produced from any natural or manmade fiber, or substitute therefore, or combination thereof, of 50 mm (2 in) or more in width, and which is in a form or state ready for use in wearing apparel, including fabrics which have undergone further processing, such as dyeing and finishing, in garment form, for consumer use.

§ 1610.3 Summary of test method.

The Standard provides methods of testing the flammability of textiles from or intended to be used for apparel; establishes three classes of flammability; sets forth the requirements for classifying textiles; and prohibits the use of single or multi-layer textile fabrics that have burning characteristics that make them unsuitable for apparel. All textiles shall be tested before and after refurbishing according to § 1610.6. Each specimen cut from the textile shall be inserted in a frame, brushed if it has a raised-fiber surface, and held in a special apparatus at an angle of 45°. A standardized flame shall be applied to the surface near the lower end of the specimen for 1 second, and the time required for the flame to proceed up the fabric a distance of 127 mm (5 in) shall be recorded. A notation shall be made as to whether the base of a raised-surface textile fabric ignites or fuses.

§ 1610.4 Requirements for classifying textiles.

(a) *Class 1, Normal Flammability.* Class 1 textiles exhibit normal flammability and are acceptable for use in clothing. This class shall include textiles which meet the minimum requirements set forth in paragraph (a)(1) or paragraph (a)(2) of this section.

(1) *Plain surface textile fabric.* Such textiles in their original state and/or after being refurbished as described in § 1610.6(a) and § 1610.6(b), when tested as described in § 1610.6 shall be classified as Class 1, Normal flammability, when the burn time is 3.5 seconds or more.

(2) *Raised surface textile fabric.* Such textiles in their original state and/or after being refurbished as described in

§1610.6(a) and §1610.6(b), when tested as described in §1610.6, shall be classified as Class 1, Normal flammability, when the burn time is more than 7 seconds, or when they burn with a rapid surface flash (0 to 7 seconds), provided the intensity of the flame is so low as not to ignite or fuse the base fabric.

(b) *Class 2, Intermediate flammability.* Class 2 fabrics, applicable only to raised-fiber surface textiles, are considered to be of intermediate flammability, but may be used for clothing. This class shall include textiles which meet the minimum requirements set forth in paragraph (b)(2) of this section.

(1) *Plain surface textile fabric.* Class 2 is not applicable to plain surface textile fabrics.

(2) *Raised surface textile fabric.* Such textiles in their original state and/or after being refurbished as described in §1610.6(a) and §1610.6(b), when tested as described in §1610.6, shall be classified as Class 2, Intermediate flammability, when the burn time is from 4 through 7 seconds, both inclusive, and the base fabric ignites or fuses.

(c) *Class 3, Rapid and intense burning.* Class 3 textiles exhibit rapid and intense burning, are dangerously flammable and shall not be used for clothing. This class shall include textiles which have burning characteristics as described in paragraphs (c)(1) and (c)(2) of this section. Such textiles are considered dangerously flammable because of their rapid and intense burning.

(1) *Plain surface textile fabric.* Such textiles in their original state and/or after refurbishing as described in §1610.6(a) and §1610.6(b), when tested as described in §1610.6, shall be classified as Class 3 Rapid and Intense Burning when the time of flame spread is less than 3.5 seconds.

(2) *Raised surface textile fabric.* Such textiles in their original state and/or after refurbishing as described in §1610.6(a) and §1610.6(b), when tested as described in §1610.6, shall be classified as Class 3 Rapid and Intense Burning when the time of flame spread is less than 4 seconds, and the base fabric starts burning at places other than the point of impingement as a result of the surface flash (test result code SFBB).

TABLE 1 TO § 1610.4—SUMMARY OF TEST CRITERIA FOR SPECIMEN CLASSIFICATION
[SEE § 1610.7]

Class	Plain surface textile fabric	Raised surface textile fabric
1	Burn time is 3.5 seconds or more ACCEPTABLE (3.5 sec is a pass).	(1) Burn time is greater than 7.0 seconds; or (2) Burn time is 0–7 seconds with no base burns (SFBB). Exhibits rapid surface flash only. ACCEPTABLE.
2	Class 2 is not applicable to plain surface textile fabrics	Burn time is 4–7 seconds (inclusive) with base burn (SFBB). ACCEPTABLE.
3	Burn time is less than 3.5 seconds. NOT ACCEPTABLE.	Burn time is less than 4.0 seconds with base burn (SFBB). NOT ACCEPTABLE.

§ 1610.5 Test apparatus and materials.

(a) *Flammability apparatus.* The flammability test apparatus consists of a draft-proof ventilated chamber enclosing a standardized ignition mechanism, sample rack, and automatic timing mechanism. The flammability apparatus shall meet the minimum requirements for testing as follows.

(1) *Test chamber—(i) Test chamber structure.* The test chamber shall be a metal, draft-proof ventilated chamber. The test chamber shall have inside dimensions of 35.3 cm high by 36.8 cm

wide by 21.6 cm deep (14 in by 14.5 in by 8.5 in). There shall be eleven or twelve 12.7 mm diameter (0.5 in) holes equidistant along the rear of the top closure. The front of the chamber shall be a close fitting door with an insert made of clear material (i.e., glass, plexiglass) to permit observation of the entire test. A ventilating strip is provided at the base of the door in the front of the apparatus. The test chamber to be used in this test method is illustrated in Figures 1 and 2 of this part.

(ii) *Specimen rack.* The specimen rack provides support for the specimen holder (described in paragraph (a)(1)(iii) of this section) in which the specimen is mounted for testing. The angle of inclination shall be 45°. Two guide pins projecting downward from the center of the base of the rack travel in slots provided in the floor of the chamber so that adjustment can be made for the thickness of the specimen in relation to the test flame. A stop shall be provided in the base of the chamber to assist in adjusting the position of the rack. The specimen rack shall be constructed so that: It supports the specimen holder in a way that does not obstruct air flow around the bottom edge of the fabric specimen; and the fabric specimen is properly aligned with the igniter tip during flame impingement. The specimen rack to be used in this test method is illustrated in Figures 1 through 3 of this part. Movable rack: Refer to the manufacturers' instruction in relation to the adjustment procedure to move the rack into the appropriate position for the indicator finger alignment.

(iii) *Specimen holder.* The specimen holder supports and holds the fabric specimen. The specimen holder shall consist of two 2 mm (0.06 in) thick U-shaped matched metal plates. The plates are slotted and loosely pinned for alignment. The specimen shall be firmly sandwiched in between the metal plates with clamps mounted along the sides. The two plates of the holder shall cover all but 3.8 cm (1.5 in) of the width of the specimen for its full length. See Figures 1 and 3 of this part. The specimen holder shall be supported in the draft-proof chamber on the rack at an angle of 45°.

(iv) *Indicator finger.* The position of the specimen rack (described in paragraph (a)(1)(ii) of this section) shall be adjusted, so the tip of the indicator finger just touches the surface of the specimen. An indicator finger is necessary to ensure that the tip of the test flame will impinge on the specimen during testing. The indicator finger to be used in this test method is illustrated in Figures 1, 2 and 4 of this part.

(v) *Ignition mechanism.* The ignition mechanism shall consist of a motor driven butane gas jet formed around a

26-gauge hypodermic needle and creates the test flame. The test flame shall be protected by a shield. See Figure 5. The test flame is adjusted to 16 mm (0.625 in) and applied to the specimen for 1 second. A trigger device is located in the front of the apparatus, the pulling or pushing of which activates the test flame impingement and timing device. Electro-mechanical devices (*i.e.*, servo-motors, solenoids, micro-switches, and electronic circuits, in addition to miscellaneous custom made cams and rods, shock absorbing linkages, and various other mechanical components) can be used to control and apply the flame impingement. See Figure 6 of this part.

(vi) *Draft ventilator strip.* A draft ventilator strip shall be placed across the front opening, sealing the space between the sliding door when in lowered position and the base on which the grid rack is attached. (See Figure 1 of this part.)

(vii) *Stop weight.* The weight, attached by means of a clip to the stop thread, in dropping actuates the stop motion for the timing mechanism. The weight shall be 30g ± 5g (1.16 oz. ± 0.18 oz.).

(viii) *Door.* The door shall be a clear (*i.e.* glass or plexiglass) door, close fitting and allows for viewing of the entire test.

(ix) *Hood.* The hood or other suitable enclosure shall provide a draft-proof environment surrounding the test chamber. The hood or other suitable enclosure shall have a fan or other means for exhausting smoke and/or fumes produced by testing.

(2) *Stop thread and thread guides—(i) Stop thread.* The stop thread shall be stretched from the spool through suitable thread guides provided on the specimen holder and chamber walls.

(ii) *Stop thread supply.* This supply, consisting of a spool of No. 50, white, mercerized, 100% cotton sewing thread, shall be fastened to the side of the chamber and can be withdrawn by releasing the thumbscrew holding it in position.

(iii) *Thread Guides.* The thread guides permit the lacing of the stop thread in the proper position exactly 127 mm (5 in) from the point where the center of the ignition flame impinges on the test

specimen. The stop thread shall be 9.5 mm (0.37 in) above and parallel to the lower surface of the top plate of the specimen holder. This condition can be achieved easily and reproducibly with the use of a thread guide popularly referred to as a "sky hook" suspended down from the top panel along with two L-shaped thread guides attached to the upper end of the top plate of the specimen holder. Two other thread guides can be installed on the rear panel to draw the thread away from directly over the test flame. The essential condition, however, is the uniform height of 9.5 mm (0.37 in) for the stop thread and not the number, placement or design of the thread guides.

(iv) *Stop weight thread guide.* This thread guide shall be used to guide the stop thread when attaching the stop weight.

(3) *Supply for test flame.* (i) The fuel supply shall be a cylinder of chemically pure (c. p.) butane.

(ii) The fuel-tank control valve shall consist of a sensitive control device for regulating the fuel supply at the tank.

(iii) The flow control device, such as a manometer or flow meter, shall be sufficient to maintain a consistent flame length of 16 mm ($\frac{5}{8}$ in).

(4) *Timing Device.* The timing device consists of a timer, driving mechanism and weight. The timer, by means of special attachments, is actuated to start by connection with the gas jet. A trigger device (described in paragraph (a)(1)(v) of this section) activates the flame impingement, causing the driving mechanism to move the gas jet to its most forward position and automatically starts the timer at the moment of flame impact with the specimen. The falling weight, when caused to move by severance of the stop thread, stops the timer. Time shall be read directly and recorded as a burn time. Read burn time to 0.1 second. An electronic or mechanical timer can be used to record the burn time, and electro-mechanical devices (*i.e.*, servomotors, solenoids, micro-switches, and electronic circuits, in addition to miscellaneous custom made cams and rods, shock absorbing linkages, and various other mechanical components) can be used to control and apply the flame impingement.

(b) *Specimen preparation equipment and materials*—(1) *Laboratory drying oven.* This shall be a forced circulation drying oven capable of maintaining $105^{\circ} \pm 3^{\circ} \text{C}$ ($221^{\circ} \pm 5^{\circ} \text{F}$) for 30 ± 2 minutes to dry the specimens while mounted in the specimen holders.

(2) *Desiccator.* This shall be an airtight and moisture tight chamber capable of holding the specimens horizontally without contacting each other during the cooling period following drying, and shall contain silica gel desiccant.

(3) *Desiccant.* Anhydrous silica gel shall be used as the desiccant.

(4) *Automatic washing machine.* The automatic washing machine shall be as described in § 1610.6(b)(1)(ii).

(5) *Automatic tumble dryer.* The automatic tumble dryer shall be as described in § 1610.6(b)(1)(ii).

(6) *Commercial dry cleaning machine.* The commercial dry cleaning machine shall be capable of providing a complete automatic dry-to-dry cycle using perchloroethylene solvent and a cationic drycleaning detergent as specified in § 1610.6(b)(1)(i).

(7) *Dry cleaning solvent.* The solvent shall be perchloroethylene, commercial grade.

(8) *Dry cleaning detergent.* The dry cleaning detergent shall be cationic class.

(9) *Laundering detergent.* The laundering detergent shall be as specified in § 1610.6(b)(1)(ii).

(10) *Brushing device.* The brushing device shall consist of a base board over which a small carriage is drawn. See Figure 7 of this part. This carriage runs on parallel tracks attached to the edges of the upper surface of the base board. The brush is hinged with pin hinges at the rear edge of the base board and rests on the carriage vertically with a pressure of 150 gf (0.33 lbf). The brush shall consist of two rows of stiff nylon bristles mounted with the tufts in a staggered position. The bristles are 0.41 mm (0.016 in) in diameter and 19 mm (0.75 in) in length. There are 20 bristles per tuft and 4 tufts per inch. See Figure 8 of this part. A clamp is attached to the forward edge of the movable carriage to permit holding the specimen on the carriage during the brushing operation.

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The purpose of the metal plate or “template” on the carriage of the brushing device is to support the specimen during the brushing operation. The template shall be 3.2 mm (0.13 in) thick. See Figure 9 of this part.

[73 FR 15640, Mar. 25, 2008, as amended at 73 FR 62187, Oct. 20, 2008]

§ 1610.6 Test procedure.

The test procedure is divided into two steps. Step 1 is testing in the original state; Step 2 is testing after the fabric has been refurbished according to paragraph (b)(1) of this section.

(a) *Step 1—Testing in the original state.*

(1) Tests shall be conducted on the fabric in a form or state ready for use in wearing apparel. Determine whether the fabric to be tested is a plain surface textile fabric or a raised surface textile fabric as defined in § 1610.2 (k) and (l). There are some fabrics that require extra attention when preparing test specimens because of their particular construction characteristics. Examples of these fabrics are provided in paragraphs (a)(1)(i) through (vi) of this section along with guidelines for preparing specimens from these fabrics. This information is not intended to be all-inclusive.

(i) *Flocked fabrics.* Fabrics that are flocked overall are treated as raised surface textile fabrics as defined in § 1610.2(l). Flock printed fabrics (usually in a pattern and not covering the entire surface) shall be treated as plain surface textile fabrics as defined in § 1610.2(k).

(ii) *Cut velvet fabrics.* Cut velvet fabrics with a patterned construction shall be considered a raised surface textile fabric as defined in § 1610.2(l).

(iii) *Metallic thread fabrics.* Metallic thread fabrics shall be considered plain surface textile fabrics provided the base fabric is smooth. The specimens shall be cut so that the metallic thread is parallel to the long dimension of the specimen and arranged so the test flame impinges on a metallic thread.

(iv) *Embroidery.* Embroidery on netting material shall be tested with two sets of preliminary specimens to determine the most flammable area (which offers the greatest amount of netting or embroidery in the 150 mm (6 in.) direction). One set of netting only shall

be tested and the other set shall consist mainly of embroidery with the specimens cut so that the test flame impinges on the embroidered area. Test the most flammable area according to the plain surface textile fabric requirements. The full test shall be completed on a sample cut from the area that has the fastest burn rate.

(v) *Burn-out patterns.* Flat woven constructions with burn-out patterns shall be considered plain surface textile fabrics as defined in § 1610.2(k).

(vi) *Narrow fabrics and loose fibrous materials.* Narrow fabrics and loose fibrous materials manufactured less than 50 mm (2 in) in width in either direction shall not be tested. If a 50 mm by 150 mm (2 in by 6 in) specimen cannot be cut due to the nature of the item, *i.e.* hula skirts, leis, fringe, loose feathers, wigs, hairpieces, etc., do not conduct a test.

(2) *Plain surface textile fabrics:*

(i) *Preliminary trials.* Conduct preliminary trials to determine the quickest burning direction. The specimen size shall be 50 mm by 150 mm (2 in by 6 in). Cut one specimen from each direction of the fabric. Identify the fabric direction being careful not to make any identifying marks in the exposed area to be tested. Preliminary specimens shall be mounted and conditioned as described in paragraphs (a)(2)(ii) through (iv) of this section and then tested following the procedure in paragraph (c) of this section to determine if there is a difference in the burning characteristics with respect to the direction of the fabric.

(ii) *Identify and cut test specimens.* Cut the required number of test specimens to be tested (refer to § 1610.7(b)(1)). Each specimen shall be 50 mm by 150 mm (2 in by 6 in), with the long dimension in the direction in which burning is most rapid as established in the preliminary trials. Be careful not to make any identifying marks in the exposed area to be tested.

(iii) *Mount specimens.* Specimens shall be placed in the holders, with the side to be burned face up. Even though plain surface textile fabrics are not brushed, all specimens shall be mounted in a specimen holder placed on the carriage that rides on the brushing device to ensure proper position in the

holder. A specimen shall be placed between the two metal plates of a specimen holder and clamped. Each specimen shall be mounted and clamped prior to conditioning and testing.

(iv) *Condition specimens.* All specimens mounted in the holders shall then be placed in a horizontal position on an open metal shelf in the oven to permit free circulation of air around them. The specimens shall be dried in the oven for 30 ± 2 minutes at $105^\circ \pm 3^\circ \text{C}$ ($221^\circ \pm 5^\circ \text{F}$), removed from the oven and placed over a bed of anhydrous silica gel desiccant in a desiccator until cool, but not less than 15 minutes.

(v) *Flammability test.* Follow the test procedure in paragraph (c) of this section and also follow the test sequence in § 1610.7(b)(1).

(3) *Raised surface textile fabrics*—(i) Preliminary trials. The most flammable surface of the fabric shall be tested. Conduct preliminary trials and/or visual examination to determine the quickest burning area. The specimen size shall be 50 mm by 150 mm (2 in by 6 in). For raised surface textile fabrics, the direction of the lay of the surface fibers shall be parallel with the long dimension of the specimen. Specimens shall be taken from that part of the raised-fiber surface that appears to have the fastest burn time. For those fabrics where it may be difficult to visually determine the correct direction of the lay of the raised surface fibers, preliminary tests can be done to determine the direction of the fastest burn time. For textiles with varying depths of pile, tufting, etc., the preliminary test specimens are taken from each depth of pile area to determine which exhibits the quickest rate of burning. A sufficient number of preliminary specimens shall be tested to provide adequate assurance that the raised surface textile fabric will be tested in the quickest burning area. Preliminary specimens shall be mounted and conditioned as described below and tested following the procedure in paragraph (c) of this section.

(ii) *Identify and cut test specimens.* Cut the required number of specimens (refer to § 1610.7(b)(3)) to be tested. Each specimen shall be 50 mm by 150 mm (2 in by 6 in), with the specimen taken from the direction in which

burning is most rapid as established in the preliminary trials and/or visual examination. Be careful not to make any identifying marks in the exposed area to be tested.

(iii) *Mount specimens.* Prior to mounting the specimen, run a fingernail along the 150 mm (6 in) edge of the fabric not more than 6.4 mm (0.25 in) in from the side to determine the lay of the surface fibers. All specimens shall be mounted in a specimen holder placed on the carriage that rides on the brushing device. The specimens shall be mounted with the side to be burned face up and positioned so the lay of the surface fibers is going away from the closed end of the specimen holder. The specimen must be positioned in this manner so that the brushing procedure described in paragraph (a)(3)(iv) of this section will raise the surface fibers, i.e., the specimen is brushed against the direction of the lay of the surface fibers. The specimen shall be placed between the two metal plates of the specimen holder and clamped.

(iv) *Brush specimens.* After mounting in the specimen holder (and with the holder still on the carriage that rides on the brushing device) each specimen shall be brushed one time. The carriage is pushed to the rear of the brushing device, see Figure 7, and the brush, see Figure 8, lowered to the face of the specimen. The carriage shall be drawn forward by hand once against the lay of the surface fibers at a uniform rate. Brushing of a specimen shall be performed with the specimen mounted in a specimen holder. The purpose of the metal plate or “template” on the carriage of the brushing device is to support the specimen during the brushing operation. See Figure 9.

(v) *Condition specimens.* All specimens (mounted and brushed) in the holders shall be then placed in a horizontal position on an open metal shelf in the oven to permit free circulation of air around them. The specimens shall be dried in the oven for 30 ± 2 minutes at $105^\circ \pm 3^\circ \text{C}$ ($221^\circ \pm 5^\circ \text{F}$) removed from the oven and placed over a bed of anhydrous silica gel desiccant in a desiccator until cool, but not less than 15 minutes.

(vi) *Conduct flammability test.* Follow the procedure in paragraph (c) of this

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section and follow the test sequence in § 1610.7(b)(3).

(b) *Step 2—Refurbishing and testing after refurbishing.*

(1) The refurbishing procedures are the same for both plain surface textile fabrics and raised fiber surface textile fabrics. Those samples that result in a Class 3, Rapid and Intense Burning after Step 1 testing in the original state shall not be refurbished and shall not undergo Step 2.

(i) *Dry cleaning procedure.* (A) All samples shall be dry cleaned before they undergo the laundering procedure. Samples shall be dry cleaned in a commercial dry cleaning machine, using the following prescribed conditions:

Solvent: Perchloroethylene, commercial grade

Detergent class: Cationic.

Cleaning time: 10–15 minutes.

Extraction time: 3 minutes.

Drying Temperature: 60–66 °C (140–150 °F).

Drying Time: 18–20 minutes.

Cool Down/Deodorization time: 5 minutes.

Samples shall be dry cleaned in a load that is 80% of the machine's capacity.

(B) If necessary, ballast consisting of clean textile pieces or garments, white or light in color and consisting of approximately 80% wool fabric pieces and 20% cotton fabric pieces, shall be used.

(ii) *Laundering procedure.* The sample, after being subjected to the dry cleaning procedure, shall be washed and dried one time in accordance with sections 8.2.2, 8.2.3 and 8.3.1(A) of AATCC Test Method 124–2006 “Appearance of Fabrics after Repeated Home Laundering” (incorporated by reference at § 1610.6(b)(1)(B)(iii)). Washing shall be performed in accordance with sections 8.2.2 and 8.2.3 of AATCC Test Method 124–2006 using AATCC 1993 Standard Reference Detergent, powder and wash water temperature (IV) ($120^{\circ} \pm 5^{\circ} \text{F}$; $49^{\circ} \pm 3^{\circ} \text{C}$) 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 of that method. A maximum wash load shall be 8 pounds (3.63 kg) 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 ($150^{\circ} \pm 10^{\circ} \text{F}$; $66^{\circ} \pm 5^{\circ} \text{C}$) and cool down time of 10 minutes specified in the “Durable Press” conditions of Table IV.

(iii) AATCC Test Method 124–2006 “Appearance of Fabrics after Repeated Home Laundering,” is incorporated by reference. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, North Carolina 27709. You may inspect a copy at the Office of the Secretary, Consumer Product Safety Commission, Room 502, 4330 East West Highway, Bethesda, Maryland 20814 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(2) *Testing plain surface textile fabrics after refurbishing.* The test procedure is the same as for Step 1—Testing in the original state described in paragraph (a)(1) of this section; also follow the test sequence § 1610.7(b)(2).

(3) *Testing raised fiber surface textile fabrics after refurbishing.* The test procedure is the same as for Step 1—Testing in the original state as described in paragraph (a)(3) of this section; also follow the test sequence in § 1610.7(b)(4).

(c) *Procedure for testing flammability.*

(1) The test chamber shall be located under the hood (or other suitable enclosure) with the fan turned off. Open the control valve in the fuel supply. Allow approximately 5 minutes for the air to be drawn from the fuel line, ignite the gas and adjust the test flame to a length of 16 mm ($\frac{5}{8}$ in), measured from its tip to the opening in the gas nozzle.

(2) Remove one mounted specimen from the desiccator at a time and place it in position on the specimen rack in the chamber of the apparatus. Thick fabrics may require adjustment of the specimen rack so that the tip of the indicator finger just touches the surface of the specimen.

(3) Adjust the position of the specimen rack of the flammability test chamber so that the tip of the indicator finger just touches the face of the mounted specimen.

(4) String the stop thread through the guides in the upper plate of the specimen holder across the top of the specimen, and through any other thread guide(s) of the chamber. Hook the stop weight in place close to and just below the stop weight thread guide. Set the timing mechanism to zero. Close the door of the flammability test chamber.

(5) Begin the test within 45 seconds of the time the specimen was removed from the desiccator. Activate the trigger device to impinge the test flame. The trigger device controls the impingement of the test flame onto the specimen and starts the timing device. The timing is automatic and stops when the weight is released by the severing of the stop thread.

(6) At the end of each test, turn on the hood fan to exhaust any fumes or smoke produced during the test.

(7) Record the burn time (reading of the timer) for each specimen, along with visual observation using the test result codes given in §1610.8. If there is no burn time, record the visual observation using the test result codes. Please note for raised-fiber surface textile fabrics, specimens should be allowed to continue burning, even though a burn rate is measured, to determine if the base fabric will fuse.

(8) After exhausting all fumes and smoke produced during the test, turn off the fan before testing the next specimen.

[73 FR 15640, Mar. 25, 2008, as amended at 73 FR 62187, Oct. 20, 2008]

§ 1610.7 Test sequence and classification criteria.

(a) *Preliminary and final classifications.* Preliminary classifications are assigned based on the test results both before and after refurbishing. The final classification shall be the preliminary classification before or after refurbishing, whichever is the more severe flammability classification.

(b) *Test sequence and classification criteria.* (1) Step 1, Plain Surface Textile Fabrics in the original state.

(i) Conduct preliminary tests in accordance with §1610.6(a)(2)(i) to determine the fastest burning direction of the fabric.

(ii) Prepare and test five specimens from the fastest burning direction. The burn times determine whether to assign the preliminary classification and proceed to §1610.6(b) or to test five additional specimens.

(iii) Assign the preliminary classification of Class 1, Normal Flammability and proceed to §1610.6(b) when:

(A) There are no burn times; or

(B) There is only one burn time and it is equal to or greater than 3.5 seconds; or

(C) The average burn time of two or more specimens is equal to or greater than 3.5 seconds.

(iv) Test five additional specimens when there is either only one burn time, and it is less than 3.5 seconds; or there is an average burn time of less than 3.5 seconds. Test these five additional specimens from the fastest burning direction as previously determined by the preliminary specimens. The burn times for the 10 specimens determine whether to:

(A) Stop testing and assign the final classification as Class 3, Rapid and Intense Burning only when there are two or more burn times with an average burn time of less than 3.5 seconds; or

(B) Assign the preliminary classification of Class 1, Normal Flammability and proceed to §1610.6(b) when there are two or more burn times with an average burn time of 3.5 seconds or greater.

(v) If there is only one burn time out of the 10 test specimens, the test is inconclusive. The fabric cannot be classified.

(2) Step 2, Plain Surface Textile Fabrics after refurbishing in accordance with §1610.6(b)(1).

(i) Conduct preliminary tests in accordance with §1610.6(a)(2)(i) to determine the fastest burning direction of the fabric.

(ii) Prepare and test five specimens from the fastest burning direction. The burn times determine whether to stop testing and assign the preliminary classification or to test five additional specimens.

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(iii) Stop testing and assign the preliminary classification of Class 1, Normal Flammability, when:

(A) There are no burn times; or

(B) There is only one burn time, and it is equal to or greater than 3.5 seconds; or

(C) The average burn time of two or more specimens is equal to or greater than 3.5 seconds.

(iv) Test five additional specimens when there is only one burn time, and it is less than 3.5 seconds; or there is an average burn time less than 3.5 seconds. Test five additional specimens from the fastest burning direction as previously determined by the preliminary specimens. The burn times for the 10 specimens determine the preliminary classification when:

(A) There are two or more burn times with an average burn time of 3.5 seconds or greater. The preliminary classification is Class 1, Normal Flammability; or

(B) There are two or more burn times with an average burn time of less than 3.5 seconds. The preliminary and final classification is Class 3, Rapid and Intense Burning; or

(v) If there is only one burn time out of the 10 specimens, the test results are inconclusive. The fabric cannot be classified.

(3) Step 1, Raised Surface Textile Fabric in the original state.

(i) Determine the area to be most flammable per §1610.6(a)(3)(i).

(ii) Prepare and test five specimens from the most flammable area. The burn times and visual observations determine whether to assign a preliminary classification and proceed to §1610.6(b) or to test five additional specimens.

(iii) Assign the preliminary classification and proceed to §1610.6(b) when:

(A) There are no burn times. The preliminary classification is Class 1, Normal Flammability; or

(B) There is only one burn time and it is less than 4 seconds without a base burn, or it is 4 seconds or greater with or without a base burn. The preliminary classification is Class 1, Normal Flammability; or

(C) There are no base burns regardless of the burn time(s). The preliminary

classification is Class 1, Normal Flammability; or

(D) There are two or more burn times with an average burn time of 0–7 seconds with a surface flash only. The preliminary classification is Class 1, Normal Flammability; or

(E) There are two or more burn times with an average burn time greater than 7 seconds with any number of base burns. The preliminary classification is Class 1, Normal Flammability; or

(F) There are two or more burn times with an average burn time of 4 through 7 seconds (both inclusive) with no more than one base burn. The preliminary classification is Class 1, Normal Flammability; or

(G) There are two or more burn times with an average burn time less than 4 seconds with no more than one base burn. The preliminary classification is Class 1, Normal Flammability; or

(H) There are two or more burn times with an average burn time of 4 through 7 seconds (both inclusive) with two or more base burns. The preliminary classification is Class 2, Intermediate Flammability.

(iv) Test five additional specimens when the tests of the initial five specimens result in either of the following: There is only one burn time and it is less than 4 seconds with a base burn; or the average of two or more burn times is less than 4 seconds with two or more base burns. Test these five additional specimens from the most flammable area. The burn times and visual observations for the 10 specimens will determine whether to:

(A) Stop testing and assign the final classification only if the average burn time for the 10 specimens is less than 4 seconds with three or more base burns. The final classification is Class 3, Rapid and Intense Burning; or

(B) Assign the preliminary classification and continue on to §1610.6(b) when:

(1) The average burn time is less than 4 seconds with no more than two base burns. The preliminary classification is Class 1, Normal Flammability; or

(2) The average burn time is 4–7 seconds (both inclusive) with no more than 2 base burns. The preliminary classification is Class 1, Normal Flammability, or

(3) The average burn time is greater than 7 seconds. The preliminary classification is Class 1, Normal Flammability; or

(4) The average burn time is 4 through 7 seconds (both inclusive) with three or more base burns. The preliminary classification is Class 2, Intermediate Flammability, or

(v) If there is only one burn time out of the 10 specimens, the test is inconclusive. The fabric cannot be classified.

(4) Step 2, Raised Surface Textile Fabric After Refurbishing in accordance with §1610.6(b).

(i) Determine the area to be most flammable in accordance with §1610.6(a)(3)(i).

(ii) Prepare and test five specimens from the most flammable area. Burn times and visual observations determine whether to stop testing and determine the preliminary classification or to test five additional specimens.

(iii) Stop testing and assign the preliminary classification when:

(A) There are no burn times. The preliminary classification is Class 1, Normal Flammability; or

(B) There is only one burn time, and it is less than 4 seconds without a base burn; or it is 4 seconds or greater with or without a base burn. The preliminary classification is Class 1, Normal Flammability; or

(C) There are no base burns regardless of the burn time(s). The preliminary classification is Class 1, Normal Flammability; or

(D) There are two or more burn times with an average burn time of 0 to 7 seconds with a surface flash only. The preliminary classification is Class 1, Normal Flammability; or

(E) There are two or more burn times with an average burn time greater than 7 seconds with any number of base burns. The preliminary classification is Class 1, Normal Flammability; or

(F) There are two or more burn times with an average burn time of 4 through 7 seconds (both inclusive) with no more than one base burn. The preliminary classification is Class 1, Normal Flammability; or

(G) There are two or more burn times with an average burn time less than 4 seconds with no more than one base

burn. The preliminary classification is Class 1, Normal Flammability; or

(H) There are two or more burn times with an average burn time of 4 through 7 seconds (both inclusive) with two or more base burns. The preliminary classification is Class 2, Intermediate Flammability.

(iv) Test five additional specimens when the tests of the initial five specimens result in either of the following: There is only one burn time, and it is less than 4 seconds with a base burn; or the average of two or more burn times is less than 4 seconds with two or more base burns.

(v) If required, test five additional specimens from the most flammable area. The burn times and visual observations for the 10 specimens determine the preliminary classification when:

(A) The average burn time is less than 4 seconds with no more than two base burns. The preliminary classification is Class 1, Normal Flammability; or

(B) The average burn time is less than 4 seconds with three or more base burns. The preliminary and final classification is Class 3, Rapid and Intense Burning; or

(C) The average burn time is greater than 7 seconds. The preliminary classification is Class 1, Normal Flammability; or

(D) The average burn time is 4-7 seconds (both inclusive), with no more than two base burns. The preliminary classification is Class 1, Normal Flammability; or

(E) The average burn time is 4-7 seconds (both inclusive), with three or more base burns. The preliminary classification is Class 2, Intermediate Flammability; or

(vi) If there is only one burn time out of the 10 specimens, the test is inconclusive. The fabric cannot be classified.

§ 1610.8 Reporting results.

(a) The reported result shall be the classification before or after refurbishing, whichever is the more severe; and based on this result, the textile shall be placed in the proper final classification as described in §1610.4.

(b) *Test result codes.* The following are the definitions for the test result codes, which shall be used for recording

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flammability results for each specimen that is burned.

(1) For Plain Surface Textile Fabrics:
DNI Did not ignite.

IBE Ignited, but extinguished.

___ sec. Actual burn time measured and recorded by the timing device.

(2) For Raised Surface Textile Fabrics:

SF uc Surface flash, under the stop thread, but does not break the stop thread.

SF pw Surface flash, part way. No time shown because the surface flash did not reach the stop thread.

SF poi Surface flash, at the point of impingement only (equivalent to "did not ignite" for plain surfaces).

___ sec. Actual burn time measured by the timing device in 0.0 seconds.

___ SF only Time in seconds, surface flash only. No damage to the base fabric.

___ SFBB Time in seconds, surface flash base burn starting at places other than the point of impingement as a result of surface flash.

___ SFBB poi Time in seconds, surface flash base burn starting at the point of impingement.

___ SFBB poi* Time in seconds, surface flash base burn possibly starting at the point of impingement. The asterisk is accompanied by the following statement: "Unable to make absolute determination as to source of base burns." This statement is added to the result of any specimen if there is a question as to origin of the base burn.

Subpart B—Rules and Regulations

§ 1610.31 Definitions.

In addition to the definitions provided in section 2 of the Flammable Fabrics Act as amended (15 U.S.C. 1191), and in §1610.2 of the Standard, the following definitions apply for this subpart.

(a) *Act* means the "Flammable Fabrics Act" (approved June 30, 1953, Pub. Law 88, 83d Congress, 1st sess., 15 U.S.C. 1191; 67 Stat. 111) as amended, 68 Stat. 770, August 23, 1954.

(b) *Rule, rules, regulations, and rules and regulations*, mean the rules and reg-

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ulations prescribed by the Commission pursuant to section 5(c) of the act.

(c) *United States* means, the several States, the District of Columbia, the Commonwealth of Puerto Rico and the Territories, and Possessions of the United States.

(d) *Marketing or handling* means the transactions referred to in section 3 of the Flammable Fabrics Act, as amended in 1967.

(e) *Test* means the application of the relevant test method prescribed in the procedures provided under section 4(a) of the Act (16 CFR Part 1609).

(f) *Finish type* means a particular finish, but does not include such variables as changes in color, pattern, print, or design, or minor variations in the amount or type of ingredients in the finish formulation. Examples of finish types would be starch finishes, resin finishes or parchmented finishes.

(g) *Uncovered or exposed part* means that part of an article of wearing apparel that might during normal wear be open to flame or other means of ignition. The outer surface of an undergarment is considered to be an uncovered or exposed part of an article of wearing apparel, and thus subject to the Act. Other examples of exposed parts of an article of wearing apparel subject to the Act include, but are not limited to:

(1) Linings, with exposed areas, such as full front zippered jackets;

(2) Sweatshirts with exposed raised fiber surface inside and capable of being worn napped side out;

(3) Unlined hoods;

(4) Rolled cuffs.

(h) *Coated fabrics* means a flexible material composed of a fabric and any adherent polymeric material applied to one or both surfaces.

§ 1610.32 General requirements.

No article of wearing apparel or fabric subject to the Act and regulations shall be marketed or handled if such article or fabric, when tested according to the procedures prescribed in section 4(a) of the Act (16 CFR 1609), is so highly flammable as to be dangerous when worn by individuals.

§ 1610.33 Test procedures for textile fabrics and film.

(a)(1) All textile fabrics (except those with a nitro-cellulose fiber, finish or coating) intended or sold for use in wearing apparel, and all such fabrics contained in articles of wearing apparel, shall be subject to the requirements of the Act, and shall be deemed to be so highly flammable as to be dangerous when worn by individuals if such fabrics or any uncovered or exposed part of such articles of wearing apparel exhibits rapid and intense burning when tested under the conditions and in the manner prescribed in subpart A of this part 1610.

(2) Notwithstanding the provisions of paragraph (a)(1) of this section, coated fabrics, except those with a nitro-cellulose coating, may be tested under the procedures outlined in part 1611, Standard for the Flammability of Vinyl Plastic Film, and if such coated fabrics do not exhibit a rate of burning in excess of that specified in §1611.3 they shall not be deemed to be so highly flammable as to be dangerous when worn by individuals.

(b) All film, and textile fabrics with a nitro-cellulose fiber, finish or coating intended or sold for use in wearing apparel, and all film and such textile fabrics referred to in this rule which are contained in articles of wearing apparel, shall be subject to the requirements of the Act, and shall be deemed to be so highly flammable as to be dangerous when worn by individuals if such film or such textile fabrics or any uncovered or exposed part of such articles of wearing apparel exhibit a rate of burning in excess of that specified in part 1611, Standard for the Flammability of Vinyl Plastic Film.

§ 1610.34 Only uncovered or exposed parts of wearing apparel to be tested.

(a) In determining whether an article of wearing apparel is so highly flammable as to be dangerous when worn by individuals, only the uncovered or exposed part of such article of wearing apparel shall be tested according to the applicable procedures set forth in §1610.6.

(b) If the outer layer of plastic film or plastic-coated fabric of a multilayer

fabric separates readily from the other layers, the outer layer shall be tested under part 1611—Standard for the Flammability of Vinyl Plastic Film. If the outer layer adheres to all or a portion of one or more layers of the underlying fabric, the multi-layered fabric may be tested under either part 1610—Standard for the Flammability of Clothing Textiles or part 1611. However, if the conditioning procedures required by §1610.6(a)(2)(iv) and §1610.6(a)(3)(v) would damage or alter the physical characteristics of the film or coating, the uncovered or exposed layer shall be tested in accordance with part 1611.

(c) Plastic film or plastic-coated fabric used, or intended for use as the outer layer of disposable diapers is exempt from the requirements of the Standard, provided that a sample taken from a full thickness of the assembled article passes the test in the Standard (part 1610 or part 1611) otherwise applicable to the outer fabric or film when the flame is applied to the exposed or uncovered surface. See §1610.36(f) and §1611.36(f).

§ 1610.35 Procedures for testing special types of textile fabrics under the standard.

(a) *Fabric not customarily washed or dry cleaned.* (1) Except as provided in paragraph (a)(2) of this section, any textile fabric or article of wearing apparel which, in its normal and customary use as wearing apparel would not be dry cleaned or washed, need not be dry cleaned or washed as prescribed in §1610.6(b) when tested under the Standard if such fabric or article of wearing apparel, when marketed or handled, is marked in a clear and legible manner with the statement: "Fabric may be dangerously flammable if dry cleaned or washed." An example of the type of fabric referred to in this paragraph is bridal illusion.

(2) Section 1610.3, which requires that all textiles shall be refurbished before testing, shall not apply to disposable fabrics and garments. Additionally, such disposable fabrics and garments shall not be subject to the labeling requirements set forth in paragraph (a)(1) of this section.

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(b) A coated fabric need not, upon test under the procedures outlined in subpart A of part 1610, be dry cleaned as set forth in §1610.6(b)(1)(i).

(c) In determining whether a textile fabric having a raised-fiber surface, which surface is to be used in the covered or unexposed parts of articles of wearing apparel, is so highly flammable as to be dangerous when worn by individuals, only the opposite surface or surface intended to be exposed need be tested under the applicable procedures set forth in §1610.6, providing an invoice or other paper covering the marketing or handling of such fabric is given which clearly designates that the raised-fiber surface is to be used only in the covered or unexposed parts of articles of wearing apparel.

§ 1610.36 Application of Act to particular types of products.

(a) *Interlinings.* Fabrics intended or sold for processing into interlinings or other covered or unexposed parts of articles of wearing apparel shall not be subject to the provisions of section 3 of the Act: *Provided*, that an invoice or other paper covering the marketing or handling of such fabrics is given which specifically designates their intended end use: *And provided further*, that with respect to fabrics which under the provisions of section 4 of the Act, as amended, are so highly flammable as to be dangerous when worn by individuals, any person marketing or handling such fabrics maintains records which show the acquisition, disposition and intended end use of such fabrics, and any person manufacturing articles of wearing apparel containing such fabrics maintains records which show the acquisition, and use and disposition of such fabrics. Any person who fails to maintain such records or to furnish such invoice or other paper shall be deemed to have engaged in the marketing or handling of such products for purposes subject to the requirements of the Act and such person and the products shall be subject to the provisions of sections 3, 6, 7, and 9 of the Act.

(b) *Hats, gloves, and footwear.* Fabrics intended or sold for use in those hats, gloves, and footwear which are excluded under the definition of articles of wearing apparel in section 2(d) of the

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Act shall not be subject to the provisions of section 3 of the Act: *Provided*, that an invoice or other paper covering the marketing or handling of such fabrics is given which specifically designates their intended use in such products: *And provided further*, that with respect to fabrics which under the provisions of section 4 of the Act, as amended, are so highly flammable as to be dangerous when worn by individuals, any person marketing or handling such fabrics maintains records which show the acquisition, disposition, and intended end use of such fabrics, and any person manufacturing hats, gloves, or footwear containing such fabrics maintains records which show the acquisition, end use and disposition of such fabrics. Any person who fails to maintain such records or to furnish such invoice or other paper shall be deemed to have engaged in the marketing or handling of such products for purposes subject to the requirements of the Act and such person and the products shall be subject to the provisions of sections 3, 6, 7, and 9 of the Act.

(c) *Veils and hats.* (1) Ornamental millinery veils or veilings when used as a part of, in conjunction with, or as a hat, are not to be considered such a "covering for the neck, face, or shoulders" as would, under the first proviso of section 2(d) of the Act, cause the hat to be included within the definition of the term "article of wearing apparel" where such ornamental millinery veils or veilings do not extend more than nine (9) inches from the tip of the crown of the hat to which they are attached and do not extend more than two (2) inches beyond the edge of the brim of the hat.

(2) Where hats are composed entirely of ornamental millinery veils or veilings such hats will not be considered as subject to the Act if the veils or veilings from which they are manufactured were not more than nine (9) inches in width and do not extend more than nine (9) inches from the tip of the crown of the completed hat.

(d) *Handkerchiefs.* (1) Except as provided in paragraph (d)(2) of this section, handkerchiefs not exceeding a finished size of twenty-four (24) inches on any side or not exceeding five hundred seventy-six (576) square inches in

area are not deemed “articles of wearing apparel” as that term is used in the Act.

(2) Handkerchiefs or other articles affixed to, incorporated in, or sold as a part of articles of wearing apparel as decoration, trimming, or for any other purpose, are considered an integral part of such articles of wearing apparel, and the articles of wearing apparel and all parts thereof are subject to the provisions of the Act. Handkerchiefs or other articles intended or sold to be affixed to, incorporated in or sold as a part of articles of wearing apparel as aforesaid constitute “fabric” as that term is defined in section 2(e) of the Act and are subject to the provisions of the Act, such handkerchiefs or other articles constitute textile fabrics as the term “textile fabric” is defined in §1610.2(r).

(3) If, because of construction, design, color, type of fabric, or any other factor, a piece of cloth of a finished type or any other product of a finished type appears to be likely to be used as a covering for the head, neck, face, shoulders, or any part thereof, or otherwise appears likely to be used as an article of clothing, garment, such product is not a handkerchief and constitutes an article of wearing apparel as defined in and subject to the provisions of the Act, irrespective of its size, or its description or designation as a handkerchief or any other term.

(e) *Raised-fiber surface wearing apparel.* Where an article of wearing apparel has a raised-fiber surface which is intended for use as a covered or unexposed part of the article of wearing apparel but the article of wearing apparel is, because of its design and construction, capable of being worn with the raised-fiber surface exposed, such raised-fiber surface shall be considered to be an uncovered or exposed part of the article of wearing apparel. Examples of the type of products referred to in this paragraph are athletic shirts or so-called “sweat shirts” with a raised-fiber inner side.

(f) *Multilayer fabric and wearing apparel with a film or coating on the uncovered or exposed surface.* Plastic film or plastic-coated fabric used, or intended for use, as the outer layer of disposable diapers is exempt from the require-

ments of the standard, provided that a full thickness of the assembled article passes the test in the Standard otherwise applicable to the outer fabric or film when the flame is applied to the exposed or uncovered surface.

§1610.37 Reasonable and representative tests to support guaranties.

(a) *Purpose.* The purpose of this §1610.37 is to establish requirements for reasonable and representative tests to support initial guaranties of products, fabrics, and related materials which are subject to the Standard for the Flammability of Clothing Textiles (the Standard, 16 CFR part 1610).

(b) *Statutory provisions.* (1) Section 8(a) of the Act (15 U.S.C. 1197(a)) provides that no person shall be subject to criminal prosecution under section 7 of the Act (15 U.S.C. 1196) for a violation of section 3 of the Act (15 U.S.C. 1192) if such person establishes a guaranty received in good faith to the effect that the product, fabric, or related material complies with the applicable flammability standard. A guaranty does not provide the holder any defense to an administrative action for an order to cease and desist from violation of the applicable standard, the Act, and the Federal Trade Commission Act (15 U.S.C. 45), nor to any civil action for injunction or seizure brought under section 6 of the Act (15 U.S.C. 1195).

(2) Section 8 of the Act provides for two types of guaranties:

(i) An initial guaranty based on “reasonable and representative tests” made in accordance with the applicable standard issued under the Act; and

(ii) A guaranty based on a previous guaranty, received in good faith, to the effect that reasonable and representative tests show conformance with the applicable standard.

(c) *Requirements.* (1) Each person or firm issuing an initial guaranty of a product, fabric, or related material subject to the Standard shall devise and implement a program of reasonable and representative tests to support such a guaranty.

(2) The term program of reasonable and representative tests as used in this §1610.37 means at least one test with results demonstrating conformance

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with the Standard for the product, fabric or related material which is the subject of an initial guaranty. The program of reasonable and representative tests required by this §1610.37 may include tests performed before the effective date of this section, and may include tests performed by persons or firms outside of the territories of the United States or other than the one issuing the initial guaranty. The number of tests and the frequency of testing shall be left to the discretion of the person or firm issuing the initial guaranty.

(3) In the case of an initial guaranty of a fabric or related material, a program of reasonable and representative tests may consist of one or more tests of the particular fabric or related material which is the subject of the guaranty, or of a fabric or related material of the same "class" of fabrics or related materials as the one which is the subject of the guaranty. For purposes of this §1610.37, the term class means a category of fabrics or related materials having general constructional or finished characteristics, sometimes in association with a particular fiber, and covered by a class or type description generally recognized in the trade.

§ 1610.38 Maintenance of records by those furnishing guaranties.

(a) Any person or firm issuing an initial guaranty of a product, fabric, or related material which is subject to the Standard for the Flammability of Clothing Textiles (the Standard, 16 CFR part 1610) shall keep and maintain a record of the test or tests relied upon to support that guaranty. The records to be maintained shall show:

(1) The style or range number, fiber composition, construction and finish type of each textile fabric or related material covered by an initial guaranty; or the identification, fiber composition, construction and finish type of each textile fabric (including those with a nitrocellulose fiber, finish or coating), and of each related material, used or contained in a product of wearing apparel covered by an initial guaranty.

(2) The results of the actual test or tests made of the textile fabric or related material covered by an initial

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guaranty; or of any fabric or related material used in the product of wearing apparel covered by an initial guaranty.

(3) When the person or firm issuing an initial guaranty has conducted the test or tests relied upon to support that guaranty, that person or firm shall also include with the information required by paragraphs (a) (1) and (2) of this section, a sample of each fabric or related material which has been tested.

(b) Persons furnishing guaranties based upon class tests shall maintain records showing:

(1) Identification of the class test.

(2) Fiber composition, construction and finish type of the fabrics, or the fabrics used or contained in articles of wearing apparel so guaranteed.

(3) A swatch of each class of fabrics guaranteed.

(c) Persons furnishing guaranties based upon guaranties received by them shall maintain records showing the guaranty received and identification of the fabrics or fabrics contained in articles of wearing apparel guaranteed in turn by them.

(d) The records referred to in this section shall be preserved for a period of 3 years from the date the tests were performed, or in the case of paragraph (c) of this section from the date the guaranties were furnished.

(e) Any person furnishing a guaranty under section 8(a) of the Act who neglects or refuses to maintain and preserve the records prescribed in this section shall be deemed to have furnished a false guaranty under the provisions of section 8(b) of the Act.

§ 1610.39 Shipments under section 11(c) of the Act.

(a) The invoice or other paper relating to the shipment or delivery for shipment in commerce of articles of wearing apparel or textile fabrics for the purpose of finishing or processing to render them not so highly flammable as to be dangerous when worn by individuals, shall contain a statement disclosing such purpose.

(b) An article of wearing apparel or textile fabric shall not be deemed to fall within the provisions of section 11(c) of the Act as being shipped or delivered for shipment in commerce for the purpose of finishing or processing

to render such article of wearing apparel or textile fabric not so highly flammable under section 4 of the Act, as to be dangerous when worn by individuals, unless the shipment or delivery for shipment in commerce of such article of wearing apparel or textile fabric is made directly to the person engaged in the business of processing or finishing textile products for the prearranged purpose of having such article of apparel or textile fabric processed or finished to render it not so highly flammable under section 4 of the Act, as to be dangerous when worn by individuals, and any person shipping or delivering for shipment the article of wearing apparel or fabric in commerce for such purpose maintains records which establish that the textile fabric or article of wearing apparel has been shipped for appropriate flammability treatment, and that such treatment has been completed, as well as records to show the disposition of such textile fabric or article of wearing apparel subsequent to the completion of such treatment.

(c) The importation of textile fabrics or articles of wearing apparel may be considered as incidental to a transaction involving shipment or delivery for shipment for the purpose of rendering such textile fabrics or articles of wearing apparel not so highly flammable under the provisions of section 4 of the Act, as to be dangerous when worn by individuals, if:

(1) The importer maintains records which establish that: (i) The imported textile fabrics or articles of wearing apparel have been shipped for appropriate flammability treatment, and

(ii) Such treatment has been completed, as well as records to show the disposition of such textile fabrics or articles of wearing apparel subsequent to the completion of such treatment.

(2) The importer, at the time of importation, executes and furnishes to the U.S. Customs and Border Protection an affidavit stating: These fabrics (or articles of wearing apparel) are dangerously flammable under the provisions of section 4 of the Act, and will not be sold or used in their present condition but will be processed or finished by the undersigned or by a duly authorized agent so as to render them

not so highly flammable under the provisions of section 4 of the Flammable Fabrics Act, as to be dangerously flammable when worn by individuals. The importer agrees to maintain the records required by 16 CFR 1610.39(c)(1).

(3) The importer, if requested to do so by the U.S. Customs and Border Protection, furnishes an adequate specific-performance bond conditioned upon the complete discharge of the obligations assumed in paragraphs (c)(1) and (2) of this section.

(d) The purpose of section 11(c) of the Act is only to permit articles of wearing apparel or textile fabrics which are dangerously flammable to be shipped or delivered for shipment in commerce for the purpose of treatment or processing to render them not dangerously flammable. Section 11(c) of the Act does not in any other respect limit the force and effect of sections 3, 6, 7, and 9 of the Act. In particular, section 11(c) of the Act does not authorize the sale or offering for sale of any article of wearing apparel or textile fabric which is in fact dangerously flammable at the time of sale or offering for sale, even though the seller intends to ship the article for treatment prior to delivery to the purchaser or has already done so. Moreover, under section 3 of the Act a person is liable for a subsequent sale or offering for sale if, despite the purported completion of treatment to render it not dangerously flammable, the article in fact remains dangerously flammable.

§ 1610.40 Use of alternate apparatus, procedures, or criteria for tests for guaranty purposes.

(a) Section 8(a) of the Act provides that no person shall be subject to criminal prosecution under section 7 of the Act (15 U.S.C. 1196) for a violation of section 3 of the Act (15 U.S.C. 1192) if that person establishes a guaranty received in good faith which meets all requirements set forth in section 8 of the Act. One of those requirements is that the guaranty must be based upon "reasonable and representative tests" in accordance with the applicable standard.

(b) Subpart A of this part 1610 prescribes apparatus and procedures for testing fabrics and garments subject to

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its provisions. See §§1610.5 & 1610.6. Subpart A prescribes criteria for classifying the flammability of fabrics and garments subject to its provisions as “Normal flammability, Class 1,” “Intermediate flammability, Class 2,” and “Rapid and Intense Burning, Class 3.” See §1610.4. Sections 3 and 4 of the Act prohibit the manufacture for sale, importation into the United States, or introduction in commerce of any fabric or article of wearing apparel subject to the Standard which exhibits “rapid and intense burning” when tested in accordance with the Standard. See 16 CFR part 1609.

(c) The Commission recognizes that for purposes of supporting guaranties, “reasonable and representative tests” could be either the test in Subpart A of this part, or alternate tests which utilize apparatus or procedures other than those in Subpart A of this part. This §1610.40 sets forth conditions under which the Commission will allow use of alternate tests with apparatus or procedures other than those in Subpart A of this part to serve as the basis for guaranties.

(d)(1) Persons and firms issuing guaranties that fabrics or garments subject to the Standard meet its requirements may base those guaranties on any alternate test utilizing apparatus or procedures other than those in Subpart A of this part, if such alternate test is as stringent as, or more stringent than, the test in Subpart A of this part. The Commission considers an alternate test to be “as stringent as, or more stringent than” the test in Subpart A of this part if, when testing identical specimens, the alternate test yields failing results as often as, or more often than, the test in Subpart A of this part. Any person using such an alternate test must have data or information to demonstrate that the alternate test is as stringent as, or more stringent than, the test in Subpart A of this part.

(2) The data or information required by this paragraph (d) of this section to demonstrate equivalent or greater stringency of any alternate test using apparatus or procedures other than those in Subpart A of this part must be in the possession of the person or firm desiring to use such alternate test be-

fore the alternate test may be used to support guaranties of items subject to the Standard.

(3) The data or information required by paragraph (d) of this section to demonstrate equivalent or greater stringency of any alternate test using apparatus or procedures other than those in Subpart A of this part must be retained for as long as that alternate test is used to support guaranties of items subject to the Standard, and for one year thereafter.

(e) Specific approval from the Commission in advance of the use of any alternate test using apparatus or procedures other than those in Subpart A is not required. The Commission will not approve or disapprove any specific alternate test utilizing apparatus or procedures other than those in Subpart A of this part.

(f) Use of any alternate test to support guaranties of items subject to the Standard without the information required by this section may result in violation of section 8(b), of the Act (15 U.S.C. 1197(b)), which prohibits the furnishing of a false guaranty.

(g) The Commission will test fabrics and garments subject to the Standard for compliance with the Standard using the apparatus and procedures set forth in Subpart A of this part. The Commission will consider any failing results from compliance testing as evidence that:

(1) The manufacture for sale, importation into the United States, or introduction in commerce of the fabric or garment which yielded failing results was in violation of the Standard and of section 3 of the Act; and

(2) The person or firm using the alternate test as the basis for a guaranty has furnished a false guaranty, in violation of section 8(b) of the Act. (Reporting requirements contained in paragraph (d) were approved by Office of Management and Budget under control number 3041-0024.)

Subpart C—Interpretations and Policies**§ 1610.61 Reasonable and representative testing to assure compliance with the standard for the clothing textiles.**

(a) *Background.* (1) The CPSC administers the Flammable Fabrics Act (“the Act”), 15 U.S.C. 1191–1204. Under the Act, among other things, the Commission enforces the Standard for the Flammability of Clothing Textiles (“the Standard”), 16 CFR part 1610. That Standard establishes requirements for the flammability of clothing and textiles intended to be used for clothing (hereinafter “textiles”).

(2) The Standard applies both to fabrics and finished garments. The Standard provides methods of testing the flammability of textiles, and sets forth the requirements that textiles must meet to be classified into one of three classes of flammability (classes 1, 2 and 3). §1610.4. Class 1 textiles, those that exhibit normal flammability, are acceptable for use in clothing. §1610.4(a)(1) & (2). Class 2 textiles, applicable only to raised-fiber surfaces, are considered to be of intermediate flammability, but may be used in clothing. §1610.4(b)(1) & (2). Finally, Class 3 textiles, those that exhibit rapid and intense burning, are dangerously flammable and may not be used in clothing. §1610.4(c)(1) & (2). The manufacture for sale, offering for sale, importation into the U.S., and introduction or delivery for introduction of Class 3 articles of wearing apparel are among the acts prohibited by section 3(a) of the Act, 15 U.S.C. 1192(a).

(3) CPSC currently uses retail surveillance, attends appropriate trade shows, follows up on reports of non-compliance and previous violations, and works with U.S. Customs and Border Protection in an effort to find textiles that violate CPSC’s standards. The Commission has a number of enforcement options to address prohibited acts. These include bringing seizure actions in federal district court against violative textiles, seeking an order through an administrative proceeding that a firm cease and desist from selling violative garments, pursuing criminal penalties, or seeking

the imposition of civil penalties for “knowing” violations of the Act. Of particular relevance to the latter two remedies is whether reasonable and representative tests were performed demonstrating that a textile or garment meets the flammability standards for general wearing apparel. Persons who willfully violate flammability standards are subject to criminal penalties.

(4) Section 8(a) of the Act, 15 U.S.C. 1197(a), exempts a firm from the imposition of criminal penalties if the firm establishes that a guaranty was received in good faith signed by and containing the name and address of the person who manufactured the guaranteed wearing apparel or textiles or from whom the apparel or textiles were received. 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. 16 CFR 1608.4. The guaranty must be based on the exempted types of fabrics or on reasonable and representative tests showing that the fabric covered by the guaranty or used in the wearing apparel covered by the guaranty is not so highly flammable as to be dangerous when worn by individuals, i.e., is not a Class 3 material. (The person proffering a guaranty to the Commission must also not, by further processing, have affected the flammability of the fabric, related material or product covered by the guaranty that was received.) Under §1610.37, a person, to issue a guaranty, should first evaluate the type of fabric to determine if it meets testing exemptions in accordance with §1610.1(d). (Some textiles never exhibit unusual burning characteristics and need not be tested.)

§1610.1(d). Such textiles include plain surface fabrics, regardless of fiber content, weighing 2.6 oz. or more per sq. yd., and plain and raised surface fabrics made of acrylic, modacrylic, nylon, olefin, polyester, wool, or any combination of these fibers, regardless of weight.) If no exemptions apply, the person issuing the guaranty must devise and implement a program of reasonable and representative tests to support the guaranty. The number of tests and frequency of testing is left to the discretion of that person, but at least one test is required.

(5) In determining whether a firm has committed a “knowing” violation of a flammability standard that warrants imposition of a civil penalty, the CPSC considers whether the firm had actual knowledge that its products violated the flammability requirements. The CPSC also considers whether the firm should be presumed to have the knowledge that would be possessed by a reasonable person acting in the circumstances, including knowledge that would have been obtainable upon the exercise of due care to ascertain the truth of representations. 15 U.S.C. 1194(e). The existence of results of flammability testing based on a reasonable and representative program and, in the case of tests performed by another entity (such as a guarantor), the steps, if any, that the firm took to verify the existence and reliability of such tests, bear directly on whether the firm acted reasonably in the circumstances.

(b) *Applicability.* (1) When tested for flammability, a small number of textile products exhibit variability in the test results; that is, even though they may exhibit Class 1 or Class 2 burning characteristics in one test, a third test may result in a Class 3 failure. Violative products that the Commission has discovered between 1994 and 1998 include sheer 100% rayon skirts and scarves; sheer 100% silk scarves; 100% rayon chenille sweaters; rayon/nylon chenille and long hair sweaters; polyester/cotton and 100% cotton fleece/sherpa garments, and 100% cotton terry cloth robes. Between August 1994 and August 1998, there have been 21 recalls of such dangerously flammable clothing, and six retailers have paid civil penalties to settle Commission staff allegations that they knowingly sold garments that violated the general wearing apparel standard.

(2) The violations and resulting recalls and civil penalties demonstrate the critical necessity for manufacturers, distributors, importers, and retailers to evaluate, prior to sale, the flammability of garments made from the

materials described above, or to seek appropriate guaranties that assure that the garments comply. Because of the likelihood of variable flammability in the small group of textiles identified above, one test is insufficient to assure reasonably that these products comply with the flammability standards. Rather, a person seeking to evaluate garments made of such materials should assure that the program tests a sufficient number of samples to provide adequate assurance that such textile products comply with the general wearing apparel standard. The number of samples to be tested, and the corresponding degree of confidence that products tested will comply, are to be specified by the individual designing the test program. However, in assessing the reasonableness of a test program, the Commission staff will specifically consider the degree of confidence that the program provides.

(c) *Suggestions.* The following are some suggestions to assist in complying with the Standard:

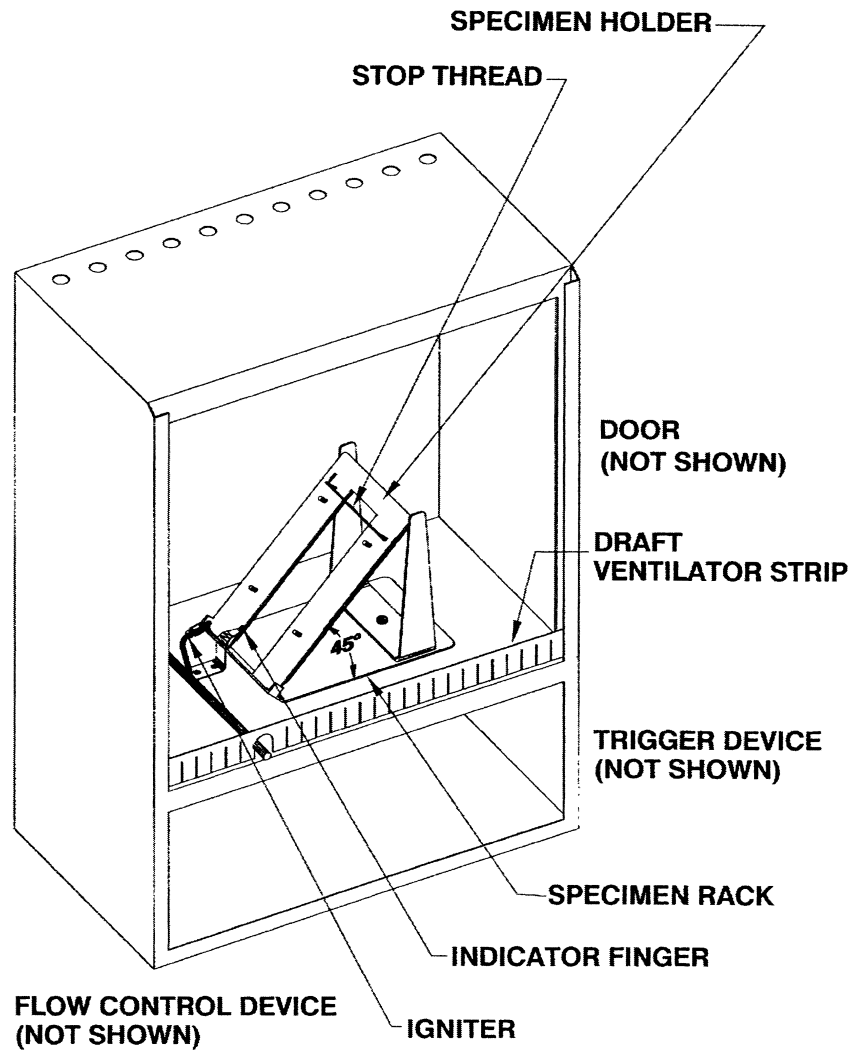
(1) Purchase fabrics or garments that meet testing exemptions listed in §1610.1(d). (If buyers or other personnel do not have skills to determine if the fabric is exempted, hire a textile consultant or a test lab for an evaluation.)

(2) For fabrics that are not exempt, conduct reasonable and representative testing before cutting and sewing, using standard operating characteristic curves for acceptance sampling to determine a sufficient number of tests.

(3) Purchase fabrics or garments that have been guaranteed and/or tested by the supplier using a reasonable and representative test program that uses standard operating characteristic curves for acceptance sampling to determine a sufficient number of tests. Firms should also receive and maintain a copy of the guaranty.

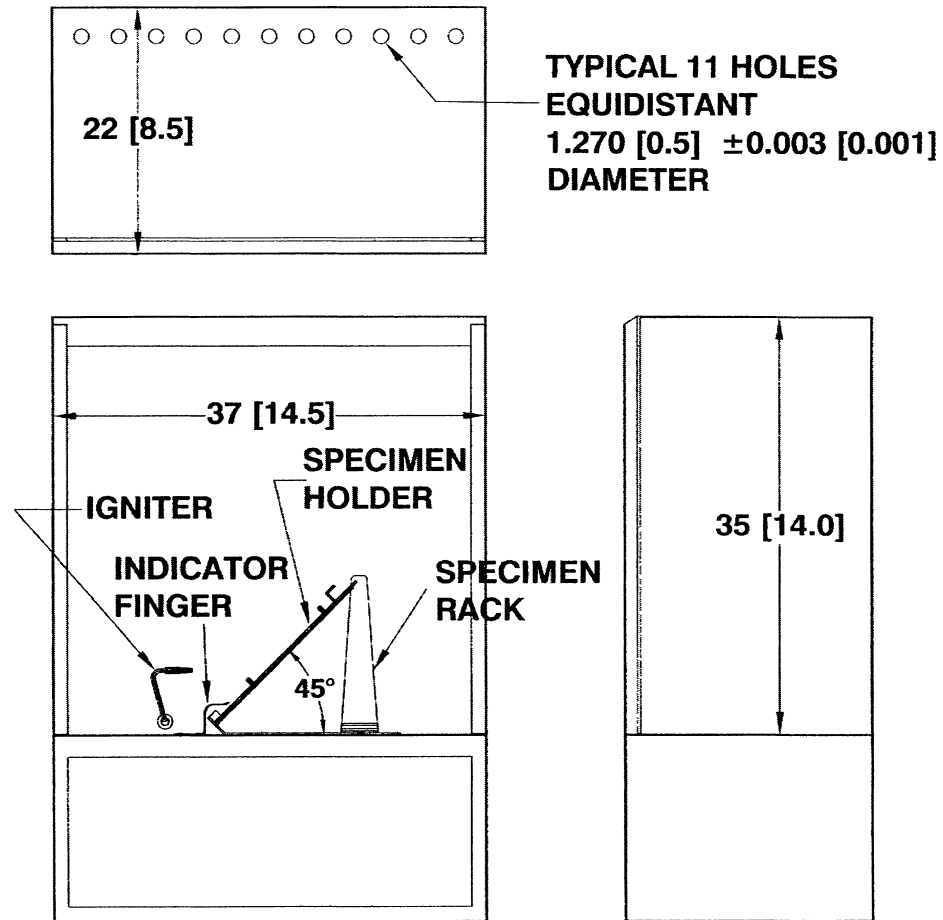
(4) Periodically verify that your suppliers are actually conducting appropriate testing.

FIGURE 1 TO PART 1610—SKETCH OF
FLAMMABILITY APPARATUS



SKETCH OF FLAMMABILITY APPARATUS
FIGURE 1

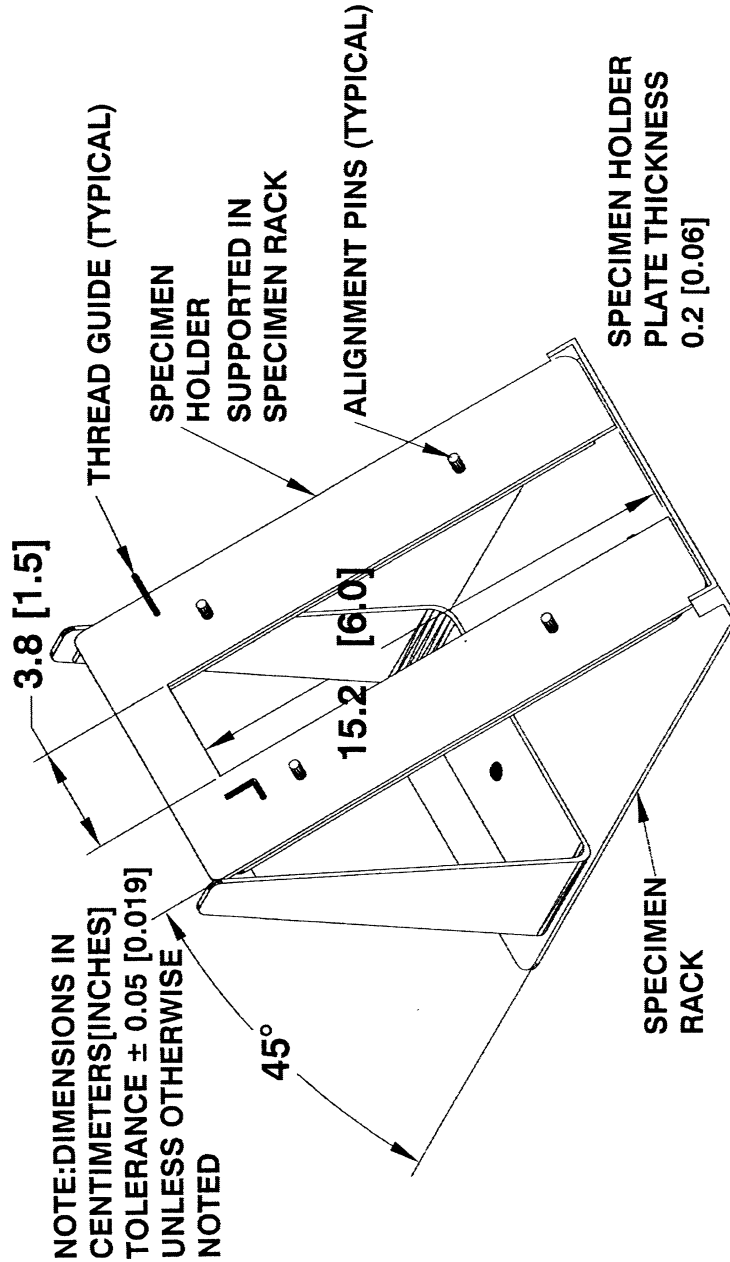
FIGURE 2 TO PART 1610—FLAMMABILITY
APPARATUS VIEWS



**NOTE: DIMENSIONS IN
CENTIMETERS [INCHES]
TOLERANCE ± 1 CM [0.375]
UNLESS OTHERWISE NOTED**

**FLAMMABILITY APPARATUS VIEWS
FIGURE 2**

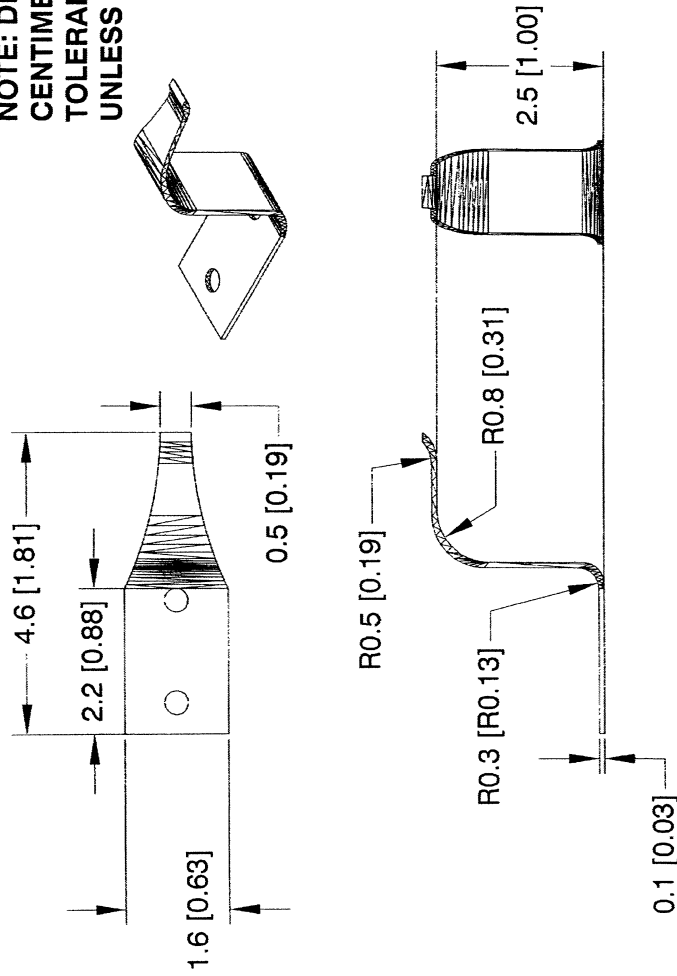
FIGURE 3 TO PART 1610—SPECIMEN
HOLDER SUPPORTED IN SPECIMEN RACK



SPECIMEN HOLDER SUPPORTED IN SPECIMEN RACK
FIGURE 3

FIGURE 4 TO PART 1610—AN EXAMPLE OF A TYPICAL INDICATOR FINGER

NOTE: DIMENSIONS IN
CENTIMETERS [INCHES]
TOLERANCE ± 0.05 [0.019]
UNLESS OTHERWISE NOTED



AN EXAMPLE OF A TYPICAL INDICATOR FINGER
FIGURE 4

FIGURE 5 TO PART 1610—AN EXAMPLE OF
A TYPICAL GAS SHIELD

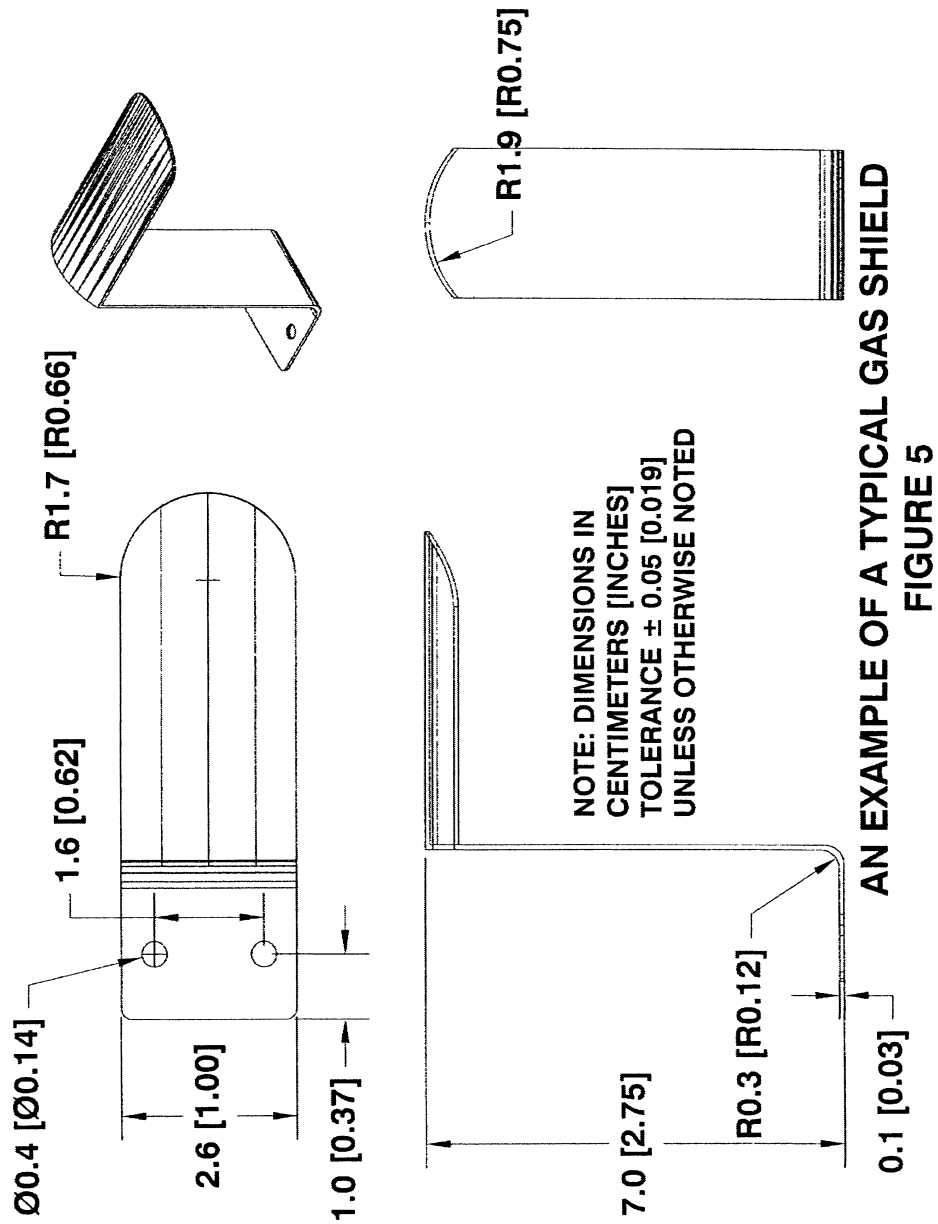
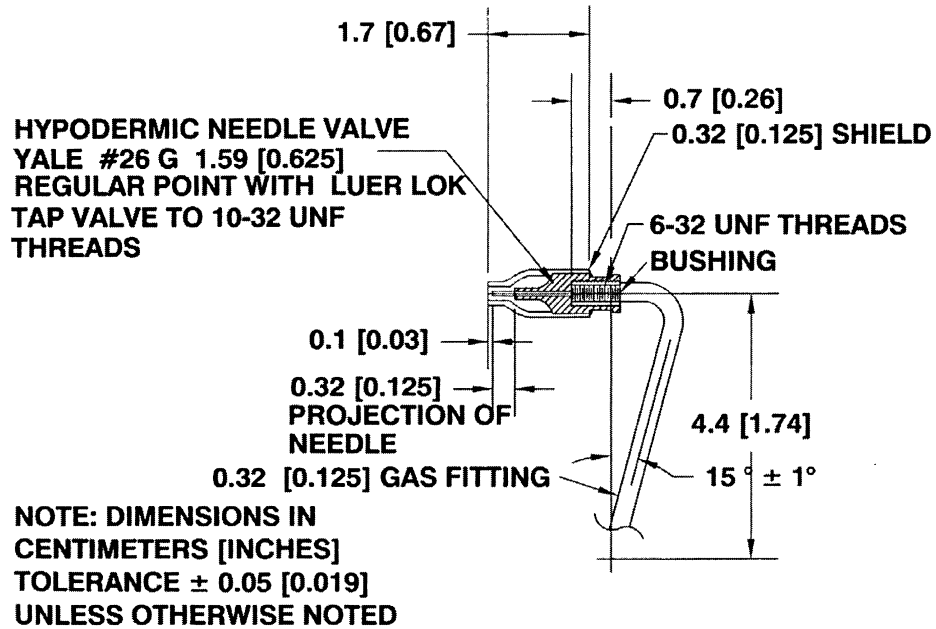


FIGURE 6 TO PART 1610—IGNITER



**AN EXAMPLE OF A TYPICAL IGNITER
FIGURE 6**

[73 FR 62187, Oct. 20, 2008]

FIGURE 7 TO PART 1610—BRUSHING
DEVICE

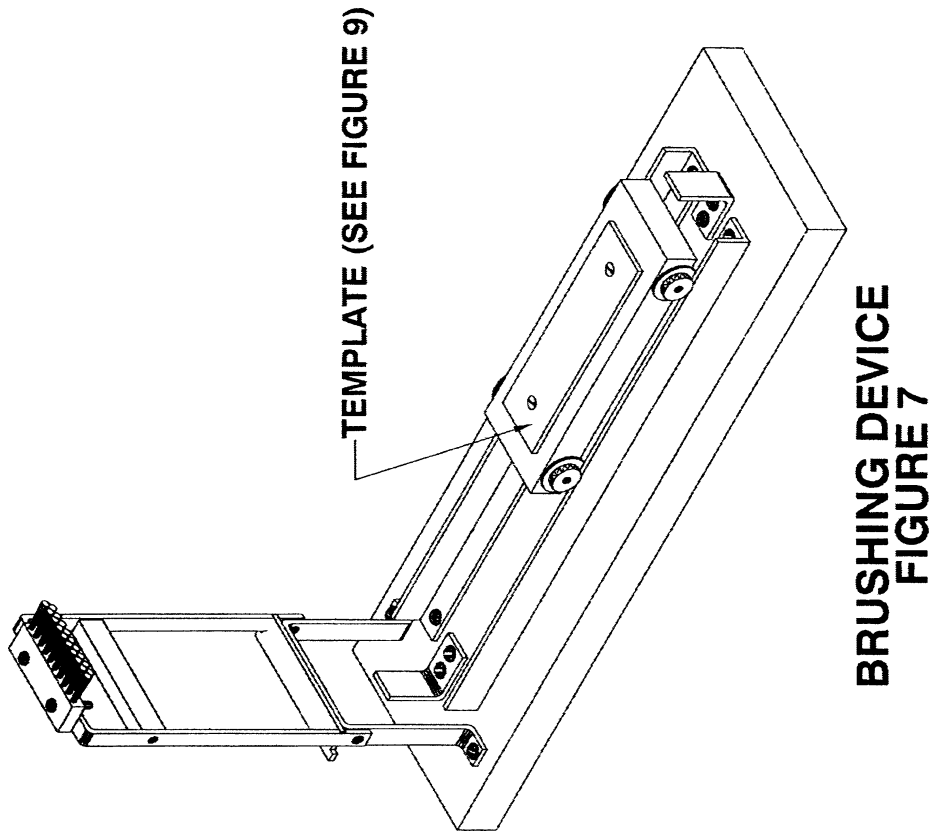
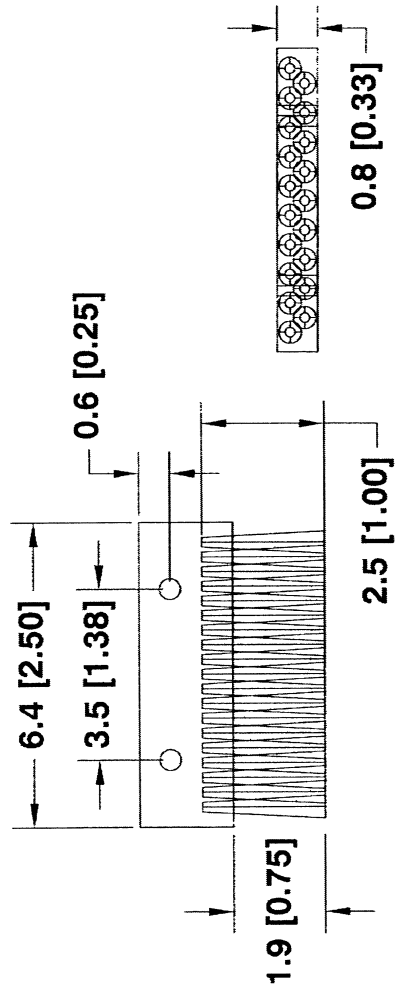


FIGURE 8 TO PART 1610—BRUSH

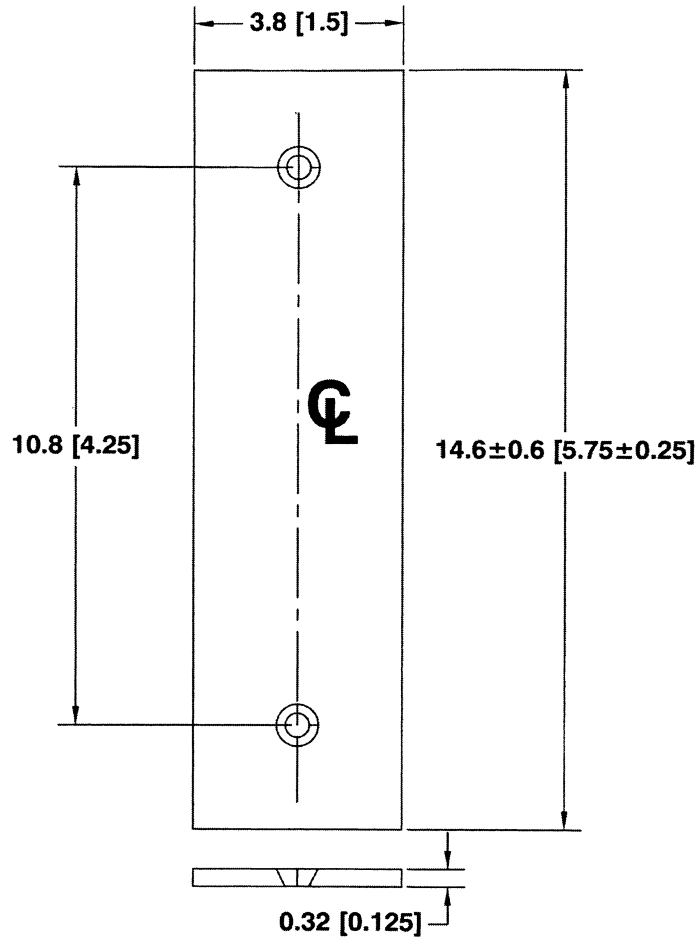


**BRUSH CONSISTS OF NYLON BRISTLES
0.004 [0.016] DIAMETER ± 0.001 [0.004]
20 BRISTLES PER TUFT AND 4 TUFTS PER INCH**

**NOTE: DIMENSIONS IN
CENTIMETERS [INCHES]
TOLERANCE ±0.05 [0.019]
UNLESS OTHERWISE NOTED**

**BRUSH
FIGURE 8**

FIGURE 9 TO PART 1610—BRUSHING
DEVICE TEMPLATE



NOTES:

1. TWO HOLES Ø 0.16 [0.0625] COUNTERSINK FOR FLAT HEAD SCREW
2. DIMENSIONS IN CENTIMETERS [INCHES]
3. TOLERANCE ± 0.05 [0.019] UNLESS OTHERWISE NOTED

**AN EXAMPLE OF A TYPICAL
BRUSHING DEVICE TEMPLATE
FIGURE 9**

[73 F.R. 62187, Oct. 20, 2008]

PART 1611—STANDARD FOR THE FLAMMABILITY OF VINYL PLASTIC FILM

Subpart A—The Standard

Sec.

- 1611.1 Purpose and scope.
- 1611.2 General description of products covered.
- 1611.3 Flammability—general requirement.
- 1611.4 Flammability test.

Subpart B—Rules and Regulations

- 1611.31 Terms defined.
- 1611.32 General requirements.
- 1611.33 Test procedures for textile fabrics and film.
- 1611.34 Only uncovered or exposed parts of wearing apparel to be tested.
- 1611.35 Testing certain classes of fabric and film.
- 1611.36 Application of act to particular types of products.
- 1611.37 Reasonable and representative tests under section 8 of the act.
- 1611.38 Maintenance of records by those furnishing guaranties.
- 1611.39 Shipments under section 11(c) of the act.

SOURCE: 40 FR 59898, Dec. 30, 1975, unless otherwise noted.

CODIFICATION NOTE: Part 1611 is a codification of the previously unpublished flammability standard for vinyl plastic film which was derived from part of the requirements of Commercial Standard 192-53, issued by the Department of Commerce, effective on May 22, 1953. This flammability standard became mandatory through section 4(a) of the Flammable Fabrics Act, as amended in 1954, and remains in effect due to the savings clause (section 11) of Public Law 90-189. Paragraph 3.11 of the Commercial Standard, referred to in the 1954 act, has been codified as §1611.3 16 CFR part 1609 contains the text of the Flammable Fabrics Act of 1953, as amended in 1954.

Subpart A—The Standard

AUTHORITY: Sec. 4, Pub. L. 83-88, 67 Stat. 112, as amended, 68 Stat. 770 (15 U.S.C. 1193); sec. 11, Pub. L. 90-189, 81 Stat. 568.

§ 1611.1 Purpose and scope.

The purpose of this standard is to promulgate a minimum standard for flammability of vinyl plastic film which are subject to the requirements of the Flammable Fabrics Act.

§ 1611.2 General description of products covered.

The material covered is nonrigid, unsupported, vinyl plastic film, including transparent, translucent, and opaque material, whether plain, embossed, molded or otherwise surface treated.^a

§ 1611.3 Flammability—general requirement.

The rate of burning shall not exceed 1.2 in./sec as judged by the average of five determinations lengthwise and five determinations transverse to the direction of processing, when the material is tested with the SPI flammability tester in accordance with the method described in §1611.4.

§ 1611.4 Flammability test.

(a) *Apparatus and materials.* The apparatus shall be constructed essentially as shown in figure 1 and shall consist of the following:

(1) *Specimen holder.* (i) A removable, flat, specimen-holding rack, the upper and lower sections of which are separate, shall have the shape and dimensions shown in figure 2 (sketch of sample-holding rack). The specimen is supported by tight closure of the upper and lower sections around the sides of the specimen. The center section of the rack contains an open U-shaped area in which burning of the specimen takes place. At the open end of the rack the forked sides are at an angle of 45° for the last inch. Thus, when the rack is slid into the cabinet on runners mounted at a 45° angle, the bent portion of the specimen adjacent to the igniter flame is vertical and the remainder is at 45°.

(ii) The switch actuators consist of suitable springs mounted on the side of

^aRefer to sections 2 and 4 of the Flammable Fabrics Act of 1953, as amended in 1954, set out at 16 CFR part 1609 for the scope of this standard. The vinyl plastic film covered by Commercial Standard 192-53, as promulgated by the Secretary of Commerce was vinyl plastic film 10 mils and less in thickness (see §1.3 of the voluntary standard). After CS 191-53 and CS 192-53 were made mandatory by section 4 of the act, the Federal Trade Commission clarified the scope of the standards in rules and regulations now found at §§1611.31(i) and 1611.33(b) (formerly 16 CFR 302.1(a)(9) and 302.3(b)).

the rack, one just beyond the curved portion at the open end, and the other at the closed end of the U-shaped holder. The springs are depressed and held in position prior to ignition by means of cotton thread suitably wound across the specimen and securely attached to the rack. As flame reaches these threads, the springs are released, thus activating the microswitches of the stop clocks.

(2) *Igniter flame.* The igniter flame shall be produced at the tip of a No. 22 hypodermic needle jet. The igniter shall be so located in the cabinet that the tip of the needle is $\frac{1}{16}$ in. from the surface of the specimen when the specimen rack is in place.

(3) *Cabinet.* The cabinet shall protect the igniter flame and specimen from air currents during tests, yet contain a suitable door or window for visual operation, provision for inserting the specimen holder, and adjustable vents to supply sufficient air for combustion of the specimen. It should also be capable of rapid ventilation following a test so that all combustion products can be removed between tests. A hood may be used if its exhaust fan is turned off during the test.

(4) *Timing mechanism.* The burning rate shall be determined by a stop clock through microswitches mounted on the specimenholder rack. The clock is started when the specimen flame burns the first thread, and is stopped when the thread at the upper end of the holder, 6 in. from the first thread, burns apart. The timing mechanism shall be capable of indicating time interval to 0.1 second.

(5) *Butane.* Unless otherwise specified, butane gas shall be used for the igniter flame.

(6) *Thread.* J. & P. Coats heavy-duty white cotton thread.

(7) *Microburner.*

(b) *Test specimens.* (1) Test specimens shall be 3 in. in width and 9 in. in length. They shall be free from folds or wrinkles. Five specimens from each direction (machine and transverse) of a given material shall be tested.

(2) *Conditioning.* The conditioning procedure shall conform to the requirements of procedure B of ASTM D618, Tentative Methods of Conditioning

Plastics and Electrical Insulating Materials for Testing.

(c) *Procedure.* (1) After preparing the specimens, the holder shall be threaded so as to depress the switch actuators (springs) at least $\frac{1}{4}$ in. from the edge of the holder. Each actuator shall be separately threaded, the thread passing down through the J-slots and under the upper jaws so that the thread is adjacent to the specimen when the holder is closed.

(2) The specimen shall be inserted into the holder so that it extends down into the lock springs and is held firmly between the two wires at the open end of the burning channel. These wires insure that the end of the specimen is always the correct distance from the igniter flame. The sample shall be free from wrinkles or distortion when the holder is closed. The specimen should not extend beyond the outer edge of the lower plate, otherwise the rack may not slide freely on the slide channel on introducing it into the cabinet.

(3) Prior to introducing the specimen and holder into the cabinet, both electrical switches shall be set for automatic timing. The needle valve regulating the butane flow shall be adjusted to provide a $\frac{1}{2}$ -in. flame. (When the specimen is in place its surface is $\frac{1}{16}$ in. from the tip of the needle and the flame is just barely flattened against the specimen. This can be checked by using a specimen made of asbestos in place of a plastic specimen.)

(4) With the hood fan off, clocks zeroed, and the flame adjusted as mentioned, the door is closed and the specimen holder is then inserted at a constant rate. The holder should be allowed to slide down the rails by gravity, taking about one-half second to travel the length of the slide. Any hesitation in bringing the specimen holder fully into burning position may cause erroneous ignition results.

(5) The burning time shall be read from the stop clock and the rate of burning calculated. Results that deviate from the mean value of all tests should be rejected if the deviation of the doubtful value is more than five times the average deviation from the mean obtained by excluding the doubtful value. Such doubtful values shall be discarded and retests made.

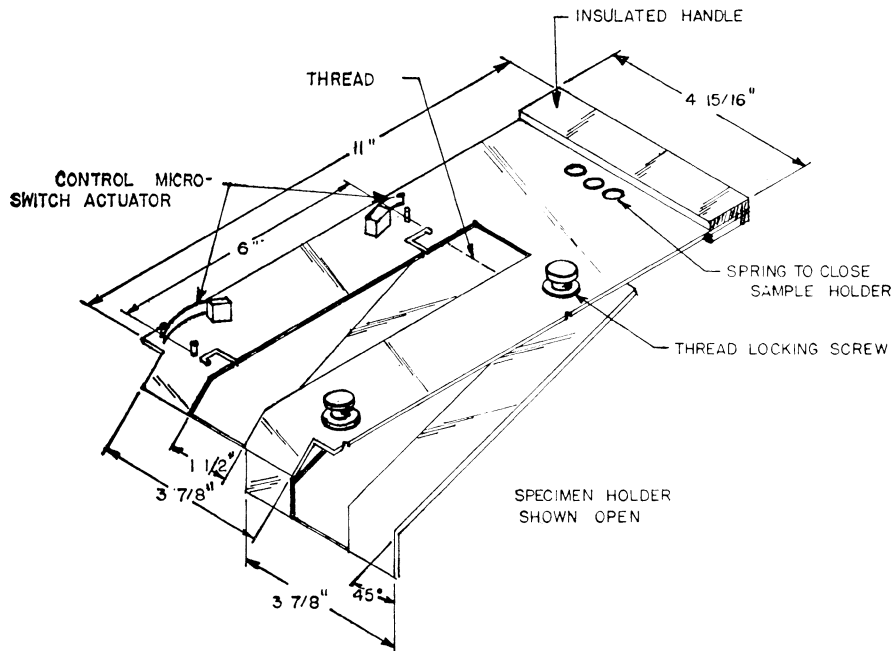
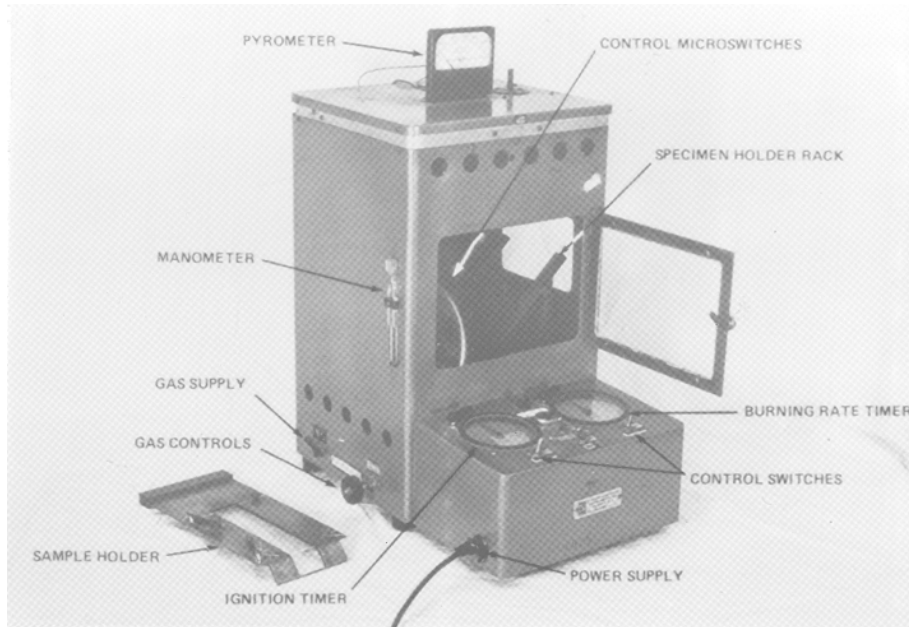


FIGURE 2 — Specimen holder

Subpart B—Rules and Regulations

AUTHORITY: Sec. 5, 15 U.S.C. 1194.

NOTE: An interpretation, with respect to Ornamental Veils or Veilings, issued by the Federal Trade Commission at 32 FR 11850, Aug. 17, 1967, provides as follows:

Ornamental millinery veils or veilings when used as a part of, in conjunction with, or as a hat, are not to be considered such a "covering for the neck, face, or shoulders" as would, under the first proviso of section 2(d) of the Flammable Fabrics Act, cause the hat to be included within the definition of the term "article of wearing apparel" where such ornamental millinery veils or veilings do not extend more than nine (9) inches from the tip of the crown of the hat to which they are attached and do not extend more than two (2) inches beyond the edge of the brim of the hat.

Where hats are composed entirely of ornamental millinery veils or veilings such hats will not be considered as subject to the Flammable Fabrics Act if the veils or veilings from which they are manufactured were not more than nine (9) inches in width and do not extend more than nine (9) inches from the tip of the crown of the completed hat.

§ 1611.31 Terms defined.

As used in this part, unless the context otherwise specifically requires:

(a) The term *act* means the "Flammable Fabrics Act" (approved June 30, 1953, Pub. Law 88, 83d Congress, 1st sess., 15 U.S.C. 1191; 67 Stat. 111), as amended, 68 Stat. 770, August 23, 1954.

(b) The terms *rule*, *rules*, *regulations*, and *rules and regulations*, mean the rules and regulations prescribed by the Commission pursuant to section 5(c) of the act.

(c) The term *United States* means the several States, the District of Columbia, the Commonwealth of Puerto Rico and the Territories and Possessions of the United States.

(d) The terms *marketing or handling* means the transactions referred to in section 3 of the Flammable Fabrics Act, as amended in 1967.

(e) The terms *uncovered or exposed part* of an article of wearing apparel as used in section 4(a) of the act, means that part of such article of apparel which might during normal wear be open to flame or other means of ignition.

NOTE: The outer surface of an undergarment is considered to be an uncovered or exposed part of an article of wearing apparel, and thus subject to the act.

(f) The term *textile fabric* means any coated or uncoated material subject to the act, except film and fabrics having a nitro-cellulose fiber, finish, or coating, which is woven, knitted, felted or otherwise produced from any natural or man-made fiber, or substitute therefore, or combination thereof, of two inches or more in width, and which is in a form or condition ready for use in wearing apparel.

(g) The term *plain surface textile fabric* means any textile fabric which does not have an intentionally raised fiber or yarn surface such as a pile, nap, or tuft, but shall include those fabrics having fancy woven, knitted or flock printed surfaces.

(h) The term *raised surface textile fabric* means any textile fabric which has an intentionally raised fiber or yarn surface such as a pile, nap, or tufting.

(i) The term *film* means any nonrigid, unsupported plastic, rubber or other synthetic or natural film or sheeting, subject to the act, or any combination thereof, including transparent, translucent, and opaque material, whether plain, embossed, molded, or otherwise surface treated, which is in a form or condition ready for use in wearing apparel, and shall include film or sheeting exceeding 10 mils in thickness.

(j) The term *test* means the application of the relevant test method prescribed in the procedures provided under section 4(a) of the act.

(k) The term *initial test* means tests made under the procedures prescribed in section 4(a) of the act of specimens taken from two separate pieces of a textile fabric, or textile fabric with a nitro-cellulose fiber, finish or coating, having the same weight, construction and finish type, or from two separate runs of film having the same formula, finish, color, and thickness.

(l) The term *finish type* means a particular finish, but does not include

§ 1611.32

such variables as changes in color, pattern, print, or design, or minor variations in the amount or type of ingredients in the finish formulation. Examples of finish types would be starch finishes, resin finishes or parchmented finishes.

(m) The definition of terms contained in section 2 of the act shall be applicable also to such terms when used in rules promulgated under the act.

§ 1611.32 General requirements.

(a) No article of wearing apparel or fabric subject to the act and regulations shall be marketed or handled if such article or fabric, when tested according to the procedures prescribed in section 4(a) of the act, is so highly flammable to be dangerous when worn by individuals.

(b)(1) In the application of the requirements of §1611.3 of the Standard to any item of film, coated fabric, or wearing apparel, compute the average burn rate from five specimens burned transverse to the direction of processing and the average burn rate from an additional five specimens burned lengthwise to the direction of processing. If either the average burn rate from the five specimens burned transverse or the average burn rate from the five specimen burned lengthwise exceeds 1.2 inches per second, the test results shall be interpreted as a failure.

(2) To compute the average burn rate for each set of five specimens, at least two of the specimens must ignite and burn the stop cord for the specimen. However, if fewer than two specimens of any given set of five specimens ignite and burn the stop cord for the specimen, the test results shall be interpreted according to provisions of paragraphs (b)(2)(i) through (iii) of this section:

(i) If no specimen ignites and burns the stop cord, the test results of that set of specimens shall be regarded as passing.

(ii) If only one specimen of the set of five specimens ignites and burns the stop cord with passing results, the results of that set of specimens will be regarded as passing.

(iii) If only one specimen of the set of five specimens ignites and burns the stop cord with failing results, test an-

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other set of five specimens from the same direction of processing. Compute the average burn rate for all ten specimens in the same direction of processing. If two or more of the 10 specimens ignite and burn the stop cord, average the results from all 10 specimens which ignited and burned the stop cord. If only one of the 10 specimens ignites and burns the stop cord, the test is inconclusive. The Commission will take no enforcement action on the basis of that test. The Commission may conduct additional testing of the article of film, coated fabric, or wearing apparel, but the results of any inconclusive test shall not be averaged with results obtained from any other test.

[50 FR 7762, Feb. 26, 1985; 50 FR 11848, Mar. 26, 1985]

§ 1611.33 Test procedures for textile fabrics and film.

(a)(1) All textile fabrics (except those with a nitro-cellulose fiber, finish or coating) intended or sold for use in wearing apparel, and all such fabrics contained in articles of wearing apparel, shall be subject to the requirements of the act, and shall be deemed to be so highly flammable as to be dangerous when worn by individuals if such fabrics or any uncovered or exposed part of such articles of wearing apparel exhibits rapid and intense burning when tested under the conditions and in the manner prescribed in subpart A of this part, and identified as "Flammability of Clothing Textiles, Commercial Standard 191-53".

(2) Notwithstanding the provisions of paragraph (a)(1) of this section, coated fabrics, except those with a nitro-cellulose coating, may be tested under the procedures outlined in part 1611, the flammability standard incorporated in the Commercial Standard promulgated by the Secretary of Commerce effective May 22, 1953, and identified as "General Purpose Vinyl Plastic Film, Commercial Standard 192-53", and if such coated fabrics do not exhibit a rate of burning in excess of that specified in §1611.3 they shall not be deemed to be so highly flammable as to be dangerous when worn by individuals.

(b) All film, and textile fabrics with a nitro-cellulose fiber, finish or coating

intended or sold for use in wearing apparel, and all film and such textile fabrics referred to in this rule which are contained in articles of wearing apparel, shall be subject to the requirements of the act, and shall be deemed to be so highly flammable as to be dangerous when worn by individuals if such film or such textile fabrics or any uncovered or exposed part of such articles of wearing apparel exhibit a rate of burning in excess of that specified in part 1611, the flammability standard incorporated in the Commercial Standard promulgated by the Secretary of Commerce effective May 22, 1953, and identified as "General Purpose Vinyl Plastic Film, Commercial Standard 192-53."

§ 1611.34 Only uncovered or exposed parts of wearing apparel to be tested.

In determining whether an article of wearing apparel is so highly flammable as to be dangerous when worn by individuals, only the uncovered or exposed part of such article of wearing apparel shall be tested according to the applicable procedures set forth in section 4(a) of the act.

NOTE: If the outer layer of plastic film or plastic-coated fabric of a multilayer fabric separates readily from the other layers, the outer layer shall be tested under part 1611—Standard for the Flammability of Vinyl Plastic Film. If the outer layer adheres to all or a portion of one or more layers of the underlying fabric, the multilayered fabric may be tested under either part 1611 or Part 1610—Standard for the Flammability of Clothing Textiles. However, if the conditioning procedures required by §1610.4(f) of the Standard for the Flammability of Cloth Textiles would damage or alter the physical characteristics of the film or coating, the uncovered or exposed layer shall be tested in accordance with part 1611.

Plastic film or plastic-coated fabric used, or intended for use, as the outer layer of disposable diapers is exempt from the requirements of the standard, provided that a sample taken from a full thickness of the assembled article passes the test in the standard (part 1610 or part 1611) otherwise applicable to the outer fabric or film when the flame is applied to the exposed or uncovered surface. See §§ 1610.36(f) and 1611.36(f).

[50 FR 7762, Feb. 26, 1985]

§ 1611.35 Testing certain classes of fabric and film.

(a) *Fabric not customarily washed or dry cleaned.* (1) Except as provided in paragraph (a)(2) of this section, any textile fabric or article of wearing apparel, which, in its normal and customary use as wearing apparel would not be dry cleaned or washed, need not be dry cleaned or washed as prescribed in §§ 1610.4 (d) and (e) when tested under the Standard for the Flammability of Clothing Textiles if such fabric or article of wearing apparel, when marketed or handled, is marked in a clear and legible manner with the statement: "Fabric may be dangerously flammable if dry cleaned or washed." An example of the type of fabric referred to in this paragraph is bridal illusion.

(2) Section 1610.4(a)(4) of the Standard for the Flammability of Clothing Textiles, which requires that certain samples shall be dry cleaned or washed before testing, shall not apply to disposable fabrics and garments. Additionally, such disposable fabrics and garments shall not be subject to the labeling requirements set forth in paragraph (a)(1) of this section.

(b) A coated fabric need not, upon test under the procedures outlined in subpart A of part 1610, be dry cleaned as set forth in §1610.4(d).

(c) In determining whether a textile fabric having a raised-fiber surface, which surface is to be used in the covered or unexposed parts of articles of wearing apparel, is so highly flammable as to be dangerous when worn by individuals, only the opposite surface or surface intended to be exposed need be tested under the applicable procedures set forth in section 4(a) of the act, providing an invoice or other paper covering the marketing or handling of such fabric is given which clearly designates that the raised-fiber surface is to be used only in the covered or unexposed parts of articles of wearing apparel.

(d)(1) Items which are subject to the Standard for the Flammability of Vinyl Plastic Film from which a test specimen 3 inches by 9 inches cannot be taken lengthwise to the direction of processing shall not be tested in the lengthwise direction.

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(2) Items which are subject to the Standard for the Flammability of Vinyl Plastic Film from which a test specimen 3 inches by 9 inches cannot be taken transverse to the direction of processing shall not be tested in the transverse direction.

[40 FR 59898, Dec. 30, 1975, as amended at 50 FR 51671, Dec. 19, 1985]

§ 1611.36 Application of act to particular types of products.

(a) Fabrics intended or sold for processing into interlinings or other covered or unexposed parts of articles of wearing apparel shall not be subject to the provisions of section 3 of the act: *Provided*, That an invoice or other paper covering the marketing or handling of such fabrics is given which specifically designates their intended end use: *And provided further*, That with respect to fabrics which under the provisions of section 4 of the act, as amended, are so highly flammable as to be dangerous when worn by individuals, any person marketing or handling such fabrics maintains records which show the acquisition, disposition and intended end use of such fabrics, and any person manufacturing articles of wearing apparel containing such fabrics maintains records which show the acquisition, and use and disposition of such fabrics. Any person who fails to maintain such records or to furnish such invoice or other paper shall be deemed to have engaged in the marketing or handling of such products for purposes subject to the requirements of the act and such person and the products shall be subject to the provisions of sections 3, 6, 7, and 9 of the act.

(b) Fabrics intended or sold for use in those hats, gloves, and footwear which are excluded under the definition of articles of wearing apparel in section 2(d) of the act shall not be subject to the provisions of section 3 of the act: *Provided*, That an invoice or other paper covering the marketing or handling of such fabrics is given which specifically designates their intended use in such products: *And provided further*, That with respect to fabrics which under the provisions of section 4 of the act, as amended, are so highly flammable as to be dangerous when worn by individuals, any person marketing or handling

such fabrics maintains records which show the acquisition, disposition, and intended end use of such fabrics, and any person manufacturing hats, gloves, or footwear containing such fabrics maintains records which show the acquisition, end use and disposition of such fabrics. Any person who fails to maintain such records or to furnish such invoice or other paper shall be deemed to have engaged in the marketing or handling of such products for purposes subject to the requirements of the act and such person and the products shall be subject to the provisions of sections 3, 6, 7, and 9 of the act.

(c) Except as provided in paragraph (d) of this section, handkerchiefs not exceeding a finished size of twenty-four (24) inches on any side or not exceeding five hundred seventy-six (576) square inches in area are not deemed "articles of wearing apparel" as that term is used in the act.

(d) Handkerchiefs or other articles affixed to, incorporated in, or sold as a part of articles of wearing apparel as decoration, trimming, or for any other purpose, are considered an integral part of such articles of wearing apparel, and the articles of wearing apparel and all parts thereof are subject to the provisions of the act. Handkerchiefs or other articles intended or sold to be affixed to, incorporated in or sold as a part of articles of wearing apparel as aforesaid constitute "fabric" as that term is defined in section 2(e) of the act and are subject to the provisions of the act which such handkerchiefs or other articles constitute textile fabrics as the term "textile fabric" is defined in §1611.31(f).

(e) Where an article of wearing apparel has a raised-fiber surface which is intended for use as a covered or unexposed part of the article of wearing apparel but the article of wearing apparel is, because of its design and construction, capable of being worn with the raised-fiber surface exposed, such raised-fiber surface shall be considered to be an uncovered or exposed part of the article of wearing apparel. Examples of the type of products referred to in this paragraph are athletic shirts or so-called "sweat shirts" with a raised fiber inner side.

(f) *Multilayer fabric and wearing apparel with a film or coating on the uncovered or exposed surface.* Plastic film or plastic-coated fabric used, or intended for use, as the outer layer of disposable diapers is exempt from the requirements of the standard, provided that a full thickness of the assembled article passes the test in the standard otherwise applicable to the outer fabric or film when the flame is applied to the exposed or uncovered surface. (15 U.S.C. 1193, 1194; 15 U.S.C. 2079(b))

NOTE: An interpretation to §302.6(c) issued by the Federal Trade Commission, 30 FR 16106, Dec. 28, 1965, provides as follows:

“§1611.36(c) does not exclude products from the act on the sole basis of the size, description or designation of such product.

“If, because of construction, design, color, type of fabric, or any other factor, a piece of cloth of a finished type or any other product of a finished type appears to be likely to be used as a covering for the head, neck, face, shoulders, or any part thereof, or otherwise appears likely to be used as an article of clothing, garment, or costume, such product is not a handkerchief and constitutes an article of wearing apparel as defined in and subject to the provisions of the Flammable Fabrics Act, irrespective of its size, or its description or designation as a handkerchief or any other term.”

(Secs. 4, 5, 67 Stat. 112, 113, as amended, 68 Stat. 770, 81 Stat. 571, 90 Stat. 515 (15 U.S.C. 1193, 1194); sec. 30(b), 86 Stat. 1207 (15 U.S.C. 2079(b))

[40 FR 59898, Dec. 30, 1975, as amended at 50 FR 7763, Feb. 26, 1985]

§ 1611.37 Reasonable and representative tests under section 8 of the Act.

EXPLANATION: Section 8 of the Act, among other things, provides that no person shall be subject to prosecution under section 7 of the Act for a violation of section 3 of the Act if such person establishes a guaranty received in good faith signed by and containing the name and address of the person by whom the wearing apparel or fabric guaranteed was manufactured or from whom it was received, to the effect that reasonable and representative tests made under the procedures provided in section 4(a) of the Act show that the fabric covered by the guaranty, or used, or contained in the wearing apparel, is not, under the provisions of section 4(a) of the Act, so highly flammable as to be dangerous when worn by individuals.

While one establishing a guaranty received in good faith would not be subject to criminal prosecution under section 7 of the Act, he, or the merchandise involved, would nev-

ertheless, remain subject to the administrative processes of the Consumer Product Safety Commission under section 5 of the Act, as well as the injunction and condemnation procedures under section 6 of the Act.

The furnishing of guaranties is not mandatory under the Act. The purpose of this rule is to establish minimum requirements for the reasonable and representative tests on which guaranties may be based.

(a) The following shall constitute reasonable and representative tests, as that term is used in section 8 of the Act, for those textile fabrics which by reason of their composition, construction, finish type or weight may be tested upon a class basis. The word “class” as used in this section means a category of textile fabrics having certain general constructional or finished characteristics, sometimes in association with a particular fiber, and covered by a class or type description generally recognized by the trade. In certain instances the use of class tests is restricted by this section to a particular textile fabric of the same fiber composition, construction and finish type. The results of such class tests may be used by any person as a basis for furnishing guaranties under section 8 of the Act on all textile fabrics of the same class.

(1) *Plain surface textile fabrics weighing two ounces or more per square yard.* (i) One test of any plain surface textile fabric weighing two ounces or more per square yard, exclusive of metallic ornamentation, or one test of any fabric in a particular class of such fabrics, shall suffice for any such fabric or class of fabrics.

(2) *Plain surface textile fabrics weighing less than two ounces per square yard.* (i) When, on the initial test of any plain surface textile fabric weighing less than two ounces per square yard, such fabric exhibits a burning time of 3.5 seconds or more, such test may suffice for any fabric of the same fiber composition, construction and finish type. This class of fabric shall be tested at least once at intervals of not more than three months thereafter while in production. If, after four consecutive interval production tests have been made, none of such test results show the flame spread to have been less than 4.5 seconds, no further tests of such class of fabric need be made.

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(ii) When, on the initial test of any plain surface textile fabric weighing less than two ounces per square yard, none of the specimens ignite, such initial test may suffice for any fabric of the same fiber composition, construction and finish type.

(iii) When, on the initial test of any plain surface textile fabric weighing less than two ounces per square yard, such fabric ignites but the flame is extinguished before the stop cord is burned, such test may suffice for any fabric of the same fiber composition, construction and finish type. This class of fabric shall be tested at least once at intervals of not more than one year thereafter while in production.

(3) *Certain raised fiber surface textile fabrics.* (i) When a test of any raised fiber surface textile fabric which has a dense cut pile of uniform short length or looped yarns, does not exhibit a surface flash and does not ignite, such test shall suffice for any such fabric having a dense cut pile of the same length or the same looped yarns and of the same fiber composition, construction and finish type. Examples of the types of fabrics referred to are velvet, velveteens, velours, and corduroys.

(ii) One test of any raised fiber surface textile fabric, the raised fiber surface of which consists of not less than ninety percentum (90%) protein fiber, or one test of any fabric in a particular class of such fabrics, shall suffice for any such fabric or class of fabrics.

(iii) When, on the initial test of any raised surface textile fabric which has a surface composed of looped yarns, such fabric exhibits a burning time in excess of 12 seconds, such test may suffice for any such fabric having the same looped yarns and of the same fiber composition, construction and finish type. An example of the type of fabric referred to is "terry cloth".

(b) Raised fiber surface textile fabrics: When, on the initial test of a raised fiber surface textile fabric, such fabric:

(1)(i) Falls within Class 2 as provided in §1610.3(a)(2)(i), the fabric shall be tested at least once at intervals of not more than one month while in production, or if the production exceeds 50,000 yards per month, the fabric shall be

tested thereafter every 50,000 yards or fraction thereof.

(ii) If, after two such intervals, production tests have been made, the test results do not show the flame spread to have been less than 4 seconds, with the base fabric ignited or fused, the fabric shall be tested at least once at intervals of not more than three months while in production, or if the production exceeds 100,000 yards per three months, the fabric shall be tested thereafter every 100,000 yards or fraction thereof.

(2) Has a flame spread in excess of 7 seconds with the base fabric ignited or fused, the fabric shall be tested at least once at intervals of not more than six months thereafter while in production.

(3) Has a surface flash, but the base fabric does not ignite nor fuse, the fabric shall be tested at least once at intervals of not more than six months thereafter while in production.

(4) Does not have a surface flash and does not ignite, the initial test shall suffice.

(c) When, on initial test a film or a textile fabric with a nitro-cellulose fiber, finish or coating, does not exhibit a burning rate in excess of 1.2 inches per second, one test each year thereafter while in production shall be deemed reasonable and representative tests for such film or textile fabric.

(d) Reasonable and representative tests of fabrics and fabrics contained in articles of wearing apparel, subject to the act, produced prior to the effective date of the act, and which have not been tested under the applicable requirements of paragraphs (a), (b), or (c) of this section, shall be an initial test for each class of such fabrics, and such tests shall be applicable to all fabrics having the same fiber composition, construction and finish type.

(e) In the case of articles of wearing apparel which are not made from fabrics but directly from yarns, the fabrics contained in such articles of wearing apparel shall be tested by the testing requirements provided in paragraphs (a) and (b) of this section.

(f) Where fabrics or fabrics contained in articles of wearing apparel have not been tested when in production by the applicable testing requirements provided in paragraphs (a), (b) or (c) of

this section, one test of each such fabrics shall be made every 10,000 yards or fraction thereof, or of the fabric contained in one of every 5,000 of such articles of wearing apparel or fraction thereof, and these shall be deemed reasonable and representative tests of such fabrics.

(g) In the case of textile fabrics or textile fabrics contained in articles of wearing apparel having an appliqued, overstitched, or embroidered type of design of a loop, pile, nap, or tufted construction, tests shall be conducted according to paragraph (b) of this section on each type of applique, over-stitch, or embroidery.

(h) If tests of any textile fabric made subsequent to the initial test show a burning time of another category, then such fabric shall be tested thereafter under the testing requirements of such changed time.

(i) The application of this section, insofar as it relates to the testing of plain surface textile fabrics or such fabrics contained in articles of wearing apparel weighing two ounces or more per square yard, shall be limited to fabrics made of fibers in use or capable of being used as of May 31, 1954. Such fabrics weighing two ounces or more per square yard made in whole or in part of fibers developed and used subsequent to May 31, 1954, shall be tested in accordance with the testing requirements set out in paragraph (a)(2) of this section.

§ 1611.38 Maintenance of records by those furnishing guaranties.

(a) In order to properly administer and enforce section 8 of the act relating to guaranties, it is required that any person furnishing either a separate or continuing guaranty who has made the tests prescribed by the act and regulations shall keep and maintain records of such tests. The records to be maintained shall show:

(1) The style or range number, fiber composition, construction and finish type of each textile fabric and each textile fabric (including those with a nitro-cellulose fiber, finish or coating) used or contained in an article of wearing apparel covered by the guaranty, including a swatch of the fabric tested.

(2) The stock or formula number, color, thickness and general descrip-

tion of each film or film used in an article of wearing apparel covered by the guaranty, including a sample of the film tested.

(3) The results of the actual tests made on the textile fabric and film or the fabric and film used or contained in an article of wearing apparel.

(b) Persons furnishing guaranties based upon class tests shall maintain records showing:

(1) Identification of the class test.

(2) Fiber composition, construction and finish type of the fabrics, or the fabrics used or contained in articles of wearing apparel so guaranteed.

(3) A swatch of each class of fabrics guaranteed.

(c) Persons furnishing guaranties based upon guaranties received by them shall maintain records showing:

(1) The guaranty received and identification of the fabrics or fabrics contained in articles of wearing apparel guaranteed in turn by them.

(2) [Reserved]

(d) The records referred to in this section shall be preserved for a period of three years from the date the tests were performed, or in the case of paragraph (c) of this section the guaranties were furnished.

(e) Any person furnishing a guaranty under section 8(a) of the act who neglects or refuses to maintain and preserve the records prescribed in this section shall be deemed to have furnished a false guaranty under the provisions of section 8(b) of the act.

§ 1611.39 Shipments under section 11(c) of the act.

(a) The invoice or other paper relating to the shipment or delivery for shipment in commerce of articles of wearing apparel or textile fabrics for the purpose of finishing or processing to render them not so highly flammable as to be dangerous when worn by individuals, shall contain a statement disclosing such purpose.

(b) An article of wearing apparel or textile fabric shall not be deemed to fall within the provisions of section 11(c) of the act as being shipped or delivered for shipment in commerce for the purpose of finishing or processing to render such article of wearing apparel or textile fabric not so highly

flammable under section 4 of the act, as to be dangerous when worn by individuals, unless the shipment or delivery for shipment in commerce of such article of wearing apparel or textile fabric is made direct to person engaged in the business of processing or finishing textile products for the prearranged purpose of having such article of apparel or textile fabric processed or finished to render it not so highly flammable under section 4 of the act, as to be dangerous when worn by individuals, and any person shipping or delivering for shipment the article of wearing apparel or fabric in commerce for such purpose maintains records which establish (1) that the textile fabric or article of wearing apparel has been shipped for appropriate flammability treatment, and (2) that such treatment has been completed, as well as records to show the disposition of such textile fabric or article of wearing apparel subsequent to the completion of such treatment.

(c) The importation of textile fabrics or articles of wearing apparel may be considered as incidental to a transaction involving shipment or delivery for shipment for the purpose of rendering such textile fabrics or articles of wearing apparel not so highly flammable under the provisions of section 4 of the act, as to be dangerous when worn by individuals, if:

(1) The importer maintains records which establish (i) that the imported textile fabrics or articles of wearing apparel have been shipped for appropriate flammability treatment, and (ii) that such treatment has been completed, as well as records to show the disposition of such textile fabrics or articles of wearing apparel subsequent to the completion of such treatment.

(2) The importer, at the time of importation, execute and furnishes to the Bureau of Customs an affidavit stating

These fabrics (or articles of wearing apparel) are dangerously flammable under the provisions of section 4 of the Flammable Fabrics Act, and will not be sold or used in their present condition but will be processed or finished by the undersigned or by a duly authorized agent so as to render them not so highly flammable under the provisions of section 4 of the Flammable Fabrics Act, as to be dangerously flammable when worn by

individuals. The importer agrees to maintain the records required by 16 CFR 1610.39(c)(1).

(3) The importer, if requested to do so by the Bureau of Customs, furnishes an adequate specific-performance bond conditioned upon the complete discharge of the obligations assumed in paragraphs (c) (1) and (2) of this section.

NOTE: The purpose of section 11(c) is only to permit articles of wearing apparel or textile fabrics which are dangerously flammable to be shipped or delivered for shipment in commerce for the purpose of treatment or processing to render them not dangerously flammable. Section 11(c) does not in any other respect limit the force and effect of sections 3, 6, 7, and 9 of the act. In particular, section 11(c) does not authorize the sale or offering for sale of any article of wearing apparel or textile fabric which is in fact dangerously flammable at the time of sale or offering for sale, even though the seller intends to ship the article for treatment prior to delivery to the purchaser or has already done so. Moreover, under section 3 of the act a person is liable for a subsequent sale or offering for sale if, despite the purported completion of treatment to render it not dangerously flammable, the article in fact remains dangerously flammable.

PART 1615—STANDARD FOR THE FLAMMABILITY OF CHILDREN'S SLEEPWEAR: SIZES 0 THROUGH 6X (FF 3–71)

Subpart A—The Standard

Sec.

- 1615.1 Definitions.
- 1615.2 Scope and application.
- 1615.3 General requirements.
- 1615.4 Test procedure.
- 1615.5 Labeling requirements.

Subpart B—Rules and Regulations

- 1615.31 Labeling, recordkeeping, advertising, retail display and guaranties.
- 1615.32 Method for establishment and use of alternate laundering procedures under section 4(g)(4)(ii) of the standard.
- 1615.35 Use of alternate apparatus, procedures, or criteria for testing under the standard.
- 1615.36 Use of alternate apparatus or procedures for tests for guaranty purposes.

Subpart C—Interpretations and Policies

- 1615.61 [Reserved]
- 1615.62 Policy and interpretation relative to items in inventory or as to record-keeping requirements.

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1615.63 Policy regarding garment production unit identification.

1615.64 Policy to clarify scope of the standard.

SOURCE: 40 FR 59903, Dec. 30, 1975, unless otherwise noted.

Subpart A—The Standard

AUTHORITY: Sec. 429, Pub. L. 105-276; Sec. 4, 67 Stat. 112, as amended, 81 Stat. 569-570; 15 U.S.C. 1193.

§ 1615.1 Definitions.

In addition to the definitions given in section 2 of the Flammable Fabrics Act, as amended (15 U.S.C. 1191), the following definitions apply for purposes of this Standard:

(a) *Children's Sleepwear* means any product of wearing apparel up to and including size 6X, such as nightgowns, pajamas, or similar or related items, such as robes, intended to be worn primarily for sleeping or activities related to sleeping, except:

- (1) Diapers and underwear;
- (2) "Infant garments," as defined by section 1615.1(c), below; and
- (3) "Tight-fitting garments," as defined by section 1615.1(o), below.

(b) *Size 6X* means the size defined as 6X in Department of Commerce Voluntary Product Standard, previously identified as Commercial Standard, CS 151-50 "Body Measurements for the Sizing of Apparel for Infants, Babies, Toddlers, and Children."¹

(c) *Infant garment* means a garment which:

- (1) Is sized nine months or smaller;
- (2) If a one-piece garment, does not exceed 64.8 centimeters (25.75 inches) in length; if a two-piece garment, has no piece exceeding 40 centimeters (15.75 inches) in length;
- (3) Complies with all applicable requirements of the Standard for the Flammability of Clothing Textiles (16 CFR part 1610) and the Standard for the Flammability of Vinyl Plastic Film (16 CFR part 1611); and

(4) Bears a label stating the size of the garment, expressed in terms of

months of age. For example, "0 to 3 mos." or "9 mos." If the label is not visible to the consumer when the garment is offered for sale at retail, the same information must appear legibly on the package of the garment.

(d) *Item* means any product of children's sleepwear, or any fabric or related material intended or promoted for use in children's sleepwear.

(e) *Trim* means decorative materials, such as ribbons, laces, embroidery, or ornaments. This definition does not include (1) individual pieces less than 2 inches in their longest dimension, provided that such pieces do not constitute or cover in aggregate a total of more than 20 square inches of the item, or (2) functional materials (findings), such as zippers, buttons, or elastic bands, used in the construction of garments.

(f) *Test Criteria* means the maximum char length which a sample or specimen may exhibit in order to pass an individual test.

(g) *Char Length* means the distance from the original lower edge of the specimen exposed to the flame in accordance with the procedure specified in §1615.4 *Test procedure* to the end of the tear or void in the charred, burned, or damaged area, the tear being made in accordance with the procedure specified in §1615.4(g)(2).

(h) [Reserved]

(i) *Afterglow* means the continuation of glowing of parts of a specimen after flaming has ceased.

(j) *Fabric Piece* (Piece) means a continuous, unseamed length of fabric, one or more of which make up a unit.

(k) *Fabric Production Unit* (Unit) means any quantity of finished fabric up to 5,000 linear yards for normal sampling or 10,000 linear yards for reduced sampling which has a specific identity that remains unchanged throughout the Unit except for color or print pattern as specified in §1615.4(b). For purposes of this definition, finished fabric means fabric in its final form after completing its last processing steps as a fabric except for slitting.

(1) *Garment Production Unit* (Unit) means any quantity of finished garments up to 500 dozen which have a specific identity that remains unchanged throughout the Unit except

¹Copies available from the National Technical Information Service, 5285 Port Royal Street, Springfield, VA 22151, and should be ordered as CS 15150.

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for size, trim, findings, color, and print patterns as specified in § 1615.4(b).

(m) *Sample* means five test specimens.

(n) *Specimen* means an 8.9 × 25.4 cm. (3.5 × 10 in.) section of fabric. For garment testing the specimen will include a seam or trim.

(o) Tight-fitting garment means a garment which:

(1)(i) In each of the sizes listed below does not exceed the maximum dimension specified below for the chest, waist, seat, upper arm, thigh, wrist, or ankle:

	Chest	Waist	Seat	Upper arm	Thigh	Wrist	Ankle
Size 9–12 mos							
Maximum dimension:							
Centimeters	48.3	48.3	48.3	14.3	26.7	10.5	13
(inches)	(19)	(19)	(19)	(5 ⁵ / ₈)	(10 ¹ / ₂)	(4 ¹ / ₈)	(5 ¹ / ₈)
Size 12–18 mos							
Maximum dimension:							
Centimeters	49.5	49.5	50.8	14.9	28.3	10.5	13.1
(inches)	(19 ¹ / ₂)	(19 ¹ / ₂)	(20)	(5 ⁷ / ₈)	(11 ³ / ₈)	(4 ¹ / ₈)	(5 ¹ / ₈)
Size 18–24 mos							
Maximum dimension:							
Centimeters	52.1	50.8	53.3	15.6	29.5	11	13.6
(inches)	(20 ¹ / ₂)	(20)	(21)	(6 ¹ / ₈)	(11 ⁵ / ₈)	(4 ¹ / ₄)	(5 ³ / ₈)
Size 2							
Maximum dimension:							
Centimeters	52.1	50.8	53.3	15.6	29.8	11.4	14
(inches)	(20 ¹ / ₂)	(20)	(21)	(6 ¹ / ₈)	(11 ³ / ₄)	(4 ¹ / ₂)	(5 ¹ / ₂)
Size 3							
Maximum dimension:							
Centimeters	53.3	52.1	56	16.2	31.4	11.7	14.9
(inches)	(21)	(20 ¹ / ₂)	(22)	(6 ³ / ₈)	(12 ³ / ₈)	(4 ⁵ / ₈)	(5 ⁷ / ₈)
Size 4							
Maximum dimension:							
Centimeters	56	53.3	58.4	16.8	33.0	12.1	15.9
(inches)	(22)	(21)	(23)	(6 ⁵ / ₈)	(13)	(4 ³ / ₄)	(6 ¹ / ₄)
Size 5							
Maximum dimension:							
Centimeters	58.4	54.6	61.0	17.5	34.6	12.4	16.8
(inches)	(23)	(21 ¹ / ₂)	(24)	(6 ⁷ / ₈)	(13 ⁵ / ₈)	(4 ⁷ / ₈)	(6 ⁵ / ₈)
Size 6							
Maximum dimension:							
Centimeters	61.0	55.9	63.5	18.1	36.2	12.7	17.8
(inches)	(24)	(22)	(25)	(7 ¹ / ₈)	(14 ¹ / ₄)	(5)	(7)
Size 6X							
Maximum dimension:							
Centimeters	62.9	57.2	65.4	18.7	37.8	13.0	18.7
(inches)	(24 ³ / ₄)	(22 ¹ / ₂)	(25 ³ / ₄)	(7 ³ / ₈)	(14 ⁷ / ₈)	(5 ¹ / ₈)	(7 ³ / ₈)

(ii) Note: Measure the dimensions on the front of the garment. Lay garment, right side out, on a flat, horizontal sur-

face. Smooth out wrinkles. Measure distances as specified below and multiply them by two. Measurements

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should be equal to or less than the maximum dimensions given in the standards.

(A) Chest—measure distance from arm pit to arm pit (A to B) as in Diagram 1.

(B) Waist—See Diagram 1. *One-piece garment*, measure at the narrowest location between arm pits and crotch (C to D). *Two-piece garment*, measure width at both the bottom/ sweep of the upper piece (C to D) and, as in Diagram 3, the top of the lower piece (C to D).

(C) Wrist—measure the width of the end of the sleeve (E to F), if intended to extend to the wrist, as in Diagram 1.

(D) Upper arm—draw a straight line from waist/sweep D through arm pit B to G. Measure down the sleeve fold from G to H. Refer to table below for G to H distances for each size. Measure the upper arm of the garment (perpendicular to the fold) from H to I as shown in Diagram 1.

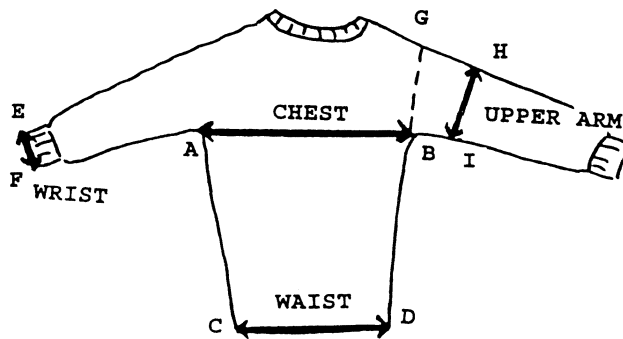


Diagram 1

DISTANCE FROM SHOULDER (G) TO (H) FOR UPPER ARM MEASUREMENT FOR SIZES 9 MONTHS THROUGH 6X

9-12 mo	12-18 mo	18-24 mo	2	3	4	5	6	6x
5.8 cm 2 ¹ / ₈ "	6.6 cm 2 ⁵ / ₈ "	7.4 cm 2 ⁷ / ₈ "	7.4 cm 2 ⁷ / ₈ "	8.1 cm 3 ¹ / ₄ "	8.8 cm 3 ¹ / ₂ "	9.5 cm 3 ³ / ₄ "	10.3cm 4"	11 cm 4 ³ / ₈ "

(E) Seat—Fold the front of the pant in half to find the bottom of the crotch at J as in Diagram 2. The crotch seam and inseam intersect at J. Mark point K on the crotch seam at 4 inches above and perpendicular to the bottom of the crotch. Unfold the garment as in Diagram 3. Measure the seat from L to M through K as shown.

(F) Thigh—measure from the bottom of the crotch (J) 1 inch down the inseam to N as in Diagram 2. Unfold the garment and measure the thigh from the inseam at N to O as shown in Diagram 3.

(G) Ankle—measure the width of the end of the leg (P to Q), if intended to extend to the ankle, as in Diagram 3.

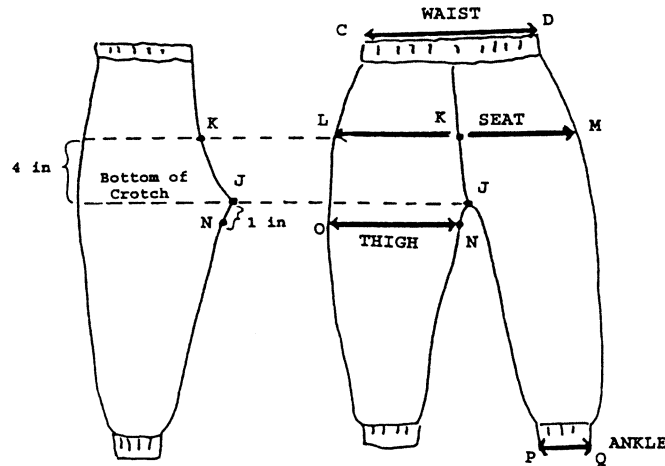


Diagram 2

Diagram 3

(2) Has no item of fabric, ornamentation or trim, such as lace, appliques, or ribbon, which extends more than 6 millimeters (¼ inch) from the point of attachment to the outer surface of the garment;

(3) Has sleeves which do not exceed the maximum dimension for the upper arm at any point between the upper arm and the wrist, and which diminish in width gradually from the top of the shoulder (point G in Diagram 1) to the wrist;

(4) Has legs which do not exceed the maximum dimension for the thigh at any point between the thigh and the ankle, and which diminish in width gradually from the thigh to the ankle;

(5) In the case of a one-piece garment, has a width which does not exceed the maximum dimension for the chest at any point between the chest and the waist and which diminishes gradually from the chest to the waist; and has a width which does not exceed the maximum dimension for the seat at

any point between the seat and the waist and which diminishes gradually from the seat to the waist;

(6) In the case of a two-piece garment has an upper piece with a width which does not exceed the maximum dimension for the chest at any point between the chest and the bottom of that piece and which diminishes gradually from the chest to the bottom of that piece; in the case of an upper piece with fastenings, has the lowest fastening within 15 centimeters (6 inches) of the bottom of that piece;

(7) In the case of a two-piece garment, has a lower piece with a width which does not exceed the maximum dimension for the seat at any point between the seat and the top of the lower piece and which diminishes gradually from the seat to the top of that piece;

(8) Complies with all applicable requirements of the Standard for the Flammability of Clothing Textiles (16 CFR part 1610) and the Standard for the

Consumer Product Safety Commission

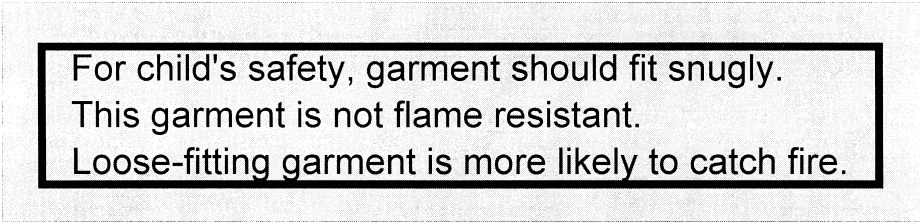
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Flammability of Vinyl Plastic Film (16 CFR part 1611); and

(9) Bears a label stating the size of the garment in terms of age in months, or by child's size; for example: "Size 9 to 12 mos." or "Size 2." If the label is not visible to the consumer when the garment is offered for sale at retail, the same information must appear legibly on the package of the garment.

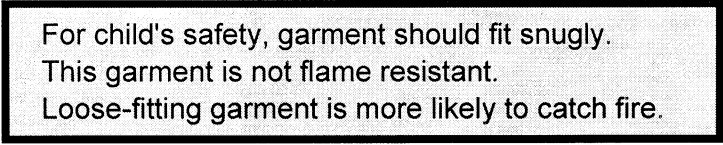
(10)(i) *Hangtags*. Bears a hangtag as shown following this paragraph stating "For child's safety, garment should fit snugly. This garment is not flame resistant. Loose-fitting garment is more likely to catch fire." The hangtag must measure 1½"×6¼". The text must be enclosed in a text box that measures

1"×5¾" and must be in 18 point Arial/Helvetica font. The hangtag must have a yellow background and black lettering. The color yellow must meet the specifications for Standard Safety Yellow (Hue 5.OY; Value/Chroma 8.0/12) as described in American National Standard ANSI Z535.1-1998, Safety Color Code, p.6, under Munsell Notation.² One side of the hangtag must display only this message. The reverse side of the hangtag may display sizing information, but otherwise must be blank. The text must not be obscured by the hole provided for attaching the hangtag to the garment. The hangtag must be prominently displayed on the garment.



(ii) *Packages*. If the garments are sold in packages, the package must have a label as shown following this paragraph with the same language that would appear on the hangtag. The label must have a text box that measures ¾"×3¾". The text must be 11 point Arial/

Helvetica in black lettering against a yellow background. The packages must be prominently, conspicuously, and legibly labeled with the required message. The package label may be adhesive.



²ANSI Z535.1-1998, Standard for Safety Color Code, p.6, published by National Electrical Manufacturers Association is incorporated by reference. Copies of this document are available from the National Electrical Manufacturers Association, 1300 N. 17th Street, Suite 1847, Rosslyn, Virginia 22209. 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 go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. The 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.

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(11) Bears a label as shown following this paragraph stating “Wear Snug-fitting, Not Flame Resistant.” The text must be printed on the front of the sizing label located on the center back of the garment and must be immediately below the size designation. The

text must be a minimum of 5 point sans serif font in all capital letters and must be set apart from other label text by a line border. The text must contrast with the background color of the label. The label must not be covered by any other label or tag.

WEAR SNUG-FITTING
NOT FLAME RESISTANT

Example in 10 pt Arial font

[40 FR 59903, Dec. 30, 1975, as amended at 43 FR 4853, Feb. 6, 1978; 50 FR 53307, Dec. 31, 1985; 61 FR 47644, Sept. 9, 1996; 64 FR 2838, Jan. 19, 1999; 64 FR 34533, 34535, June 28, 1999; 65 FR 1435, Jan. 10, 2000; 72 FR 13689, Mar. 23, 2007]

§ 1615.2 Scope and application.

(a) This Standard provides a test method to determine the flammability of items as defined in §1615.1(d).

(b) All items as defined in §1615.1(d) are subject to requirements of this standard.

(c) The flammability standards for clothing textiles and vinyl plastic film, parts 1610 and 1611 of this chapter, are superseded by this part insofar as they apply to items defined in §1615.1(d).

[40 FR 59903, Dec. 30, 1975, as amended at 64 FR 34533, June 28, 1999]

§ 1615.3 General requirements.

(a) *Summary of test method.* Five conditioned specimens, 8.9 × 25.4 cm. (3.5 × 10 in.), are suspended one at a time vertically in holders in a prescribed cabinet and subjected to a standard flame along their bottom edge for a specified time under controlled conditions. The char length is measured.

(b) *Test criteria.* The test criteria when the testing is done in accordance with §1615.4 *Test procedure* are:

(1) *Average char length.* The average char length of five specimens shall not exceed 17.8 cm. (7.0 in.).

(2) *Full specimen burn.* No individual specimen shall have a char length of 25.4 cm. (10 in.).

[40 FR 59903, Dec. 30, 1975, as amended at 43 FR 4853, Feb. 6, 1978]

§ 1615.4 Test procedure.

(a) *Apparatus*—(1) *Test chamber.* The test chamber shall be a steel cabinet with inside dimensions of 32.9 cm. (12 15/16 in.) wide, 32.9 cm. (12 15/16 in.) deep, and 76.2 cm. (30 in.) high. It shall have a frame which permits the suspension of the specimen holder over the center of the base of the cabinet at such a height that the bottom of the specimen holder is 1.7 cm. (3/4 in.) above the highest point of the barrel of the gas burner specified in paragraph (c) of this section and perpendicular to the front of the cabinet. The front of the cabinet shall be a close fitting door with a glass insert to permit observation of the entire test. The cabinet floor may be covered with a piece of asbestos paper, whose length and width are approximately 2.5 cm. (1 in.) less than the cabinet floor dimensions. The cabinet to be used in this test method is illustrated in Figure 1 and detailed in Engineering Drawings, Nos. 1 to 7.

(2) *Specimen holder.* The specimen holder 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. It shall consist of two U-shaped 0.20 cm. (14 ga. USS) thick steel plates, 42.2 cm. (16 5/8 in.) long, and 8.9 cm. (3.5 in.) wide, with

aligning pins. The openings in the plates shall be 35.6 cm. (14 in.) long and 5.1 cm. (2 in.) wide. The specimen shall be fixed between the plates, which shall be held together with side clamps. The holder to be used in this test method is illustrated in Figure 2 and detailed in Engineering Drawing No. 7.

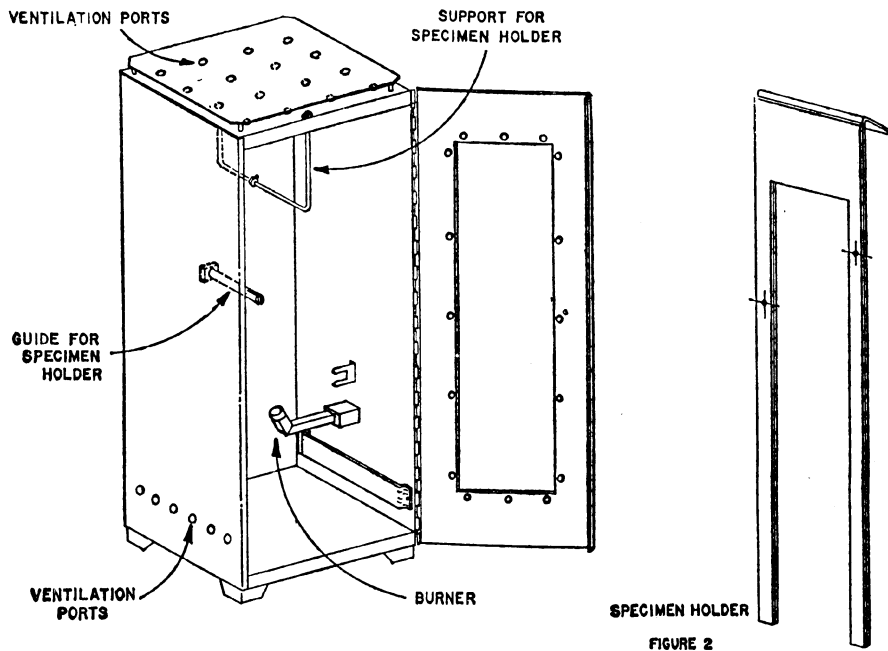
(3) *Burner.* The burner shall be substantially the same as that illustrated in Figure 1 and detailed in Engineering Drawing No. 6. It shall have a tube of 1.1 cm. (0.43 in.) inside diameter. The input line to the burner shall be equipped with a needle valve. It shall have a variable orifice to adjust the height of the flame. The barrel of the burner shall be at an angle of 25° from the vertical. The burner shall 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 129±13mm. Hg (2½±¼ lbs. per sq. in.) at the burner inlet.

(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° 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.

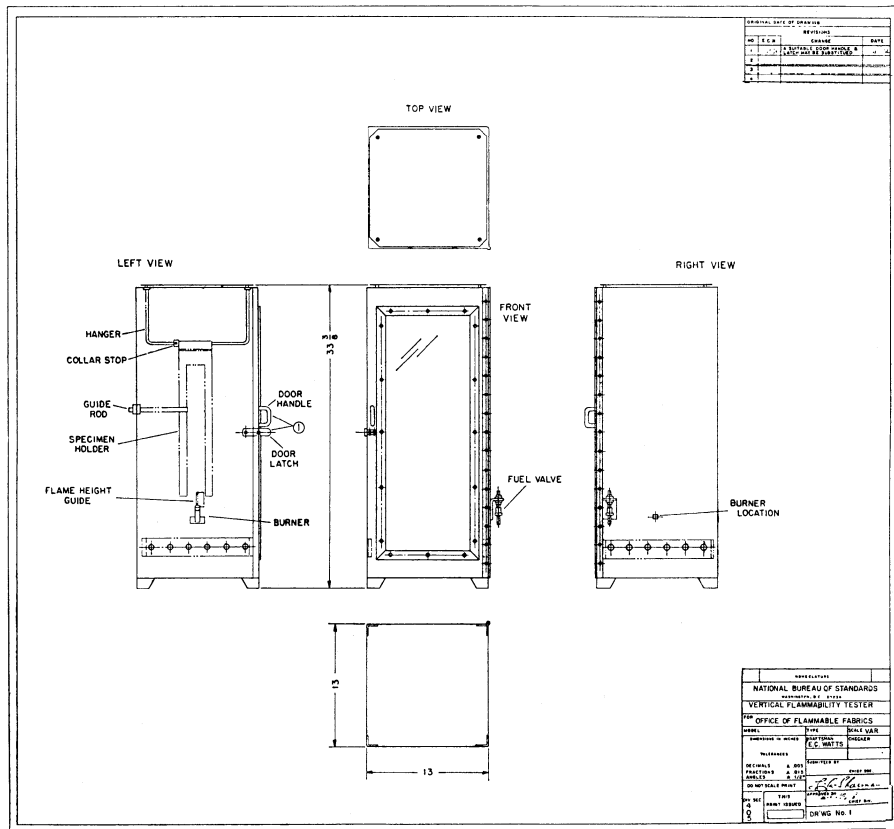


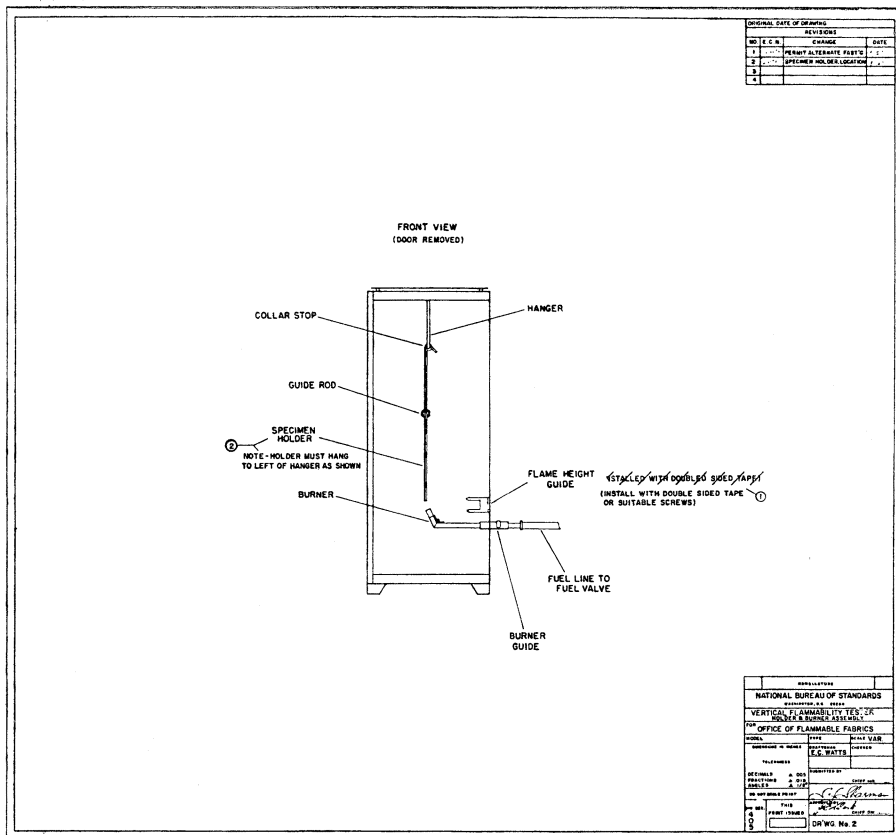
VERTICAL TEST CABINET
FIGURE 1

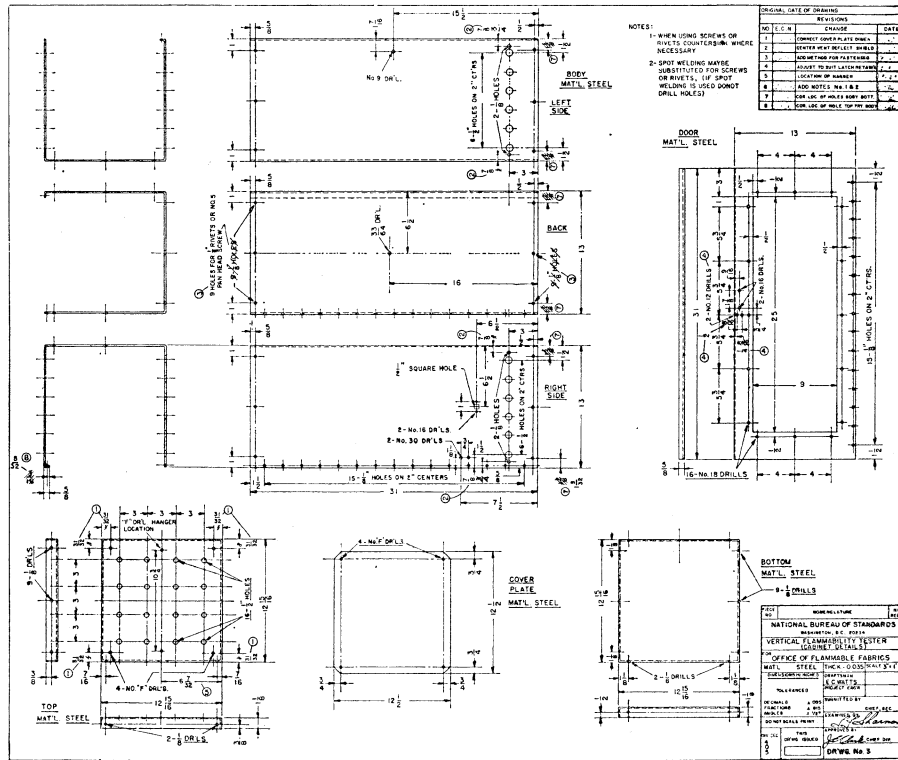
FIGURE 2

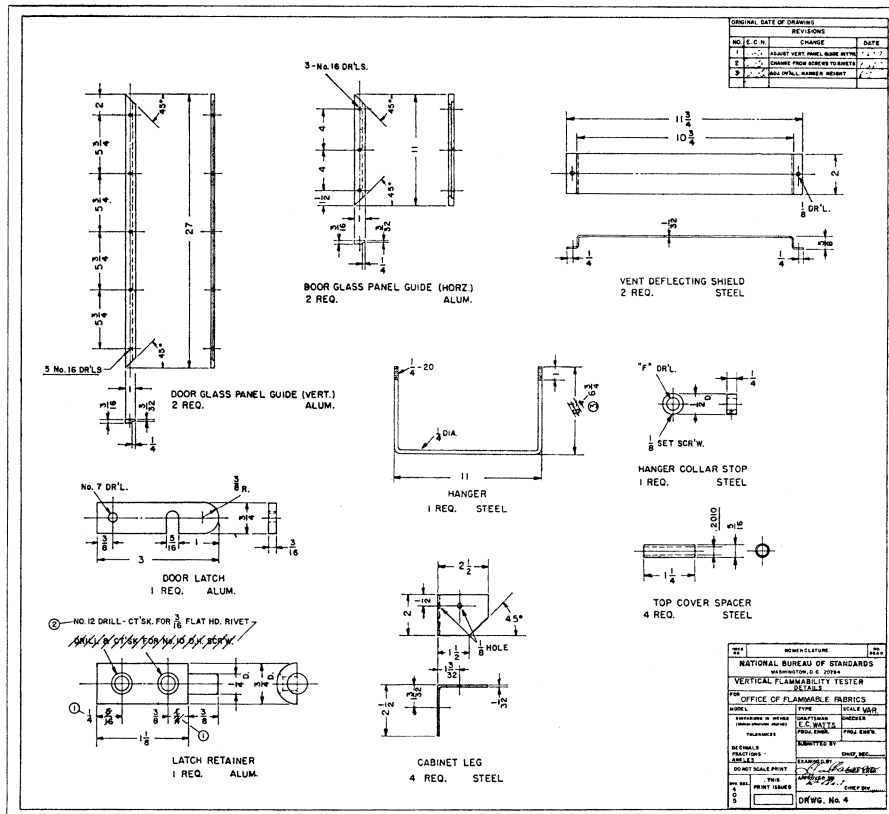
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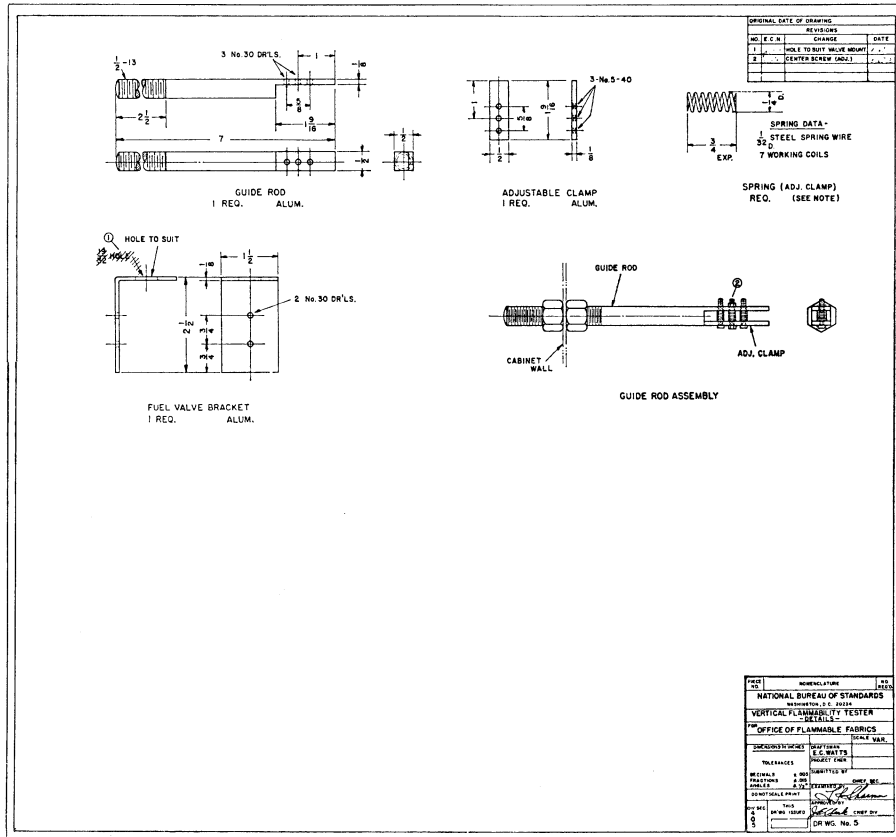


TABLE 1—ORIGINAL FABRIC WEIGHT¹

Grams per square meter	Ounces per square yard	Loads	
		Grams	Pounds
Less than 101	Less than 3	54.4	0.12
101 to 207	3 to 6	113.4	.25
207 to 338	6 to 10	226.8	.50
Greater than 338	Greater than 10	340.2	.75

¹Weight 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 h at 21±1.1 °C (70±2 °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 h 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 millimeters or 0.1 inch divisions shall be used to measure char length.

(9) *Circulating Air Oven*. A forced circulation drying oven capable of maintaining the specimens at 105±2.8 °C. (221±5 °F.), shall be used to dry the specimen while mounted in the specimen holders.³

(10) *Desiccator*. An air-tight and moisture-tight desiccating chamber shall be used for cooling mounted specimens after drying. Anhydrous silica gel shall be used as the desiccant in the desiccating chamber.

(11) *Hood*. A hood or other suitable enclosure shall be used to provide a draft-free environment surrounding the test chamber. This enclosure shall have a fan or other suitable means for exhausting smoke and/or toxic gases produced by testing.

(b) *Specimens and sampling—General*.

(1) The test criteria of §1615.3(b) shall be used in conjunction with the following fabric and garment sampling plan, or any other approved by the Consumer Product Safety Commission that provides at least the equivalent level of fire safety to the consumer. Alternate sampling plans submitted for approval shall have operating characteristics such that the probability of Unit acceptance at any percentage defective does not exceed the cor-

³Option 1 of ASTM, D2654-67T, "Method of Test for Amount of Moisture in Textile Materials," describes a satisfactory oven (1970 Book of ASTM Standards, part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103).

responding probability of Unit acceptance of the following sampling plan in the region of the latter's operating characteristic curves that lies between 5 and 95 percent acceptance probability.

(2) Different colors or different print patterns of the same fabric may be included in a single Fabric or Garment Production Unit, provided such colors or print patterns demonstrate char lengths that are not significantly different from each other as determined by previous testing of at least three samples from each color or print pattern to be included in the Unit.

(3) Garments with different trim and findings may be included in a single Garment Production Unit providing the other garment characteristics are identical except for size, color, and print pattern.

(4) For fabrics whose flammability characteristics are not dependent on chemical additives or chemical reactants to fiber, yarns, or fabrics, the laundering requirement of paragraph (g)(4) of this section is met on subsequent Fabric Production Units if results of testing an initial Fabric Production Unit demonstrate acceptability according to the requirements of paragraph (c) of this section, Normal Sampling, both before and after the appropriate laundering.

(5) If the fabric has been shown to meet the laundering requirement, paragraph (g)(4) of this section, the garments produced from that fabric are not required to be laundered.

(6) Each Sample (five specimens) for all Fabric Sampling shall be selected so that two specimens are in one fabric direction (machine or cross-machine) and three specimens are in the other fabric direction except for the additional Sample selected after a failure, in which case, all five specimens shall be selected in the same fabric direction in which the specimen failure occurred.

(7) Fabric Samples may be selected from fabric as outlined in paragraph (c) of this section entitled Fabric Sampling, or, for verification purposes, from randomly selected garments.

(8) Multilayer fabrics shall be tested with a hem of approximately 2.5 cm. (1 in.) sewn at the bottom edge of the specimen with a suitable thread and

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stitch. The specimen shall include each of the components over its entire length. Garments manufactured from multilayer fabrics shall be tested with the edge finish at the bottom edge of the specimen which is used in the garment.

(c) *Specimens and Sampling—Fabric Sampling.* A Fabric Production Unit (Unit) is either accepted or rejected in accordance with the following plan:

(1) *Normal Sampling.* Select one Sample from the beginning of the first Fabric Piece (Piece) in the Unit and one Sample from the end of the last Piece in the Unit, or select a sample from each end of the Piece if the Unit is made up of only one Piece. Test the two selected Samples. If both Samples meet all the Test Criteria of §1615.3(b), accept the unit. If either or both of the Samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1615.3(b)(1), reject the Unit. If two or more of the individual specimens, from the 10 selected specimens fail, the 25.4 cm. (10 in.) char length, §1615.3(b)(2), reject the Unit. If only one individual specimen, from the 10 selected specimens, fails the 25.4 cm. (10 in.) char length, §1615.3(b)(2), select five additional specimens from the same end of the Piece in which the failure occurred, all five to be taken in the fabric direction in which the specimen failure occurred. If this additional Sample passes all the test criteria, accept the Unit. If this additional Sample fails any part of the test criteria, reject the Unit.

(2) *Reduced Sampling.* (i) The level of sampling required for fabric acceptance may be reduced provided the preceding 15 Units of the fabric have all been accepted using the Normal Sampling plan.

(ii) The Reduced Sampling plan shall be the same as for Normal Sampling except that the quantity of fabric in the Unit may be increased to 10,000 linear yards.

(iii) Select and test two Samples in the same manner as in Normal Sampling. Accept or reject the Unit on the same basis as with Normal Sampling.

(iv) Reduced Sampling shall be discontinued and Normal Sampling resumed if a Unit is rejected.

(3) *Tightened Sampling.* The level of sampling required for acceptance shall

be increased when a Unit is rejected under the Normal Sampling plan. The Tightened Sampling shall be the same as Normal Sampling except that one additional Sample shall be selected and cut from a middle Piece in the Unit. If the Unit is made up of less than two pieces, the Unit shall be divided into at least two Pieces. The division shall be such that the Pieces produced by the division shall not be smaller than 100 linear yards or greater than 2,500 linear yards. If the unit is made up of two Pieces, the additional Sample shall be selected from the interior end of one of the Pieces. Test the three selected Samples. If all three selected Samples meet all the test criteria of §1615.3(b), accept the unit. If one or more of the three selected Samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1615.3(b)(1), reject the Unit. If two or more of the individual specimens from the 15 selected specimens fail the 25.4 cm. (10 in.) char length, §1615.3(b)(2), reject the unit. If only one individual specimen, of the 15 selected Specimens fails the 25.4 cm. (10 in.) char length, §1615.3(b)(2), select five additional specimens from the same end of the same piece in which the failure occurred, all five to be taken in the fabric direction in which the Specimen failure occurred. If this additional Sample passes all the test criteria, accept the Unit. If this additional Sample fails any part of the test criteria, reject the Unit. Tightened Sampling may be discontinued and Normal Sampling resumed after five consecutive Units have all been accepted using Tightened Sampling. If Tightened Sampling remains in effect for 15 consecutive units, production of the specific fabric in Tightened Sampling must be discontinued until that part of the process or component which is causing failure has been identified and the quality of the end product has been improved.

(4) *Disposition of Rejected Units.* (i) The Piece or Pieces which have failed and resulted in the initial rejection of the Unit may not be retested, used, or promoted for use in children's sleepwear as defined in §1615.1(a) except after reworking to improve the flammability characteristics and subsequent retesting in accordance with the procedures in Tightened Sampling.

(ii) The remainder of a rejected Unit, after removing the Piece or Pieces the failure of which resulted in Unit rejection, may be accepted if the following test plan is successfully concluded at all required locations. The required locations are those adjacent to each such failed Piece. (Required locations exist on both sides of the "Middle Piece" tested in Tightened Sampling if failure of that Piece resulted in Unit rejection.) Failure of a Piece shall be deemed to have resulted in Unit rejection if Unit rejection occurred and a Sample or specimen from the Piece failed any test criterion of §1615.3(b).

(iii) The Unit should contain at least 15 Pieces for disposition testing after removing the failing Pieces. If necessary for this purpose, the Unit shall be demarcated into at least 15 approximately equal length Pieces unless such division results in Pieces shorter than 100 linear yards. In this latter case, the Unit shall be demarcated into roughly equal length Pieces of approximately 100 linear yards each. If such a division results in five Pieces or less in the Unit for each failing Piece after removing the failing Pieces, only the individual Piece retest procedure (described subsequently) may be used.

(iv) Select and cut a Sample from each end of each adjoining Piece beginning adjacent to the Piece which failed. Test the two Samples from the Piece. If both Samples meet all the test criteria of §1615.3(b), the Piece is acceptable. If one or both of the two selected Samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1615.3(b)(1), the Piece is unacceptable. If two or more of the individual Specimens, from the 10 selected specimens, fail the 25.4 cm. (10 in.) char length §1615.3(b)(2), the Piece is unacceptable. If only one individual specimen, from the 10 selected specimens, fails the 25.4 cm. (10 in.) char length, §1615.3(b)(2), select five additional specimens from the same end of the Piece in which the failure occurred, all five to be taken in the fabric direction in which the specimen failure occurred. If this additional Sample passes all the test criteria, the Piece is acceptable. If this additional Sample fails any part of the test criteria, the Piece is unacceptable.

(v) Continue testing adjoining Pieces until a Piece has been found acceptable. Then continue testing adjoining Pieces until three successive adjoining Pieces, not including the first acceptable Piece, have been found acceptable or until five such Pieces not including the first acceptable Piece, have been tested, whichever occurs sooner. Unless three successive adjoining Pieces have been found acceptable among five such Pieces, testing shall be stopped and the entire Unit rejected without further testing. If three successive Pieces have been found acceptable among five such Pieces, accept the three successive acceptable Pieces and the remaining Pieces in the Unit.

(vi) Alternatively, individual Pieces from a rejected Unit containing three or more Pieces may be tested and accepted or rejected on a Piece-by-Piece basis according to the following plan, after removing the Piece or Pieces, the failure of which resulted in Unit rejection. Select four Samples (two from each end) from the Piece. Test the four selected Samples. If all four Samples meet all the Test Criteria of §1615.3(b), accept the Piece. If one or more of the Samples fail the 17.8 cm. (7 in.) average char length criterion, §1615.3(b)(1), reject the Piece. If two or more of the individual Specimens from the 20 selected specimens, fail the 25.4 cm. (10 in.) char length, §1615.3(b)(1), reject the Piece. If only one individual specimen, from the 20 selected specimens, fails the 25.4 cm. (10 in.) char length, §1615.3(b)(2), select two additional Samples from the same end of the Piece in which the failure occurred. If these additional two Samples meet all the Test Criteria of §1615.3(b), accept the Piece. If one or both of the two additional Samples fail any part of the Test Criteria, reject the Piece.

(vii) The Pieces of a Unit rejected after retesting may not be retested, used, or promoted for use in children's sleepwear as defined in §1615.1(a) except after reworking to improve the flammability characteristics, and subsequent retesting in accordance with the procedures set forth in Tightened Sampling.

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(5) *Records.* Records of all Unit sizes, test results, and the disposition of rejected Pieces and Units must be maintained by the manufacturer upon the effective date of this Standard. Rules and regulations may be established by the Consumer Product Safety Commission.

(d) *Specimens and Sampling—Garment Sampling.* (1)(i) The garment sampling plan is made up of two parts: (A) Prototype Testing and (B) Production Testing. Prior to production, prototypes must be tested to assure that the design characteristics of the garments are acceptable. Garment Production Units (Units) are then accepted or rejected on an individual Unit basis.

(ii) Edge finishes such as hems and binding are excluded from testing except that when trim is used on an edge the trim must be subjected to prototype testing. Seams attaching findings are excluded from testing.

(2) *Prototype Testing.* Preproduction prototypes of a garment style or type shall be tested to assure that satisfactory garment specifications in terms of flammability are set up prior to production.

(i) *Seams.* Make three Samples (15 specimens) using the longest seam type and three Samples using each other seam type 10 inches or longer that is to be included in the garment. Prior to testing, assign each specimen to one of the three Samples. Test each set of three Samples and accept or reject each seam design in accordance with the following plan:

(A) If all three Samples meet all the test criteria of §1615.3(b), accept the seam design. If one or more of the three Samples fail the 17.8 cm. (7 in.) average char length criterion, §1615.3(b)(1), reject the seam design. If three or more of the individual Specimens from the 15 selected specimens fail the 25.4 cm. (10 in.) char length, §1615.3(b)(2), reject the seam design. If only one of the individual specimens from the 15 selected specimens fails the 25.4 cm. (10 in.) char length, §1615.3(b)(2), accept the seam design.

(B) If two of the individual specimens from the 15 selected specimens, fail the 25.4 cm. (10 in.) char length, §1615.3(b)(2), select three more Samples (15 specimens) and retest. If all three

additional Samples meet all the test criteria of §1615.3(b) accept the seam design. If one or more of the three additional Samples fail the 17.8 cm. (7 in.) average char length criterion, §1615.3(b)(1), reject the seam design. If two or more of the individual specimens from the 15 selected specimens, fail the 25.4 cm. (10 in.) char length, §1615.3(b)(2) reject the seam design. If only one of the individual specimens from the 15 selected specimens, fails the 25.4 cm. (10 in.) char length §1615.3(b)(2) accept the seam design.

(ii) *Trim.* (A)(1) Make three samples (15 specimens) from each type of trim to be included in the garment. For trim used only in a horizontal configuration on the garment, specimens shall be prepared by sewing or attaching the trim horizontally to the bottom edge of an appropriate section of untrimmed fabric. Sleeve and neckline trim may not be tested in this manner. Where more than one row of trim is used on the garment, specimens shall be prepared with the same configuration (same number of rows and spacing between rows up to the limit of the specimen size) as the garment.

(2) For trim used in other than a horizontal configuration, specimens shall be prepared by sewing or attaching the trim to the center of the vertical axis of an appropriate section of untrimmed fabric, beginning the sewing or attachment at the lower edge of each specimen.

(3) For either configuration, the sewing or attachment shall be made in the manner in which the trim is attached in the garment.

(B)(1) Sewing or otherwise attaching the trim shall be done with thread or fastening material of the same composition and size to be used for this purpose in the garment and using the same stitching or seamtype. Trim used in the horizontal configuration shall be sewn or fastened the entire width (smaller dimension) of the specimen. Trim used in other than the horizontal configuration shall be sewn or fastened the entire length (longer dimension) of the specimen.

(2) Prior to testing, assign each specimen to one of the three samples. Test the sets of three samples and accept or reject the type of trim and design on

the same basis as seam design. A type of trim and design accepted when tested in a vertical configuration may be used in a horizontal configuration without further testing.

(3) *Production Testing.* A Unit is either accepted or rejected according to the following plan:

(i)(A) From each Unit select at random sufficient garments and cut three Samples (15 specimens) from the longest seam type. No more than five specimens may be cut from a single garment. Prior to testing, assign each specimen to one of the three Samples. All specimens cut from a single garment must be included in the same Sample. Test the three selected Samples. If all three Samples meet all the test criteria of §1615.3(b), accept the Unit. If one or more of the three Samples fail the 17.8 cm. (7 in.) average char length criterion, §1615.3(b)(1), reject the Unit. If four or more of the individual specimens, from the 15 selected specimens, fail the 25.4 cm (10 in.) char length, §1615.3(b)(2), reject the Unit. If three or less of the individual specimens, from the 15 selected specimens, fail the 25.4 cm. (10 in.) char length, §1615.3(b)(2), accept the Unit.

(B)(1) If the garment under test does not have a 10-inch seam in the largest size in which it is produced, the following selection and testing procedure shall be followed.

(2) Select and cut specimens 8.9 cm. (3.5 in.) wide by the maximum available seam length, with the seam in the center of the specimen and extending the entire specimen length. Cut three Samples (15 specimens). These specimens shall be placed in specimen holders so that the bottom edge is even with the bottom of the specimen holder and the seam begins in the center of the bottom edge. Prior to testing, assign each specimen to one of the three Samples. All specimens cut from a single garment must be included in the same Sample.

(3) Test the three Samples. If all three Samples pass the 17.8 cm. (7 in.) average char length criterion, §1615.3(b)(1), and if three or less individual specimens fail by charring the entire specimen length, accept the Unit. If the Unit is not accepted in the above test, three Samples (15 speci-

mens) of the longest seam type shall be made using fabric and thread from production inventory and sewn on production machines by production operators. The individual fabric sections prior to sewing must be no larger than 20.3 × 63.3 cm. (8 in. × 25 in.) and must be selected from more than one area of the base fabric. Test the three prepared Samples. Accept or reject the Unit as described previously in this subsection.

(4) *Disposition of Rejected Units.* Rejected Units shall not be retested, used, or promoted for use in children's sleepwear as defined in §1615.1(a), except after reworking to improve the flammability characteristics and subsequent retesting in accordance with the procedures set forth in garment production testing.

(5) *Records.* Records of all Unit sizes, test results, and the disposition of rejected Units must be maintained by the manufacturer upon the effective date of this standard. Rules and regulations may be established by the Consumer Product Safety Commission.

(e) *Specimens and Sampling—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 standard. Production units found to be non-complying under the provisions of paragraph (e) 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.

(f) *Mounting and conditioning of specimens.* (1) The specimens shall be placed in specimen holders so that the bottom edge of each specimen is even with the bottom of the specimen holder. Mount the specimen in as close to a flat configuration as possible. The sides of the specimen holder shall cover 1.9 cm. ($\frac{3}{4}$ in.) of the specimen width along each long edge of the specimen, and thus shall expose 5.1 cm. (2 in.) of the specimen width. The sides of the specimen holder shall be clamped with a sufficient number of clamps or shall be

taped to prevent the specimen from being displaced during handling and testing. The specimens may be taped in the holders if the clamps fail to hold 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.

(g) *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 No. 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. Flame impingement is accomplished by moving the burner under the specimen for this length of time, and then removing it.

(ii) When afterglow has ceased, remove the specimen from the cabinet and holder, and place it on a clean flat 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.

(iii) Tear the specimen by grasping the other lower corner of the fabric and gently raising the specimen and weight

clear of the supporting surface.⁵ Measure the char length as the distance from the end of the tear to the 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 (inches), for each specimen, as well as the average char length for each set of five specimens.

(4) *Laundering*. (i) The procedures described in sections 1615.4(b) through (g) 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 go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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. 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

⁴If the specimens are moist when received, permit them to air dry at 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,” (“1970 Book of ASTM Standards,” part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

⁵A figure showing how this is done is given in AATCC 34–1969, Technical Manual of the American Association of Textile Chemists and Colorists, vol. 46, 1970, published by AATCC, Post Office Box 12215, Research Triangle Park, N.C. 27709.

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 ($66^{\circ} \pm 5^{\circ} \text{C}$, $150^{\circ} \pm 10^{\circ} \text{F}$) and cool down time of 10 minutes specified in the "Durable Press" conditions of Table IV. Alternatively, a different number of times under another washing and drying procedure may be specified and used, if that procedure has previously been found to be equivalent by the Consumer Product Safety Commission. Such laundering is not required of items which are not intended to be laundered, as determined by the Consumer Product Safety Commission.

(iii) Items which are not susceptible to being laundered and are labeled "dry-clean only" shall be drycleaned by a procedure which has previously been found to be acceptable by the Consumer Product Safety Commission.

(iv) For the purpose of the issuance of a guarantee under section 8 of the act, finished sleepwear garments to be tested according to paragraphs (b) through (e) of this section need not be laundered or drycleaned provided all fabrics used in making the garments (except trim) have been guaranteed by the fabric producer to be acceptable when tested according to paragraphs (b) through (e) of this section.

[40 FR 59903, Dec. 30, 1975; 41 FR 1061, Jan. 6, 1976; 41 FR 8032, Feb. 24, 1976, as amended at 43 FR 4853, Feb. 6, 1978; 46 FR 63251, Dec. 31, 1981; 64 FR 24526, June 28, 1999; 65 FR 12927, Mar. 10, 2000; 72 FR 13689, Mar. 23, 2007]

§ 1615.5 Labeling requirements.

(a) *Care labels.* 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 deterioration of their flame resistance. If the item has been initially tested under §1615.4(g)(4) 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 59903, Dec. 30, 1975, as amended at 61 FR 1116, Jan. 16, 1996]

Subpart B—Rules and Regulations

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

§ 1615.31 Labeling, recordkeeping, advertising, retail display and guarantees.

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

(1) *Standard* means the Standard for the Flammability of Children's Sleepwear: Sizes 0 through 6X (FF 3-71) (subpart A of this part) promulgated by the Secretary of Commerce in the FEDERAL REGISTER of July 29, 1971 (36 FR 14062), and amended by him in the FEDERAL REGISTER of July 21, 1972 (37 FR 14624).

(2) *Children's sleepwear* means "children's sleepwear" as defined in §1615.1(a) of the Standard; that is, "any product of wearing apparel up to and including size 6X, 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."

(3) *Item* means "item" as defined in §1615.1(c) of the Standard; that is, "any product of children's sleepwear, or any fabric or related material intended or promoted for use in children's sleepwear."

(4) *Marketing or handling or marketed or handled* means any one or more of the transactions set forth in section 3 of the Flammable Fabrics Act (15 U.S.C. 1192).

(5) The definitions of terms set forth in §1615.1 of the Standard shall also apply to this section.

(b) *Labeling.* (1) Where any agent or treatment is known to cause deterioration of flame resistance or otherwise enhances the flammability characteristics of an item, such item shall be prominently, permanently, conspicuously, and legibly labeled with precautionary care and treatment instructions to protect the item from such agent or treatment: Provided:

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(i) Where items required to be labeled in accordance with this paragraph are marketed at retail in packages, and the required label is not readily visible to the prospective purchaser, the packages must also be prominently, conspicuously, and legibly labeled with the required information, and

(ii) Where items are required to be labeled in accordance with this paragraph, the precautionary care and treatment instructions may appear on the reverse side of the permanent label if

(A) The precautionary care and treatment instructions are legible, prominent and conspicuous, and

(B) The phrase "CARE INSTRUCTIONS ON REVERSE" or the equivalent appears permanently, prominently, conspicuously, and legibly on the side of the permanent label that is visible to the prospective purchaser when the item is marketed at retail, and

(C) The item which is so labeled is marketed at retail in such a manner that the prospective purchaser is able to manipulate the label so the entire text of the precautionary care and treatment instructions is visible and legible; however, where the label cannot be manipulated so the instructions are visible to the prospective purchaser and legible, the packages must also be prominently, conspicuously and legibly labeled with the required precautionary care and treatment information or such information must appear prominently, conspicuously and legibly on a hang tag attached to the item.

(2) If the item has been initially tested under §1615.4(g)(4) of the Standard after one washing and drying, it shall be prominently, permanently, conspicuously, and legibly labeled with instructions to wash before wearing.

(3) [Reserved]

(4) Where any fabric or related material intended or promoted for use in children's sleepwear is sold or intended for sale to the ultimate consumer for the purpose of conversion into children's sleepwear, each bolt, roll, or other unit shall be labeled with the information required by this section. Each item of fabric or related material sold to an ultimate consumer must be

accompanied by a label, as prescribed by this section, that can by normal household methods be permanently affixed by the ultimate consumer to any item of children's sleepwear made from such fabric or related material.

(5) Where items required to be labeled in accordance with paragraphs (b) (2), (3), and (4) of this section are marketed at retail in packages, and the required label is not readily visible to prospective purchasers, the packages must also be prominently, conspicuously, and legibly labeled with the required information.

(6) Samples, swatches, or specimens used to promote or effect the sale of items subject to the Standard shall be labeled in accordance with this section with the information required by this section, except that such information may appear on accompanying promotional materials attached to fabric samples, swatches, or specimens used to promote the sale of fabrics to garment manufacturers. This paragraph (b)(6) of this section shall not apply, however, to samples, swatches, or specimens prominently, permanently, conspicuously, truthfully, and legibly labeled with the statement "Flammable. Sample only. Not for use or resale. Does not meet Standard for the Flammability of Children's Sleepwear, DOC FF 3-71."

(7) The information required on labels by this section shall be set forth separately from any other information appearing on the same label. Other information, representations, or disclosures not required by this action but placed on the same label with information required by this section, or placed on other labels elsewhere on the item, shall not interfere with the information required by this section. No person, other than the ultimate consumer, shall remove or mutilate, or cause or participate in the removal or mutilation of, any label required by this section to be affixed to any item.

(8) Every manufacturer, importer, or other person (such as a converter) initially introducing items subject to the Standard into commerce shall assign to each item a unit identification (number, letter or date, or combination, thereof) sufficient to identify and relate to the fabric production unit or

garment production unit of which the item is a part. Such unit identification shall be designated in such a way as to indicate that it is a production unit identification under the Standard. The letters "GPU" and "FPU" may be used to designate a garment production unit identification and fabric production unit identification respectively, at the option of the labeler.

(i) Where fabrics required to be labeled or stamped in accordance with this section are marketed at retail in packages and the required label or stamp is not readily visible to the prospective purchaser, the packages must also be prominently, conspicuously, and legibly labeled with the information required by this section.

(ii) Where garments required to be labeled or stamped in accordance with paragraph (b)(8) of this section are marketed at retail in packages and the required label or stamp is not readily visible to the prospective purchasers:

(A) The packages must also be prominently, conspicuously, and legibly labeled with the information required by this section; or

(B) There must be a garment style identification that is prominent, conspicuous, and legible and readily visible to the prospective purchaser, either on a label or hang tag attached to the garments or on the garment packages. A style is a garment design or grouping, preselected by the manufacturer. A style may be composed of garments that form all or part of one or more GPU's and the style may include any number of garments the manufacturer chooses. Style identification means any numbers, letters, or combination thereof that are sufficient to identify the garments of the style and may include information such as color, season or size. If this option B is selected, in any recall of noncomplying items from a particular GPU:

(1) The garment manufacturer must recall the entire style(s) from all customers who purchased garments of the style(s) of which the GPU is part. However, retailers may elect to return only garments from the particular GPU necessitating the recall rather than the entire style(s) being recalled; and

(2) Within 48 hours of a written request, the garment manufacturer must

supply to the Commission any samples in its possession of garments from the GPU, as requested. As required of all persons subject to this section, the garment manufacturer must also, within the time requested, supply to the Commission the names of any customers who purchased during a specified period of time, garments from the GPU (or the style(s) of which the GPU is a part) and supply access to all records required under the Standard and this section.

(iii) Each garment subject to the Standard shall bear a label with minimum dimensions of 1.3 centimeters (0.5 inch) by 1.9 centimeters (0.75 inch) containing the appropriate garment production unit identification for that garment in letters which are clear, conspicuous, and legible and in a color which contrasts with the background of the label, or shall have such information stamped on the garment itself in letters which are clear, conspicuous, and legible and in a color which contrasts with the background, and at least 2.54 centimeters (1 inch) in every direction from any other information. The stamp or label containing the garment production unit identification must be of such construction, and affixed to the garment in such a manner as to remain on or attached to the garment and legible and visible throughout its intended period of use.

(iv) The fabric production unit identification shall appear in letters at least 0.4 centimeters (one-sixth of an inch) in height against a contrasting background on each label that relates to such fabric and is required by the Textile Fiber Products Identification Act (15 U.S.C. 70-70k) and the regulations thereunder (16 CFR 303.1 through 303.45), or by the Wool Products Labeling Act of 1939 (15 U.S.C. 68-68j) and the regulations thereunder (16 CFR 300.1 through 300.35). When the information required by the Textile Fiber Product Identification Act or by the Wool Products Labeling Act of 1939 appears on an invoice used in lieu of labeling, the fabric production unit identification required by this section may be placed clearly, conspicuously, and legibly on the same invoice in lieu of labeling.

(c)-(d) [Reserved]

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(e) *Records—manufacturers, importers, or other persons initially introducing items into commerce—(1) General.* Every manufacturer, importer, or other person (such as a converter) initially introducing into commerce items subject to the Standard, irrespective of whether guaranties are issued under paragraph (f) of this section, shall maintain written and physical records as hereinafter specified. The records required must establish a line of continuity through the process of manufacture of each production unit of articles of children's sleepwear, or fabrics or related materials intended or promoted for use in children's sleepwear, to the sale and delivery of the finished items and from the specific finished item to the manufacturing records. Such records shall show with respect to such items:

(i) Details, description, and identification of any and all sampling plans engaged in pursuant to the requirements of the Standard. Such records must be sufficient to demonstrate compliance with such sampling plan(s) and must relate the sampling plan(s) to the actual items produced, marketed, or handled. This requirement is not limited by other provisions of paragraph (e) of this section.

(ii) Garment production units or fabric production units of all garments or fabrics marketed or handled. The records must relate to an appropriate production unit identification on or affixed to the item itself in accordance with paragraph (b)(8) of this section, and the production unit identification must relate to the garment production unit or fabric production unit.

(iii) Test results and details of all tests performed, both prototype and production, including char lengths of each specimen tested, average char length of the samples required to be tested, details of the sampling procedure employed, name and signature of persons conducting tests, date of tests, and all other records necessary to demonstrate compliance with the test procedures and sampling plan specified by the standard or authorized alternate sampling plan.

(iv) Disposition of all failing or rejected items. Such records must demonstrate that the items were retested or reworked and retested in accordance

with the Standard prior to sale or distribution and that such retested or reworked and retested items comply with the Standard, or otherwise show the disposition of such items.

(v) Fiber content and manufacturing specifications relating the same to prototype and production testing and to the production units to which applicable.

(vi) Data and test results relied on as a basis for inclusion of different colors or different print patterns of the same fabric as a single fabric or garment production unit under § 1615.4(b) of the Standard.

(vii) Data and test results relied on as a basis for reduced laundering of fabric or garments during test procedures under § 1615.4(g)(4) of the Standard and any guaranties issued or received relating to laundering as well as details of the laundering procedure utilized.

(viii) Identification, composition, and details of application of any flame retardant treatments employed. All prototype and production records shall relate to such information.

(ix) Date and quantity of each sale or delivery of items subject to the Standard (except the date of sale to an ultimate consumer) and the name and address of the purchaser or recipient (except an ultimate consumer). The items involved in each such sale or delivery shall be identified by production unit or by style. A style is a garment design or grouping, preselected by the manufacturer. A style may be composed of garments that form all or part of one or more garment production units and the style may include any number of garments that form all or part of one or more garment production units and the style may include any number of garments the manufacturer chooses. If a person subject to the requirements of § 1615.31(e) maintains sales records which identify the items sold or delivered by style, and if recall of one or more production units subject to the Standard is required, that person in recalling such production units shall notify all purchasers of items of the style in which such production unit or units were manufactured. Retailers may elect to return all items of the style involved, or all items of the production unit or units subject to recall.

(2) *Fabrics.* In addition to the information specified in paragraph (e)(1) of this section the written and physical records maintained with respect to each fabric production unit shall include (i) finished fabric samples sufficient to repeat the fabric sampling procedure required by §1615.4 (b) through (e) of the Standard for each production unit marketed or handled; and (ii) records to relate the samples to the actual fabric production unit. Upon written request of any duly authorized employee or agent of the Commission, samples sufficient for the sampling and testing of any production unit in accordance with §1615.4 (b) through (e) of the Standard shall be furnished from these records within the time specified in that written request.

(3) *Garments—prototype testing.* In addition to the records specified in paragraph (e)(1) of this section, the following written and physical records shall be maintained with respect to the garment prototype testing required by the Standard:

(i) Specification, fiber content, and details of construction on all seams, fabrics, threads, stitches, and trims used in each garment style or type upon which prototype testing was performed, relating the same to such garment style or type and to all production units to which such prototype testing is applicable.

(ii) Samples sufficient to repeat the prototype tests required by §1615.4 (b) through (e) of the Standard for all fabrics, seams, threads, stitches, and trims used in such prototype testing, relating such samples to the records required by paragraph (e) of this section including the information required by paragraph (e)(3)(i) of this section. Upon written request of any duly authorized employee or agent of the Commission, samples sufficient for the testing of any prototype specimens identical to those specimens that were actually tested pursuant to the Standard shall be furnished from these records within the time specified in that written request.

(iii) A complete untested garment from each style or type of garment marketed or handled.

(iv) Remains of all physical specimens tested in accordance with the

prototype testing required by §1615.4 (b) through (e) of the Standard, relating such samples to the records required by paragraph (c) of this section including information required by paragraph (e)(3)(i) of this section.

(4) *Garments—production testing.* In addition to the records required by paragraph (e)(1) of this section, written and physical records shall be maintained and shall show with respect to each garment production unit:

(i) Source and fabric production unit identification of all fabrics subject to testing used in each garment production unit.

(ii) Identification and appropriate reference to all prototype records and prototype tests applicable to each production unit.

(iii) Any guaranty relied upon to demonstrate that the fabric utilized in such garments meets the laundering requirements of the Standard.

(iv) Data sufficient to show that tested samples were selected from the production unit at random from regular production.

(v) Written data that will enable the Commission to obtain and test garments under any applicable compliance market sampling plan.

(5) *Record retention requirements.* The records required by paragraph (e) of this section shall be maintained for 3 years, except that records relating to prototype testing shall be maintained for as long as they are relied upon as demonstrating compliance with the prototype testing requirements of the Standard and shall be retained for 3 years thereafter.

(f) *Tests for guaranty purposes.* Reasonable and representative tests for the purpose of issuing a guaranty under section 8 of the Flammable Fabrics Act (15 U.S.C. 1197) for items subject to the Standard shall be those tests performed pursuant to any sampling plan or authorized alternative sampling plan engaged in pursuant to the requirements of the Standard.

(g) *Compliance with this section.* No person subject to the Flammable Fabrics Act shall manufacture, import, distribute, or otherwise market or handle any item subject to the Standard, including samples, swatches, or specimens used to promote or effect the sale

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thereof, which is not in compliance with this section.

[40 FR 59903, Dec. 30, 1975, as amended at 43 FR 4855 Feb. 6, 1978; 49 FR 3064, Jan. 24, 1984; 61 FR 1116, Jan. 16, 1996]

§ 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 124-1996.⁶ 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.

(2) This rule provides the procedures to be followed by persons seeking Commission approval for alternate laundering procedures. It also provides the criteria the Commission will use in evaluating the applications.

(3) The alternate laundering procedures provided for in this section apply only to procedures under section 4(g)(4)(ii) of the standard and shall not be used for determining whether different colors or different print patterns

⁶ 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 go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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.

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of the same fabric may be included in a single fabric or garment production unit.

(4) As used in this section, fabric means fabric or related material promoted or intended for use in children's sleepwear made to identical specifications and containing the same identity while in production.

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

(i) A detailed description of the proposed alternate laundering procedure, and a 6 in. by 6 in. swatch of the fabric or garment for which the procedure is proposed.

(ii) Upon request of the Commission staff, any other information concerning the procedure and/or any machine used in connection with it.

(iii) With regard to each fabric or garment for which an alternate laundering procedure is sought, test data comparing twenty test specimens washed and dried by the proposed alternate laundering procedure and twenty specimens tested in accordance with the 50-wash and dry cycle procedure required in section 4(g)(4)(ii) of the standard. (For purposes of applications, similar fabrics or garments of different finishes shall be considered as different fabrics or garments and therefore separate test results must be submitted). Each group of twenty specimens upon which these data are based must be cut for testing, half in the machine direction and half in the cross machine direction. Where the applicant manufactures the fabric or garments in more than one plant, the data described in this paragraph must be submitted separately for the fabric or garments of each plant for which the proposed alternate laundering procedure is intended to be used. Subsequent applications for use of the same procedure for additional fabrics and garments may incorporate portions of the original application by reference, as appropriate.

(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. The notice of approval shall be kept by the applicant with other written records required to be maintained in connection with the use of an alternate laundering procedure. So the applicants may ascertain that the application has been received and when the 30-day period has elapsed, it is suggested that applications be sent by certified mail, return receipt requested.

(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.* (1) In order to assure a continued satisfactory correlation between the alternate laundering procedure and the laundering procedure of the standard, applicants shall perform all the testing described in paragraph (b)(1)(iii) of this section for fabrics or garments from current production at least once for every three-month period during which any of the fabric or garments are produced.

(2) If following initial approval, four successive comparisons of the alternate and the 50-cycle methods as described in paragraph (d)(1) of this section, consistently show acceptable results under the criteria specified by

paragraph (f) of this section, the Commission will deem such comparisons to be sufficient demonstration of the equivalence of the alternate laundering procedure with the 50 launderings required in the standard and further revalidation testing will not be required.

(3) Records of revalidation testing need not be submitted to the Assistant Executive Director for Compliance. However such records must be maintained in accordance with paragraph (h) of this section.

(e) *Revalidation testing failures.* (1) If revalidation testing for any fabric or garment does not meet the criteria of §1615.32(f), 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. Also, the testing from the production unit from which the non-correlating samples were taken and the testing from subsequent production units (if any) must be repeated immediately using the laundering procedure prescribed in the standard. These repeat tests shall then be the tests applicable to such production unit(s) and the tests previously performed on the production unit(s) shall be considered invalid.

(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 §1615.32(f), 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. In addition to the other information required for applications, the additional application should give facts or reasons showing why the applicant believes the procedure should be considered reliable with the fabric or garments involved, in view of previous failure.

(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 §1615.4(g)(4)(ii) of

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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 in section 4(g)(4)(ii) of the standard.

(2) The Commission may verify equivalency of any procedure submitted by independent testing and evaluation, by or on behalf of the Commission.

(h) *Recordkeeping.* The applicant must maintain a record of all applications filed with the Commission and of all equivalency tests for as long as the procedures to which they relate are in use and for three years thereafter.

[42 FR 55891, Oct. 20, 1977, as amended at 65 FR 12927, Mar. 10, 2000; 65 FR 19818, Apr. 12, 2000]

§ 1615.35 Use of alternate apparatus, procedures, or criteria for testing under the standard.

(a) The Standard for the Flammability of Children's Sleepwear: Sizes 0 through 6X (the Standard) requires every manufacturer, importer, and other person (such as a converter) ini-

tially introducing items subject to the Standard into commerce to group items into production units, and to test samples from each production unit. See 16 CFR 1615.4 (b), (c) and (d). The Standard prescribes an apparatus and procedure for performing tests of fabric and garments subject to its provisions. See 16 CFR 1615.4 (a), (f), and (g). The Standard prescribes pass/fail criteria at 16 CFR 1615.3(b).

(b)(1) By issuance of this § 1615.35, the Commission gives its approval to any person or firm desiring to use test apparatus or procedures other than those prescribed by the Standard for purposes of compliance with the Standard, if that person or firm has data or other information to demonstrate that a test utilizing such alternate apparatus or procedures is as stringent as, or more stringent than, a test utilizing the apparatus and procedures specified in the Standard. The Commission considers a test utilizing alternate apparatus or procedures to be "as stringent as, or more stringent than" a test utilizing the apparatus and procedures specified in the standard if, when testing identical specimens, a test utilizing alternate apparatus or procedures yields failing results as often as, or more often than, a test utilizing the apparatus and procedures specified in the Standard.

(2) The data or information required by this paragraph (b) of this section as a condition to the Commission's approval of the use of alternate test apparatus or procedures must be in the possession of the person or firm desiring to use such alternate apparatus or procedures before the alternate apparatus or procedures may be used for purposes of compliance with the Standard.

(3) The information required by this paragraph (b) of this section must be retained by the person or firm using the alternate test apparatus or procedure for as long as that apparatus or procedure is used for purposes of compliance with the Standard, and for a period of one year thereafter.

(c) Written application to the Commission is not required for approval of alternate test apparatus or procedure, and the Commission will not act on any individual written application for

approval of alternate test apparatus or procedure.

(d) Use of any alternate test apparatus or procedure without the data or information required by paragraph (b), of this section, may result in violation of the Standard and section 3 of the Flammable Fabrics Act (15 U.S.C. 1192).

(e) The Commission will test fabrics and garments subject to the Standard for compliance with the requirements of the Standard using the apparatus and procedures set forth in the Standard. The Commission will consider any failing results from compliance testing as evidence of a violation of the Standard and section 3 of the Flammable Fabrics Act (15 U.S.C. 1192).

(Reporting requirements contained in paragraph (d) were approved by the Office of Management and Budget under control number 3041-0027)

[48 FR 21315, May 12, 1983]

§ 1615.36 Use of alternate apparatus or procedures for tests for guaranty purposes.

(a) Section 8(a) of the Flammable Fabrics Act (FFA, 15 U.S.C. 1197(a)) provides that no person shall be subject to criminal prosecution under section 7 of the FFA (15 U.S.C. 1196) for a violation of section 3 of the FFA (15 U.S.C. 1192) if that person establishes a guaranty received in good faith which meets all requirements set forth in section 8 of the FFA. One of those requirements is that the guaranty must be based upon "reasonable and representative tests" in accordance with the applicable standard.

(b) Section 1615.31(f) of the regulations implementing the Standard for the Flammability of Children's Sleepwear: Sizes 0 through 6X (the Standard) provides that for purposes of supporting guaranties issued in accordance with section 8 of the FFA for items subject to the Standard, "reasonable and representative tests" are tests "performed pursuant to any sampling plan or authorized alternative sampling plan engaged in pursuant to the requirements of the Standard."

(c) At §1615.35, the Commission has set forth conditions under which the Commission will approve the use of test apparatus or procedures other than those prescribed in the Standard

for purposes of demonstrating compliance with the requirements of the Standard. Any person or firm meeting the requirements of §1615.35 for use of alternate test apparatus or procedure for compliance with the Standard may also use such alternate test apparatus or procedures under the same conditions for purposes of conducting "reasonable and representative tests" to support guaranties of items subject to the Standard, following any sampling plan prescribed by the Standard or any approved alternate sampling plan.

(d) The Commission will test fabrics and garments subject to the Standard for compliance with the Standard using the apparatus and procedures set forth in the Standard. The Commission will consider any failing results from compliance testing as evidence that the person or firm using alternate test apparatus or procedures has furnished a false guaranty in violation of section 8(b) of the FFA (15 U.S.C. 1197(b)).

[48 FR 21316, May 12, 1983]

Subpart C—Interpretations and Policies

AUTHORITY: Secs. 1-17, 67 Stat. 111-115, as amended, 81 Stat. 568-74; 15 U.S.C. 1191-1204.

§ 1615.61 [Reserved]

§ 1615.62 Policy and interpretation relative to items in inventory or as to recordkeeping requirements.

(a) The Standard for the Flammability of Children's Sleepwear: Sizes 0 through 6X (FF 3-71) (subpart A of this part) was published in the FEDERAL REGISTER on July 29, 1971, at 36 FR 14062 et seq., and amended in the FEDERAL REGISTER of July 21, 1972 (37 FR 14624). The Notice of Standard provided at 36 FR 14063 that "Items in inventory or with the trade on the effective date of the Standard are exempt. All concerned parties shall be required to maintain records that these items offered for sale after the effective date of the Standard are eligible for the exemption."

(b) The Children's Sleepwear Standard was amended on July 21, 1972, at 37 FR 14624 et seq. to incorporate a sleepwear sampling plan therein and to make certain nonsubstantive technical

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corrections as to the test equipment. The effective date remained the same. In issuance of such amendment the Notice of Amendment specified at 37 FR 14625 that "It is emphasized that the only substantive change made to the standard involves the amendment necessary to include the sampling plan."

(c) The Notice of Amendment did not repeat the language in the original 1971 Notice of Standard relative to items in inventory or as to recordkeeping requirements.

(d) Questions have arisen under this standard as to the application of the standard to goods manufactured outside the United States prior to the effective date of the standard on July 29, 1972, as to whether a person claiming the exemption specified in the standard must maintain records showing eligibility for exemption from the standard.

(e) In the Commission's view, the provisions of the July 29, 1971, Notice of Standard as to exemption of items of children's sleepwear in inventory or with the trade on the effective date of the standard and as to the necessity of maintenance of records to show eligibility for such exemption are in full force and effect.

NOTE: This policy was published by the Federal Trade Commission on January 31, 1973 (38 FR 3014). It continues in effect.

§ 1615.63 Policy regarding garment production unit identification.

No provision of §1615.31(b)(8) prohibits placement of a garment production unit identification on a label containing other information. Provided, however, that when the garment production unit identification appears on a label containing other information, provisions of §1615.31(b)(7) require that the garment production unit identification must be set forth separately from any other information appearing on the same label, and that information not required by the applicable enforcement regulation §1615.31, but placed on the same label with the garment production unit identification, shall not interfere with the garment production unit identification.

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§ 1615.64 Policy to clarify scope of the standard.

(a) The Standard for Flammability of Children's Sleepwear: Size 0 Through 6X (16 CFR part 1615) is applicable to any item of children's sleepwear in sizes 0 through 6X.

(1) The term *item* is defined in the Standard at §1615.1(d) to mean "any product of children's sleepwear, or any fabric or related material intended or promoted for use in children's sleepwear."

(2) The term *children's sleepwear* is defined in the Standard at §1615.1(a) to mean "any product of wearing apparel up to and including size 6X, such as nightgowns, pajamas, or similar or related items, such as robes, intended to be worn primarily for sleeping or activities relating to sleeping. Diapers and underwear are excluded from the definition."

(b) The Commission makes the following statement of policy regarding (1) the phrase "intended or promoted" as used in the definition of "item" in §1615.1(d), and (2) the phrase "intended to be worn primarily for sleeping or activities related to sleeping" as used in the definition of "children's sleepwear" in §1615.1(a).

(c) For enforcement purposes, the meaning of these phrases will be interpreted by the Commission in accordance with the following principles:

(1) *Sleepwear fabrics and related materials*. Whether fabric or related material is "intended or promoted" for use in children's sleepwear depends on the facts and circumstances in each case. Relevant factors include:

(i) The nature of the fabric and its suitability for use in children's sleepwear;

(ii) The extent to which the fabric or a comparable fabric has been sold to manufacturers of children's sleepwear for use in the manufacture of children's sleepwear garments; and

(iii) The likelihood that the fabric will be used primarily for children's sleepwear in a substantial number of cases.

(2) *Sleepwear garments*. Whether a product of wearing apparel is "intended to be worn primarily for sleeping or activities related to sleeping" depends on

the facts and circumstances present in each case. Relevant factors include:

(i) The nature of the product and its suitability for use by children for sleeping or activities related to sleeping;

(ii) The manner in which the product is distributed and promoted; and

(iii) The likelihood that the product will be used by children primarily for sleeping or activities related to sleeping in a substantial number of cases.

(3) The factors set forth in this policy statement are guidelines only, and are not elements of the definition of the term "children's sleepwear" in §1615.1(a) of the Standard. For this reason, a particular fabric or garment may meet the definition of "children's sleepwear" set forth in the Standard, even though all factors listed in this policy statement are not present.

(d) Retailers, distributors, and wholesalers, as well as manufacturers, importers, and other persons (such as converters) introducing a fabric or garment into commerce which does not meet the requirements of the flammability standards for children's sleepwear, have an obligation not to promote or sell such fabric or garment for use as an item of children's sleepwear. Also, retailers, distributors, and wholesalers are advised not to advertise, promote, or sell as an item of children's sleepwear any item which a manufacturer, importer, or other person (such as a converter) introducing the item into commerce has indicated by label, invoice, or, otherwise, does not meet the requirements of the children's sleepwear flammability standards and is not intended or suitable for use as sleepwear. "Infant garments" as defined by §1615.1(c) and "tight-fitting" garments as defined by §1615.1(o) are exempt from the standard which requires flame resistance. They may be marketed as sleepwear for purposes of this section. Additionally, retailers are advised:

(1) To segregate, by placement in different parts of a department or store, fabrics and garments covered by the children's sleepwear standards from all fabrics and garments that are beyond the scope of the children's sleepwear standards but which resemble items of children's sleepwear;

(2) To utilize store display signs indicating the distinction between types of fabrics and garments, for example by indicating which are sleepwear items and which are not; and

(3) To avoid the advertisement or promotion of a fabric or garment that does not comply with the children's sleepwear flammability standard in a manner that may cause the item to be viewed by the consumer as an item of children's sleepwear.

(Sec. 5, Pub.L. 90-189, 81 Stat. 569, 15 U.S.C. 1194; sec. 30(b), Pub.L. 92-573, 86 Stat. 1231, 15 U.S.C. 2079(b); 5 U.S.C. 553)

[49 FR 10250, Mar. 20, 1984, as amended at 64 FR 2832, Jan. 19, 1999; 64 FR 34533, June 28, 1999]

PART 1616—STANDARD FOR THE FLAMMABILITY OF CHILDREN'S SLEEPWEAR: SIZES 7 THROUGH 14 (FF 5-74)

Subpart A—The Standard

Sec.

- 1616.1 Scope and application.
- 1616.2 Definitions.
- 1616.3 General requirements.
- 1616.4 Sampling and acceptance procedures.
- 1616.5 Test procedure.
- 1616.6 Labeling requirements.

Subpart B—Rules and Regulations

- 1616.31 Labeling, recordkeeping, retail display and guaranties.
- 1616.32 Method for establishment and use of alternate laundering procedures under section 5(c)(4)(ii) of the standard.
- 1616.35 Use of alternate apparatus, procedures, or criteria for testing under the standard.
- 1616.36 Use of alternate apparatus or procedures for tests for guaranty purposes.

Subpart C—Interpretations and Policies

- 1616.61 Enforcement policy.
- 1616.62 Policy regarding retail display requirement for items.
- 1616.63 Policy regarding garment production unit identification.
- 1616.64 Policy regarding recordkeeping requirements.
- 1616.65 Policy scope of the standard.

SOURCE: 40 FR 59917, Dec. 30, 1975, unless otherwise noted.

Subpart A—The Standard

AUTHORITY: Sec. 429, Pub. L. 105–276; Sec. 4, 67 Stat. 112, as amended, 81 Stat. 569–570; 15 U.S.C. 1193.

§ 1616.1 Scope and application.

(a) This Standard provides a test method to determine the flammability of children's sleepwear, sizes 7 through 14 and fabric or related material intended or promoted for use in such children's sleepwear.

(b) All sleepwear items as defined in § 1616.2(c), are subject to the requirements of this Standard.

(c) Children's sleepwear items which meet all the requirements 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) are in compliance with this Standard. FF 3–71 was issued July 29, 1971 (36 FR 14062), and amended July 21, 1972 (37 FR 14624).

(d) As used in this Standard, *pass* and *fail* refer to the test criteria for specimens while *accept* and *reject* refer to the acceptance or rejection of a production unit under the sampling plan.

(e) The flammability standards for clothing textiles and vinyl plastic film, parts 1610 and 1611 of this chapter, are superseded by this part 1616 insofar as they apply to items defined in § 1616.2(c).

§ 1616.2 Definitions.

In addition to the definitions given in section 2 of the Flammable Fabrics Act, as amended (15 U.S.C. 1191), the following definitions apply for purposes of this Standard:

(a) Children's sleepwear means 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, except:

(1) Diapers and underwear; and

(2) "Tight-fitting garments" as defined by section 1616.2(m), below.

(b) *Sizes 7 through 14* means the sizes defined as 7 through 14 in Department of Commerce Voluntary Product Standards PS 54–72 and PS 36–70, previously identified as Commercial Standards, CS 153–48, "Body Measure-

ments for the Sizing of Girls' Apparel" and CS 155–50, "Body Measurements for the Sizing of Boys' Apparel", respectively.¹

(c) *Item* means any product of children's sleepwear or any fabric or related material intended or promoted for use in children's sleepwear.

(d) *Trim* means decorative materials, such as ribbons, laces, embroidery, or ornaments. This definition does not include (1) individual pieces less than 2 inches in their longest dimension, provided that such pieces do not constitute or cover in aggregate a total of more than 20 square inches of the item or (2) functional materials (findings), such as zippers, buttons or elastic bands, used in the construction of garments.

(e) *Test criteria* means the average char length and the maximum char length which a sample of specimen may exhibit in order to pass an individual test.

(f) *Char length* means the distance from the original lower edge of the specimen exposed to the flame in accordance with the procedure specified in § 1616.5 *Test procedure* to the end of the tear or void in the charred, burned, or damaged area, the tear being made in accordance with the procedure specified in § 1615.5(c)(2) *Specimen burning and evaluation*.

(g) *Afterglow* means the continuation of glowing of parts of a specimen after flaming has ceased.

(h) *Fabric piece* (piece) means a continuous, unseamed length of fabric, one or more of which make up a unit.

(i) *Fabric production unit* (unit) means any quantity of finished fabric up to 4,600 linear m. (5,000 linear yds.) for Normal Sampling or 9,200 linear m. (10,000 linear yds.) for Reduced Sampling which has a specific identity that remains unchanged throughout the unit except for color or print pattern as specified in § 1616.4(a). For purposes of this definition, finished fabric means

¹Copies available from the National Technical Information Service, 5285 Port Royal Street, Springfield VA 22151. The ordering number for PS 54–72 (CS 153–48), on girls' apparel sizing, is COM 73–50603; the ordering number for PS 36–70 (CS 155–50), on boys' apparel sizing, is PB 86125648.

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fabric in its final form after completing its last processing step as a fabric except for slitting.

(j) *Garment production unit* (unit) means any quantity of finished garments up to 500 dozen which have a specific identity that remains unchanged throughout the unit except for size, trim, findings, color, and print patterns as specified in §1616.4(a).

(k) *Sample* means five test specimens.

(1) *Specimen* means an $8.9\pm0.5 \times 25.4\pm0.5$ cm. ($3.5\pm0.2 \times 10\pm0.2$ in.) section of fabric. For garment testing, the specimen will include a seam or trim.

(m) *Tight-fitting garment* means a garment which:

(1)(i) In each of the sizes listed below does not exceed the maximum dimension specified below for the chest, waist, seat, upper arm, thigh, wrist, or ankle:

	Chest	Waist	Seat	Upper arm	Thigh	Wrist	Ankle
Size 7 Boys ¹							
Maximum dimension:							
Centimeters	63.5	58.4	66	18.7	37.2	13.0	18.7
(inches)	(25)	(23)	(26)	(7 ³ / ₈)	(14 ⁵ / ₈)	(5 ¹ / ₈)	(7 ³ / ₈)
Size 7 Girls							
Maximum dimension:							
Centimeters	63.5	58.4	67.3	18.7	38.7	13.0	18.7
(inches)	(25)	(23)	(26 ¹ / ₂)	(7 ³ / ₈)	(15 ¹ / ₄)	(5 ¹ / ₈)	(7 ³ / ₈)
Size 8 Boys ¹							
Maximum dimension:							
Centimeters	66	59.7	67.3	19.4	38.4	13.3	19.1
(inches)	(26)	(23 ¹ / ₂)	(26 ¹ / ₂)	(7 ⁷ / ₈)	(15 ⁵ / ₈)	(5 ³ / ₄)	(7 ¹ / ₂)
Size 8 Girls							
Maximum dimension:							
Centimeters	66	59.7	71.1	19.4	41.3	13.3	19.1
(inches)	(26)	(23 ¹ / ₂)	(28)	(7 ⁷ / ₈)	(16 ¹ / ₄)	(5 ³ / ₄)	(7 ¹ / ₂)
Size 9 Boys ¹							
Maximum dimension:							
Centimeters	68.6	61.0	69.2	20	39.7	13.7	19.4
(inches)	(27)	(24)	(27 ¹ / ₄)	(7 ⁷ / ₈)	(15 ⁵ / ₈)	(5 ³ / ₈)	(7 ⁵ / ₈)
Size 9 Girls							
Maximum dimension:							
Centimeters	68.6	61.0	73.7	20	42.6	13.7	19.4
(inches)	(27)	(24)	(29)	(7 ⁷ / ₈)	(16 ³ / ₄)	(5 ³ / ₈)	(7 ⁵ / ₈)
Size 10 Boys ¹							
Maximum dimension:							
Centimeters	71.1	62.2	71.1	20.6	41.0	14	19.7
(inches)	(28)	(24 ¹ / ₂)	(28)	(8 ¹ / ₈)	(16 ⁵ / ₈)	(5 ¹ / ₂)	(7 ³ / ₄)
Size 10 Girls							
Maximum dimension:							
Centimeters	71.1	62.2	76.2	20.6	43.8	14	19.7
(inches)	(28)	(24 ¹ / ₂)	(30)	(8 ¹ / ₈)	(17 ¹ / ₄)	(5 ¹ / ₂)	(7 ³ / ₄)
Size 11 Boys ¹							
Maximum dimension:							
Centimeters	73.7	63.5	73.7	21	42.2	14.3	20
(inches)	(29)	(25)	(29)	(8 ¹ / ₄)	(16 ⁵ / ₈)	(5 ⁵ / ₈)	(7 ⁷ / ₈)
Size 11 Girls							
Maximum dimension:							
Centimeters	73.7	63.5	78.7	21	45.1	14.3	20
(inches)	(29)	(25)	(31)	(8 ¹ / ₄)	(17 ³ / ₄)	(5 ⁵ / ₈)	(7 ⁷ / ₈)
Size 12 Boys ¹							
Maximum dimension:							
Centimeters	76.2	64.8	76.2	21.6	43.5	14.6	20.3
(inches)	(30)	(25 ¹ / ₂)	(30)	(8 ¹ / ₂)	(17 ⁵ / ₈)	(5 ³ / ₄)	(8)
Size 12 Girls							
Maximum dimension:							
Centimeters	76.2	64.8	81.3	21.6	46.7	14.6	20.3
(inches)	(30)	(25 ¹ / ₂)	(32)	(8 ¹ / ₂)	(18 ¹ / ₂)	(5 ³ / ₄)	(8)

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	Chest	Waist	Seat	Upper arm	Thigh	Wrist	Ankle
Size 13 Boys¹							
Maximum dimension:							
Centimeters	78.7	66	78.7	22.2	44.8	14.9	20.6
(inches)	(31)	(26)	(31)	(8¾)	(17½)	(5⅞)	(8⅞)
Size 13 Girls							
Maximum dimension:							
Centimeters	78.7	66	83.8	22.2	47.6	14.9	20.6
(inches)	(31)	(26)	(33)	(8¾)	(18¾)	(5⅞)	(8⅞)
Size 14 Boys¹							
Maximum dimension:							
Centimeters	81.3	67.3	81.3	22.9	46	15.2	21
(inches)	(32)	(26½)	(32)	(9)	(18½)	(6)	(8¼)
Size 14 Girls							
Maximum dimension:							
Centimeters	81.3	67.3	86.4	22.9	49.5	15.2	21
(inches)	(32)	(26½)	(34)	(9)	(19½)	(6)	(8¼)

¹ Garments not explicitly labeled and promoted for wear by girls must not exceed these maximum dimensions.

(ii) Note: Measure the dimensions on the front of the garment. Lay garment, right side out, on a flat, horizontal surface. Smooth out wrinkles. Measure distances as specified below and multiply them by two. Measurements should be equal to or less than the maximum dimensions given in the standards.

(A) Chest—measure distance from arm pit to arm pit (A to B) as in Diagram 1.

(B) Waist—See Diagram 1. *One-piece garment*, measure at the narrowest location between arm pits and crotch (C

to D). *Two-piece garment*, measure width at both the bottom/sweep of the upper piece (C to D) and, as in Diagram 3, the top of the lower piece (C to D).

(C) Wrist—measure the width of the end of the sleeve (E to F), if intended to extend to the wrist, as in Diagram 1.

(D) Upper arm—draw a straight line from waist/sweep D through arm pit B to G. Measure down the sleeve fold from G to H. Refer to table below for G to H distances for each size. Measure the upper arm of the garment (perpendicular to the fold) from H to I as shown in Diagram 1.

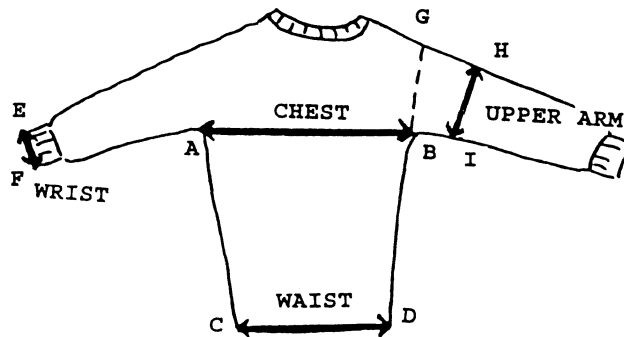


Diagram 1

DISTANCE FROM SHOULDER (G) TO (H) FOR UPPER ARM MEASUREMENT FOR SIZES 7 THROUGH 14

7	8	9	10	11	12	13	14
11.4 cm 4½"	11.7 cm 4⅝"	11.9 cm 4¾"	12.5 cm 4⅞"	12.8 cm 5"	13.1 cm 5⅛"	13.7 cm 5⅜"	14.2 cm 5½"

(E) Seat—Fold the front of the pant in half to find the bottom of the crotch at J as in Diagram 2. The crotch seam and inseam intersect at J. Mark point K on the crotch seam at 4 inches above and perpendicular to the bottom of the crotch. Unfold the garment as in Diagram 3. Measure the seat from L to M through K as shown.

(F) Thigh—measure from the bottom of the crotch (J) 1 inch down the inseam to N as in Diagram 2. Unfold the garment and measure the thigh from the inseam at N to O as shown in Diagram 3.

(G) Ankle—measure the width of the end of the leg (P to Q), if intended to extend to the ankle, as in Diagram 3.

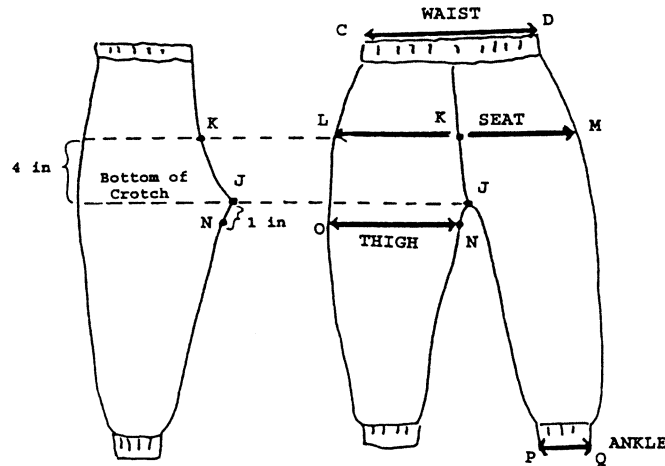


Diagram 2

Diagram 3

(2) Has no item of fabric, ornamentation or trim, such as lace, appliques, or ribbon, which extends more than 6 millimeters (¼ inch) from the point of attachment to the outer surface of the garment;

(3) Has sleeves which do not exceed the maximum dimension for the upper arm at any point between the upper arm and the wrist, and which diminish in width gradually from the top of the shoulder (point G in Diagram 1) to the wrist;

(4) Has legs which do not exceed the maximum dimension for the thigh at any point between the thigh and the ankle, and which diminish gradually in width between the thigh and the ankle;

(5) In the case of a one-piece garment, has a width which does not exceed the maximum dimension for the chest at any point between the chest and the waist and which diminishes gradually from the chest to the waist; and has a width which does not exceed the maximum dimension for the seat at

any point between the seat and the waist and which diminishes gradually from the seat to the waist;

(6) In the case of a two-piece garment, has an upper piece with a width which does not exceed the maximum distance for the chest at any point between the chest and the bottom of that piece and which diminishes gradually from the chest to the bottom of that piece; in the case of an upper piece with fastenings, has the lowest fastening within 15 centimeters (6 inches) of the bottom of that piece;

(7) In the case of a two-piece garment, has a lower piece with a width which does not exceed the maximum dimension for the seat at any point between the seat and the top of the lower piece and which diminishes gradually from the seat to the top of that piece;

(8) Complies with all applicable requirements of the Standard for the Flammability of Clothing Textiles (16 CFR part 1610) and the Standard for the

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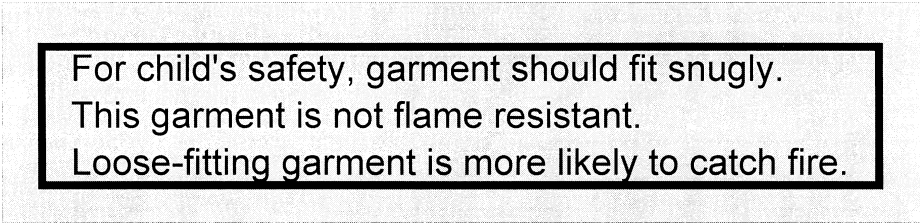
Flammability of Vinyl Plastic Film (16 CFR part 1611); and

(9) Bears a label stating the size of the garment; for example "Size 7." If the label is not visible to the consumer when the garment is offered for sale at retail, the garment size must appear legibly on the package of the garment.

Effective date: These amendments shall become effective on January 1, 1997, and shall be applicable to garments which are introduced into commerce on or after that date.

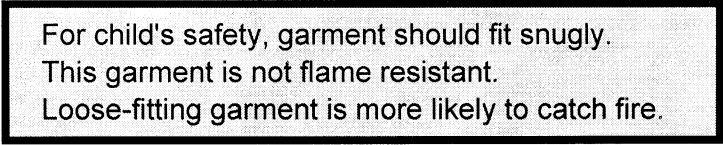
(10)(i) *Hangtags.* Bears a hangtag as shown following this paragraph stating "For child's safety, garment should fit snugly. This garment is not flame resistant. Loose-fitting garment is more likely to catch fire." The hangtag must measure 1½" × 6¼". The text must be

enclosed in a text box that measures 1" × 5¾" and must be in 18 point Arial/ Helvetica font. The hangtag must have a yellow background and black lettering. The color yellow must meet the specifications for Standard Safety Yellow (Hue 5.OY; Value/Chroma 8.0/12) as described in American National Standard ANSI Z535.1-1998, Safety Color Code, p.6, under Munsell Notation.² One side of the hangtag must display only this message. The reverse side of the hangtag may display sizing information, but otherwise must be blank. The text must not be obscured by the hole provided for attaching the hangtag to the garment. The hangtag must be prominently displayed on the garment.



(ii) *Packages.* If the garments are sold in packages, the package must have a label as shown following this paragraph with the same language that would appear on the hangtag. The label must have a text box that measures ¾ × 3¾. The text must be 11 point Arial/

Helvetica in black lettering against a yellow background. The packages must be prominently, conspicuously, and legibly labeled with the required message. The package label may be adhesive.



²ANSI Z535.1-1998, Standard for Safety Color Code, p.6, published by National Electrical Manufacturers Association is incorporated by reference. Copies of this document are available from the National Electrical Manufacturers Association, 1300 N. 17th Street, Suite 1847, Rosslyn, Virginia 22209. This document is also available for inspection at the National Archives and

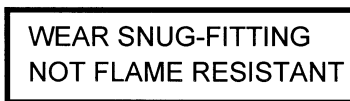
Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. The incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

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(11) Bears a label as shown following this paragraph stating “Wear Snug-fitting, Not Flame Resistant.” The text must be printed on the front of the sizing label located on the center back of the garment and must be immediately below the size designation. The

text must be a minimum of 5 point sans serif font in all capital letters and must be set apart from other label text by a line border. The text must contrast with the background color of the label. The label must not be covered by any other label or tag.



Example in 10 pt Arial font

[40 FR 59917, Dec. 30, 1975, as amended at 50 FR 53307, Dec. 31, 1985; 61 FR 47646, Sept. 9, 1996; 64 FR 2841, Jan. 19, 1999; 64 FR 34535, June 28, 1999; 64 FR 48705, Sept. 8, 1999; 64 FR 61021, Nov. 9, 1999]

§ 1616.3 General requirements.

(a) *Summary of test method.* Conditioned specimens are suspended one at a time vertically in holders in a prescribed cabinet and subjected to a standard flame along their bottom edges for a specified time under controlled conditions. The char lengths are recorded.

(b) *Test criteria.* The test criteria when the testing is done in accordance with § 1616.4 *Sampling and acceptance procedures* and § 1616.5 *Test procedures* are:

(1) *Average char length.* The average char length of five specimens shall not exceed 17.8 cm. (7.0 in.).

(2) *Full-specimen burn.* No individual specimen shall have a char length of 25.4 ± 0.5 cm. (10 ± 0.2 in.).

(c) Details of the number of specimens which must meet the above test criteria for unit acceptance is specified in § 1616.4.

§ 1616.4 Sampling and acceptance procedures.

(a) *General.* (1) The test criteria of § 1616.3(b) shall be used in conjunction with the following fabric and garment sampling plan. The Consumer Product Safety Commission may consider and approve other sampling plans that provide at least the equivalent level of fire

safety to the consumer, provided such alternate sampling plans have operating characteristics such that the probability of unit acceptance at any percentage defective does not exceed the corresponding probability of unit acceptance of the following sampling plan in the region of the latter's operating characteristic curves that lies between 5 and 95 percent acceptance probability. Alternate sampling plans approved for one manufacturer may be used by other manufacturers without prior Consumer Product Safety Commission approval.

(2) Different colors or different print patterns of the same fabric may be included in a single fabric or garment production unit, provided such colors or print patterns demonstrate char lengths that are not significantly different from each other as determined by previous testing of at least three samples from each color or print pattern to be included in the unit.

(3) Garments with different trim and findings may be included in a single garment production unit provided the other garment characteristics are identical except for size, color, and print pattern.

(4) For fabrics whose flammability characteristics are not dependent on chemical additives or chemical reactants to polymer, fiber, yarns, or fabrics, the laundering requirement of § 1616.5(c)(4) is met on subsequent fabric production units if results of testing an initial fabric production unit demonstrate acceptability according to the

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requirements of paragraph (b) of this section, *Normal sampling*, both before and after the appropriate laundering.

(5) If the fabric has been shown to meet the laundering requirement, §1616.5(c)(4), the garments produced from that fabric are not required to be laundered prior to testing.

(6) Each sample (five specimens), for Fabric Sampling shall be selected so that two specimens are in one fabric direction (machine or cross-machine) and three specimens are in the other fabric direction, except for the additional sample selected after a failure, in which case all five specimens shall be selected in the fabric direction in which the specimen failure occurred.

(7) Fabric samples may be selected from fabric as outlined in paragraph (b) of this section, *Fabric sampling* or, for verification purposes, from randomly selected garments.

(8) Multi-layer fabrics shall be tested with a hem of approximately 2.5 cm. (1 in.) sewn at the bottom edge of the specimen with a suitable thread and stitch. The specimen shall include each of the components over its entire length. Garments manufactured from multi-layer fabrics shall be tested with the edge finish which is used in the garment at the bottom edge of the specimen.

(b) *Fabric sampling*. A fabric production unit (unit) is either accepted or rejected in accordance with the following plan:

(1) *Normal sampling*. Select one sample from the beginning of the first fabric piece (piece) in the unit and one sample from the end of the last piece in the unit, or select a sample from each end of the piece if the unit is made up of only one piece. Test the two selected samples. If both samples meet all the test criteria of §1616.3(b), accept the unit. If either or both of the samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1616.3(b)(1), reject the unit. If two or more of the individual specimens, from the 10 selected specimens, fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), reject the unit. If only one individual specimen, from the 10 selected specimens, fails the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), select five additional specimens from the same end of

the piece in which the failure occurred, all five to be taken in the fabric direction in which the specimen failure occurred. If this additional sample passes all the test criteria, accept the unit. If this additional sample fails any part of the test criteria, reject the unit.

(2) *Reduced sampling*. (i) The level of sampling required for fabric acceptance may be reduced provided the preceding 15 units of the fabric have all been accepted using the Normal Sampling Plan.

(ii) The reduced Sampling Plan shall be the same as for Normal Sampling except that the quantity of fabric in the unit may be increased to 9,200 linear m. (10,000 linear yds.)

(iii) Select and test two samples in the same manner as in Normal Sampling. Accept or reject the unit on the same basis as with Normal Sampling.

(iv) Reduced Sampling shall be discontinued and Normal Sampling resumed if a unit is rejected.

(3) *Tightened sampling*. Tightened sampling shall be used when a unit is rejected under the Normal Sampling Plan. The Tightened Sampling shall be the same as Normal Sampling except that one additional sample shall be selected and cut from a middle piece in the unit. If the unit is made up of less than two pieces, the unit shall be divided into at least two pieces. The division shall be such that the pieces produced by the division shall not be smaller than 92 linear m. (100 linear yds.) or greater than 2,300 linear m. (2,500 linear yds.). If the unit is made up of two pieces, the additional sample shall be selected from the interior end of one of the pieces. Test the three selected samples. If all three selected samples meet all the test criteria of §1616.3(b), accept the unit. If one or more of the three selected samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1616.3(b)(1), reject the unit. If two or more of the individual specimens, from the 15 selected specimens, fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), reject the unit. If only one individual specimen, from the 15 selected specimens, fails the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), select five additional specimens from the same end of

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the same piece in which the failure occurred, all five to be taken in the fabric direction in which the specimen failure occurred. If this additional sample passes all the test criteria, accept the unit. If this additional sample fails any part of the test criteria, reject the unit. Tightened Sampling may be discontinued and Normal Sampling resumed after five consecutive units have all been accepted using Tightened Sampling. If Tightened Sampling remains in effect for 15 consecutive units, production of the specific fabric in Tightened Sampling must be discontinued until that part of the process or component which is causing failure has been identified and the quality of the end product has been improved.

(4) *Disposition of rejected units.* (i) The piece or pieces which have failed and resulted in the initial rejection of the unit may 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 and acceptance in accordance with the procedures in *Tightened Sampling*.

(ii) The remainder of a rejected unit, after removing the piece or pieces, the failure of which resulted in unit rejection, may be accepted if the following test plan is successfully concluded at all required locations. The required locations are those adjacent to each such failed piece. (Required locations exist on both sides of the "Middle Piece" tested in Tightened Sampling if failure of that piece resulted in unit rejection). Failure of a piece shall be deemed to have resulted in unit rejection if unit rejection occurred and a sample or specimen from the piece failed any test criterion of § 1616.3(b).

(iii) The unit should contain at least 15 pieces for disposition testing after removing the failing pieces. If necessary for this purpose, the unit shall be demarcated into at least 15 approximately equal length pieces unless such division results in pieces shorter than 92 linear m. (100 linear yds.). In this latter case, the unit shall be demarcated into roughly equal length pieces

of approximately 92 linear m. (100 linear yds.) each. If such a division results in five pieces or less in the unit for each failing piece after removing the failing pieces, only the individual pieces retest procedure [described in paragraph (b)(4)(vi) of this section] may be used.

(iv) Select and cut a sample from each end of each adjoining piece beginning adjacent to the piece which failed. Test the two samples from the piece. If both samples meet all the test criteria of § 1616.3(b), the piece is acceptable. If one or both of the two selected samples fail the 17.8 cm. (7.0 in.) average char length criterion, § 1616.3(b)(1), the piece is unacceptable. If two or more of the individual specimens, from the 10 selected specimens, fail the 25.4 cm. (10 in.) char length criterion, § 1616.3(b)(2), the piece is unacceptable. If only one individual specimen, from the 10 selected specimens, fails the 25.4 cm. (10 in.) char length criterion, § 1616.3(b)(2), select five additional specimens from the same end of the piece in which the failure occurred, all five to be taken in the fabric direction in which the specimen failure occurred. If this additional sample passes all the test criteria, the piece is acceptable. If this additional sample fails any part of the test criteria, the piece is unacceptable.

(v) Continue testing adjoining pieces until a piece has been found acceptable. Then continue testing adjoining pieces until three successive adjoining pieces, not including the first acceptable piece, have been found acceptable or until five such pieces, not including the first acceptable piece, have been tested, whichever occurs sooner. Unless three successive adjoining pieces have been found acceptable among five such pieces, testing shall be stopped and the entire unit rejected without further testing. If three successive pieces have been found acceptable among five such pieces, accept the three successive acceptable pieces and the remaining pieces in the unit.

(vi)(A) Alternately, individual pieces from a rejected unit containing three or more pieces may be tested and accepted or rejected on a piece by piece basis according to the following plan, after removing the piece or pieces, the

failure of which resulted in unit rejection.

(B) Select four samples (two from each end) from the piece. Test the four selected samples. If all four samples meet all the test criteria of §1616.3(b), accept the piece. If one or more of the samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1616.3(b)(1), reject the piece. If two or more of the individual specimens, from the 20 selected specimens, fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), reject the piece. If only one individual specimen, from the 20 selected specimens, fails the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), select two additional samples from the same end of the piece in which the failure occurred. If these additional two samples meet all the test criteria of §1616.3(b), accept the piece. If one or both of the two additional samples fail any part of the test criteria, reject the piece.

(vii) The pieces of a unit rejected after retesting may 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 *Tightened Sampling*.

(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 the 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.

(c) *Garment sampling*. (1)(i) The Garment Sampling Plan is made up of two parts: (A) Prototype Testing and (B) Production Testing. Prior to production, prototypes must be tested to assure that the design characteristics of the garment are acceptable. Garment production units (units) are then ac-

cepted or rejected on an individual unit basis.

(ii) Edge finishes such as hems, except in multi-layer fabrics, and binding are excluded from testing except that when trim is used on an edge the trim must be subjected to prototype testing. Seams attaching bindings are excluded from testing.

(2) *Prototype testing*. Pre-production prototype testing of each seam and trim specification to be included in each garment in a garment production unit shall be conducted to assure that garment specifications meet the flammability requirements of the Standard prior to production.

(i) *Seams*. Make three samples (15 specimens) using the longest seam type and three samples using each other seam type 10 inches or longer that is to be included in the garment. For purposes of recordkeeping, prior to testing, assign each specimen to one of the three samples. Test each set of three samples and accept or reject each seam design in accordance with the following plan:

(A) If all three samples meet all the test criteria of §1616.3(b), accept the seam design. If one or more of the three samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1616.3(b)(1), reject the seam design. If three or more of the individual specimens from the 15 selected specimens fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), reject the seam design. If only one of the individual specimens from the 15 selected specimens fails the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), accept the seam design.

(B) If two of the individual specimens; from the 15 selected specimens, fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), select three more samples (15 specimens) and retest. If all three additional samples meet all the test criteria of §1616.3(b), accept the seam design. If one or more of the three additional samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1616.3(b)(1), reject the seam design. If two or more of the individual specimens, from the 15 selected additional specimens, fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), reject the seam design. If only one of

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the individual specimens, from the 15 selected additional specimens, fails the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), accept the seam design.

(ii) *Trim.* (A) Make three samples (15 specimens) from each type of trim to be included in the garment. For trim used only in a horizontal configuration on the garment, specimens shall be prepared by sewing or attaching the trim horizontally to the bottom edge of an appropriate section of untrimmed fabric. Sleeve and necking trim may not be tested in this manner. Where more than one row of trim is used on the garment, specimens shall be prepared with the same configuration (same number of rows and spacing between rows up to the limit of the specimen size) as the garment. For trim used in other than a horizontal configuration, specimens shall be prepared by sewing or attaching the trim to the center of the vertical axis of an appropriate section of untrimmed fabric, beginning the sewing or attachment at the lower edge of each specimen. For either configuration, the sewing or attachment shall be made in the manner in which the trim is attached in the garment.

(B) Sewing or otherwise attaching the trim shall be done with thread or fastening material of the same composition and size to be used for this purpose in the garment and using the same stitching or seam type. Trim used in the horizontal configuration shall be sewn or fastened the entire width (smaller dimension) of the specimen. Trim used in other than the horizontal configuration shall be sewn or fastened the entire length (longer dimension) of the specimen. Prior to testing, assign each specimen to one of the three samples. Test the sets of three samples and accept or reject the type of trim and design on the same basis as seam design. A type of trim and design accepted when tested in a vertical configuration, may be used in a horizontal configuration without further testing.

(3) *Production testing.* A unit is either accepted or rejected according to the following plan:

(i) *Normal sampling.* (A) From each unit, select at random sufficient garments and cut three samples (15 specimens) from the longest seam type. No more than five specimens may be cut

from a single garment. Prior to testing, assign each specimen to one of the three samples. All specimens cut from a single garment must be included in the same sample. Test the three selected samples. If all three samples meet all the test criteria of §1616.3(b), accept the unit. If one or more of the three samples fail the 17.8 cm. (7.0 in.) average char length criterion, §1616.3(b)(1), reject the unit. If four or more of the individual specimens, from the 15 selected specimens, fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), reject the unit. If three or less of the individual specimens, from the 15 selected specimens, fail the 25.4 cm. (10 in.) char length criterion, §1616.3(b)(2), accept the unit.

(B) If the garment under test does not have a seam at least 10 inches long in the largest size in which it is produced, the following selection and testing procedure shall be followed:

(1) Select and cut specimens 8.9 cm. (3.5 in.) wide by the maximum available seam length, with the seam in the center of the specimen and extending the entire specimen length. Cut three samples (15 specimens). These specimens shall be placed in specimen holders so that the bottom edge is even with the bottom edge of the specimen holder and the seam begins in the center of the bottom edge. Prior to testing, assign each specimen to one of the three samples. All specimens cut from a single garment must be included in the same sample.

(2) Test the three samples. If all three samples pass the 17.8 cm. (7.0 in.) average char length criterion, §1616.3(b)(1), and if three or fewer individual specimens fail by charring the entire specimen length, accept the unit. If the unit is not accepted in the above test, three samples (15 specimens) of the longest seam type shall be made using fabric and thread from production inventory and sewn on production machines by production operators. The individual fabric sections prior to sewing must be no larger than 20.3 × 63.3 cm. (8 × 25 in.) and must be selected from more than one area of the base fabric. Test the three prepared samples. Accept or reject the unit as described previously in this subsection.

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(ii) *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 (c)(3) 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 test-

ing 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 Standard. Production units found to be non-complying 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.

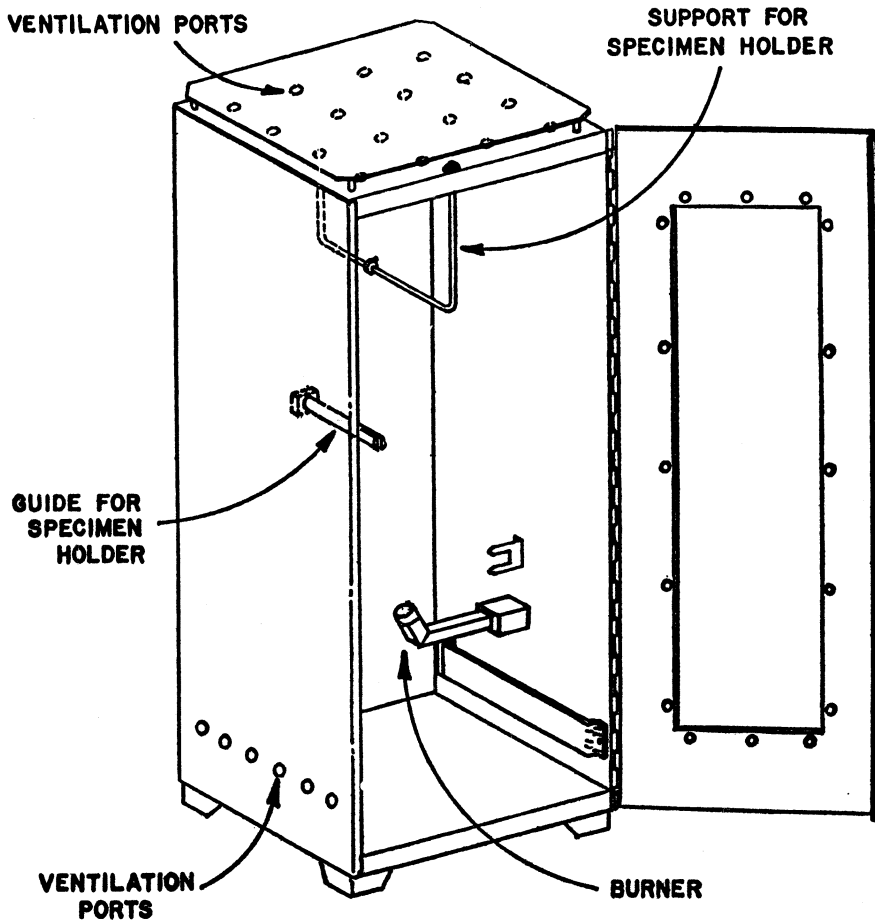
(Sec. 30(d), (15 U.S.C. 2079(b)), 86 Stat. 1231)

[40 FR 59917, Dec. 30, 1975, as amended at 43 FR 4855, Feb. 6, 1978]

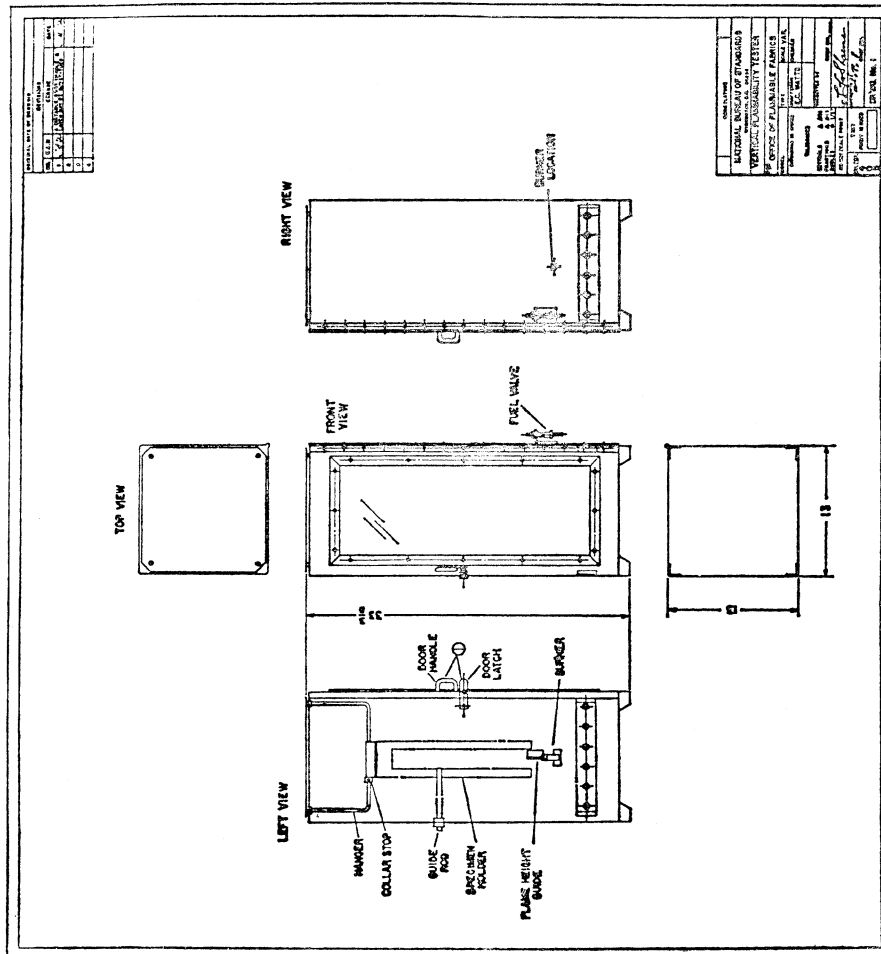
§ 1616.5 Test procedure.

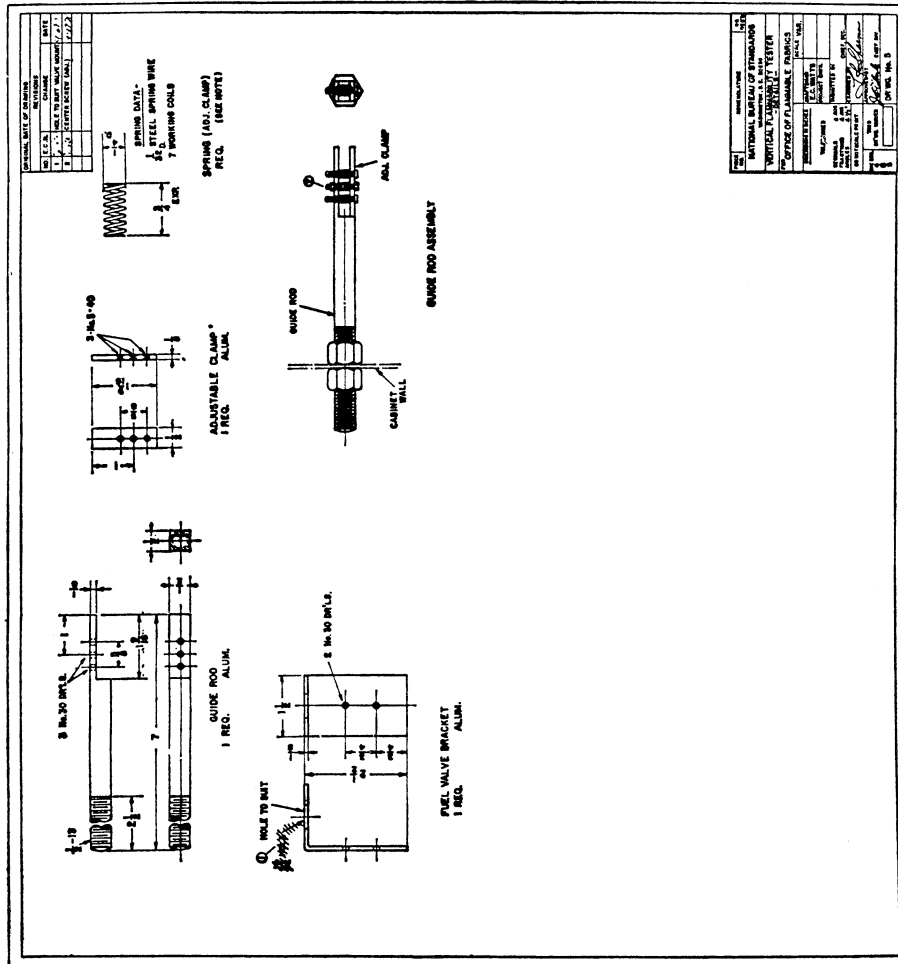
(a) *Apparatus.* The following test apparatus shall be used for the test. Alternate test apparatus may be used only with prior approval of the Consumer Product Safety Commission.

(1) *Test chamber.* The test chamber shall be a steel cabinet with inside dimensions of 32.9 cm. ($12\frac{5}{16}$ in.) wide, 32.9 cm. ($12\frac{5}{16}$ in.) deep and 76.2 cm. (30 in.) high. It shall have a frame which permits the suspension of the specimen holder over the center of the base of the cabinet at such a height that the bottom of the specimen is 1.7 cm. ($\frac{3}{4}$ in.) above the highest point of the barrel of the gas burner specified in paragraph (a)(3) of this section, *Burner* and perpendicular to the front of the cabinet. The front of the cabinet shall be a close-fitting door with a transparent insert to permit observation of the entire test. The cabinet floor may be covered with a piece of asbestos paper, whose length and width are approximately 2.5 cm. (1 in.) less than the cabinet floor dimensions. The cabinet to be used in this test method is illustrated in Figure 1 and detailed in Engineering Drawings, Numbers 1 through 7.



VERTICAL TEST CABINET
FIGURE I





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 1—ORIGINAL FABRIC WEIGHT ¹

Grams per square meter	Ounces per square yard	Loads	
		Grams	Pounds
Less than 101	Less than 3	54.4	0.12
101 to 207	3 to 6	113.4	.25
207 to 338	6 to 10	226.8	.50
Greater than 338	Greater than 10	340.2	.75

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±1.1 °C (70±2 °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.

(9) *Circulating air oven.* A forced circulation drying oven capable of maintaining the specimen at 105±2.8 °C. (221±5 °F.), shall be used to dry the specimen while mounted in the specimen holders.³

(10) *Desiccator.* An air-tight and moisture-tight desiccating chamber shall be used for cooling mounted specimens after drying. Anhydrous silica gel with an indicator shall be used as the desiccant in the desiccating chamber. Replace or reactivate the desiccant when it becomes inactive.

(11) *Hood.* A hood or other suitable enclosure shall be used to provide a draft-protected environment surrounding the test chamber without restricting the availability of air. This enclosure shall have a fan or other suitable means for exhausting smoke and/or toxic gases produced by testing.

(12) *Extinguishing plates.* Extinguishing plates shall be used to extinguish afterglow. The plates shall be metal, approximately 35.6 cm. × 5.1 cm. (14 × 2 in.) which fit within the opening of the specimen holder. The bottom plate shall be the thickness of the specimen holder and the top plate shall be at least 0.32 cm. (1/8 in.) thick. A suitable metal specimen mounting block may be used for the bottom plate.

(b) *Mounting and conditioning of specimens.* (1) The specimens shall be placed in specimen holders so that the bottom edge of each specimen is even with the bottom of the specimen holder. Mount the specimen in as close to a flat configuration as possible. The sides of the specimen holder shall cover 1.9 cm. (3/4 in.) of the specimen width along each long edge of the specimen, and thus shall expose 5.1 cm. (2 in.) of the specimen width. The sides of the specimen holder shall be clamped with a sufficient number of clamps or shall be taped to prevent the specimen from being displaced during handling and testing. The specimens may be taped in the holders if the clamps fail to hold

³ Procedure 1(1.1.1) of ASTM D 2654-71 "Standard Methods of Test for moisture content and moisture regain of textile material," describes a satisfactory oven (1972 Book of ASTM Standards, part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103).

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

⁴If 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 19103.)

⁵If 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.

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) *Laundrying*. (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 Laundrying," 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

⁶A figure showing how this is done is given in AATCC Test method 34-1969, "Fire Resistance of Textile Fabrics," Technical Manual of the American Association of Textile Chemists and Colorists, Vol. 46, 1970, published by AATCC, P.O. Box 12215, Research Triangle Park, North Carolina 27709.

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go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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. 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. Alternatively, a different number of times under another washing and drying procedure may be specified and used, if that procedure has previously been found to be equivalent by the Consumer Product Safety Commission. Such laundering is not required of items which are not intended to be laundered, as determined by the Consumer Product Safety Commission.

(iii) Items which are not susceptible to being laundered and are labeled “dry-clean only” shall be dry-cleaned by a procedure which has previously been found to be acceptable by the Consumer Product Safety Commission.

(iv) For the purpose of the issuance of a guarantee under section 8 of the act, finished sleepwear garments to be tested according to §1616.4(c) *Garment sampling*, need not be laundered or dry-cleaned provided all fabrics used in making the garments (except trim) have been guaranteed by the fabric pro-

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ducer to be acceptable when tested according to §1616.4(b) *Fabric sampling*.

[40 FR 59917, Dec. 30, 1975; 41 FR 1061, Jan. 6, 1976, as amended at 46 FR 63252, Dec. 31, 1981; 64 FR 34538, June 28, 1999; 64 FR 61021, Nov. 9, 1999; 65 FR 12928, Mar. 10, 2000]

§ 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

AUTHORITY: Sec. 5, 67 Stat. 112-13, as amended 81 Stat. 571; 15 U.S.C. 1194.

§ 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 15214), 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.”

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(3) *Item* means “item” as defined in §1616.2(c) of the Standard, that is, “any product of children’s sleepwear or any fabric or related material intended or promoted for use in children’s sleepwear.”

(4) *Market or handle* means any one or more of the transactions set forth in section 3 of the Flammable Fabrics Act (15 U.S.C. 1192).

(5) The definition of terms set forth in §1616.2 of the Standard shall also apply to this section.

(b) *Labeling.* (1) Where any agent or treatment is known to cause deterioration of flame resistance or otherwise causes an item to be less flame resistant, such item shall be prominently, permanently, conspicuously, and legibly labeled with precautionary care and treatment instructions to protect the item from such agent or treatment; Provided:

(i) Where items required to be labeled in accordance with this paragraph are marketed at retail in packages, and the required label is not readily visible to the prospective purchaser, the packages must also be prominently, conspicuously, and legibly labeled with the required information, and

(ii) Where items are required to be labeled in accordance with this paragraph, the precautionary care and treatment instructions may appear on the reverse side of the permanent label if

(A) The precautionary care and treatment instructions are legible, prominent and conspicuous, and

(B) The phrase “Care Instructions On Reverse” or the equivalent appears permanently, prominently, conspicuously, and legibly on the side of the permanent label that is visible to the prospective purchaser when the item is marketed at retail, and

(C) The item which is so labeled is marketed at retail in such a manner that the prospective purchaser is able to manipulate the label so the entire text of the precautionary care and treatment instructions is visible and legible; however, where the label cannot be manipulated so the instructions are visible to the prospective purchaser and legible, the package must also be prominently, conspicuously and legibly labeled with the required pre-

cautionary care and treatment information or such information must appear prominently, conspicuously and legibly on a hang tag attached to the item.

(2) If the item has been initially tested under §1616.5(c)(4) of the Standard after one washing and drying, it shall be prominently, permanently, conspicuously and legibly labeled with instructions to wash before wearing.

(3) Where any fabric or related material intended or promoted for use in children’s sleepwear subject to the Standard is sold or intended for sale to the ultimate consumer for the purpose of conversion into children’s sleepwear, each bolt, roll, or other unit shall be labeled with the information required by this section. Each item or fabric or related material sold to an ultimate consumer must be accompanied by a label, as prescribed by this section, which can by normal household methods be permanently affixed by the ultimate consumer to any item of children’s sleepwear made from such fabric or related material.

(4)(i) Where items required to be labeled in accordance with paragraphs (b)(2), and/or, (b)(3) of this section and fabrics required to be labeled or stamped in accordance with paragraph (b)(7) of this section are marketed at retail in packages, and the required label or stamp is not readily visible to the prospective purchaser, the packages must also be prominently, conspicuously, and legibly labeled with the required information.

(ii) Where garments required to be labeled or stamped in accordance with paragraph (b)(7) of this section are marketed at retail in packages, and the required label or stamp is not readily visible to the prospective purchaser:

(A) The packages must also be prominently, conspicuously, and legibly labeled with the information required by paragraph (b)(7) of this section; or

(B) There must be a garment style identification that is prominent, conspicuous, and legible and readily visible to the prospective purchaser, either on a label or hang tag attached to the garment design or on the garment packages. A style is a garment design or grouping, preselected by the manufacturer. A style may be composed of

garments that form all or part of one or more GPU's and the style may include any number of garments the manufacturer chooses. Style identification means any numbers, letters, or combination thereof that are sufficient to identify the garments of the style and may include information such as color, season or size. If this option B is selected, in any recall of noncomplying items from a particular GPU.

(1) The garment manufacturer must recall the entire style(s) from all customers who purchased garments of the style(s) of which the GPU is part. However, retailers may elect to return only garments from the particular GPU necessitating the recall rather than the entire style(s) or portions of style(s) being recalled; and

(2) Within 48 hours of a written request, the garment manufacturer must supply to the Commission any samples in its possession of garments from the GPU, as requested. As required of all persons subject to this section, the garment manufacturer must also, within the time requested, supply to the Commission the names of any customers who purchased during a specified period of time, garments from the GPU (or the style(s) of which the GPU is a part) and supply access to all records required under the Standard and this section.

(5) Samples, swatches, or specimens used to promote or effect the sale of items subject to the Standard shall be labeled in accordance with this section with the information required by this section: Except that such information may appear on accompanying promotional materials attached to fabric samples, swatches or specimens used to promote the sale of fabrics to garment manufacturers. This requirement shall not apply, however, to samples, swatches, or specimens prominently, permanently, conspicuously, truthfully and legibly labeled: "Flammable, Sample only. Not for use or resale. Does not meet Standard for the Flammability of Children's Sleepwear; Sizes 7 through 14 (FF 5-74)."

(6) [Reserved]

(7) Every manufacturer, importer, or other person (such as a converter) initially introducing items subject to the Standard into commerce shall assign

to each item a unit identification (number, letter or date, or combination thereof) sufficient to identify and relate to the fabric production unit or garment production unit of which the item is a part. Such unit identification shall be designated in such a way as to indicate that it is a production unit under the Standard. The letters "GPU" and "FPU" may be used to designate a garment production unit identification and fabric production unit identification, respectively, at the option of the labeler. In addition to the requirements prescribed by this paragraph (b)(7), the requirements prescribed by paragraph (b)(4) of this section must be met for items marketed at retail in packages.

(i) Each garment subject to the Standard shall bear a label with minimum dimension of 1.3 centimeters (0.5 inch) by 1.9 centimeters (0.75 inch) containing the appropriate garment production unit identification for that garment in letters which are clear, conspicuous, and legible, and in a color which contrasts with the background of the label, or shall have such information stamped on the garment itself in letters which are clear, conspicuous, and legible, and in a color which contrasts with the background, and at least 2.54 centimeters (1 inch) in every direction from any other information. The stamp or label containing the garment production unit identification must be of such construction, and affixed to the garment in such a manner, as to remain on or attached to the garment, and legible and visible throughout its intended period of use.

(ii) The fabric production unit identification shall appear in letters at least 0.4 centimeter (one-sixth of an inch) in height against a contrasting background on each label that relates to such fabric and is required by the Textile Fiber Products Identification Act (15 U.S.C. 70–70k) and the regulations thereunder (16 CFR 303.1 through 303.45) or by the Wool Products Labeling Act of 1939 (15 U.S.C. 68–68j) and the regulations thereunder (16 CFR 300.1 through 300.35). When the information required by the Textile Fiber Products Identification Act or by the Wool Products Labeling Act of 1939 appears on an invoice used in lieu of labeling, the fabric

production unit identification required by this section may be placed clearly, conspicuously, and legibly on the same invoice in lieu of labeling.

(8) All items complying with the Standard and manufactured on or after May 1, 1975, through May 1, 1978, shall bear a label which states "Flame-resistant. U.S. Standard FF 5-74." The label must be prominent, conspicuous, and legible and readily visible at the point of sale to ultimate consumers. The label statement may be attached to the item itself, on a hang tag attached to the item, or on a package enclosing the item. The label need not be affixed permanently. The letters of the label must be at least 0.4 centimeter (one-sixth of an inch) in height and in a color which contrasts with the background of the label.

(c) [Reserved]

(d) *Records—manufacturers, importers, or other persons initially introducing items into commerce—(1) General.* Every manufacturer, importer, or other person (such as a converter) initially introducing into commerce items subject to the Standard, irrespective of whether guaranties are issued under paragraph (e) of this section, shall maintain written and physical records as hereinafter specified. The records required must establish a line of continuity through the process of manufacture of each production unit of articles of children's sleepwear, or fabrics or related materials intended or promoted for use in children's sleepwear, to the sale and delivery of the finished items and from the specific finished item to the manufacturing records. Such records shall show with respect to such items:

(i) Details, description and identification of any and all sampling plans engaged in pursuant to the requirements of the Standard. Such records must be sufficient to demonstrate compliance with such sampling plan(s) and must relate the sampling plan(s) to the actual items produced, marketed, or handled. This requirement is not limited by other provisions of this paragraph (d).

(ii) Garment production units or fabric production units of all garments or fabrics marketed or handled. The records must relate to an appropriate production unit identification on or af-

fixed to the item itself in accordance with paragraph (b)(7) of this section, and the production unit identification must relate to the garment production unit or fabric production unit.

(iii) Test results and details of all tests performed, both prototype and production, including char lengths of each specimen tested, average char lengths of the samples required to be tested, details of the sampling procedure employed, name and signature of person conducting tests, date of tests, and all other records necessary to demonstrate compliance with the test procedures and sampling plan specified by the Standard or authorized alternate sampling plan.

(iv) Disposition of all failing or rejected items. Such records must demonstrate that the items were retested or reworked and retested in accordance with the Standard prior to sale or distribution and that such retested or reworked and retested items comply with the Standard, or otherwise show the disposition of such items.

(v) Fiber content and manufacturing specifications relating the same to prototype and production testing and to the production units to which applicable.

(vi) Data and test results relied on as a basis for inclusion of different colors or different print patterns of the same fabric as a single fabric or garment production unit under §1616.4(a)(2) of the Standard.

(vii) Data and test results relied on as a basis for reduced laundering of fabric or garments during test procedures under §1616.5(c)(4) of the Standard and any quantities issued or received relating to laundering as well as details of the laundering procedure utilized.

(viii) Identification, composition, and details of application of any flame retardant treatments employed. All prototype and production records shall relate to such information.

(ix) Date and quantity of each sale or delivery of items subject to the Standard (except the date of sale to an ultimate consumer) and the name and address of the purchaser or recipient (except an ultimate consumer). The items involved in each sale or delivery shall be identified by production unit or by style. A style is a garment design or

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grouping, preselected by the manufacturer. A style may be composed of garments that form all or part of one or more garment production units and the style may include any number of garments the manufacturer chooses. If a person subject to the requirements of paragraph (d) of this section maintains sales records which identify the items sold or delivered by style, and if recall of one or more production units subject to the Standard is required, that person in recalling such production units shall notify all purchasers of items of the style in which such production unit or units were manufactured. Retailers may elect to return all items of the style involved, or all items of the production units subject to recall.

(2) *Fabrics.* In addition to the information specified in paragraph (d)(1) of this section, the written and physical records maintained with respect to each fabric production unit shall include (i) finished fabric samples sufficient to repeat the fabric sampling procedure required by §1616.4 of the Standard for each production unit marketed or handled; and (ii) records to relate the samples to the actual fabric production unit. Upon written request of any duly authorized employee or agent of the Commission, samples sufficient for the sampling and testing of any production unit in accordance with the Standard shall be furnished from these records within the time specified in the written request.

(3) *Garments—prototype testing.* In addition to the records specified in paragraph (d)(1) of this section, the following written and physical records shall be maintained with respect to the garment prototype testing required by the Standard:

(i) Specification, fiber content, and details of construction on all seams, fabrics, threads, stitches, and trims used in each garment style or type upon which prototype testing was performed, relating the same to such garment style or type and to all production units to which such prototype testing is applicable.

(ii) Samples sufficient to repeat the prototype tests required by §1616.4 of the Standard for all fabrics, seams, threads, stitches, and trims used in such prototype testing, relating such

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samples to the records, required by this paragraph (d), including the information required by paragraph (d)(3)(i) of this section. Upon written request of any duly authorized employee or agent of the Commission, samples sufficient for the testing of any prototype specimens identical to those specimens that were actually tested pursuant to the Standard shall be furnished from these records within the time specified in that written request.

(iii) A complete untested garment from each style or type of garment marketed or handled.

(iv) Remains of all physical specimens tested in accordance with the prototype testing required by §1616.4 of the Standard, relating such samples to the records required by this paragraph (d), including information required by paragraph (d)(3)(i) of this section.

(4) *Garments—production testing.* In addition to the records required by paragraph (d)(1) of this section, written and physical records shall be maintained and shall show with respect to each garment production unit:

(i) Source and fabric production unit identification of all fabrics subject to testing used in each garment production unit.

(ii) Identification and appropriate reference to all prototype records and prototype tests applicable to each production unit.

(iii) Any guaranty relied upon to demonstrate that the fabric utilized in such garments meets the laundering requirements of the Standard.

(iv) Data sufficient to show that tested samples were selected from the production unit at random from regular production.

(v) Written data that will enable the Commission to obtain and test garments under any applicable compliance market sampling plan.

(5) *Record retention requirements.* The records required by this paragraph (d) shall be maintained for 3 years, except that records relating to prototype testing shall be maintained for as long as they are relied upon as demonstrating compliance with the prototype testing requirements of the Standard and shall be retained for 3 years thereafter.

(e) *Tests for guaranty purposes.* Reasonable and representative tests for the

purpose of issuing a guaranty under section 8 of the Flammable Fabrics Act (15 U.S.C. 1197) for items subject to the Standard shall be those tests performed pursuant to any sampling plan or authorized alternative sampling plan engaged in pursuant to the requirements of the Standard.

(f) *Compliance with this section.* No person subject to the Flammable Fabrics Act shall manufacture, import, distribute, or otherwise market or handle any item subject to the Standard, including samples, swatches, or specimens used to promote or effect the sale thereof, which is not in compliance with this section.

[40 FR 59917, Dec. 30, 1975, as amended at 49 FR 3064, Jan. 24, 1984; 61 FR 1117, Jan. 16, 1996]

§ 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 124-1996.⁷ 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

⁷ 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 go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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.

such an alternate laundering procedure is equivalent to the procedure specified in the standard.

(2) This rule provides the procedures to be followed by persons seeking Commission approval for alternate laundering procedures. It also provides the criteria the Commission will use in evaluating the applications.

(3) The alternate laundering procedures provided for in this section apply only to procedures under section 5(c)(4)(ii) of the standard and shall not be used for determining whether different colors or different print patterns of the same fabric may be included in a single fabric or garment production unit.

(4) As used in this section, fabric means fabric or related material promoted or intended for use in children's sleepwear made to identical specifications and containing the same identity while in production.

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

(i) A detailed description of the proposed alternate laundering procedure, and a 6 in. by 6 in. swatch of the fabric or garment for which the procedure is proposed,

(ii) Upon request of the Commission staff, any other information concerning the procedure and/or any machine used in connection with it,

(iii) With regard to each fabric or garment for which an alternate laundering procedure is sought, test data comparing twenty test specimens washed and dried by the proposed alternate laundering procedure and twenty specimens tested in accordance with the 50-wash and dry cycle procedure required in section 5(c)(4)(ii) of the standard. (For purposes of applications, similar fabrics or garments of different finishes shall be considered as different fabrics or garments and therefore separate test results must be submitted). Each group of twenty specimens upon which these data are based must be cut

for testing, half in the machine direction and half in the cross machine direction. Where the applicant manufactures the fabric or garments in more than one plant, the data described in this paragraph must be submitted separately for the fabric or garments of each plant for which the proposed alternate laundering procedure is intended to be used. Subsequent applications for use of the same procedure for additional fabrics and garments may incorporate portions of the original application by reference, as appropriate.

(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. The notice of approval shall be kept by the applicant with other written records required to be maintained in connection with the use of an alternate laundering procedure. So that the applicants may ascertain that the application has been received when the 30-day period has elapsed, it is suggested that applications be sent by certified mail, return receipt requested.

(2) As provided in detail in § 1616.32(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.* (1) In order to assure a continued satisfactory correlation between the alternate laun-

dering procedure and the laundering procedure of the standard, applicants shall perform all the testing described in paragraph (b)(1)(iii) of this section for fabrics or garments from current production at least once for every three-month period during which any of the fabric or garments are produced.

(2) If following initial approval, four successive comparisons of the alternate and the 50-cycle methods as described in paragraph (d)(1) of this section consistently show acceptable results under the criteria specified by paragraph (f) of this section, the Commission will deem such comparisons to be sufficient demonstration of the equivalence of the alternate laundering procedure with the 50 launderings required in the standard and further revalidation testing will not be required.

(3) Records of revalidation testing need not be submitted to the Assistant Executive Director for Compliance. However such records must be maintained in accordance with paragraph (h) of this section.

(e) *Revalidation testing failures.* (1) If revalidation testing for any fabric or garment does not meet the criteria of § 1616.32(f), 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. Also the testing from the production unit from which the non-correlating samples were taken and the testing from subsequent production units (if any) must be repeated immediately using the laundering procedure prescribed in the standard. These repeat tests shall then be the tests applicable to such production unit(s) and those tests previously performed on the production unit(s) shall be considered invalid.

(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 § 1616.32(f), 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. In addition to the other information

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required for applications, the additional application should give facts or reasons showing why the applicant believes the procedure should be considered reliable with the fabric or garments involved, in view of the previous failure.

(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 § 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 § 1616.5(c)(4)(ii) of the standard. (15 U.S.C. 1193, 1194; 15 U.S.C. 2079(b)).

(2) The Commission may verify equivalency of any procedure submitted by independent testing and evaluation, by or on behalf of the Commission.

(h) *Recordkeeping.* The applicant must maintain a record of all applications filed with the Commission and of all equivalency tests for as long as the

procedures to which they relate are in use and for three years thereafter.

[42 FR 55892, Oct. 20, 1977, as amended at 65 FR 12928, Mar. 10, 2000]

§ 1616.35 Use of alternate apparatus, procedures, or criteria for testing under the standard.

(a) The Standard for the Flammability of Children's Sleepwear: Sizes 7 through 14 (the Standard) requires every manufacturer, importer, and other person (such as a converter) initially introducing items subject to the Standard into commerce to group items into production units, and to test samples from each production unit. See 16 CFR 1616.4. The Standard prescribes an apparatus and procedure for performing tests of fabric and garments subject to its provisions. See 16 CFR 1616.5. The Standard prescribes pass/fail criteria at 16 CFR 1616.3(b).

(b) Section 1616.5(a) states that alternate test apparatus may be used by persons or firms required to perform testing under the Standard "only with prior approval" of the Commission.

(c)(1) By issuance of this § 1616.35, the Commission gives its approval to any person or firm desiring to use test apparatus or procedures other than those prescribed by the Standard for purposes of compliance with the Standard, if that person or firm has data or other information to demonstrate that a test utilizing such alternate apparatus or procedure is as stringent as, or more stringent than, a test utilizing the apparatus and procedure specified in the Standard. The Commission considers a test utilizing alternate apparatus or procedures to be "as stringent as, or more stringent than" a test utilizing the apparatus and procedures specified in the standard, if when testing identical specimens, a test utilizing alternative apparatus or procedures yields failing results as often as, or more often than, a test utilizing the apparatus and procedures specified in the standard.

(2) The data or information required by this paragraph (c) of this section as a condition to the Commission's approval of the use of alternate test apparatus or procedures must be in the possession of the person or firm desiring

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to use such alternate apparatus or procedures before the alternate apparatus or procedures may be used for purposes of compliance with the standard.

(3) The information required by this paragraph (c) of this section must be retained by the person or firm using the alternate test apparatus or procedures for as long as that apparatus or procedure is used for purposes of compliance with the standard, and for a period of one year thereafter.

(d) Written application to the Commission is not required for approval of alternate test apparatus or procedures, and the Commission will not act on any individual written application for approval of alternate test apparatus or procedures.

(e) Use of any alternate test apparatus or procedures without the data or information required by paragraph (c), of this section, may result in violation of the Standard and section 3 of the Flammable Fabrics Act (15 U.S.C. 1192).

(f) The Commission will test fabrics and garments subject to the standard for compliance with the requirements of the standard using the apparatus and procedures set forth in the standard. The Commission will consider any failing results from compliance testing as evidence of a violation of the standard and section 3 of the Flammable Fabrics Act (15 U.S.C. 1192).

(Reporting requirements contained in paragraph (c) were approved by the Office of Management and Budget under control number 3041-0027)

(Sec. 5, Pub. L. 90-189, 81 Stat. 569, 15 U.S.C. 1194; Sec. 30(b), Pub. L. 92-573, 86 Stat. 1231, 15 U.S.C. 2079(b))

[48 FR 21316, May 12, 1983]

§ 1616.36 Use of alternate apparatus or procedures for tests for guaranty purposes.

(a) Section 8(a) of the Flammable Fabrics Act (FFA, 15 U.S.C. 1197(a)) provides that no person shall be subject to criminal prosecution under section 7 of the FFA (15 U.S.C. 1196) for a violation of section 3 of the FFA (15 U.S.C. 1192) if that person establishes a guaranty received in good faith which meets all requirements set forth in section 8 of the FFA. One of those requirements is that the guaranty must be based upon “reasonable and representa-

tive tests” in accordance with the applicable standard.

(b) Section 1616.31(e) of the regulations implementing the Standard for the Flammability of Children’s Sleepwear: Sizes 7 through 14 (the Standard) provides that for purposes of supporting guaranties issued in accordance with section 8 of the FFA for items subject to the Standard, “reasonable and representative tests” are tests “performed pursuant to any sampling plan or authorized alternative sampling plan engaged in pursuant to the requirements of the Standard.”

(c) At § 1616.35, the Commission has set forth conditions under which the Commission will approve the use of test apparatus or procedures other than those prescribed in the Standard for purposes of demonstrating compliance with the requirements of the Standard. Any person or firm meeting the requirements of § 1616.35 for use of alternate test apparatus or procedure for compliance with the Standard may also use such alternate test apparatus or procedure under the same conditions for purposes of conducting “reasonable and representative tests” to support guaranties of items subject to the Standard, following any sampling plan prescribed by the Standard or any approved alternate sampling plan.

(d) The Commission will test fabrics and garments subject to the Standard for compliance with the Standard using the apparatus and procedures set forth in the Standard. The Commission will consider any failing results from compliance testing as evidence that the person or firm using alternate test apparatus or procedures has furnished a false guaranty in violation of section 8(b) of the FFA (15 U.S.C. 1197(b)).

(Sec. 5, Pub. L. 90-189, 81 Stat. 569, 15 U.S.C. 1194; Sec. 30(b), Pub. L. 92-573, 86 Stat. 1231, 15 U.S.C. 2079(b))

[48 FR 21316, May 12, 1983]

Subpart C—Interpretations and Policies

AUTHORITY: Secs. 1-17, 67 Stat. 111-15, as amended, 81 Stat. 568-74; 15 U.S.C. 1191-1204.

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§ 1616.61 Enforcement policy.

(a) It is the policy of the Consumer Product Safety Commission that all items of children's sleepwear in sizes 7 through 14 (including garments and fabric or related material intended or promoted for use in such children's sleepwear) are subject to the Standard FF 5-74 (subpart A of this part) unless the manufacturing process has ended before May 1, 1975. The manufacturing process is deemed to end, for the purposes of the Standard, at the time the item is completely assembled, all functional materials have been affixed, and labeling of a permanent nature has been stamped, sewn, or otherwise permanently affixed to the item. Affixing of temporary price or promotional information or the packaging of items of sleepwear (including garments and fabrics or related material intended or promoted for use in such sleepwear) does not affect the date on which the manufacturing process is deemed to end.

(b) All items of children's sleepwear in sizes 7 through 14 (including garments and fabric or related material intended or promoted for use in such children's sleepwear) which are in inventory or with the trade on the effective date of Standard FF 5-74 are exempt from the requirements of the Standard. For domestically-made items of children's sleepwear in sizes 7 through 14 to be considered "in inventory or with the trade" on the effective date of the Standard, the manufacturing process must have ended prior to May 1, 1975. For foreign-made items of children's sleepwear in sizes 7 through 14 to be considered "in inventory or with the trade" on the effective date of the Standard, the manufacturing process must have ended and the goods must have been entered into the United States before May 1, 1975.

§ 1616.62 Policy regarding retail display requirements for items.

For purposes of the retail display and identification requirements of § 1616.31(c), and for those purposes only, any item which was manufactured before May 1, 1975, and for which a retailer has documentary evidence of compliance with all sampling and testing requirements of the Standard (FF

5-74) (subpart A of this part), will be deemed to be a complying item notwithstanding the absence of an affirmative label to indicate compliance with the Standard as required by § 1616.6(b) of the Standard and § 1616.31(b)(8), or the absence of a garment production unit identification or style identification which meets all requirements of § 1616.31(b) (4) and (7), provided that such an item complies with all other labeling requirements of § 1616.31(b).

§ 1616.63 Policy regarding garment production unit identification.

No provision of 16 CFR 1616.31(b)(7) prohibits placement of a garment production unit identification on a label containing other information. Provided, however, that when the garment production unit identification appears on a label containing other information, provisions of § 1616.31(b)(6) require that the garment production unit identification must be set forth separately from any other information appearing on the same label, and that information not required by the applicable enforcement regulation (§ 1616.31), but placed on the same label with the garment production unit identification, shall not interfere with the garment production unit identification.

§ 1616.64 Policy regarding record-keeping requirements.

No provision of the Standard for the Flammability of Children's Sleepwear: Sizes 7 through 14 (FF 5-74) (subpart A of this part) or of the enforcement regulations at § 1616.31 prohibits the utilization of fabric which was manufactured before May 1, 1975, and which was not manufactured in production units, in the manufacture of children's sleepwear garments which are subject to the Standard. When such fabric is utilized in the manufacture of such garments, the inability of the garment manufacturer to record the fabric production unit identification of such fabric does not constitute a violation of § 1616.31(d)(4)(i).

§ 1616.65 Policy scope of the standard.

(a) The Standard for the Flammability of Children's Sleepwear: Sizes 7

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through 14 (16 CFR part 1616) is applicable to any item of children's sleepwear in sizes 7 through 14.

(1) The term *item* is defined in the Standard at §1616.2(c) to mean “any product of children's sleepwear or any fabric or related material intended or promoted for use in children's sleepwear.”

(2) The term *children's sleepwear* is defined in the Standard at §1616.2(a) to mean “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. Underwear and diapers are excluded from this definition.”

(b) The Commission makes the following statement of policy regarding (1) the phrase “intended or promoted” as used in the definition of “item” in §1616.2(c), and (2) the phrase “intended to be worn primarily for sleeping or activities related to sleeping” as used in the definition of “children's sleepwear” in §1616.2(a).

(c) For enforcement purposes, the meaning of these phrases will be interpreted by the Commission in accordance with the following principles:

(1) *Sleepwear fabrics and related materials.* Whether fabric or related material is “intended or promoted” for use in children's sleepwear depends on the facts and circumstances in each case. Relevant factors include:

(i) The nature of the fabric and its suitability for use in children's sleepwear.

(ii) The extent to which the fabric or a comparable fabric has been sold to manufacturers of children's sleepwear for use in the manufacture of children's sleepwear garments; and

(iii) The likelihood that the fabric will be used primarily for children's sleepwear in a substantial number of cases.

(2) *Sleepwear garments.* Whether a product of wearing apparel is “intended to be worn primarily for sleeping or activities related to sleeping” depends on the facts and circumstances present in each case. Relevant factors include:

(i) The nature of the product and its suitability for use by children for sleeping or activities related to sleeping;

(ii) The manner in which the product is distributed and promoted; and

(iii) The likelihood that the product will be used by children primarily for sleeping or activities related to sleeping in a substantial number of cases.

(3) The factors set forth in this policy statement are guidelines only, and are not elements of the definition of the term “children's sleepwear” in §1616.2(a) of the Standard. For this reason, a particular fabric or garment may meet the definition of “children's sleepwear” set forth in the Standard, even though all factors listed in this policy statement are not present.

(d) Retailers, distributors, and wholesalers, as well as manufacturers, importers, and other persons (such as converters) introducing a fabric or garment into commerce which does not meet the requirements of the flammability standards for children's sleepwear, have an obligation not to promote or sell such fabric or garment for use as an item of children's sleepwear. Also, retailers, distributors, and wholesalers are advised not to advertise, promote, or sell as an item of children's sleepwear any item which a manufacturer, importer, or other person (such as a converter) introducing the item into commerce has indicated by label, invoice, or, otherwise, does not meet the requirements of the children's sleepwear flammability standards and is not intended or suitable for use as sleepwear. “Tight-fitting” garments as defined by §1616.2(m) are exempt from the standard which requires flame resistance. They may be marketed as sleepwear for purposes of this section. Additionally, retailers are advised:

(1) To segregate, by placement in different parts of a department or store, fabrics and garments covered by the children's sleepwear standards from all fabrics and garments that are beyond the scope of the children's sleepwear standards but which resemble items of children's sleepwear.

(2) To utilize store display sign indicating the distinction between types of fabrics and garments, for example by indicating which are sleepwear items and which are not; and

(3) To avoid the advertisement or promotion of a fabric or garment that

does not comply with the children's sleepwear flammability standards in a manner that may cause the item to be viewed by the consumer as an item of children's sleepwear.

(Sec. 5 Pub. L. 90-189, 81 Stat. 569, 15 U.S.C. 1194; Sec. 30(b), Pub. L. 92-573, 86 Stat. 1231, 15 U.S.C. 2079(b); 5 U.S.C. 553)

[49 FR 10251, Mar. 20, 1984, as amended at 64 FR 2833, Jan. 19, 1999]

PART 1630—STANDARD FOR THE SURFACE FLAMMABILITY OF CARPETS AND RUGS (FF 1-70)

Subpart A—The Standard

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SOURCE: 40 FR 59931, Dec. 30, 1975, unless otherwise noted.

Subpart A—The Standard

AUTHORITY: Sec. 4, 67 Stat. 112, as amended, 81 Stat. 569-70; 15 U.S.C. 1193.

§ 1630.1 Definitions.

In addition to the definitions given in section 2 of the Flammable Fabrics Act, as amended (Sec. 1, 81 Stat. 568; 15 U.S.C. 1191), and the procedures under that act for setting standards (part 1607 of this chapter), the following definitions apply for the purposes of this Standard:

(a) *Acceptance Criterion* means that at least seven out of eight individual specimens of a given carpet or rug shall meet the test criterion as defined in this Standard.

(b) *Test Criterion* means the basis for judging whether or not a single specimen of carpet or rug has passed the test, i.e., the charred portion of a tested specimen shall not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point.

(c) *Carpet* means any type of finished product made in whole or in part of fabric or related material and intended for use or which may reasonably be expected to be used as a floor covering which is exposed to traffic in homes, offices, or other places of assembly or accommodation, and which may or may not be fastened to the floor by mechanical means such as nails, tacks, barbs, staples, adhesives, and which has one dimension greater than 1.83 m. (6 ft.) and a surface area greater than 2.23 m.² (24 sq. ft.). Products such as "carpet squares", with one dimension less than 1.83 m. (6 ft.) and a surface area less than 2.23 m.² (24 sq. ft.), but intended to be assembled upon installation into assemblies which may have one dimension greater than 1.83 m. (6 ft.) and a surface area greater than 2.23 m.² (24 sq. ft.), are included in this definition. Mats, hides with natural or synthetic fibers, and other similar products in the above, defined dimensions are included in this definition, but resilient floor coverings such as linoleum, asphalt tile and vinyl tile are not.

(d) *Rug* means the same as carpet and shall be accepted as interchangeable with carpet.

(e) *Traffic Surface* means a surface of a carpet or rug which is intended to be walked upon.

(f) *Timed Burning Tablet* (pill) means a methenamine tablet, flat, with a nominal heat of combustion value of 7180 calories/gram, a mass of 150 mg ±5mg and a nominal diameter of 6mm.

(g) *Fire-Retardant Treatment* means any process to which a carpet or rug has been exposed which significantly

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decreases the flammability of that carpet or rug and enables it to meet the acceptance criterion of this Standard.

[40 FR 59931, Dec. 30, 1975, as amended at 72 FR 60767, Oct. 26, 2007]

§ 1630.2 Scope and application.

(a) This Standard provides a test method to determine the surface flammability of carpets and rugs when exposed to a standard small source of ignition under carefully prescribed draft-protected conditions. It is applicable to all types of carpets and rugs used as floor covering materials regardless of their method of fabrication or whether they are made of natural or synthetic fibers or films, or combinations of or substitutes for these.

(b) One of a kind, carpet or rug, such as an antique, an Oriental, or a hide, may be excluded from testing under this Standard pursuant to conditions established by the Consumer Product Safety Commission.

§ 1630.3 General requirements.

(a) *Summary of test method.* This method involves the exposure of each of eight conditioned, replicate specimens of a given carpet or rug to a standard igniting source in a draft-protected environment, and measurement of the proximity of the charred portion to the edge of the hole in the prescribed flattening frame.

(b) *Test criterion.* A specimen passes the test if the charred portion does not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point.

(c) *Acceptance criterion.* At least seven of the eight specimens shall meet the test criterion in order to conform with this Standard.

§ 1630.4 Test procedure.

(a) *Apparatus*—(1) *Test chamber.* The test chamber shall consist of an open top hollow cube made of noncombustible material¹ with inside dimensions 30.48 × 40.48 × 30.48 cm. (12 × 12 × 12 in.) and a minimum of 6.35 (¼ in.) wall thickness. The flat bottom of the box shall be made of the same material as the sides and shall be easily removable.

¹6.35 mm (¼ in.) cement asbestos board is a suitable material.

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The sides shall be fastened together with screws or brackets and taped to prevent air leakage into the box during use.

NOTE: A minimum of two chambers and two extra bottoms is suggested for efficient operation.

(2) *Flattening frame.* A steel plate, 22.86 × 22.86 cm. (9 × 9 in.), 6.35 mm. (¼ in.) thick with a 20.32 cm. (8 in.) diameter hole in its center is required to hold the carpet or rug flat during the course of the test. It is recommended that one be provided for each test chamber.

(3) *Standard igniting source.* A methenamine tablet, flat, with a nominal heat of combustion value of 7180 calories/gram, a mass of 150 mg ± 5 mg and a nominal diameter of 6mm. These tablets shall be stored in a desiccator over a desiccant for 24 hours prior to use. (Small quantities of absorbed water may cause the tablets to fracture when first ignited. If a major fracture occurs, any results from that test shall be ignored, and it shall be repeated.)

(4) *Test specimens.* Each test specimen shall be a 22.86 × 22.86 cm. (9 × 9 in.) section of the carpet or rug to be tested. Eight specimens are required.

(5) *Circulating air oven.* A forced circulation drying oven capable of removing the moisture from the specimens when maintained at 105 °C. (221 °F.) for 2 hours.²

(6) *Desiccating cabinet.* An airtight and moisture tight cabinet capable of holding the floor covering specimens horizontally without contacting each other during the cooling period following drying, and containing silica gel desiccant.

(7) *Gloves.* Nonhygroscopic gloves (such as rubber polyethylene) for handling the sample after drying, and raising the pile on specimens prior to testing.

(8) *Hood.* A hood capable of being closed and having its draft turned off during each test and capable of rapidly removing the products of combustion

²Option 1 of ASTM D 2654–67T, “Methods of Test for Amount of Moisture in Textile Materials,” describes a satisfactory oven. (“1969 Book of ASTM Standards,” part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.)

following each test. The front or sides of the hood should be transparent to permit observation of the tests in progress.

(9) *Mirror*. A small mirror mounted above each test chamber at an angle to permit observation of the specimen from outside of the hood.

(10) *Vacuum cleaner*. A vacuum cleaner to remove all loose material from each specimen prior to conditioning. All surfaces of the vacuum cleaner contacting the specimen shall be flat and smooth.

(b) *Sampling*—(1)(i) *Selection of samples*. Select a sample of the material representative of the lot and large enough to permit cutting eight test specimens 22.86 × 22.86 cm. (9 × 9 in.), free from creases, fold marks, delaminations, or other distortions. The test specimens should contain the most flammable parts of the traffic surface at their centers. The most flammable area may be determined on the basis of experience or through pre-testing.

(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 sham-

pooed 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, 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 go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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.

(2) *Cutting*. Cut eight 22.86±0.64 cm. (9±¼ in.) square specimens of each carpet or rug to be tested to comply with paragraph (b)(1) of this section.

(c) *Conditioning*. (1) Clean each specimen with the vacuum cleaner until it is free of all loose ends left during the manufacturing process and from any material that may have been worked into the pile during handling. Care must be exercised to avoid "fuzzing" of the pile yarn.

(2) Place the specimens in the drying oven in a manner that will permit free circulation of the air at 105 °C. (221 °F.) around them for 2 hours.³ Remove the specimens from the oven with gloved hands and place them horizontally in

³If the specimens are moist when received, permit them to air-dry at 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," ("1969 Book of ASTM Standards", part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.)

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the desiccator with traffic surface up and free from contact with each other until cooled to room temperature, but in no instance less than 1 hour.

(d) *Testing.* (1) Place the test chamber in the draft-protected environment (hood with draft off) with its bottom in place. Wearing gloves, remove a test specimen from the desiccator and brush its surface with a gloved hand in such a manner as to raise its pile. Place the specimen on the center of the floor of the test chamber, traffic surface up, exercising care that the specimen is horizontal and flat. Place the flattening frame on the specimen and position a methenamine tablet on one of its flat sides in the center of the 20.32 cm. (8 in.) hole.

(2) Ignite the tablet by touching a lighted match or an equivalent igniting source carefully to its top. If more than 2 minutes elapse between the removal of the specimen from the desiccator and the ignition of the tablet, the conditioning must be repeated.

(3) Continue each test until one of the following conditions occurs:

(i) The last vestige of flame or glow disappears. (This is frequently accompanied by a final puff of smoke.)

(ii) The flaming or smoldering has approached within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point.

(4) When all combustion has ceased, ventilate the hood and measure the shortest distance between the edge of the hole in the flattening frame and the charred area. Record the distance measured for each specimen.

(5) Remove the specimen from the chamber and remove any burn residue from the floor of the chamber. Before proceeding to the next test, the floor must be cooled to normal room temperature or replaced with one that is at normal room temperature.

(e) *Report.* The number of specimens of the eight tested in which the charred area does not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame shall be reported.

(f) *Interpretation of results.* If the charred area does not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point for at least seven of the eight specimens,

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the carpet or rug meets the acceptance criterion.

[40 FR 59931, Dec. 30, 1975, as amended at 65 FR 12932, Mar. 10, 2000; 72 FR 60767, Oct. 26, 2007]

§ 1630.5 Labeling.

If the carpet or rug has had a fire-retardant treatment or is made of fibers which have had a fire-retardant treatment, it shall be labeled with the letter “T” pursuant to conditions established by the Consumer Product Safety Commission.

Subpart B—Rules and Regulations

§ 1630.31 Reasonable and representative tests and recordkeeping requirements.

EXPLANATION: Section 8 of the act, among other things, provides that no person shall be subject to criminal prosecution under section 7 of the act for a violation of section 3 of the act if such person establishes a guaranty received in good faith signed by and containing the name and address of the person by whom the product, fabric, or related material guaranteed was manufactured, or from whom it was received; to the effect that reasonable and representative tests made in accordance with applicable flammability standards show that the product, fabric, or related material covered by the guaranty conforms with such standards.

While a person establishing a guaranty received in good faith would not be subject to criminal prosecution under section 7 of the act, he and/or the merchandise involved, would nevertheless remain subject to the administrative processes of the Consumer Product Safety Commission under section 5 of the act as well as injunction and condemnation procedures under section 6 thereof. A guarantor derives no immunity of any kind, civil or criminal, from the issuance of his own guaranty or performance of the reasonable and representative tests prescribed by this section.

The furnishing of guaranties is not mandatory under the act. The purpose of this section is to establish minimum requirements for reasonable and representative tests upon which guaranties may be based. The section does not have any legal effect beyond that specified in section 8 of the act.

(a) For the purposes of this section the following definitions apply:

(1) *Standard* means the standards in subpart A of this part.

(2) *Test* means a test as prescribed by the Standard.

(3) *Acceptance criterion* means “acceptance criterion” as defined in the Standard.

(4) *Test criterion* means “test criterion” as defined in the Standard.

(5) *Carpet* and *rug* mean “carpet” and “rug” as defined in the Standard.

(6) *Quality of machine-made carpets or rugs* means any line of carpets or rugs, essentially machine-made, which are substantially alike in all respects, including, as applicable, constructional units (needles, pitch, rows, shot, stitches, and weight), dye class, dyestuff, dyeing application method, gage, pile levels, pile height, average pile thickness, pile weight, pile yarn, total thickness, total weight, tufts, tuft length, tuft bind, warp yarn, filler yarn, yarn ends per needle, loop length, backing, back coating, primary backing, secondary backing, backing thickness, backing fabric count, backing warp and filler yarns, including stuffer and dead frame yards, backing weight, fiber and/or other materials content, and fire-retardant treatment received including the specifications and quantity of chemicals used.

(7) *Quality of handmade or hide carpets or rugs* means any line of carpets or rugs which are essentially handmade and/or are essentially hides and which are alike in all respects, including those specified in paragraph (a)(6) of this section, where applicable, except that such carpets or rugs may vary where unavoidable and/or may vary because of natural variations in hides of the same type, so long as such variations do not affect flammability.

(b) The tests set forth in paragraphs (c), (d), (e), and (f) of this section are reasonable and representative tests with regard to any carpets or rugs or qualities thereof to which they apply, except, however, that any test of any quality, whenever performed, which does not show a meeting of the acceptance criterion of the Standard shall be considered the reasonable and representative test for that quality and no guaranty with respect thereto shall be issued after the performance of such test. Immediately before conditioning and testing, each carpet or rug specimen tested pursuant to this section shall be in the form in which the carpet or rug or quality thereof which it rep-

resents is sold or offered for sale to the ultimate consumer.

(c) Reasonable and representative tests with respect to any quality of machine-made carpets or rugs are (1) at least one test performed upon commencement of production, importation, or other receipt thereof, (2) at least one test performed after production, importation, or other receipt of the first 25,000 linear yards of the quality, and (3) at least one test after production, importation, or other receipt of every 50,000 linear yards of the quality thereafter. Except, however, that tests need be performed only after production, importation, or receipt of each additional 100,000 linear yards of the quality, so long as all 24 specimens required to be tested in a complete series of three required tests immediately preceding any given test (eight out of eight specimens in each of the three preceding tests) meet the test criterion, rather than seven out of eight specimens, as permitted under the acceptance criterion of the Standard.

(d) Reasonable and representative tests with respect to any quality of handmade or hide carpets or rugs are at least one test performed upon the commencement of production, importation, or other receipt thereof and at least one test after production, importation, or other receipt of every 10,000 square yards of the quality thereafter.

(e) Reasonable and representative tests of a one-of-a-kind carpet or rug, machine-made, handmade, or hide, is one test thereof or one test of an identical representative sample.

(f) Guaranties for carpets or rugs in inventory upon the effective date of the Standard may be issued in the same manner as other guaranties are issued. Reasonable and representative tests with respect to qualities of such carpets or rugs are at least one test performed upon approximately the first linear yard and one test thereafter for each 25,000 linear yards of a quality of machine-made carpets or rugs and at least one test performed upon approximately the first square yard and thereafter for each 10,000 square yards of a category of handmade or hide carpets or rugs, in the order of the production, importation, or receipt by the guarantor of that quality.

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(g) Any person issuing a guaranty for one or more carpets or rugs or qualities thereof based on reasonable and representative tests, shall maintain the following records for a period of 3 years from the date the tests were performed, or in the case of paragraph (h) of this section, the date the guaranties were furnished. These records must be maintained in the United States by a person subject to section 3 of the act:

(1) All identifying numbers, symbols, etc., manufacturing specifications including all other information described in paragraph (a)(6) of this section, as applicable, and source of products or raw materials used therein.

(2) A physical sample of each carpet or rug or quality thereof covered by the guaranty at least 6 inches by 6 inches in size (36 square inches).

(3) The original or a copy of the report of each test performed for purposes of the guaranty (whether or not such report shows a meeting of the acceptance criterion) which shall disclose the date of the test, the results, and sufficient information to clearly identify the carpet or rug tested.

(4) A record applicable to each test in paragraph (g)(3) of this section showing the approximate yardage at which it was performed. Records otherwise required to be maintained in linear yards may be maintained in square yards on the basis of 4 square yards equals 1 linear yard.

(h) Persons furnishing guaranties based on guaranties received by them shall maintain records showing the guaranty received and identification of the carpet or rug or quality thereof guaranteed in turn by them.

(i) Any person furnishing a carpet or rug guaranty under section 8(a) of the act who neglects or refuses to maintain and preserve the records prescribed in this section shall be deemed to have furnished a false guaranty under the provisions of section 8(b) of the act.

(Sec. 5, 67 Stat. 112, as amended, 81 Stat. 570, 15 U.S.C. 1194; sec. 8, 67 Stat. 114, as amended, 81 Stat. 572, 15 U.S.C. 1197)

§ 1630.32 Carpets and rugs with fire-retardant treatment.

(a) For the purposes of this section the following definitions apply:

(1) *Carpet and rug* mean “carpet” and “rug” as defined in § 1630.31(c).

(2) *Fire-retardant treatment* means “fire-retardant treatment” as defined in the standard of subpart A of this part.

(b) If a carpet or rug or small carpet or rug is manufactured, imported, or otherwise marketed or handled which has had a fire-retardant treatment or is made of fibers which have had a fire-retardant treatment, the letter “T” shall be set forth legibly and conspicuously, and shall appear at all times, on each label and/or invoice relating thereto pursuant to the requirements of the Textile Fiber Products Identification Act, 15 U.S.C. 70, et seq., and the rules and regulations thereunder, whether or not such letter “T” appears elsewhere on said product. Samples, pieces, rolls, or squares used to promote or effect the sale of such carpet or rug are subject to the aforementioned requirements. As provided in the applicable portions of the aforesaid act and the rules and regulations thereunder, where a carpet or rug or a small carpet or rug; which has had a fire-retardant treatment or is made of fibers which have had a fire-retardant treatment, is sold to an ultimate consumer and was either custom made or commercially installed for such consumer, the labeling required by this section shall not apply with respect to the carpet or rug if an invoice or other paper relating thereto, containing the letter “T”, legibly and conspicuously written, is delivered to the consumer in due course of business.

(c) No person subject to the Flammable Fabrics Act shall manufacture, import, distribute, or otherwise market or handle any carpet or rug or small carpet or rug, including samples, swatches, or specimens used to promote or effect the sale thereof, which is not in compliance with this section.

(Sec. 5 of the Act, 67 Stat. 112, as amended by 81 Stat. 570, 15 U.S.C. 1194)

Subpart C—Washing Procedures

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

§ 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. 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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. Alternatively the selected sample or oversized specimens thereof may be washed, dry-cleaned, or shampooed 10 times, prior to the cutting of test specimens, in such manner as the manufacturer or other interested party has previously established to the satisfaction of the Consumer Product Safety Commission is normally used for that type of carpet or rug in service.

(b) On February 10, 1972 (37 FR 3010) the Federal Trade Commission published in the FEDERAL REGISTER a notice of approval of an alternative washing procedure under FF 1-70 for testing the flammability of shearling and hide rugs that (1) consist of natural wool or

hair attached to the hide with no synthetic fibers and (2) have been treated with a fire-retardant finish. The notice of approval was corrected on March 17, 1972 (37 FR 5676). This approval is continued in effect by the Consumer Product Safety Commission pursuant to section 30(e) of the Consumer Product Safety Act (15 U.S.C. 2079(e)).

(c) Any hide carpet or rug for which such alternative procedure is utilized must be labeled with a conspicuous, legible and permanent label containing the following statement:

DO NOT WASH OR DRY CLEAN

This rug has been treated with a flame retardant. To keep rug attractive and clean use the following methods:

To eliminate loose dirt or dust, vacuum or shake pelt outdoors.

For spot cleaning, use water dampened cloth and rub lightly in one direction.

DO NOT USE DETERGENTS OR OTHER STAIN REMOVERS

(d) The alternative procedure is as follows: The test specimens shall be cut to size 9" × 9" before the procedure is initiated.

(1) Shake specimen vigorously to remove any loose fibers, dust and possible accumulated debris.

(2) Place specimen on a solid flat surface and anchor or hold firmly while conducting the test.

(3) Select an operating applicator consisting of a rod at least 2" in diameter and 9" long composed of nonabsorbant material such as glass or plastic.

(4) Select sufficient cloth to form at least five layers when wrapped around the operating applicator. The cloth shall be of the type known as "Crockmeter Test Cloth" as specified in Note 8.3 of AATCC Test Method 8-1969.

(5) Immerse cloth in water (100 °F.) until thoroughly wetted.

(6) Manually wring out the cloth to remove all excess water and wrap around the operating applicator.

(7) Immediately with light pressure, stroke entire surface of specimen with the wrapped operating applicator in one direction only along the natural "lay" of the hair structure for ten complete strokes.

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(8) Place test specimen in a circulating drying oven maintained at 212 °F. until dry.

(9) Repeat the above procedure 10 times using a fresh or clean cloth each time.

(10) After 10 successive cycles of washing and drying the dried specimens shall be subjected to the testing procedures (pill test) as outlined in FF 1-70.

(e) This washing procedure and labeling provision are subject to revision or revocation should it be determined that such procedure is inadequate to fully protect the public.

[40 FR 59931, Dec. 30, 1975, as amended at 65 FR 12933, Mar. 10, 2000]

§ 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. 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. This incorporation

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

(b) On September 7, 1972 (37 FR 18122) the Federal Trade Commission published in the FEDERAL REGISTER a notice of approval of an alternative washing procedure under FF 1-70 for testing the flammability of wool flokati carpets and rugs. This approval is continued in effect by the Consumer Product Safety Commission pursuant to section 30(e) of the Consumer Product Safety Act (15 U.S.C. 2079(e)).

(c) Any wool flokati carpet or rug for which such alternative procedure is utilized must be labeled with a conspicuous, legible and permanent label containing the following statement:

DO NOT WASH IN HOME MACHINE OR DRY CLEAN—AVOID RUBBING OR BRUSHING WHILE DAMP

This flokati carpet or rug has been treated with a flame retardant. To maintain this flame retardant and to keep the carpet attractive and clean, use the following methods.

1. Vacuum (using suction head without rotating brush) or shake the rug (depending upon size) to remove loose dirt.

2. Home laundering: Place in bath tub or other suitable receptacle in solution of home detergent and lukewarm water (approximately 105 °F.) . Immerse face down and gently knead back of rug to remove soil. Rinse in lukewarm water (approximately 105 °F.) until detergent is removed. Rug may then be rinsed again in cool water to improve appearance of face if desired. Line dry. Shake while damp to restore surface and fluff up fibers.

3. Spot cleaning: Remove greasy stains with a household grease remover. Remove soluble stains with lukewarm water (approximately 105 °F.) and detergent by immersing spot in a pan and kneading the back of rug. Rinse thoroughly in lukewarm water. Line or floor dry. Shake while damp to restore surface and fluff up fibers.

4. Commercial cleaning: Use Roll-A-Jet equipment (or equivalent) with water not exceeding 105 °F. Avoid use of excessive pressure or reciprocating brushes. Drying temperatures should not exceed 200 °F.

(d) The alternative procedure is as follows:

(1) Cut test specimens to an oversize of 12"×12" before the procedure is initiated.

(2) Vacuum specimens or shake vigorously to remove any loose fibers, dust or possible accumulated debris.

(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. Knead the back of the specimen with hand for 1 minute. Water level and temperature should be maintained for each specimen.

(4) Thoroughly rinse specimen face down with warm water at 105 °F. for 1 minute under a faucet with strong pressure.

(5) Remove excess liquor by use of a wringer, hydroextractor or gentle hand squeezing and dry in circulating air oven at 200 °F. until dry.

(6) Repeat the above procedure 10 times using fresh detergent and fresh water for each set of eight specimens.

(7) Subject the dry specimens to the test procedures in FF 1-70.

(e) This washing procedure and labeling provisions are subject to revocation should it be determined that such procedure is inadequate to fully protect the public.

[40 FR 59931, Dec. 30, 1975, as amended at 65 FR 12933, Mar. 10, 2000]

§ 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. 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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. Alternatively the selected sample or oversized specimens thereof may be washed, dry-cleaned, or shampooed 10 times, prior to the cutting of test specimens, in such manner as the manufacturer or other interested party has previously established to the satisfaction of the Consumer Product Safety Commission is normally used for that type of carpet or rug in service.

(2) Section 1630.5 of the Standard 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, it shall be labeled with the letter "T."

(b) On April 10, 1972, the Federal Trade Commission, which then had responsibility for enforcement of the Flammable Fabrics Act, announced that the use of alumina trihydrate in adhesives, foams, or latexes in carpet backings or elsewhere in the backings will be considered as a fire-retardant treatment. Therefore, the provisions of §§ 1630.4(b)(1)(ii) and 1630.5 of the Standard apply to carpets with alumina trihydrate in the backings. This interpretation continues in effect.

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(c) On May 19, 1972, the Federal Trade Commission published a notice in the FEDERAL REGISTER (37 FR 10104) temporarily suspending the washing requirements under FF 1-70 for carpets and rugs containing alumina trihydrate in the backing. This temporary suspension was extended a number of times. On March 28, 1973 the Federal Trade Commission proposed in the FEDERAL REGISTER (38 FR 8101) an alternative laundering procedure for such carpets and rugs and gave notice that the suspension of the laundering requirement was extended until the completion of the proceeding to establish an alternative laundering procedure. The suspension continues in effect.

[40 FR 59931, Dec. 30, 1975, as amended at 65 FR 12933, Mar. 10, 2000]

Subpart D—Interpretations and Policies

§ 1630.81 Policy on recall of noncomplying carpets and rugs.

(a) *Purpose.* The purpose of this section is to state the policy of the Commission concerning recall of carpets and rugs which are subject to and fail to comply with the Standard for the Surface Flammability of Carpets and Rugs (FF 1-70) (16 CFR part 1630, subpart A). In this policy statement, the Commission reaffirms that provisions of the Flammable Fabrics Act (FFA) authorize recall of any product which fails to comply with an applicable flammability standard issued under that Act. Additionally, this policy statement announces general principles which will be followed by the Commission in exercising the authority contained in the FFA to require recall of carpets and rugs from various levels of distribution, including carpets and rugs in the possession of the ultimate consumer.

(b) *Recall from distributors and retailers.* The Commission will exercise the authority contained in the FFA to order recall of carpets and rugs which fail to comply with the Standard for the Surface Flammability for Carpets and Rugs and which are in the possession of any distributor, retailer, or other person or firm in the chain of distribution, where the facts, including the number and pattern of test fail-

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ures, indicate that such action is necessary and appropriate.

(c) *Recall from consumers.* (1) In cases involving carpets and rugs distributed in commerce by a domestic manufacturer, or imported into the United States, after July 11, 1978, the Commission will exercise the authority contained in the FFA to order recall of carpets and rugs which fail to comply with the Standard for the Surface Flammability of Carpets and Rugs and which are in the possession of ultimate purchasers, including installed carpet, where the facts, including the number and pattern of test failures, indicate that such action is necessary and appropriate.

(2) The Commission may exercise the authority of section 15 of the Consumer Product Safety Act (15 U.S.C. 2064) to order the repair, replacement, or repurchase of any carpets or rugs in the possession of ultimate purchasers, including installed carpet, if such carpets and rugs present a “substantial product hazard” as that term is used in the Consumer Product Safety Act in any case involving carpets or rugs which were distributed in commerce by a domestic manufacturer or imported into the United States, on or before July 11, 1978, or any time thereafter.

(Sec. 5, 15 U.S.C. 1194, 67 Stat. 112, June 30, 1953; sec. 5, 15 U.S.C. 45(b), 38 Stat. 719, Sept. 26, 1914; sec. 15, 15 U.S.C. 2064, 86 Stat. 1221, Oct. 27, 1972)

[44 FR 2169, Jan. 10, 1979]

PART 1631—STANDARD FOR THE SURFACE FLAMMABILITY OF SMALL CARPETS AND RUGS (FF 2-70)

Subpart A—The Standard

Sec.

- 1631.1 Definitions.
- 1631.2 Scope and application.
- 1631.3 General requirements.
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- 1631.5 Labeling requirements.

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1631.33 Carpets and rugs with fire-retardant treatment.

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Subpart C—Washing Procedures

1631.61 Hide carpets and rugs—alternative washing procedure.

1631.62 Wool flokati carpets and rugs—alternative washing procedure.

SOURCE: 40 FR 59935, Dec. 30, 1975, unless otherwise noted.

Subpart A—The Standard

AUTHORITY: Sec. 4, 67 Stat. 112, as amended, 81 Stat. 569-70; 15 U.S.C. 1193.

§ 1631.1 Definitions.

In addition to the definitions given in section 2 of the Flammable Fabrics Act, as amended (sec. 1, 81 Stat. 568; 15 U.S.C. 1191), and the procedures under that act for setting standards (part 1607 of this chapter), the following definitions apply for the purposes of this Standard:

(a) *Acceptance Criterion* means that at least seven out of eight individual specimens of a small carpet or rug shall meet the test criterion as defined in this Standard.

(b) *Test Criterion* means the basis for judging whether or not a single specimen of small carpet or rug has passed the test, i.e., the charred portion of a tested specimen shall not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point.

(c) *Small Carpet* means any type of finished product made in whole or in part of fabric or related material and intended for use or which may reasonably be expected to be used as a floor covering which is exposed to traffic in homes, offices, or other places of assembly or accommodation, and which may or may not be fastened to the floor by mechanical means such as nails, tacks, barbs, staples, adhesives, and which has no dimension greater than 1.83 m. (6 ft.) and an area not greater than 2.23 m.² (24 sq. ft.). Products such as “Carpet Squares” with dimensions smaller than these but intended to be assembled, upon installation, into assemblies which may have dimensions greater than these, are ex-

cluded from this definition. They are, however, included in the Standard for the surface flammability of carpets and rugs (FF 1-70) (subpart A of part 1630 of this chapter). Mats, hides with natural or synthetic fibers, and other similar products are included in this definition if they are within the defined dimensions, but resilient floor coverings such as linoleum, asphalt tile and vinyl tile are not.

(d) *Small Rug* means, for the purposes of this Standard, the same as small carpet and shall be accepted as interchangeable with small carpet.

(e) *Traffic Surface* means a surface of a small carpet or rug which is intended to be walked upon.

(f) *Timed Burning Tablet* (pill) means a methenamine tablet, flat, with a nominal heat of combustion value of 7180 calories/gram, a mass of 150 mg ±5mg and a nominal diameter of 6mm.

(g) *Fire-Retardant Treatment* means any process to which a small carpet or rug has been exposed which significantly decreases the flammability of that small carpet or rug and enables it to meet the acceptance criterion of this Standard.

[40 FR 59935, Dec. 30, 1975, as amended at 72 FR 60767, Oct. 26, 2007]

§ 1631.2 Scope and application.

(a) This Standard provides a test method to determine the surface flammability of small carpets and rugs when exposed to a standard small source of ignition under carefully prescribed draft-protected conditions. It is applicable to all types of small carpets and rugs used as floor covering materials regardless of their method of fabrication or whether they are made of natural or synthetic fibers or films, or combinations of, or substitutes for these.

(b) One of a kind small carpet or rug, such as an antique, an Oriental or a hide, may be excluded from testing under this Standard pursuant to conditions established by the Consumer Product Safety Commission.

§ 1631.3 General requirements.

(a) *Summary of test method.* This method involves the exposure of each of eight conditioned, replicate specimens of a small carpet or rug to a

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standard igniting source in a draft-protected environment and measurement of the proximity of the charred portion to the edge of the hole in the prescribed flattening frame.

(b) *Test criterion.* A specimen passes the test if the charred portion does not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point.

(c) *Acceptance criterion.* At least seven of the eight specimens shall meet the test criterion in order to conform with this Standard.

§ 1631.4 Test procedure.

(a) *Apparatus*—(1) *Test chamber.* The test chamber shall consist of an open top hollow cube made of noncombustible material¹ with inside dimensions 30.48 × 30.48 × 30.48 cm. (12 × 12 × 12 in.) and a minimum of 6.35 mm. (¼ in.) wall thickness. The flat bottom of the box shall be made of the same material as the sides and shall be easily removable. The sides shall be fastened together with screws or brackets and taped to prevent air leakage into the box during use.

NOTE: A minimum of two chambers and two extra bottoms is suggested for efficient operation.

(2) *Flattening frame.* A steel plate, 22.86 × 22.86 cm. (9 × 9 in.) 6.35 mm. (¼ in.) thick with a 20.32 cm. (8 in.) diameter hole in its center is required to hold the specimen flat during the course of the test. It is recommended that one be provided for each test chamber.

(3) *Standard igniting source.* A methenamine tablet, flat, with a nominal heat of combustion value of 7180 calories/gram, a mass of 150 mg ± 5 mg and a nominal diameter of 6mm. These tablets shall be stored in a desiccator over a desiccant for 24 hours prior to use. (Small quantities of absorbed water may cause the tablets to fracture when first ignited. If a major fracture occurs, any results from that test shall be ignored, and it shall be repeated.)

(4) *Test specimens.* Each test specimen shall be a 22.86 × 22.86 cm. (9 × 9 in.) section of the small carpet or rug to be tested. Eight specimens are required.

¹6.35 mm. (¼ in.) cement asbestos board is a suitable material.

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(5) *Circulating air oven.* A forced circulation drying oven capable of removing the moisture from the specimens when maintained at 105 °C. (221 °F.) for 2 hours.²

(6) *Desiccating cabinet.* An airtight and moisture tight cabinet capable of holding the floor covering specimens horizontally without contacting each other during the cooling period following drying, and containing silica gel desiccant.

(7) *Gloves.* Nonhygroscopic gloves (such as rubber or polyethylene) for handling the sample after drying and raising the pile on specimens prior to testing.

(8) *Hood.* A hood capable of being closed and having its draft turned off during each test and capable of rapidly removing the products of combustion following each test. The front or sides of the hood should be transparent to permit observation of the tests in progress.

(9) *Mirror.* A small mirror mounted above each test chamber at an angle to permit observation of the specimen from outside the hood.

(10) *Vacuum cleaner.* A vacuum cleaner to remove all loose material from each specimen prior to conditioning. All surfaces of the vacuum cleaner contacting the specimen shall be flat and smooth.

(b) *Sampling*—(1) *Selection of samples.*
(i) Select a sample of the material representative of the lot and large enough to permit cutting eight test specimens 22.86 × 22.86 cm. (9 × 9 in.) free from creases, fold marks, delaminations or other distortions. The representative sample of material may require the use of more than one small carpet or rug. The test specimens should contain the most flammable parts of the traffic surface at their centers. The most flammable area may be determined on the basis of experience or through pre-testing.

²Option 1 of ASTM D 2654-67T, "Methods of Test for Amount of Moisture in Textile Materials," describes a satisfactory oven. ("1969 Book of ASTM Standards," part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

(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, 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 go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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.

(2) *Cutting.* Cut eight 22.86±0.64 cm. (9±¼ in.) square specimens of each small carpet or rug to be tested to comply with paragraph (b)(1) of this section.

(c) *Conditioning.* (1) Clean each specimen with the vacuum cleaner until it is free of all loose ends left during the manufacturing process and from any material that may have been worked into the pile during handling.³ Care must be exercised to avoid "fuzzing" of the pile yarn.

(2) Place the specimens in a drying oven in a manner that will permit free circulation of the air at 105 °C. (221 °F.) around them for 2 hours.⁴ Remove the specimens from the oven with gloved hands and place them horizontally in the desiccator with traffic surface up and free from contact with each other until cooled to room temperature, but in no instance less than 1 hour.

(d) *Testing.* (1) Place the test chamber in the draft-protected environment (hood with draft off) with its bottom in place. Wearing gloves, remove a test specimen from the desiccator and brush its traffic surface with a gloved hand in such a manner as to raise its pile. Place the specimen on the center of the floor of the test chamber, traffic surface up, exercising care that the specimen is horizontal and flat. Place the flattening frame on the specimen and position a methenamine tablet on one of its flat sides in the center of the 20.32 cm. (8 in.) hole.

(2) Ignite the tablet by touching a lighted match or an equivalent igniting source carefully to its top. If more

³The vacuum cleaning described is not intended to simulate the effects of repeated vacuum cleaning in service.

⁴If the specimens are moist when received, permit them to air-dry at 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," ("1969 Book of ASTM Standards," part 24, published by the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.)

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than 2 minutes elapse between the removal of the specimen from the desiccator and the ignition of the tablet, the conditioning must be repeated.

(3) Continue each test until one of the following conditions occurs:

(i) The last vestige of flame or glow disappears. (This is frequently accompanied by a final puff of smoke.)

(ii) The flaming or smoldering has approached within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point.

(4) When all combustion has ceased, ventilate the hood and measure the shortest distance between the edge of the hole in the flattening frame and the charred area. Record the distance measured for each specimen.

(5) Remove the specimen from the chamber and remove any burn residue from the floor of the chamber. Before proceeding to the next test, the floor must be cooled to normal room temperature or replaced with one that is at normal room temperature.

(e) *Report.* The number of specimens of the eight tested in which the charred area does not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame shall be reported.

(f) *Interpretation of results.* If the charred area does not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point for at least seven of the eight specimens, the small carpet or rug meets the acceptance criterion.

[40 FR 59935, Dec. 30, 1975, as amended at 65 FR 12934, Mar. 10, 2000; 72 FR 60767, Oct. 26, 2007]

§ 1631.5 Labeling requirements.

(a) If a small carpet or rug does not meet the acceptance criterion, it shall, prior to its introduction into commerce, be permanently labeled, pursuant to rules and regulations established by the Consumer Product Safety Commission with the following statement: FLAMMABLE (FAILS U.S. DEPARTMENT OF COMMERCE STANDARD FF 2-70); SHOULD NOT BE USED NEAR SOURCES OF IGNITION.

(b) If a small carpet or rug has had a fire-retardant treatment or is made of fibers which have had a fire-retardant treatment, it shall be labeled with the letter "T" pursuant to rules and regu-

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lations established by the Consumer Product Safety Commission.

Subpart B—Rules and Regulations

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

§ 1631.31 Reasonable and representative tests and recordkeeping requirements.

EXPLANATION: Section 8 of the act, among other things, provides that no person shall be subject to criminal prosecution under section 7 of the act for a violation of section 3 of the act if such person establishes a guaranty received in good faith signed by and containing the name and address of the person by whom the product, fabric, or related material guaranteed was manufactured, or from whom it was received, to the effect that reasonable and representative tests made in accordance with applicable flammability standards show that the product, fabric, or related material covered by the guaranty conforms with such standards.

While a person establishing a guaranty received in good faith would not be subject to criminal prosecution under section 7 of the act, he, and/or the merchandise involved, would nevertheless remain subject to the administrative processes of the Consumer Product Safety Commission under section 5 of the act as well as injunction and condemnation procedures under section 6 thereof. A guarantor derives no immunity of any kind, civil or criminal, from the issuance of his own guaranty or performance of the reasonable and representative tests prescribed by this section.

The furnishing of guaranties is not mandatory under the act. The purpose of this section is to establish minimum requirements for reasonable and representative tests upon which guaranties may be based. The section does not have any legal effect beyond that specified in section 8 of the act.

(a) For the purposes of this section the following definitions apply:

(1) *Standard* means the Standard in subpart A of this part.

(2) *Test* means a test as prescribed by the Standard.

(3) *Acceptance criterion* means "acceptance criterion" as defined in the Standard.

(4) *Test criterion* means "test criterion" as defined in the Standard.

(5) *Carpet* and *rug* mean "carpet" and "rug" as defined in the Standard.

(6) *Quality of machine-made carpets or rugs* means any line of carpets or rugs, essentially machine-made, which are

substantially alike in all respects, including, as applicable, constructional units (needles, pitch, rows, shot, stitches, and weight), dye class, dyestuff, dyeing application method, gage, pile levels, pile height, average pile thickness, pile weight, pile yarn, total thickness, total weight, tufts, tuft length, tuft bind, warp yarn, filler yarn, yarn ends per needle, loop length, backing, back coating, primary backing, secondary backing, backing thickness, backing fabric count, backing warp and filler yarns, including stuffer and dead frame yarns, backing weight, fiber and/or other materials content, and fire retardant treatment received including the specifications and quantity of chemicals used.

(7) *Quality of handmade or hide carpets or rugs* means any line of carpets or rugs which are essentially handmade and/or are essentially hides and which are alike in all respects, including those specified in paragraph (a)(6) of this section, where applicable, except that such carpets or rugs may vary where unavoidable and/or may vary because of natural variations in hides of the same type, so long as such variations do not affect flammability.

(b) The tests set forth in paragraphs (c), (d), (e), and (f) of this section are reasonable and representative tests with regard to any carpets or rugs or qualities thereof to which they apply, except, however, that any test of any quality, whenever performed, which does not show a meeting of the acceptance criterion of the Standard shall be considered the reasonable and representative test for that quality and no guaranty with respect thereto shall be issued after the performance of such test. Immediately before conditioning and testing, each carpet or rug specimen tested pursuant to this section shall be in the form in which the carpet or rug or quality thereof which it represents is sold or offered for sale to the ultimate consumer.

(c) Reasonable and representative tests with respect to any quality of machine-made carpets or rugs are (1) at least one test performed upon commencement of production, importation, or other receipt thereof, (2) at least one test performed after production, importation, or other receipt of the first

25,000 linear yards of the quality, and (3) at least one test after production, importation, or other receipt of every 50,000 linear yards of the quality thereafter. Except, however, that tests need be performed only after production, importation, or receipt of each additional 100,000 linear yards of the quality, so long as all 24 specimens required to be tested in a complete series of three required tests immediately preceding any given test (eight out of eight specimens in each of the three preceding tests) meet the test criterion, rather than seven out of eight specimens, as permitted under the acceptance criterion of the Standard.

(d) Reasonable and representative tests with respect to any quality of handmade or hide carpets or rugs are at least one test performed upon the commencement of production, importation, or other receipt thereof and at least one test after production, importation, or other receipt of every 10,000 square yards of the quality thereafter.

(e) Reasonable and representative tests of a one-of-a-kind carpet or rug, machine made, handmade, or hide, is one test thereof or one test of an identical representative sample.

(f) Guaranties for carpets or rugs in inventory upon the effective date of the Standard may be issued in the same manner as other guaranties are issued. Reasonable and representative tests with respect to qualities or such carpets or rugs are at least one test performed upon approximately the first linear yard and one test thereafter for each 25,000 linear yards of a quality of machine-made carpets or rugs and at least one test performed upon approximately the first square yard and thereafter for each 10,000 square yards of a category of hand-made or hide carpets or rugs, in the order of the production, importation, or receipt by the guarantor of that quality.

(g) Any person issuing a guaranty for one or more carpets or rugs or qualities thereof based on reasonable and representative tests, shall maintain the following records for a period of 3 years from the date the tests were performed, or in the case of paragraph (h) of this section, the date the guaranties were

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furnished. These records must be maintained in the United States by a person subject to section 3 of the act:

(1) All identifying numbers, symbols, etc., manufacturing specifications including all other information described in paragraph (a)(6) of this section, as applicable, and source of products or raw materials used therein.

(2) A physical sample of each carpet or rug or quality thereof covered by the guaranty at least 6 inches by 6 inches in size (36 square inches).

(3) The original or a copy of the report of each test performed for purposes of the guaranty (whether or not such report shows a meeting of the acceptance criterion) which shall disclose the date of the test, the results, and sufficient information to clearly identify the carpet or rug tested.

(4) A record applicable to each test in paragraph (g)(3) of this section showing the approximate yardage at which it was performed. Records otherwise required to be maintained in linear yards may be maintained in square yards on the basis of 4 square yards equals 1 linear yard.

(h) Persons furnishing guaranties based on guaranties received by them shall maintain records showing the guaranty received and identification of the carpet or rug or quality thereof guaranteed in turn by them.

(i) Any person furnishing a carpet or rug guaranty under section 8(a) of the act who neglects or refuses to maintain and preserve the records prescribed in this section shall be deemed to have furnished a false guaranty under the provisions of section 8(b) of the act.

(Sec. 5 of the Act, 67 Stat. 112, as amended by 81 Stat. 570, 15 U.S.C. 1194; sec. 8 of the Act, 67 Stat. 114, as amended by 81 Stat. 572, 15 U.S.C. 1197)

§ 1631.32 Reasonable and representative tests and recordkeeping requirements—additional requirements.

(a) Persons issuing guaranties under section 8(a) of the act for small carpets and rugs subject to FF 2-70 shall be subject to all of the requirements of § 1631.31 except as provided in paragraph (b) of this section.

(b) In lieu of performing tests and maintaining records on the basis of lin-

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ear yards or square yards as provided in § 1631.31 persons furnishing warranties for small carpets and rugs subject to FF 2-70 shall perform tests and maintain records on the basis of units of carpets or rugs, with "unit" being defined as a single carpet or rug, or on the basis of square yards. At least one test shall be performed upon commencement of production, importation, or other receipt of such small carpet or rug and every 25,000 units or square yards thereafter.

(Sec. 5 of the Act, 67 Stat. 112, as amended by 81 Stat. 570, 15 U.S.C. 1194; sec. 8 of the Act, 67 Stat. 114, as amended by 81 Stat. 572, 15 U.S.C. 1197)

§ 1631.33 Carpets and rugs with fire-retardant treatment.

(a) For the purposes of this section the following definitions apply:

(1) *Small carpet* and *small rug* means "small carpet" and "small rug" as defined in § 1631.1(c).

(2) *Fire-retardant treatment* means "fire-retardant treatment" as defined in the Standard in subpart A of this part.

(b) If a carpet or rug or small carpet or rug is manufactured, imported, or otherwise marketed or handled which has had a fire-retardant treatment or is made of fibers which have had a fire-retardant treatment, the letter "T" shall be set forth legibly and conspicuously, and shall appear at all times, on each label and/or invoice relating thereto pursuant to the requirements of the Textile Fiber Products Identification Act, 15 U.S.C. section 70, et seq., and the rules and regulations thereunder, whether or not such letter "T" appears elsewhere on said product. Samples, pieces, rolls, or squares used to promote or effect the sale of such carpet or rug are subject to the aforementioned requirements. As provided in the applicable portions of the aforesaid Act and the rules and regulations thereunder, where a carpet or rug or a small carpet or rug which has had a fire-retardant treatment or is made of fibers which have had a fire-retardant treatment, is sold to an ultimate consumer and was either custom made or commercially installed for such consumer, the labeling required

by this section shall not apply with respect to the carpet or rug if an invoice or other paper relating thereto, containing the letter "T", legibly and conspicuously written, is delivered to the consumer in due course of business.

(c) No person subject to the Flammable Fabrics Act shall manufacture, import, distribute, or otherwise market or handle any carpet or rug or small carpet or rug, including samples, swatches, or specimens used to promote or effect the sale thereof, which is not in compliance with this section.

§ 1631.34 Small carpets and rugs not meeting acceptance criterion.

(a) If any small carpet or rug as defined in the Standard for the Surface Flammability of Small Carpets and Rugs (pill test) FF 2-70, is manufactured, imported, or otherwise marketed or handled and does not meet the acceptance criterion of such standard, it shall, prior to its introduction into commerce, be legibly and conspicuously labeled with a permanent label which sets forth the following statement:

"FLAMMABLE (FAILS U.S. DEPARTMENT OF COMMERCE STANDARD FF 2-70); SHOULD NOT BE USED NEAR SOURCES OF IGNITION."

The required cautionary statement may be set out on or affixed to the small carpet or rug on the same label as the fiber content label required to be affixed under the Textile Fiber Products Identification Act, if said label is permanent, or said statement shall be set forth on a separate permanent label on or affixed to the small carpet or rug in immediate proximity to the said required label under the Textile Fiber Products Identification Act. A label on the front of a small carpet or rug shall be considered to be in immediate proximity to a label on the back, provided they are directly opposite each other and are in immediate proximity to the edge of the small carpet or rug.

(b) Such cautionary statements shall also appear in a conspicuous manner in all advertisements in which said small carpets or rugs are being offered for sale through direct mail, telephone solicitation, or under any other circumstances where the consumer, in the ordinary course of dealing, will not

have an opportunity to inspect the label before receiving the merchandise. The phrase "Flammable—Read The Label" shall conspicuously appear in all other advertisements of small carpets or rugs which do not meet the acceptance criterion of the standard.

(c) The information required by this section shall be set forth separately from any other information, representations, or disclosures appearing on the same label or elsewhere on the small carpet or rug, and any such other information, representations, or disclosures shall in no way interfere with, minimize, detract from, or conflict with the information required by this section.

(d) Samples, swatches, or specimens used to promote or effect the sale of small carpets or rugs shall be labeled with the information required by this section, in addition to the label required to be affixed to the small carpets or rugs.

(e) Where small carpets or rugs are marketed at retail in packages, and the labeling information required by this section is not readily visible to prospective purchasers, the packages must also be prominently, conspicuously, and legibly labeled with the information required by this section.

(f) No person, other than the ultimate consumer, shall remove, mutilate, or cause or participate in the removal or mutilation of any affixed labeling information required by this section.

(g) No person subject to the Flammable Fabrics Act shall manufacture, import, distribute, or otherwise market or handle any small carpet or rug, including samples, swatches, or specimens used to promote or effect the sale thereof, which is not in compliance with this section.

Subpart C—Washing Procedures

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

§ 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

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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. 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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. Alternatively the selected sample or oversized specimens thereof may be washed, dry-cleaned, or shampooed 10 times, prior to the cutting of test specimens, in such manner as the manufacturer or other interested party has previously established to the satisfaction of the Consumer Product Safety Commission is normally used for that type of carpet or rug in service.

(b) On February 10, 1972 (37 FR 3010) the Federal Trade Commission published in the FEDERAL REGISTER a notice of approval of an alternative washing procedure under FF 2-70 for testing the flammability of shearling and hide rugs that (1) consist of natural wool or hair attached to the hide with no synthetic fibers and (2) have been treated with a fire-retardant finish. The notice of approval was corrected on March 17, 1972 (37 FR 5676). This approval is continued in effect by the Consumer Product Safety Commission pursuant to

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section 30(e) of the Consumer Product Safety Act (15 U.S.C. 2079(e)).

(c) Any hide carpet or rug for which such alternative procedure is utilized must be labeled with a conspicuous, legible and permanent label containing the following statement:

DO NOT WASH OR DRY CLEAN

This rug has been treated with a flame retardant. To keep rug attractive and clean use the following methods:

To eliminate loose dirt or dust, vacuum or shake pelt outdoors.

For spot cleaning, use water dampened cloth and rub lightly in one direction.

DO NOT USE DETERGENTS OR OTHER STAIN REMOVERS

(d) The alternative procedure is as follows: The test specimens shall be cut to size 9" x 9" before the procedure is initiated.

(1) Shake specimen vigorously to remove any loose fibers, dust and possible accumulated debris.

(2) Place specimen on a solid flat surface and anchor or hold firmly while conducting the test.

(3) Select an operating applicator consisting of a rod at least 2" in diameter and 9" long composed of non-absorbent material such as glass or plastic.

(4) Select sufficient cloth to form at least five layers when wrapped around the operating applicator. The cloth shall be of the type known as "Crockmeter Test Cloth" as specified in Note 8.3 of AATCC Test Method 8-1969.

(5) Immerse cloth in water (100 °F.) until thoroughly wetted.

(6) Manually wring out the cloth to remove all excess water and wrap around the operating applicator.

(7) Immediately, with light pressure, stroke entire surface of specimen with the wrapped operating applicator in one direction only along the natural "lay" of the hair structure for ten complete strokes.

(8) Place test specimen in a circulating drying oven maintained at 212 °F. until dry.

(9) Repeat the above procedure 10 times using a fresh or clean cloth each time.

(10) After 10 successive cycles of washing and drying the dried specimens shall be subjected to the testing procedures (pill test) as outlined in FF 2-70.

(e) This washing procedure and labeling provision are subject to revision or revocation should it be determined that such procedure is inadequate to fully protect the public.

[40 FR 59935, Dec. 30, 1975, as amended at 65 FR 12934, Mar. 10, 2000]

§ 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. 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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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. Alternatively the selected sample or oversized specimens thereof may be washed, dry-cleaned, or shampooed

10 times, prior to the cutting of test specimens, in such manner as the manufacturer or other interested party has previously established to the satisfaction of the Consumer Product Safety Commission is normally used for that type of carpet or rug in service.

(b) On September 7, 1972 (37 FR 18122) the Federal Trade Commission published in the FEDERAL REGISTER a notice of approval of an alternative washing procedure under FF 2-70 for testing the flammability of wool flokati carpets and rugs. This approval is continued in effect by the Consumer Product Safety Commission pursuant to section 30(e) of the Consumer Product Safety Act (15 U.S.C. 2079(e)).

(c) Any wool flokati carpet or rug for which such alternative procedure is utilized must be labeled with a conspicuous, legible and permanent label containing the following statement:

Do Not Wash in Home Machine or Dry Clean—Avoid Rubbing or Brushing While Damp

This Flokati carpet or rug has been treated with a flame retardant. To maintain this flame retardant and to keep the carpet attractive and clean, use the following methods.

1. Vacuum (using suction head without rotating brush) or shake the rug (depending upon size) to remove loose dirt.

2. Home laundering: Place in bath tub or other suitable receptacle in solution of home detergent and lukewarm water (approximately 105 °F.). Immerse face down and gently knead back of rug to remove soil. Rinse in lukewarm water (approximately 105 °F.) until detergent is removed. Rug may then be rinsed again in cool water to improve appearance of face if desired. Line dry. Shake while damp to restore surface and fluff up fibers.

3. Spot cleaning: Remove greasy stains with a household grease remover. Remove soluble stains with lukewarm water (approximately 105 °F.) and detergent by immersing spot in a pan and kneading the back of rug. Rinse thoroughly in lukewarm water. Line or floor dry. Shake while damp to restore surface and fluff up fibers.

4. Commercial cleaning: Use Roll-A-Jet equipment (or equivalent) with water not exceeding 105 °F. Avoid use of excessive pressure or reciprocating brushes. Drying temperatures should not exceed 200 °F.

(d) The alternative procedure is as follows:

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(1) Cut test specimens to an oversize 12" x 12" before the procedure is initiated.

(2) Vacuum specimens or shake vigorously to remove any loose fibers, dust or possible accumulated debris.

(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. Knead the back of the specimen with hand for 1 minute. Water level and temperature should be maintained for each specimen.

(4) Thoroughly rinse specimen face down with warm water at 105 °F. for 1 minute under a faucet with strong pressure.

(5) Remove excess liquor by use of a wringer, hydroextractor or gentle hand squeezing and dry in circulating air oven at 200 °F. until dry.

(6) Repeat the above procedure 10 times using fresh detergent and fresh water for each set of eight specimens.

(7) Subject the dry specimens to the test procedures in FF 2-70.

(e) This washing procedure and labeling provisions are subject to revocation should it be determined that such procedure is inadequate to fully protect the public.

[40 FR 59935, Dec. 30, 1975, as amended at 65 FR 12934, Mar. 10, 2000]

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

Subpart A—The Standard

Sec.

- 1632.1 Definitions.
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1632.31 Mattresses/mattress pads—labeling, recordkeeping, guaranties and "one of a kind" exemption.

Subpart C—Interpretations and Policies

1632.61-1632.62 [Reserved]

1632.63 Policy clarification on renovation of mattress.

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

SOURCE: 49 FR 39796, Oct. 10, 1984, unless otherwise noted.

Subpart A—The Standard

§ 1632.1 Definitions.

In addition to the definitions given in section 2 of the Flammable Fabrics Act as amended (15 U.S.C. 1191), the following definitions apply for the purpose of the standard.

(a) *Mattress* means a ticking filled with a resilient material used alone or in combination with other products intended or promoted for sleeping upon.

(1) This definition includes, but is not limited to, adult mattresses, youth mattresses, crib mattresses including portable crib mattresses, bunk bed mattresses, futons, water beds and air mattresses which contain upholstery material between the ticking and the mattress core, and any detachable mattresses used in any item of upholstered furniture such as convertible sofa bed mattresses, corner group mattresses, day bed mattresses, roll-a-way bed mattresses, high risers, and trundle bed mattresses. See §1632.8 Glossary of terms, for definitions of these items.

(2) This definition excludes sleeping bags, pillows, mattress foundations, liquid and gaseous filled tickings such as water beds and air mattresses which do not contain upholstery material between the ticking and the mattress core, upholstered furniture which does not contain a detachable mattress such as chaise lounges, drop-arm love seats, press-back lounges, push-back sofas, sleep lounges, sofa beds (including jackknife sofa beds), sofa lounges (including glide-outs), studio couches and studio divans (including twin studio divans and studio beds), and juvenile product pads such as car bed pads, carriage pads, basket pads, infant carrier and lounge pads, dressing table pads, stroller pads, crib bumpers, and playpen pads. See §1632.8 Glossary of terms, for definitions of these items.

(b) *Mattress Pad* means a thin, flat mat or cushion, and/or ticking filled with resilient material for use on top of a mattress. This definition includes, but is not limited to, absorbent mattress pads, flat decubitus pads, and convoluted foam pads which are totally enclosed in ticking. This definition excludes convoluted foam pads which are not totally encased in ticking.

(c) *Ticking* means the outermost layer of fabric or related material that encloses the core and upholstery materials of a mattress or mattress pad. A mattress ticking may consist of several layers of fabric or related materials quilted together.

(d) *Core* means the main support system that may be present in a mattress, such as springs, foam, hair block, water bladder, air bladder, or resilient filling.

(e) *Upholstery material* means all material, either loose or attached, between the mattress or mattress pad ticking and the core of a mattress, if a core is present.

(f) *Tape edge* (edge) means the seam or border edge of a mattress or mattress pad.

(g) *Quilted* means stitched with thread or by fusion through the ticking and one or more layers of upholstery material.

(h) *Tufted* means buttoned or laced through the ticking and upholstery material and/or core, or having the ticking and upholstery material and/or core drawn together at intervals by any other method which produces a series of depressions on the surface.

(i) *Manufacturer* means an individual plant or factory at which mattresses and/or mattress pads are produced or assembled.

(j) *Mattress prototype* means mattresses of a particular design, sharing all materials and methods of assembly, but excluding differences in mattress size. If it has been shown as a result of prototype qualification testing that an upholstery material or core will not reduce the ignition resistance of the mattress prototype, substitution of another material for such material shall not be deemed a difference in materials for prototype definition. (See §1632.31(c)(4) for records required to demonstrate that a change of materials

has not reduced ignition resistance of a mattress prototype.) If it is determined or suspected that a material has influenced the ignition resistance of the mattress prototype, a change in that material, excluding an increase in thickness, shall be deemed a difference in materials for purposes of prototype definition unless it is previously shown to the satisfaction of the Consumer Product Safety Commission that such change will not reduce the ignition resistance of the mattress prototype. Ticking materials may be substituted in accordance with §1632.6. Tape edge materials may be substituted in accordance with §1632.7.

(k) *Mattress pad prototype* means mattress pads of a particular design, sharing all materials and methods of assembly, but excluding differences in mattress pad size. A change in existing material, except an increase in thickness, shall be deemed a difference in materials for purposes of prototype definition unless it is previously shown to the satisfaction of the Consumer Product Safety Commission that such change will not reduce the ignition resistance of the mattress pad prototype. Ticking materials may be substituted in accordance with §1632.6. Tape edge materials may be substituted in accordance with §1632.7.

(1) *Surface* means one side of a mattress or mattress pad which is intended for sleeping upon and which can be tested.

§ 1632.2 Purpose, scope, and applicability.

(a) *Purpose.* (1) This standard prescribes requirements for testing of prototype designs of mattresses and mattress pads before the sale in commerce or the introduction in commerce of any mattress or mattress pad which is subject to the standard. The standard prescribes a test to determine the ignition resistance of a mattress or a mattress pad when exposed to a lighted cigarette.

(2) The standard sets forth a test at §1632.6 which may be used to classify ticking materials for resistance to cigarette ignition.

(3) The standard sets forth a test at §1632.7 which may be used to demonstrate that the substitution of tape

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edge materials will not reduce the ignition resistance of a mattress prototype or a mattress pad prototype.

(b) *Scope.* (1) All mattresses, as defined in §1632.1(a), and all mattress pads, as defined in §1632.1(b), manufactured or imported after the effective date of this amendment are subject to the requirements of the standard as amended.

(2) All mattresses, as defined in §1632.1(a), and all mattress pads, as defined in §1632.1(b), manufactured or imported after June 22, 1973, and before the effective date of this amendment are subject to those requirements of the Standard for the Flammability of Mattresses (and Mattress Pads) (16 CFR part 1632) which were in effect before the effective date of this amendment.

(3) Manufacturers or importers desiring to use the ticking substitution procedure provided in §1632.6 may classify the ticking being used on each mattress prototype before or after the effective date of this amendment using the test procedure set forth in that section.

(4) One-of-a-kind mattresses and mattress pads may be excluded from testing under this standard in accordance with rules established by the Consumer Product Safety Commission. (See §1632.31(f): exemption for mattresses and mattress pads prescribed by a physician.)

(c) *Applicability.* (1) The requirements for prototype testing prescribed by this standard are applicable to each "manufacturer" (as that term is defined in §1632.1(i)) of mattresses or mattress pads subject to the standard which are manufactured for sale in commerce. The requirements of this standard for prototype testing are also applicable to all other persons or firms initially introducing mattresses or mattress pads into commerce, including importers; each such firm shall be deemed to be a "manufacturer" for purposes of this standard.

(2) The test at §1632.6 for classification of ticking materials may be used by manufacturers of mattresses or mattress pads and by manufacturers of ticking materials. The test at §1632.7 may be used by manufacturers of mattresses to demonstrate that substi-

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tution of tape edge materials will not reduce ignition resistance of a mattress prototype or a mattress pad prototype. Use of the tests in §§1632.6 and 1632.7 is optional.

§ 1632.3 General requirements.

(a) *Summary of test method.* The method measures the ignition resistance of a mattress or mattress pad by exposing the surface to lighted cigarettes in a draft-protected environment. The surfaces to be tested include smooth, tape edge, and quilted or tufted locations, if they exist on the mattress or mattress pad surface. A two-sheet test is also conducted on similar surface locations. In the latter test, the burning cigarettes are placed between the sheets.

(b) *Test criterion.* When testing the mattress or mattress pad surface in accordance with the testing procedure set forth in §1632.4 *Mattress test procedure*, individual cigarette test locations pass the test if the char length is not more than 2 inches (5.1 cm) in any direction from the nearest point of the cigarette. In the interest of safety, the test operator should discontinue the test and record a failure before reaching the 2 inch char length if an obvious ignition has occurred.

(c) *Pre-market testing.* Each manufacturer required to perform prototype testing by the standard shall perform the testing required by the standard with acceptable results before selling in commerce or introducing in commerce any mattress or mattress pad which is subject to the standard.

(d) *Specimen selection and qualification.* (1) Each manufacturer required to perform prototype testing by the standard shall construct or select enough units of each proposed mattress prototype or proposed mattress pad prototype to provide six surfaces for testing. A minimum of three mattresses or mattress pads are required if both sides can be tested; six mattresses or mattress pads are required if only one side can be tested. Test each of the six surfaces according to §1632.4(d). If all the cigarette test locations on all six mattress surfaces yield passing results using the criterion specified in §1632.3(b), accept the mattress prototype. If all six surfaces of a mattress

pad yield passing results using the criterion in §1632.3(b), and all other applicable requirements prescribed by §1632.5 are met, accept the mattress pad prototype. If one or more of the cigarette test locations on any of the six surfaces fail to meet the test criterion of §1632.3(b), reject the mattress prototype or the mattress pad prototype.

(2) Prototype qualification testing may be repeated after action has been taken to improve the resistance of the mattress prototype or the mattress pad prototype to cigarette ignition by changes in design, construction methods, materials selection, or other means. When prototype qualification is repeated after rejection of a prototype, such qualification testing shall be conducted in the same manner as original qualification testing.

(3) Each mattress prototype and each mattress pad prototype must be accepted in prototype qualification before any mattress or mattress pad manufactured in accordance with such mattress prototype or mattress pad prototype is sold in commerce or introduced in commerce. Any manufacturer required to perform testing by the standard may rely on prototype tests performed before the effective date of this amended standard, provided that such tests were conducted in accordance with all requirements of §§1632.1(i), 1632.3(d), and 1632.4, and yield passing results when the test criterion of §1632.3(b) is applied. If the ticking classification test at §1632.6 is to be used when relying on prototype tests performed before the effective date of the standard, the ticking currently used on that mattress prototype must be classified before substitution of ticking using §1632.6.

(4) Rejected prototype mattresses or prototype mattress pads shall not be retested, offered for sale, sold, or promoted for use as a mattress (as defined in §1632.1(a)) or for use as a mattress pad (as defined in §1632.1(b)) except after reworking to improve the resistance to ignition by cigarettes, and subsequent retesting and acceptance of the mattress prototype (as defined in §1632.1(j)) or the mattress pad prototype (as defined in §1632.1(k)).

§ 1632.4 Mattress test procedure.

(a) *Apparatus and Test Materials*—(1) Testroom. The testroom shall be large enough to accommodate a full-scale mattress in a horizontal position and to allow for free movement of personnel and air around the test mattress. The test area shall be draft-protected and equipped with a suitable system for exhausting smoke and/or noxious gases produced by testing. The testroom atmospheric conditions shall be greater than 18 °C (65 °F) and at less than 55 percent relative humidity.

(i) The room shall be equipped with a support system (e.g. platform, bench) upon which a mattress may be placed flat in a horizontal position at a reasonable height for making observations.

(ii) If thin flexible mattresses or mattress pads are being tested the room shall also be equipped with a glass fiberboard test surface. The glass fiberboard shall be approximately 1 inch (2.5 cm) thick and have a thermal conductivity of 0.30 ± 0.05 cal (g) / hr cm² °C/cm (0.24 ± 0.04 Btu/hr ft² °F/in) at 23.9 °C (75 °F).¹

(2) *Ignition source*. The ignition source shall be cigarettes without filter tips made from natural tobacco, 85±2 mm long with a tobacco packing density of 0.270±0.02 g/cm³ and a total weight of 1.1±gm.

(3) *Fire extinguisher*. A pressurized water fire extinguisher, or other suitable fire extinguishing equipment, shall be immediately available.

(4) *Water bottle*. A water bottle fitted with a spray nozzle shall be used to extinguish the ignited portions of the mattress.

(5) *Scale*. A linear scale graduated in millimeters, 0.1 inch, or 1/16 inch divisions shall be used to measure char length.

(6) *Sheets or Sheeting Material*. White, 100 percent cotton sheets or sheeting material shall be used. It shall not be treated with a chemical finish which

¹Glass fiberboard that meets Federal Specification HH-I-558B is acceptable. Under this specification, the board must be Form A, Class 1, and plain faced. Copies of the specifications may be obtained from the Business Service Centers of the General Services Administration Regional Offices.

imparts a characteristic such as permanent press or flame resistance. It shall have 120–210 threads per square inch and fabric weight of 3.7 ± 0.8 oz/yd² (125 ± 28 gm/m²). The size of the sheet or sheeting material shall be appropriate for the mattress being tested.

(7) *Other apparatus.* In addition to the above, a thermometer, a relative humidity measuring instrument, a thin rod, straight pins, a knife or scissors, and tongs are required to carry out the testing.

(b) *Test Preparation*—(1) *Mattress samples.* The mattress shall be removed from any packaging prior to conditioning. The mattress surface shall be divided laterally into two sections (see fig. 1), one section for the bare mattress tests and the other for the two-sheet tests.

(2) *Sheets or sheeting material.* The sheets or sheeting material shall be laundered once before use in an automatic home washer using the hot water setting and longest normal cycle with the manufacturer's recommended quantity of a commercial detergent, and dried in an automatic home tumble dryer.

(i) The sheet shall be cut across the width into two equal parts after washing.

(ii) Sheeting material shall be cut in lengths to cover $\frac{1}{2}$ of a mattress as described in § 1632.4(d)(3).

(3) *Cigarettes.* Unopened packages of cigarettes shall be selected for each series of tests. The cigarettes shall be removed from packaging prior to conditioning.

(c) *Conditioning.* The mattresses, laundered sheets or sheeting material, and loose cigarettes shall be conditioned in air at a temperature greater than 18 °C (65 °F) and a relative humidity less than 55 percent for at least 48 continuous hours prior to test. The mattresses, laundered sheets or sheeting material, and cigarettes shall be supported in a suitable manner to permit free movement of air around them during conditioning. The mattress meets this conditioning requirement if the mattress and/or all its component materials, except the metallic core, if present, have been exposed only to the above temperature and humidity condi-

tions for at least 48 continuous hours prior to testing the mattress.

(d) *Testing*—(1) *General.* Mattress specimens shall be tested in a testroom with atmospheric conditions of a temperature greater than 18 °C (65 °F) and a relative humidity less than 55 percent. If the test is not performed in the conditioning room, at least one lit cigarette shall be placed on the mattress surface within 10 minutes of removal from the conditioning room. The other side of the mattress shall be tested immediately after completion of the first side.

(i) At least 18 cigarettes shall be burned on each mattress test surface, 9 in the bare mattress tests and 9 in the 2-sheet tests. If three or more mattress surface locations (smooth surface, tape edge, quilted, or tufted areas) exist in the particular mattress surface under test, three cigarettes shall be burned on each different surface location. If only two mattress surface locations exist in the particular mattress surface under test (tape edge and smooth surface), four cigarettes shall be burned on the smooth surface and five cigarettes shall be burned on the tape edge.

(ii) Light and place one cigarette at a time on the mattress surface. (If previous experience with a similar type of mattress has indicated that ignition is not likely, the number of cigarettes which may be lighted and placed on the mattress at one time is left to the test operator's judgment. The number of cigarettes must be carefully considered because a smoldering or burning mattress is extremely hazardous and difficult to extinguish.) The cigarettes must be positioned no less than 6 inches apart on the mattress surface. Each cigarette used as an ignition source shall be well lighted but not burned more than 4 mm (0.16 inch) when placed on the mattress. (Fire extinguishing equipment must be readily available at all times.)

(iii) If a cigarette extinguishes before burning its full length on any mattress surface location, pops out of position when tested on a tuft, or rolls off a test location, the test must be repeated with a freshly lit cigarette on a different portion of the same type of location on the mattress surface until either: the number of cigarettes specified

in §1632.4(d)(1)(i) have burned their full lengths; the number of cigarettes specified in §1632.4(d)(1)(i) have extinguished before burning their full lengths; or failure has occurred according to §1632.3(b) *Test criterion*.

(2) *Bare mattress tests*—(i) *Smooth surface*. Each burning cigarette shall be placed directly on a smooth surface location on the test surface on the half reserved for bare mattress tests. The cigarettes should burn their full lengths on a smooth surface without burning across a tuft, or stitching of a quilted area. However, if this is not possible because of mattress design, then the cigarettes shall be positioned on the mattress in a manner which will allow as much of the butt ends as possible to burn on smooth surfaces. Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)). **CAUTION:** Even under the most carefully observed conditions, smoldering combustion can progress to the point where it cannot be readily extinguished. It is imperative that a test be discontinued as soon as ignition has definitely occurred. Immediately wet the exposed area with a water spray (from water bottle), cut around the burning material with a knife or scissors and pull the material out of the mattress with tongs. Make sure that all charred or burned material is removed. Ventilate the room.

(ii) *Tape edge*. Each burning cigarette shall be placed in the depression between the mattress top surface and the tape edge, parallel to the tape edge of the half of the test surface reserved for bare mattress tests. If there is only a seam or no depression at the edge, support the cigarettes in place along the edge and parallel to the edge with straight pins. Three straight pins may be inserted through the edge at a 45° angle such that one pin supports the cigarette at the burned end, one at the center, and one at the butt. The heads of the pins must be below the upper surface of the cigarette (see fig. 2). Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)).

MATTRESS PREPARATION

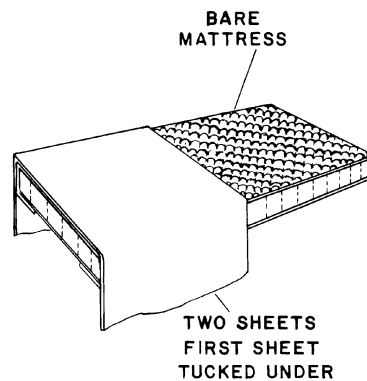
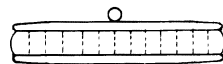
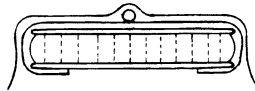


FIGURE 1

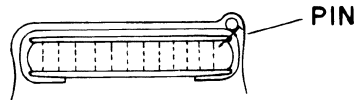
CIGARETTE LOCATION



BARE



TWO SHEETS



TAPE EDGE

FIGURE 2

(iii) *Quilted location.* If quilting exists on the test surface, each burning cigarette shall be placed on quilted locations of the test surface. The cigarettes shall be positioned directly over the thread or in the depression created by the quilting process on the half of the test surface reserved for bare mattress tests. If the quilt design is such that the cigarettes cannot burn their full lengths over the thread or depression, then the cigarettes shall be positioned in a manner which will allow as much of the butt ends as possible to burn on the thread or depression. Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)).

(iv) *Tufted location.* If tufting exists on the test surface, each burning cigarette shall be placed on tufted locations of the test surface. The cigarettes shall be positioned so that they burn down into the depression caused by the tufts and so that the butt ends of the cigarettes burn out over the buttons or laces used in the tufts or the depressions made by the tufts on the half of the test surface reserved for bare mattress tests. Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)).

(3) *Two-sheet tests.* Spread a section of sheet or sheeting material smoothly over the mattress surface which has been reserved for the two-sheet test and tuck under the mattress. Care must be taken that hems or any other portion of the sheet which is more than one fabric thickness, is neither directly under nor directly over the test cigarette in the two-sheet test.

(i) *Smooth surfaces.* Each burning cigarette shall be placed directly on the sheet covered mattress in a smooth surface location as defined in the bare mattress test. Immediately cover the first sheet and the burning cigarette loosely with a second, or top sheet (see fig. 2). Do not raise or lift the top sheet during testing unless obvious ignition has occurred or until the cigarette has burned out. Whether a cigarette has extinguished may be determined by holding the hand near the surface of the top sheet over the test location. If no heat is felt or smoke observed, the cigarette has burned out. If ignition occurs, immediately remove the sheets and cigarette and follow the cautionary procedures outlined in the bare mattress test. Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)).

(ii) *Tape edge.* (A) Each burning cigarette shall be placed in the depression between the top surface and the tape edge on top of the sheet, and immediately covered with a second sheet. It is important the air space be eliminated, as much as possible, between the mattress and the bottom sheet at the test location before testing. Depress the bottom sheet into the depression using a thin rod or other suitable instrument.

(B) In most cases, the cigarettes will remain in place throughout the test. However, if the cigarettes show a marked tendency to roll off the tape edge location, they may be supported with straight pins. Three straight pins may be inserted through the bottom sheet and tape at a 45° angle such that one pin supports the cigarette at the burning end, one at the center, and one at the butt. The heads of the pins must be below the upper surface of the cigarette (see fig. 2). Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)).

(iii) *Quilted locations.* If quilting exists on the test surface, each burning cigarette shall be placed in a depression caused by quilting, directly over the thread and on the bottom sheet, and immediately covered with the top sheet. It is important that the air space be eliminated, as much as possible, between the mattress and the bottom sheet at the test location before testing. Depress the bottom sheet into the depression using a thin rod or other suitable instrument. If the quilt design is such that the cigarettes cannot burn their full lengths over the thread or depression, then the cigarettes shall be positioned in a manner which will allow as much of the butt ends as possible to burn on the thread or depression. Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)).

(iv) *Tufted locations.* If tufting exists on the test surface, each burning cigarette shall be placed in the depression caused by tufting, directly over the tuft and on the bottom sheet, and immediately covered with the top sheet. It is important that the air space be eliminated, as much as possible, between the mattress and the bottom sheet at the test location before testing. Depress the bottom sheet into the depression using a thin rod or other suitable instrument. The cigarettes shall be positioned so that they burn down into the depression caused by the tuft and so that the butt ends of the cigarettes burn out over the buttons or laces, if used in the tufts. Report results for each cigarette as pass or fail as defined in the test criterion (see §1632.3(b)).

(e) *Records.* Records of all prototype test results, and the disposition of rejected prototypes shall be maintained by the person or firm required to perform testing by the standard in accordance with §1632.31(c).

§ 1632.5 Mattress pad test procedure.

(a) *Testing.* All mattress pads shall be tested, in the condition in which they are intended to be sold, according to §1632.4 Mattress test procedure, using the glass fiberboard substrate.

(b) *Flame resistant mattress pads.* The following additional requirements shall be applicable to mattress pads which contain a chemical fire retardant.

(1) These mattress pads shall be tested in accordance with §1632.4 Mattress test procedure after they have been washed and dried 10 times as described in §1632.5(b)(2).

(i) Such laundering is not required of mattress pads which are intended for one time use and/or are not intended to be laundered, as determined by the Consumer Product Safety Commission.

(ii) Mattress pads which are not susceptible to being laundered and are labeled "dryclean only" shall be drycleaned by a procedure which has previously been found acceptable by the Consumer Product Safety Commission.

(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

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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 National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. 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.

(v) A different number of wash and dry cycles using another procedure may be specified and used, if that procedure has previously been found to be equivalent by the Consumer Product Safety Commission.

(3) *Labeling*—(i) *Treatment label*. If a mattress pad contains a chemical fire retardant, it shall be labeled with the letter “T” pursuant to rules and regulations established by the Consumer Product Safety Commission.

(ii) *Care label*. All mattress pads which contain a chemical fire retardant treatment shall be labeled with precautionary instructions to protect the pads from agents or treatments which are known to cause deterioration of their flame resistance. Such labels shall be permanent and otherwise in accordance with rules and regulations established by the Consumer Product Safety Commission in § 1632.31(b).

(iii) *Exception*. One time use products as defined in § 1632.5(b)(1)(i) are not subject to these labeling requirements.

[49 FR 39796, Oct. 10, 1984, as amended at 65 FR 12938, Mar. 10, 2000]

§ 1632.6 Ticking substitution procedure.

(a) This procedure may be used to verify acceptable equivalency if a mattress or mattress pad manufacturer wishes to change the ticking used on a particular mattress or mattress pad prototype without conducting a proto-

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type test as specified in § 1632.4 or § 1632.5. The procedure includes a ticking classification test that may be used by a ticking, mattress or mattress pad manufacturer or by a distributor of ticking.

(b) *Definitions*. For the purpose of this section the following definitions apply in addition to those in § 1632.1.

(1) *Mattress ticking prototype*. Means a ticking of a specific construction, color, or combination of colors or color pattern, weave pattern design, finish application, fiber content, and weight per unit area. With respect to film-coated ticking, a mattress ticking prototype means in addition to the factors listed above, a given method of application, chemical formula, and thickness of application of film coating. With respect to a quilted ticking, a mattress ticking prototype means the combination of a specific ticking as described above; a specific filling, thickness, density, and chemical composition; a specific thread; a specific method of quilting; and a specific backing fabric construction, weave, finish, fiber content, and weight.

(2) *Mattress pad ticking prototype* (i) Means a ticking of a specific construction, color, or combination of colors or color pattern, weave pattern design, finish application, fiber content, and weight per unit area. With respect to film-coated ticking, a mattress pad ticking prototype means in addition to the factors listed above, a given method of application, chemical formula, and thickness of application of film coating.

(ii) Quilted ticking is excluded from this definition. Therefore, the following procedures may not be used to substitute quilted ticking used on or as a mattress pad.

(c) *Scope and application*. (1) This procedure provides an independent evaluation of the cigarette ignition characteristics of ticking and for the classification of ticking into one of three performance classes. Class A represents tickings evaluated as acting as barriers against cigarette ignition; Class B represents tickings evaluated as having no effect on cigarette ignition; and Class C represents tickings evaluated as having the potential, in some manner, to

act as a contributor to cigarette ignition.

(2) Substitution of any ticking which has been evaluated as Class A using the procedure in this §1632.6 for any other ticking material shall not be a “difference in materials” as that phrase is used in §§1632.1 (j) and (k). Consequently, any ticking material evaluated as Class A under this test procedure may be used on any qualified mattress prototype or on any qualified mattress pad prototype without conducting new prototype tests.

(3) Substitution of any ticking which has been evaluated as Class B using the procedure in this §1632.6 for the ticking material used on any mattress prototype or on any mattress pad prototype which was qualified in prototype testing with a testing material evaluated as Class B or a Class C shall not be a “difference in materials” as that phrase is used in §§1632.1 (j) and (k). Consequently, any ticking material evaluated as Class B under this test procedure may be used on any mattress or mattress pad which was qualified in prototype testing with a Class B or Class C ticking material without conducting new prototype tests. However, if Class B ticking material is to be used on any mattress or mattress pad which was qualified in prototype testing with a Class A ticking material, the mattress prototype or mattress pad prototype must be requalified, using a Class B ticking.

(4) A ticking material which has been evaluated as Class C using the procedure in this §1632.6 may be used only on a mattress or mattress pad which was qualified in prototype testing with that particular Class C ticking material. Consequently, a ticking material evaluated as Class C under this test procedure may not be used on any mattress or mattress pad which was qualified in prototype testing using another Class C ticking material, or a Class A or Class B ticking material, without conducting new prototype tests.

(d) *General requirements.* (1) This procedure is a ticking prototype performance classification test. Ticking not classified according to this procedure may be used on mattresses or mattress pads if the mattress prototype or mattress pad prototype has been qualified

utilizing the unclassified ticking in question.

(2) *Test criterion.* (i) Cigarette—An individual cigarette test location passes the test if the char length is not more than 1 inch (2.54 cm) in any direction from the nearest point of the cigarette, and the cotton felt is not ignited.

CAUTION: In the interest of safety, the test operator should discontinue the test and record a failure before reaching the 1 inch (2.54 cm) char length if, in his opinion, an obvious ignition has occurred.

(ii) Test Specimen—An individual test specimen passes the test if all three cigarette test locations meet the cigarette test criterion of this paragraph.

(3) *Specimen selection.* Three specimens shall be used for each ticking prototype classification test, with each specimen measuring no less than 20 inches by 20 inches (50.8 cm × 50.8 cm) square. The three specimens shall be selected from any fabric piece taken from a ticking prototype. The specimens shall be representative of the ticking prototype.

(4) *Ticking classification.* A ticking prototype is classified as Class A, Class B, or Class C, in accordance with the following schedules.

(i) Class A—A ticking prototype is classified as Class A when three specimens, tested in accordance with §1632.6(e), meet the test criterion in §1632.6(d)(2) when the ticking is tested directly over the cotton felt on the test box.

(ii) Class B—A ticking prototype is classified as Class B when three specimens, tested according to §1632.6(e), meet the test criterion in §1632.6(d)(2) when the ticking is tested on a $\frac{1}{4}$ inch $\pm\frac{1}{32}$ inch (6.3 mm \pm .8 mm) thick urethane foam pad covering the cotton felt on the test box.

(iii) Class C—A ticking prototype is classified as Class C when any specimen tested according to §1632.6(e), fails to meet the test criterion in §1632.6(d)(2) when the ticking is tested on a $\frac{1}{4}$ inch $\pm\frac{1}{32}$ inch (6.3 mm \pm .8 mm) thick urethane foam pad covering the cotton felt on the test box.

(e) *Test procedure*—(1) *Apparatus.* For the purpose of this section the following apparatus and materials are required in addition to that which is listed in §1632.4 (a) and (b).

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(i) *Sheet and sheeting material.* Test covers made from sheets or sheeting material shall not be less than 12 inches by 12 inches (30.48 cm by 30.48 cm) square.

(ii) *Template.* Designed to allow for a one inch marking around the placement of the cigarette (see figure 3). Use of this template is optional.

(iii) *Stapler or masking tape* or other means of attachment to secure fabric to test box.

(iv) *Mounting box.* A 6 inch deep, 12 inch square plywood box. The box contains two $\frac{1}{2}$ inch in diameter ventilation holes. (See figure 4.)

(v) *Cotton felt.* (A) The cotton felt shall be a thoroughly-garnetted mixture of all new material consisting of not less than 67% linters and of not more than 33% clean picker blend or equivalent binder and not more than 5% non-cellulosic total content. The felt shall not be bleached, moistened or chemically treated in any way.

(B) The felt may be re-used repeatedly after completion of each test by removing all of the smoldering, charred, heat-discolored fibers, or fibers exposed to water as a result of extinguishing the cotton ignited by previous test.

(vi) *Urethane foam.* The urethane foam shall have a density of 1.2 to 1.5 pounds per cubic foot, an indentation load deflection of 22 to 35 pounds, with each test specimen measuring no less than 12 inches by 12 inches (30.48 cm by 30.48 cm) square, having a thickness of $\frac{1}{4}$ inch $\pm \frac{1}{32}$ inch (6.3 mm \pm .8 mm). The foam shall not be treated with a flame retardant chemical.

(2) *Conditioning.* The test specimens, cigarettes, laundered sheets or sheeting material, foam and felt shall be conditioned as described in § 1632.4(c).

(3) *Specimen preparation.* (i) Place 907.2 \pm 4 grams (two pounds) of cotton felt in the test box, allowing the felt to protrude above the opening of the box to a height of up to 3 inches (7.62 cm) at the crown.

(ii) For the first part of this test, place a 12 inches by 12 inches (30.48 cm by 30.48 cm) square urethane foam pad on top of the cotton felt. Stretch the ticking specimen over the foam pad and fasten it to the sides of the test box using a stapler or tape. Be careful

to avoid wrinkles in the fabric and have sufficient tautness to assure firm contact between the fabric and the filling materials in the test box.

(4) *Testing.* (i) Ticking specimens shall be tested in a testroom with atmospheric conditions of a temperature greater than 18 °C (65 °F) and a relative humidity less than 55%.

(ii) Three cigarettes shall be burned on each ticking specimen, with no more than one cigarette burning at any time. At least one cigarette shall be placed on the most prominent part of the color and weave pattern design in the ticking. If the ticking is quilted, one cigarette shall be placed over the thread or in the depression created by the quilting process. Each cigarette must be positioned no less than two inches (5.08 cm) from any other cigarette or the edge of the box.

(iii) Light and place one cigarette on the test specimen. Immediately cover the burning cigarette with a sheet test cover. The cigarette shall be well lighted but not burned more than 4 mm (0.16 inch) when placed on the test specimen. The cigarette may be supported by three straight pins such that one pin supports the cigarette at the burning end, one at the center and one at the butt. The heads of the pins must be below the upper surface of the cigarette. Upon completion of the three cigarette burns and removal of the fabric and foam specimens, remove all of the char or heat discoloration on the cotton felt as stated in § 1632.6(e)(v)(B). Fresh new felt shall be added to replace the discarded fibers in the amount necessary to maintain the full 907.2 \pm 4 grams (two pounds) of felt for each test.

(iv) If the cigarette extinguishes before burning its full length, the test must be repeated with a freshly lit cigarette on a different portion of the ticking specimen until either three cigarettes have burned their full lengths or three cigarettes have extinguished. Report result for each cigarette as pass or fail as defined in Test Criterion § 1632.6(d)(2). An obvious ignition is recorded as a failure.

(v) If ignition occurs with any of the three cigarette burns on the ticking specimen, terminate testing of that

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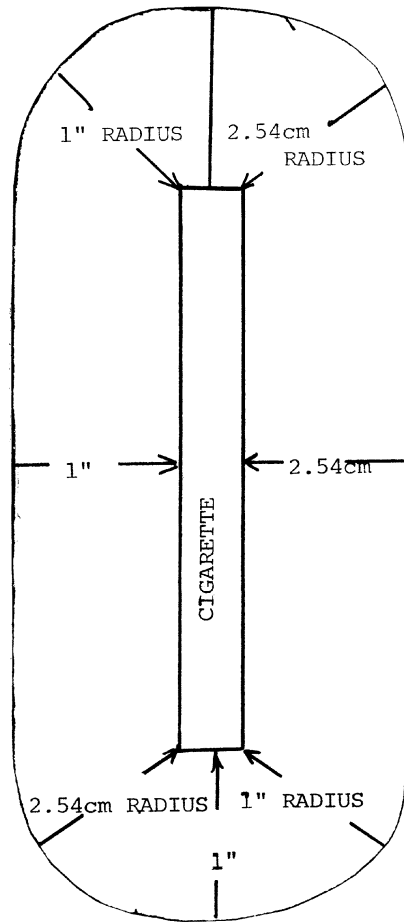
specimen and classify according to §1632.6(d)(4).

(vi) If all cigarette test locations meet the Test Criterion in §1632.6(d)(2), repeat procedure outlined in §1632.6(e)(4)(iii) for the second part of the test with new ticking specimens that will be retested directly over the cotton felt, without the urethane foam pad. Remove the urethane foam pad and charred or heat discolored area from the cotton felt as specified in §1632.6(e)(v)(B) prior to testing. Record the test results as pass or fail as defined in *Test Criterion* §1632.6(d)(2) and classify according to §1632.6(d)(4).

(5) *Records.* Records of any ticking classification test results relied upon by the mattress or mattress pad manufacturer or importer shall be main-

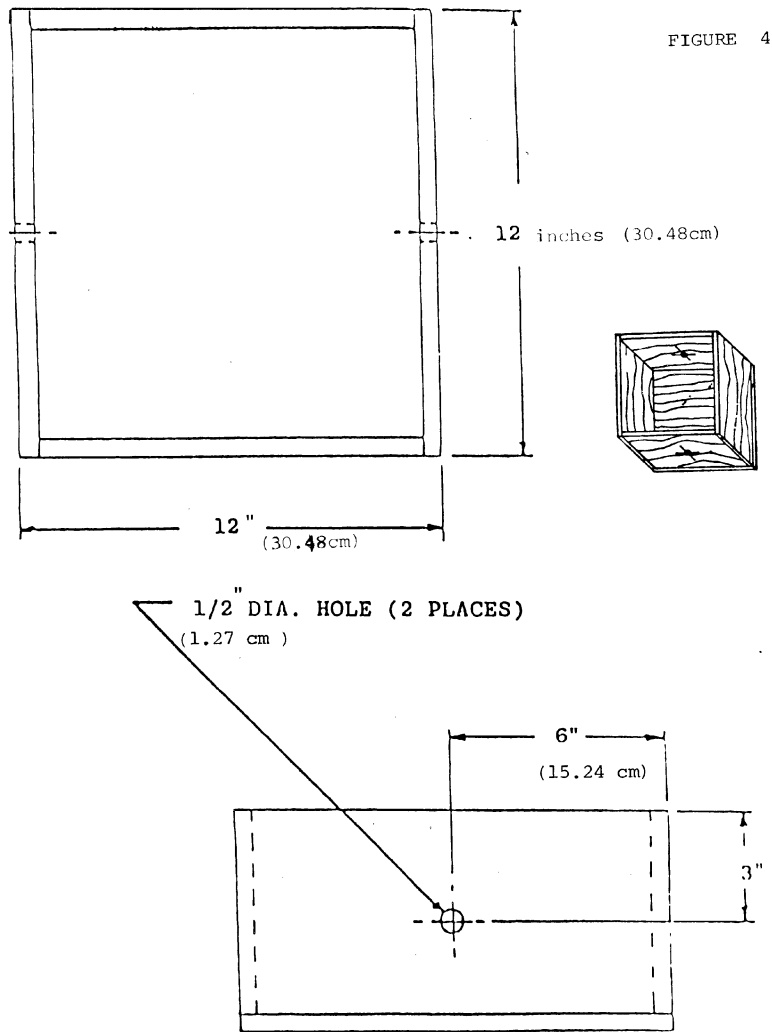
tained in accordance with rules and regulations established by the Consumer Product Safety Commission in §1632.31(c). As provided by §1632.31(c)(6), manufacturers or importers of mattresses or mattress pads may rely on a certification of compliance with this section of the standard provided by the ticking manufacturer or distributor; however, if a mattress or mattress pad fails to comply with the standard, the mattress or mattress pad manufacturer or importer must assume full responsibility under the standard. The Commission has no authority under this standard to compel ticking manufacturers or distributors to comply with this section or to establish, maintain and provide upon request, the records specified in §1632.31(c).

FIGURE 3



1 INCH (2.54cm) TEMPLATE

TOLERANCES + 1/32" - 0"



TEST BOX

MATERIAL 1/2" PLYWOOD

TOLERANCES + 1/32 " - 0"

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§ 1632.7 Tape edge substitution procedure.

(a) Sections 1632.1 (j) and (k) provide in part that “a change in existing material shall be deemed a difference in materials for purposes of prototype definition unless it is shown to the satisfaction of the Consumer Product Safety Commission that such change will not reduce the ignition resistance” of the mattress prototype or the mattress pad prototype.

(b) The Commission will regard a showing “to the satisfaction of the Consumer Product Safety Commission” to have been made with respect to materials substitution of items such as flange materials and tapes at the tape edge under the following circumstances:

(1) The mattress or mattress pad prototype has been qualified previously under the provisions of §1632.3; and

(2) A substitution of materials involving only tape edge construction is contemplated; and

(3) A prototype mattress or mattress pad incorporating the substitute materials has been tested in accordance with applicable procedures in §1632.4 by placing 36 cigarettes (18 per surface—9 bare and 9 two-sheet) at tape edge locations with no test failure as determined by applying the test criterion of §1632.3(b); and

(4) Records are maintained setting forth the details of the materials substitution and showing the results of the testing referred to in paragraph (b)(3) of this section. The records are to be maintained in accordance with regulations established by the Consumer Product Safety Commission (see §1632.31).

§ 1632.8 Glossary of terms.

(a) *Absorbent pads.* Pad used on top of mattress. Designed to absorb urine thereby reducing skin irritation, can be one time use.

(b) *Basket pad.* Cushion for use in an infant basket.

(c) *Bunk beds.* A tier of beds, usually two or three, in a high frame complete with mattresses (see fig. 5).

(d) *Car bed.* Portable bed used to carry a baby in an automobile.

(e) *Carriage pad.* Cushion to go into a baby carriage.

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(f) *Chaise lounge.* An upholstered couch chair or a couch with a chair back. It has a permanent back rest, no arms, and sleeps one (see fig. 5).

(g) *Convertible sofa.* An upholstered sofa that converts into an adult sized bed. Mattress unfolds out and up from under the seat cushioning (see fig. 5).

(h) *Convoluting foam pad.* A bed pad made of foam in an egg-crate configuration not encased in ticking.

(i) *Corner groups.* Two twin size bedding sets on frames, usually slipcovered, and abutted to a corner table. They also usually have loose bolsters slipcovered (see fig. 5).

(j) *Crib bumper.* Padded cushion which goes around three or four sides inside a crib to protect the baby. Can also be used in a playpen.

(k) *Daybed.* Daybed has foundation, usually supported by coil or flat springs, mounted between arms on which mattress is placed. It has permanent arms, no backrest, and sleeps one (see fig. 5).

(l) *Decubitus pad.* Designed to prevent or assist in the healing of decubitus ulcers (bed sores). Flat decubitus pads are covered by the standard. Convoluting decubitus pads made entirely from foam are not covered by the standard.

(m) *Dressing table pad.* Pad to cushion a baby on top of a dressing table.

(n) *Drop-arm loveseat.* When side arms are in vertical position, this piece is a loveseat. The adjustable arms can be lowered to one of four positions for a chaise lounge effect or a single sleeper. The vertical back support always remains upright and stationary (see fig. 5).

(o) *Futon.* A flexible mattress generally used on the floor that can be folded or rolled up for storage. It usually consists of resilient material covered by ticking.

(p) *High riser.* This is a frame of sofa seating height with two equal size mattresses without a backrest. The frame slides out with the lower bed and rises to form a double or two single beds (see fig. 5).

(q) *Infant carrier and lounge pad.* Pad to cushion a baby in an infant carrier.

(r) *Mattress foundation.* Consists of any surface such as foam, box springs or other, upon which a mattress is

placed to lend it support for use in sleeping upon.

(s) *Pillow*. Cloth bag filled with resilient material such as feathers, down, sponge rubber, urethane, or fiber used as the support for the head of a person.

(t) *Playpen pad*. Cushion used on the bottom of a playpen.

(u) *Portable crib*. Smaller size than a conventional crib. Can usually be converted into a playpen.

(v) *Press-back lounges*. Longer and wider than conventional sofa beds. When the lounge seat is pressed lightly, it levels off to form, with the seat, a flat sleeping surface. The seat slopes, in the sitting position, for added comfort (see fig. 5).

(w) *Push-back sofa*. When pressure is exerted on the back of the sofa, it becomes a bed. When the back is lifted, it becomes a sofa again. Styled in tight or loose cushions (see fig. 5).

(x) *Roll-away-bed*. Portable bed which has frame which folds in half with the mattress for compact storage.

(y) *Sleep lounge*. Upholstered seating section is mounted on a sturdy frame. May have bolster pillows along the wall as backrests or may have attached headrests (see fig. 5).

(z) *Stroller pad*. Cushion used in a baby stroller.

(aa) *Sofa bed*. These are pieces in which the back of the sofa swings down flat with the seat to form the sleeping surface. All upholstered. Some sofa

beds have bedding boxes for storage of bedding. There are two types: the one-piece, where the back and seat are upholstered as a unit, supplying an unbroken sleeping surface; and the two-piece, where back and seat are upholstered separately (see fig. 5).

(bb) *Sofa lounge*—(includes glideouts). Upholstered seating section is mounted on springs and in a special frame that permit it to be pulled out for sleeping. Has upholstered backrest bedding box that is hinged. Glideouts are single sleepers with sloping seats and backrests. Seat pulls out from beneath back and evens up to supply level sleeping surface (see fig. 5).

(cc) *Studio couch*. Consists of upholstered seating section on upholstered foundation. Many types convert to twin beds (see fig. 5).

(dd) *Studio divan*. Twin size upholstered seating section with foundation is mounted on metal bed frame. Has no arms or backrest, and sleeps one (see fig. 5).

(ee) *Trundle bed*. A low bed which is rolled under a larger bed. In some lines, the lower bed springs up to form a double or two single beds as in a high riser (see fig. 5).

(ff) *Twin studio divan*. Frames which glide out (but not up) and use seat cushions, in addition to upholstered foundation to sleep two. Has neither arms nor back rest (see fig. 5).

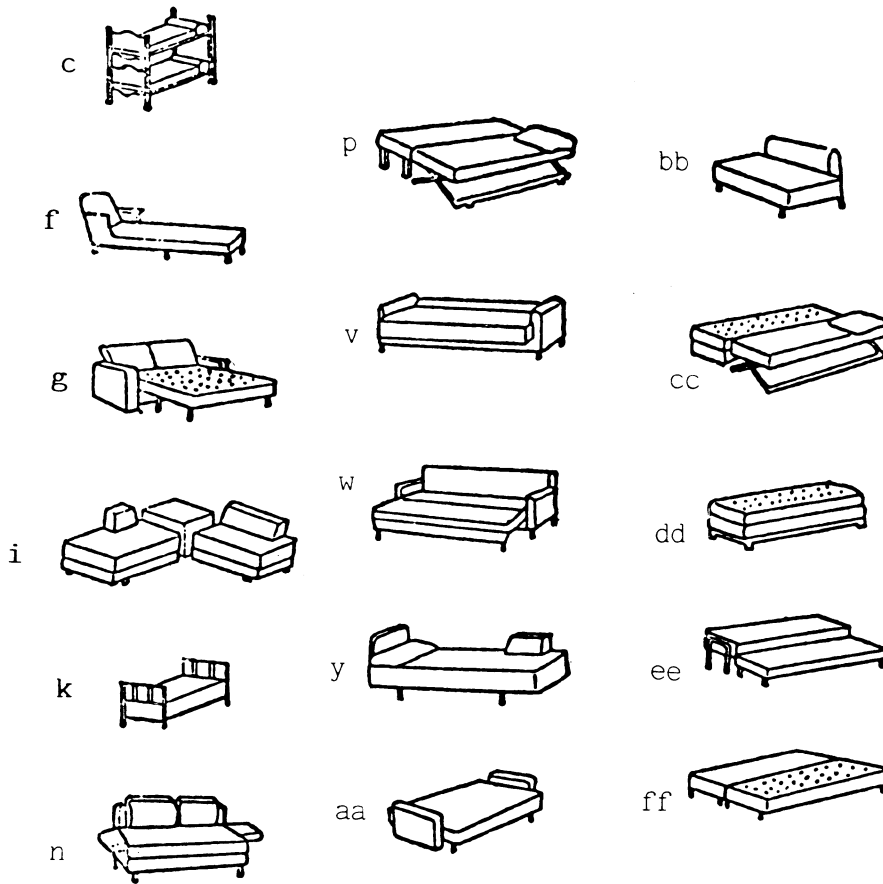


Figure 5

Effective date: The amended standard shall become effective on April 10, 1985. As required by section 4(b) of the Flammable Fabrics Act (15 U.S.C. 1193(b)), mattresses and mattress pads which are in inventory or with the trade on the effective date of the amended standard are exempt from its requirements, but must comply with all applicable requirements of the original standard.

Subpart B—Rules and Regulations

§ 1632.31 Mattresses/mattress pads—labeling, recordkeeping, guaranties and “one of a kind” exemption.

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

(1) *Standard for the Flammability of Mattresses or Standard* means the Standard for the Flammability of Mattresses and Mattress Pads (FF 4-72, amended), (16 CFR part 1632, subpart A).

(2) The definition of terms set forth in the §1632.1 of the Standard shall also apply to this section.

(b) *Labeling.* (1) All mattress pads which contain a chemical fire retardant shall be labeled with precautionary instructions to protect the pads from agents or treatments which are known to cause deterioration of their flame resistance. Such labels shall be permanent, prominent, conspicuous, and legible.

(2) If a mattress pad contains a chemical fire retardant, it shall be prominently, conspicuously, and legibly labeled with the letter "T".

(3) Each mattress or mattress pad subject to the Standard shall bear a permanent, accessible, and legible label containing the month and year of manufacture and the location of the manufacturer. (See §1632.1(i) of the Amended Standard.)

(4) The information required on labels by this section shall be set forth separately from any other information appearing on such label. Other information, representations, or disclosures, appearing on labels required by this section or elsewhere on the item, shall not interfere with, minimize, detract from, or conflict with the required information.

(5) No person, other than the ultimate consumer, shall remove or mutilate, or cause or participate in the removal or mutilation of, any label required by this section to be affixed to any item.

(6) Products intended for one time use (see §1632.5(b)(1)(i)) are not subject to the requirements of paragraphs (1) and (2) of this §1632.31(b).

(c) *Records—manufacturers, importers, or persons initially introducing items into commerce.* Every manufacturer, importer, or other person initially introducing into commerce mattresses or mattress pads subject to the standard, irrespective of whether guarantees are issued relative thereto, shall maintain the records hereinafter specified.

(1) Manufacturing specifications and description of each mattress or mattress pad prototype with an assigned prototype identification number.

(2) Test results and details of each prototype test performed in accordance with §1632.4 or §1632.5, including proto-

type identification number, ticking classification if known, test room condition, cigarette locations, number of relights for each location, whether each cigarette location passed or failed, name and signature of person conducting the test and date of test. These records shall include a certification by the person overseeing the testing as to the test results and that the test was carried out in accordance with the Standard.

(3) Photograph (color or black and white) of the bare surface of each mattress or mattress pad tested, in accordance with §1632.4 or §1632.5, with the prototype identification number of the mattress or mattress pad and a clear designation as to which part of the mattress or mattress pad was sheeted and which part was tested bare.

(4) Records to support any determination that a particular material, other than the ticking or tape edge material used in a mattress or mattress pad prototype, did not influence the ignition resistance of the prototype and could be substituted by another material. Such record should include photographs or physical specimens.

(5) Manufacturing specifications and description of any new ticking or tape edge material substituted in accordance with §1632.6 or §1632.7, with the identification number of the prototype involved.

(6) The test results and details of any ticking classification test conducted in accordance with §1632.6, including the ticking classification (A, B, or C), the test room condition, the number of relights, whether each cigarette location passed or failed, the name and signature of the person conducting the test and the date of the test, or a certification from the ticking supplier. The certification should state the ticking classification and that the ticking was tested in accordance with §1632.6.

(7) The test results and details of any test of tape edge materials conducted in accordance with §1632.7, including prototype identification number, test room condition, number of relights, whether each cigarette passed or failed, name and signature of person conducting the test and date of test. The record shall include a certification by the person overseeing the testing as to

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the test results and that the test was carried out in accordance with §1632.7.

(8) Photograph (color or black and white) of the bare surface of each mattress or mattress pad tested in accordance with §1632.7, with the prototype identification number of the mattress or mattress pad and a clear designation as to which part of the mattress or mattress pad was sheeted and which part was tested bare.

(9) Details of any approved alternate laundering procedure used in laundering mattress pads required by the Standard to be laundered during testing.

(10) Identification, composition, and details of the application of any flame retardant treatments employed relative to mattress pads or mattress pad components.

(11) Disposition of all failing or rejected prototype mattress or mattress pads. Such records must demonstrate that the items were retested and reworked in accordance with the Standard prior to sale or distribution and that such retested or reworked mattresses or mattress pads comply with the Standard, or must otherwise show the disposition of such items.

(12) The records required by this paragraph shall be maintained for as long as the prototype is in production, the ticking is being used on the mattresses or mattress pad prototype, and/or the tape edge material is being used on the mattress or mattress pad prototype, and shall be retained for 3 years thereafter.

(d) *Tests for guaranty purposes.* Reasonable and representative tests for the purpose of issuing a guaranty under section 8 of the Act for mattress or mattress pads subject to the Standard shall be those prototype and substitution tests performed, pursuant to the requirements of the Standard.

(e) *Compliance with this section.* No person subject to the Flammable Fabrics Act shall manufacture for sale, import, distribute, or otherwise market or handle any mattress or mattress pad which is not in compliance with §1632.31.

(f) *“One of a kind” exemption for physician prescribed mattresses and mattress pads.* (1) A mattress or mattress pad manufactured in accordance with a

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physician’s written prescription or manufactured in accordance with other comparable written medical therapeutic specification, to be used in connection with the treatment or management of a named individual’s physical illness or injury, shall be considered a “one of a kind mattress” and shall be exempt from testing under the Standard pursuant to §1632.2(b)(4) thereof: Provided, that the mattress bears a permanent, conspicuous and legible label which states:

WARNING: This mattress or mattress pad may be subject to ignition and hazardous smoldering from cigarettes. It was manufactured in accordance with a physician’s prescription and has not been tested under the Federal Standard for the Flammability of Mattresses (FF 4-72).

Such labeling must be attached to the mattress or mattress pad so as to remain on or affixed thereto for the useful life of the mattress or mattress pad. The label must be at least 40 square inches (250 sq. cm) with no linear dimension less than 5 inches (12.5 cm). The letters in the word “WARNING” shall be no less than 0.5 inch (1.27 cm) in height and all letters on the label shall be in a color which contrasts with the background of the label. The warning statement which appears on the label must also be conspicuously displayed on the invoice or other sales papers that accompany the mattress in commerce from the manufacturer to the final point of sale to a consumer.

(2) The manufacturer of a mattress or mattress pad exempted from testing under this paragraph shall, in lieu of the records required to be kept by paragraph (c) of this section, retain a copy of the written prescription or other comparable written medical therapeutic specification for such mattress or mattress pad during a period of three years, measured from the date of manufacture.

(3) For purposes of this regulation the term *physician* shall mean a physician, chiropractor or osteopath licensed or otherwise permitted to practice by any State of the United States.

Subpart C—Interpretations and Policies

§§ 1632.61–1632.62 [Reserved]

§ 1632.63 Policy clarification on renovation of mattress.

(a) Section 3 of the Flammable Fabrics Act (15 U.S.C. 1192) prohibits, among other things, the “manufacture for sale” of any product which fails to conform to an applicable standard issued under the act. The standard for the Flammability of Mattresses, as amended (FF 4–72) (subpart A of this part), issued pursuant to the act, provides that, with certain exceptions, mattress must be tested according to a prescribed method. The standard does not exempt renovation; nor does it specifically refer to renovation.

(b) The purpose of this document is to inform the public that mattresses renovated for sale are considered by the Commission to be mattresses manufactured for sale and, therefore, subject to the requirements of the Mattress Standard. The Commission believes that this policy clarification will better protect the public against the unreasonable risk of fires leading to death, personal injury or significant property damage, and assure that purchasers of renovated mattresses receive the same protection under the Flammable Fabrics Act as purchasers of new mattresses.

(c) For purposes of this document, mattress renovation includes a wide range of operations. Replacing the ticking or batting, stripping a mattress to its springs, rebuilding a mattress, or replacing components with new or recycled materials, are all part of the process of renovation. Any one, or any combination of one or more, of these steps in mattress renovation is considered to be mattress manufacture.

(d) If the person who renovates the mattress intends to retain the renovated mattress for his or her own use, or if a customer or a renovator merely hires the services of the renovator and intends to take back the renovated mattress for his or her own use, “manufacture for sale” has not occurred and such a renovated mattress is not subject to the mattress standard.

(e) However, if a renovated mattress is sold or intended for sale, either by the renovator or the owner of the mattress who hires the services of the renovator, such a transaction is considered to be “manufacture for sale”.

(f) Accordingly, mattress renovation is considered by the Commission to be “manufacture for sale” and, therefore, subject to the Mattress Standard, when renovated mattresses are sold or intended for sale by a renovator or the customer of the renovator.

(g) A renovator who believes that certain mattresses are entitled to one-of-a-kind exemption, may present relevant facts to the Commission and petition for an exemption. Renovators are expected to comply with all the testing requirements of the Mattress Standard until an exemption is approved.

PART 1633—STANDARD FOR THE FLAMMABILITY (OPEN FLAME) OF MATTRESS SETS

Subpart A—The Standard

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FIGURE 13 TO PART 1633—LABELS FOR IMPORTED MATTRESS WITH FOUNDATION

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FIGURE 16 TO PART 1633—LABEL FOR DOMESTIC MATTRESS ONLY

FIGURE 17 TO PART 1633—LABEL FOR IMPORTED MATTRESS ONLY

AUTHORITY: 15 U.S.C. 1193, 1194

SOURCE: 71 FR 13498, Mar. 15, 2006, unless otherwise noted.

Subpart A—The Standard

§ 1633.1 Purpose, scope and applicability.

(a) *Purpose.* This part 1633 establishes flammability requirements that all mattress sets must meet before sale or introduction into commerce. The purpose of the standard is to reduce deaths and injuries associated with mattress fires by limiting the size of the fire generated by a mattress set during a thirty minute test.

(b) *Scope.* (1) All mattress sets, as defined in §1633.2(c), manufactured, imported, or renovated on or after the effective date of this standard are subject to the requirements of the standard.

(2) One-of-a-kind mattress sets may be exempted from testing under this standard in accordance with §1633.13(c).

(c) *Applicability.* The requirements of this part 1633 shall apply to each “manufacturer” (as that term is defined in §1633.2(k)) of mattress sets which are manufactured for sale in commerce.

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§ 1633.2 Definitions.

In addition to the definitions given in section 2 of the Flammable Fabrics Act as amended (15 U.S.C. 1191), the following definitions apply for purposes of this part 1633.

(a) *Mattress* means a resilient material or combination of materials enclosed by a ticking (used alone or in combination with other products) intended or promoted for sleeping upon. This includes mattresses that have undergone renovation as defined in paragraph (d) of this section.

(1) This term includes, but is not limited to, adult mattresses, youth mattresses, crib mattresses (including portable crib mattresses), bunk bed mattresses, futons, flip chairs without a permanent back or arms, sleeper chairs, and water beds or air mattresses if they contain upholstery material between the ticking and the mattress core. Mattresses used in or as part of upholstered furniture are also included; examples are convertible sofa bed mattresses, corner group mattresses, day bed mattresses, roll-away bed mattresses, high risers, and trundle bed mattresses. See §1633.9 Glossary of terms, for definitions of these items.

(2) This term excludes mattress pads, mattress toppers (items with resilient filling, with or without ticking, intended to be used with or on top of a mattress), sleeping bags, pillows, liquid and gaseous filled tickings, such as water beds and air mattresses that contain no upholstery material between the ticking and the mattress core, upholstered furniture which does not contain a mattress, and juvenile product pads such as car bed pads, carriage pads, basket pads, infant carrier and lounge pads, dressing table pads, stroller pads, crib bumpers, and playpen pads. See §1633.9 Glossary of terms, for definitions of these items.

(b) *Foundation* means a ticking covered structure used to support a mattress or sleep surface. The structure may include constructed frames, foam, box springs, or other materials, used alone or in combination.

(c) *Mattress set* means either a mattress and foundation labeled by the manufacturer for sale as a set, or a mattress labeled by the manufacturer for sale without any foundation.

(d) *Renovation* means altering an existing mattress set for the purpose of resale.

(1) This term includes any one, or any combination of the following: replacing the ticking or batting, stripping a mattress to its springs, rebuilding a mattress, or replacing components with new or recycled materials.

(2) This term excludes alterations if the person who renovates the mattress intends to retain the renovated mattress for his or her own use, or if a customer or a renovator merely hires the services of the renovator and intends to take back the renovated mattress for his or her own use.

(e) *Ticking* means the outermost layer of fabric or related material of a mattress or foundation. It does not include any other layers of fabric or related materials quilted together with, or otherwise attached to, the outermost layer of fabric or related material.

(f) *Upholstery material* means all material, either loose or attached, between the mattress ticking and the core of a mattress.

(g) *Edge* means the seamed, unseamed or taped border edge of a mattress or foundation that joins the top and/or bottom with the side panels.

(h) *Tape edge* means an edge made by using binding tape to encase and finish raw edges.

(i) *Binding tape* means a fabric strip used in the construction of some edges.

(j) *Seam thread* means the thread used to form stitches in construction features, seams, and tape edges.

(k) *Manufacturer* means an individual plant or factory at which mattress sets are manufactured or assembled. For purposes of this part 1633, importers and renovators are considered manufacturers.

(l) *Prototype* means a specific design of mattress set that serves as a model for production units intended to be introduced into commerce and is the same as the production units with respect to materials, components, design and methods of assembly. A mattress intended for sale with a foundation(s) shall be considered a separate and distinct prototype from a mattress intended for sale without a foundation.

(m) *Prototype developer* means a third party that develops a prototype for use by a manufacturer. Such prototypes may be qualified by either the prototype developer or by the manufacturer.

(n) *Qualified prototype* means a prototype that has been tested in accordance with §1633.4(a) and meets the criteria stated in §1633.3(b).

(o) *Confirmed prototype* means a prototype that is part of a pooling arrangement and is the same as a qualified prototype with respect to materials, components, design and methods of assembly and has been tested in accordance with §1633.5(a)(3) and meets the criteria stated in §1633.3(b).

(p) *Subordinate prototype* means a mattress set that is based on a qualified or confirmed prototype and is the same as the qualified or confirmed prototype, except as permitted by §1633.4(b). A subordinate prototype is considered to be represented by a qualified or confirmed prototype and need not be tested in accordance with §1633.4(a) or §1633.5(a)(3).

(q) *Prototype pooling* means a cooperative arrangement—whereby one or more manufacturers build mattress sets based on a qualified prototype produced by another manufacturer or prototype developer. A manufacturer who relies on another manufacturer's or prototype developer's qualified prototype must perform a confirmation test on the mattress set it manufactures.

(r) *Confirmation test* means a pre-market test conducted by a manufacturer who is relying on a qualified prototype produced by another manufacturer or prototype developer. A confirmation test must be conducted in accordance with the procedures set forth in §1633.7 and meet the criteria in §1633.3(b).

(s) *Production lot* means any quantity of finished mattress sets that are produced in production intervals defined by the manufacturer, and are intended to replicate a specific qualified, confirmed or subordinate prototype that complies with this part 1633.

(t) *Specimen* means a mattress set tested under this regulation.

(u) *Twin size* means any mattress with the dimensions 38 inches (in) (965 millimeters) × 74.5 in. (1892 mm); all dimensions may vary by $\pm\frac{1}{2}$ in. (± 13 mm).

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(v) *Core* means the main support system that may be present in a mattress, such as springs, foam, water bladder, air bladder, or resilient filling.

§ 1633.3 General requirements.

(a) *Summary of test method.* The test method set forth in §1633.7 measures the flammability (fire test response characteristics) of a mattress specimen by exposing the specimen to a specified flaming ignition source and allowing it to burn freely under well-ventilated, controlled environmental conditions. The flaming ignition source shall be a pair of propane burners. These burners impose differing fluxes for differing times on the top and sides of the specimen. During and after this exposure, measurements shall be made of the time-dependent heat release rate from the specimen, quantifying the energy generated by the fire. The rate of heat release must be measured by means of oxygen consumption calorimetry.

(b) *Test criteria.* (1) When testing the mattress set in accordance with the test procedure set forth in §1633.7, the specimen shall comply with both of the following criteria:

(i) The peak rate of heat release shall not exceed 200 kilowatts (“kW”) at any time within the 30 minute test; and

(ii) The total heat release shall not exceed 15 megajoules (“MJ”) for the first 10 minutes of the test.

(2) In the interest of safety, the test operator should discontinue the test and record a failure if a fire develops to such a size as to require suppression for the safety of the facility.

(c) *Testing of mattress sets.* Mattresses labeled for sale with a foundation shall be tested with such foundation. Mattresses labeled for sale without a foundation shall be tested alone.

(d) *Compliance with this standard.* Each mattress set manufactured, imported, or renovated on or after the effective date of the standard shall meet the test criteria specified in paragraph (b) of this section and otherwise comply with all applicable requirements of this part 1633.

§ 1633.4 Prototype testing requirements.

(a) Except as otherwise provided in paragraph (b) of this section, each

manufacturer shall cause three specimens of each prototype to be tested according to §1633.7 and obtain passing test results according to §1633.3(b) before selling or introducing into commerce any mattress set based on that prototype, unless the manufacturer complies with the prototype pooling and confirmation testing requirements in §1633.5.

(b) Notwithstanding the requirements of paragraph (a) of this section, a manufacturer may sell or introduce into commerce a mattress set that has not been tested according to §1633.7 if that mattress set differs from a qualified or confirmed prototype only with respect to:

(1) Mattress/foundation length and width, not depth (*e.g.*, twin, queen, king);

(2) Ticking, unless the ticking of the qualified prototype has characteristics (such as chemical treatment or special fiber composition) designed to improve performance on the test prescribed in this part; and/or

(3) Any component, material, design or method of assembly, so long as the manufacturer can demonstrate on an objectively reasonable basis that such differences will not cause the mattress set to exceed the test criteria specified in §1633.3(b).

(c) All tests must be conducted on specimens that are no smaller than a twin size, unless the largest size mattress set produced is smaller than a twin size, in which case the largest size must be tested.

(d)(1) If each of the three specimens meets both the criteria specified in §1633.3(b), the prototype shall be qualified. If any one (1) specimen fails to meet the test criteria of §1633.3(b), the prototype is not qualified.

(2) Any manufacturer may produce a mattress set for sale in reliance on prototype tests performed before the effective date of this Standard, provided:

(i) The manufacturer has documentation showing that such tests were conducted in accordance with all requirements of this section and §1633.7 and yielded passing results according to the test criteria of §1633.3(b);

(ii) Any tests conducted more than 30 days after publication of this standard in the FEDERAL REGISTER must comply

with the recordkeeping requirements in §1633.11;

(iii) Such mattress sets may be used for prototype pooling only if the manufacturer complies with applicable recordkeeping requirements in §1633.11; and

(iv) Such mattress sets may serve as the basis for a subordinate prototype only if the manufacturer has all records required by §1633.11.

§1633.5 Prototype pooling and confirmation testing requirements.

(a) *Prototype pooling.* One or more manufacturers may rely on a qualified prototype produced by another manufacturer or prototype developer provided that:

(1) The prototype meets the requirements of §1633.4;

(2) The mattress sets being produced are the same as the qualified prototype with respect to materials, components, design and methods of assembly; and

(3) The manufacturer producing mattress sets in reliance on a qualified prototype has performed a confirmation test on at least one (1) Specimen of the mattress set it produces in accordance with §1633.7. The tested specimen must meet the criteria under §1633.3(b) before any mattress sets based on the qualified prototype may be sold or introduced into commerce.

(b) *Confirmation test failure.* (1) If the confirmation test specimen fails to meet the criteria of §1633.3(b), the manufacturer thereof shall not sell any mattress set based on the same qualified prototype until that manufacturer takes corrective measures, tests a new specimen, and the new specimen meets the criteria of §1633.3(b).

(2) If a confirmation test specimen fails to meet the criteria of §1633.3(b), the manufacturer thereof must notify the manufacturer of the prototype of the test failure.

§1633.6 Quality assurance requirements.

(a) *Quality assurance.* Each manufacturer shall implement a quality assurance program to ensure that mattress sets manufactured for sale are the same as the qualified and/or confirmed prototype on which they are based with respect to materials, components, de-

sign and methods of assembly, except as permitted by §1633.4(b). At a minimum these procedures shall include:

(1) Controls, including incoming inspection procedures, of all mattress set materials, components and methods of assembly to ensure that they are the same as those used in the prototype on which they are based;

(2) Designation of a production lot that is represented by the prototype; and

(3) Inspection of mattress sets produced for sale sufficient to demonstrate that they are the same as the prototype on which they are based with respect to materials, components, design and methods of assembly.

(b) *Production testing.* Manufacturers are encouraged to conduct, as part of the quality assurance program, random testing of mattress sets being produced for sale according to the requirements of §§1633.3 and 1633.7.

(c) *Failure of mattress sets produced for sale to meet flammability standard—(1) Sale of mattress sets.* If any test performed for quality assurance yields results which indicate that any mattress set of a production lot does not meet the criteria of §1633.3(b), or if a manufacturer obtains test results or other evidence that a component or material or construction/assembly process used could negatively affect the test performance of the mattress set as set forth in §1633.3(b), the manufacturer shall cease production and distribution in commerce of such mattress sets until corrective action is taken.

(2) *Corrective action.* A manufacturer must take corrective action when any mattress set manufactured or imported for sale fails to meet the flammability test criteria set forth in §1633.3(b).

§1633.7 Mattress test procedure.

(a) *Apparatus and test materials—(1) Calorimetry.* The rate of heat release must be measured by means of oxygen consumption calorimetry. The calibration should follow generally accepted practices for calibration. The calorimetry system shall be calibrated at a minimum of two (2) calibration points—at 75 kW and 200 kW.

(2) *Test area.* The test area must have either Test Configuration A or B. The

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test area conditions shall be maintained at a temperature greater than 15 °C (59 °F) and less than 27 °C (80.6 °F) and a relative humidity less than 75 percent.

(i) *Test configuration A. (an open calorimeter (or furniture calorimeter)).* In this configuration, the specimen to be tested is placed under the center of an open furniture calorimeter. Figure 1 of this part shows the test assembly atop a bed frame and catch surface. The specimen shall be placed under an open hood which captures the entire smoke plume and is instrumented for heat release rate measurements. The area surrounding the test specimen in an open calorimeter layout shall be sufficiently large that there are no heat re-radiation effects from any nearby materials or objects. The air flow to the test specimen should be symmetrical from all sides. The air flow to the calorimeter hood shall be sufficient to ensure that the entire fire plume is captured, even at peak burning. Skirts may be placed on the hood periphery to help assure this plume capture, if necessary, though they must not be of such an excessive length as to cause the incoming flow to disturb the burning process. Skirts must also not heat up to the point that they contribute significant re-radiation to the test specimen. The air supply to the hood shall be sufficient that the fire is not in any way limited or affected by the available air supply. The fire plume should not enter the hood exhaust duct. Brief (seconds) flickers of flame that occupy only a minor fraction of the hood exhaust duct inlet cross-section are acceptable since they do not signify appreciable suppression of flames.

(ii) *Test configuration B.* The test room shall have dimensions 10 ft. by 12 ft. by 8 ft. (3048 mm × 3658 mm × 2438 mm) high. The specimen is placed within the burn room. All smoke exiting from the room is caught by a hood system instrumented for heat release rate measurements. The room shall have no openings permitting air infiltration other than a doorway opening 38 in ±0.25 in by 80 in ±0.25 in (965 mm ±6.4 mm × 2032 mm ±6.4 mm) located as indicated in Figure 2 of this part and other small openings as nec-

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essary to make measurements. The test room shall be constructed of wood or metal studs and shall be lined with fire-rated wallboard or calcium silicate board. An exhaust hood shall be positioned outside of the doorway so as to collect all of the combustion gases. There shall be no obstructions in the air supply to the set-up.

(3) *Location of test specimen.* The location of the test specimen is shown in Figure 2 of this part. The angled placement is intended to minimize the interaction of flames on the side surfaces of the test specimen with the room walls. One corner of the test specimen shall be 13 centimeters (cm) to 17 cm from the wall and the other corner shall be 25 cm to 30 cm from the wall. The test room shall contain no other furnishings or combustible materials except for the test specimen.

(4) *Bed frame. (i) Frame dimensions.* The specimen shall be supported around its perimeter by the bed frame with a flat surface and no edges extending up from the surface (i.e., the angle is configured down). For twin size mattresses, the specimen shall be placed on top of a welded bed frame 1.90 m by 0.99 m (75 in by 39 in) made from 40 mm (1.50 in) steel angle. If testing a size other than twin, the test frame shall similarly match the dimensions of the specimen.

(ii) *Frame height.* The frame shall be 115 mm (4.5 in) high, except if adjustments are necessary to accommodate the required burner position in paragraph (h)(2)(ii) of this section. The height of the test frame shall also be adjusted, as necessary, so that the burner is no less than 25mm (1 in) above the supporting surface.

(iii) *Frame crosspieces.* The frame shall be completely open under the foundation except for two crosspieces, 25 mm wide (1 in) at the 1/3 length points, except when sagging of the specimen between the crosspieces exceeds 19 mm (3/4 in) below the test frame. Minimal additional crosspieces shall then be added to prevent sagging of the specimen.

(5) *Catch pan.* The bed frame feet shall rest on a surface of either calcium silicate board or fiber cement board, 13 mm (0.5 in) thick, 2.11 m by 1.19 m (83 in by 47 in). The board serves

as a catch surface for any flaming melt/drip material falling from the bed assembly and may be the location of a pool fire that consumes such materials. This surface must be cleaned between tests to avoid build-up of combustible residues. Lining this surface with aluminum foil to facilitate cleaning is not recommended since this might increase fire intensity via reflected radiation.

(6) *Ignition source*—(i) *General*. The ignition source shall consist of two T-shaped burners as shown in Figures 3 and 4 of this part. One burner impinges flames on the top surface of the mattress. The second burner impinges flames on the side of the mattress and on the side of the foundation. Each of the burners shall be constructed from stainless steel tubing (12.7 mm diameter with 0.89 ±0.5 mm wall thickness; 0.50 in diameter with 0.035 ±0.002 in wall). Each burner shall incorporate a stand-off foot to set its distance from the test specimen surface (Figure 5 of this part). Both burners shall be mounted with a mechanical pivot point but the side burner is locked in place to prevent movement about this pivot in normal usage. The top burner, however, is free to rotate about its pivot during a burner exposure and is lightly weighted so as to exert a downward force on the mattress top through its stand-off foot so that the burner follows a receding top surface on the test specimen (Figure 6 of this part). The combination of burner stand-off distance and propane gas flow rate to the burners determines the heat flux they impose on the surface of the test specimen so that both of these parameters are tightly controlled.

(ii) *Top surface burner*. The T head of the top surface burner (horizontal burner, Figure 3 of this part) shall be 305 ±2 mm (12 ±0.08 in) long with gas tight plugs in each end. Each side of the T shall contain 17 holes equally spaced over a 135 mm length (8.5 mm ±0.1 mm apart; 0.333 ±0.005 in). The holes on each side shall begin 8.5 mm (0.33 in) from the centerline of the burner head. The holes shall be 1.45 mm to 1.53 mm (0.058 in to 0.061 in) in diameter (which corresponds to Grade 10 machining practice with a well formed #53 drill bit). The holes shall point 5° out of the plane of the diagram in Fig-

ure 3. This broadens the width of the heat flux profile imposed on the surface of the test specimen.

(iii) *Side surface burner*. The T head of the side surface burner (vertical burner) shall be constructed similarly to the top surface burner, as shown in Figure 4 of this part, except that its overall length shall be 254 ±2 mm (10 ±0.08 in). Each side of the burner head shall contain 14 holes spaced evenly over a 110 mm length (8.5 mm ±0.1 mm apart; 0.333 ±0.005 in). The holes shall be 1.45 mm to 1.53 mm (0.058 in to 0.061 in) in diameter (which corresponds to Grade 10 machining practice with a well formed #53 drill bit). The holes shall point 5° out of the plane of the diagram in Figure 4.

(iv) *Burner stand-off*. The burner stand-off on each burner shall consist of a collar fixed by a set screw onto the inlet tube of the burner head (Figure 5 of this part). The collar shall hold a 3 mm diameter stainless steel rod having a 12.7 mm by 51 mm by (2–2.5 mm) thick (0.5 in by 2 in by (0.08–0.10 in) thick) stainless steel pad welded on its end with its face (and long axis) parallel to the T head of the burner. The foot pad shall be displaced about 10 mm to 12 mm from the longitudinal centerline of the burner head so that it does not rest on the test specimen in an area of peak heat flux.

(v) *Burner inlet lines*. A short section (9.5 mm outer diameter (“OD”), about 80 mm long; 3/8 in OD, about 3.2 in long) of copper tubing shall be placed in the inlet gas line just before the burner to facilitate making the burner nominally parallel to the test specimen surface (by a procedure described below). The copper tube on the top surface burner should be protected from excessive heat and surface oxidation by wrapping it with a suitable layer of high temperature insulation to protect the equipment. Both copper tubes are to be bent by hand in the burner alignment process. They must be replaced if they become work-hardened or crimped in any way. The gas inlet lines (12.7 mm OD stainless steel tubing; 0.50 in) serve as arms leading back to the pivot points and beyond, as shown in Figure 6 of this part. The length to the pivot for the top burner shall be approximately 1000 mm (40 in).

(vi) *Burner frame.* Figure 6 of this part shows the frame that holds the burners and their pivots, which are adjustable vertically in height. All adjustments (burner height, burner arm length from the pivot point, counterweight positions along the burner arm) are facilitated by the use of knobs or thumbscrews as the set screws. The three point footprint of the burner frame, with the two forward points on wheels, facilitates burner movement and burner stability when stationary.

(vii) *Arms.* The metal arms attached to the burners shall be attached to a separate gas control console by flexible, reinforced plastic tubing.¹ The gas control console is mounted separately so as to facilitate its safe placement outside of the test room throughout the test procedure. The propane gas lines running between the console and the burner assembly must be anchored on the assembly before running to the burner inlet arms. A 1.5 m \pm 25 mm (58 in \pm 1 in) length of flexible, reinforced tubing between the anchor point and the end of each burner inlet allows free movement of the top burner about its pivot point. The top burner arm shall have a pair of moveable cylindrical counterweights that are used, as described below, to adjust the downward force on the stand-off foot.

(viii) *Burner head.* Each burner head shall have a separate pilot light consisting of a 3 mm OD ($\frac{1}{8}$ in OD) copper tube with an independently-controlled supply of propane gas. The tube terminates within 10 mm of the center of the burner head. Care must be taken to set the pilot flame size small enough so as not to heat the test specimen before the timed burner exposure is begun.

(ix) *Flow control system.* Each burner shall have a flow control system of the type shown in Figure 7 of this part. Propane gas from a source such as a bottle is reduced in pressure to approximately 140 \pm 5 kilopascals (“kPa”) (20 \pm 1 pounds per square inch gage (“psig”)) and fed to the system shown in Figure 7 of this part. The gas flow to the burner is delivered in a square-wave manner (constant flow with rapid

onset and termination) by means of the solenoid valve upstream of the flowmeter. An interval timer (accurate to \pm 0.2 s) determines the burner flame duration. The pilot light assures that the burner will ignite when the solenoid valve opens.² The gas flow shall be set using a rotameter type of flowmeter, with a 150 mm scale, calibrated for propane. When calibrating the flowmeter, take into account that the flow resistance of the burner holes causes a finite pressure increase in the flowmeter above ambient. (If a calibration at one atmosphere is provided by the manufacturer, the flowmeter reading, at the internal pressure existing in the meter, required to get the flow rates listed below must be corrected, typically by the square root of the absolute pressure ratio. This calls for measuring the actual pressure in the flow meters when set near the correct flow values. A value roughly in the range of 1 kPa to 3 kPa—5 in to 15 in of water—can be expected.) See information on calibration in paragraph (b) of this section.

(x) *Gas flow rate.* Use propane gas: The propane shall be minimum 99% pure (often described by suppliers as CP or “chemically pure” grade, but this designation should not be relied on since the actual purity may vary by supplier). Each burner has a specific propane gas flow rate set with its respective, calibrated flowmeter. The gas flow rate to the top burner is 12.9 liters per minute (“L/min”) \pm 0.1 L/min at a pressure of 101 \pm 5 kPa (standard atmospheric pressure) and a temperature of 22 \pm 3 °C. The gas flow rate to the side burner is 6.6 \pm 0.05 L/min at a pressure of 101 \pm 5 kPa (standard atmospheric pressure) and a temperature of 22 \pm 3 °C. The total heat release rate of the burners is 27 kW.

(b) *Calibration of Propane Flowmeters—*
(1) *Preparation.* Once the assembly of the burner is completed and all the connecting points are checked for gas leakage, the most critical task is ensuring the exact flow rates of propane

¹Fiber-reinforced plastic tubing (6 mm ID by 9.5 mm OD; 0.25 inch ID by 0.4 inch OD) made of PVC should be used.

²If the side burner, or more commonly one half of the side burner, fails to ignite quickly, adjust the position of the igniter, bearing in mind that propane is heavier than air. The best burner behavior test assessment is done against an inert surface (to spread the gas as it would during an actual test).

into the top and side burners, as described in the test protocol. The gas flow rates are specified at 12.9 Liters per minute (LPM) ± 0.1 LPM and 6.6 LPM ± 0.05 LPM for the top and side burners (Burners 1 and 2), respectively, at a pressure of 101 ± 5 kiloPascal (kPa) (standard atmospheric pressure) and a temperature of 22 ± 3 °C. The rotameters that are installed in the control box of the burner assembly need to be calibrated for accurate measurement of these flow rates.

(i) The most practical and accurate method of measuring and calibrating the flow rate of gases (including propane) is use of a diaphragm test meter (also called a dry test meter). A diaphragm test meter functions based on positive displacement of a fixed volume of gas per rotation and its reading is therefore independent of the type of the gas being used. The gas pressure and temperature, however, can have significant impact on the measurement of flow rate.

(ii) The gas pressure downstream of the rotameters that are installed in the control box of the burner assembly should be maintained near atmospheric pressure (only a few millimeters of water above atmosphere). Therefore, the best location to place the diaphragm test meter for gas flow calibration is right downstream of the control box. The pressure at the propane tank must be set at 20 ± 1 pounds per square inch gage (psig).

(2) *Calibration Procedure.* Install the diaphragm test meter (DTM) downstream of the control box in the line for the top burner. Check all connecting points for gas leakage. Open the main valve on the propane tank and set a pressure of 20 ± 0.5 psig. Set the timers in the control box for 999 seconds (or the maximum range possible). Record the barometric pressure. Turn the "Burner 1" switch to ON and ignite the top burner. Allow the gas to flow for 2–3 minutes until the DTM is stabilized. Record the pressure and temperature in the DTM. Use a stopwatch to record at least one minute worth of complete rotations while counting the number of rotations.³

³With a diaphragm test meter well-sized to this application, this should be more than

Calculate the propane gas flow rate using the recorded time and number of rotations (total flow in that time). Use the pressure and temperature readings to convert to standard conditions. Repeat this measurement for two additional meter setting to allow for calibrating the flowmeter throughout the range of interest. Plot the flow versus meter reading, fit a best line (possibly quadratic) through these points to find the meter setting for a flow of 12.9 LPM at the above "standard conditions." Repeat this procedure for "Burner 2" using three meter readings to find the setting that gives a flow rate of 6.6 LPM at the standard conditions. After completion of the calibration, re-set the timers to 70 and 50 seconds.

(c) *Conditioning.* Remove the specimens from any packaging prior to conditioning. Specimens shall be conditioned in air at a temperature greater than 18 °C (65 °F) and less than 25 °C (77 °F) and a relative humidity less than 55 percent for at least 48 continuous hours prior to test. Specimens shall be supported in a manner to permit free movement of air around them during conditioning.

(d) *Test preparation—(1) General.* Horizontal air flow at a distance of 0.5 m (20 in) on all sides of the test specimen at the mattress top height shall be no more than 0.5 m/s. If there is any visual evidence that the burner flames are disturbed by drafts during their exposure durations, the burner regions must be enclosed on two or more sides by at least a triple layer of screen wire. The screens shall be at least 25 cm tall. The screen(s) for the top burner shall sit on the mattress top and shall be wide enough to extend beyond the area of the burner impingement. All screens shall be far enough away (typically 30 cm or more) from the burner tubes so as not to interfere or interact with flame spread during the burner exposure. The screen for the side burner will require a separate support from below. All screens shall be removed at

five rotations. A one liter per rotation meter will require 10 to 15 rotations for the flow measurements and greater than the minimum of one minute recording time specified here.

the end of the 70 second exposure interval.

(2) *Specimen*. Remove the test specimen from the conditioning room immediately before it is to be tested. Testing shall begin within 20 minutes after removal from the conditioning area. Be sure the test frame is approximately centered on the catch surface. Carefully center the foundation on top of the test frame to eliminate any gaps between the bottom periphery of the foundation and the inside edges of the test frame. If the mattress is to be tested alone, place it similarly. A mattress tested with its foundation should be centered longitudinally and laterally on the foundation. Carefully center them on the bed frame and on each other. The mattress shall be centered on top of the foundation (see Figure 1 of this part). However, in order to keep the heat flux exposure the same for the sides of the two components, if the mattress is 1 cm to 2 cm narrower than the foundation, the mattress shall be shifted so that the side to be exposed is in the same plane as the foundation. Refer to Figure 8 of this part. A product having an intended sleep surface on only one side shall be tested with the sleeping side up so that the sleeping surface is exposed to the propane burner.

(e) *Burner flow rate/flow timer confirmation*. Just prior to moving the burner adjacent to the test specimen, briefly ignite each burner at the same time, and check that the propane flow to that burner is set at the appropriate level on its flowmeter to provide the flows listed in §1633.7(a)(6)(x). Check that the timers for the burner exposures are set to 70 seconds for the top burner and 50 seconds for the side burner. For a new burner assembly, check the accuracy of the gas flow timers against a stop watch at these standard time settings. Set pilot flows to a level that will not cause them to impinge on sample surfaces.

(f) *Location of the gas burners*. The general layout for the room configuration is shown in Figure 2 of this part. Place the burner heads so that they are within 300 mm (1 ft) of the mid-length of the mattress. If there are unique construction features (e.g., handles, zippers) within the burner placement

zone, the burner shall impinge on this feature. For a quilted mattress top the stand-off foot pad must alight on a high, flat area between dimples or quilting thread runs. The same is to be true for the side burner if that surface is quilted. If a specimen design presents a conflict in placement such that both burners cannot be placed between local depressions in the surface, the top burner shall be placed at the highest flat surface.

(g) *Burner set-up*. The burners shall be placed in relation to the mattress and foundation surfaces in the manner shown in Figure 9 of this part, i.e., at the nominal spacings shown there and with the burner tubes nominally parallel⁴ to the mattress surfaces on which they impinge. Since the heat flux levels seen by the test specimen surfaces depend on burner spacing, as well as gas flow rate, care must be taken with the set-up process.

(h) *Burner alignment procedure*—(1) *Preparation*. Complete the following before starting the alignment procedure:

(i) Check that the pivot point for the mattress top burner feed tube and the two metal plates around it are clean and well-lubricated so as to allow smooth, free movement.

(ii) Set the two burners such that the 5° out-of-plane angling of the flame jets makes the jets on the two burners point slightly *toward* each other.

(iii) Check the burner stand-off feet for straightness and perpendicularity between foot pad and support rod and to see that they are clean of residue from a previous test.

(iv) Have at hand the following items to assist in burner set-up: The jig, shown in Figure 10 of this part, for setting the stand-off feet at their proper distances from the front of the burner tube; a 3 mm thick piece of flat stock (any material) to assist in checking the parallelness of the burners to the mattress surfaces; and a 24 gage stainless steel sheet metal platen that is 30 mm (12 in) wide, 610 mm (24 in) long and has

⁴The top burner will tend to be tangential to the mattress surface at the burner mid-length; this orientation will not necessarily be parallel to the overall average mattress surface orientation nor will it necessarily be horizontal. This is a result of the shape of the mattress top surface.

a sharp, precise 90° bend 355 mm (14 in) from one 30 mm wide end or another dimension that meets the requirements for a specific sample.

(2) *Alignment.* (i) Place the burner assembly adjacent to the test specimen. Place the sheet metal platen on the mattress with the shorter side on top. The location shall be within 30 cm (1 ft) of the longitudinal center of the mattress. The intended location of the stand-off foot of the top burner shall not be in a dimple or crease caused by the quilting of the mattress top. Press the platen laterally inward from the edge of the mattress so that its side makes contact with either the top and bottom edge or the vertical side of the mattress.⁵ Use a sufficient length of duct tape (platen to mattress top) to assure that the platen stays firmly against the surfaces of the mattress.

(ii) With both burner arms horizontal (pinned in this position), fully retract the stand-off feet of both burners and, if necessary, the pilot tubes as well.⁶ (Neither is to protrude past the front face of the burner tubes at this point.) Move the burner assembly forward (perpendicular to the mattress) until the vertical burner lightly contacts the sheet metal platen. Adjust the height of the vertical burner on its vertical support column so as to center the tube on the crevice between the mattress and the foundation. (This holds also for pillow top mattress tops, i.e.,

⁵ Mattresses having a convex side are treated separately since the platen cannot be placed in the above manner. Use the platen only to set the top burner parallelness. Set the in/out distance of the top burner to the specification in paragraph (h)(1)(iii). Set the side burner so that it is approximately (visually) parallel to the flat side surface of the foundation below the mattress/foundation crevice once its foot is in contact with the materials in the crevice area. The burner will not be vertical in this case. If the foundation side is also non-flat, set the side burner vertical (± 3 mm, as above) using a bubble level as a reference. The side surface convexities will then bring the bowed out sections of the specimen closer to the burner tube than the stand-off foot.

⁶ The pilot tubes can normally be left with their ends just behind the plane of the front of the burner tube. This way they will not interfere with positioning of the tube but their flame will readily ignite the burner tubes.

ignore the crevice between the pillow top and the main body of the mattress.)⁷ Adjust the height of the horizontal burner until it sits lightly on top of the sheet metal platen. Its burner arm should then be horizontal.

(iii) Move the horizontal burner in/out (loosen the thumb screw near the pivot point) until the outer end of the burner tube is 13 mm to 19 mm ($\frac{1}{2}$ in to $\frac{3}{4}$ in) from the corner bend in the platen (this is facilitated by putting a pair of lines on the top of the platen 13 mm and 19 mm from the bend and parallel to it). Tighten the thumb screw.

(iv) Make the horizontal burner parallel to the top of the platen (within 3 mm ($\frac{1}{8}$ inch) over the burner tube length); when properly parallel, it should not be possible to insert the 3 mm flat stock under either burner end by bending the copper tube section appropriately. Note: After the platen is removed (in paragraph (h)(2)(vii) of this section), the burner tube may not be horizontal; this is normal. For mattress/foundation combinations having nominally flat, vertical sides, the similar adjustment for the vertical burner is intended to make that burner parallel to the sides and vertical. Variations in the shape of mattresses and foundations can cause the platen section on the side to be non-flat and/or non-vertical. If the platen is flat and vertical, make the vertical burner parallel to the side of the platen (± 3 mm) by bending its copper tube section as needed. If not, make the side burner parallel to the mattress/foundation sides by the best visual estimate after the platen has been removed.

(v) Move the burner assembly perpendicularly back away from the mattress about 30 cm (1 ft). Set the two stand-off feet to their respective distances using the jig designed for this purpose. Install the jig *fully* onto the burner tube (on the *same side* of the tube as the stand-off foot), with its side edges parallel to the burner feed arm,

⁷ For tests of the mattress alone, set the center of the side burner at the lower edge of the mattress OR the top (upper tip) of the side burner 25 mm (1 in) below the top edge of the mattress, whichever is lower. This prevents inappropriate (excessive) exposure of the top surface of the mattress to the side burner.

at about the position where one end of the foot will be. Loosen the set screw and slide the foot out to the point where it is flush with the bottom end of the jig. Tighten the set screw. Make sure the long axis of the foot is parallel to the burner tube. It is essential to use the correct side of the spacer jig with each burner. Double check this. The jig must be clearly marked.

(vi) Set the downward force of the horizontal burner. Remove the retainer pin near the pivot. While holding the burner feed arm horizontal using a spring scale⁸ hooked onto the thumbscrew holding the stand-off foot, move the small and/or large weights on the feed tube appropriately so that the spring scale reads 170 g to 225 g (6 oz to 8 oz).

(vii) Remove the sheet metal platen (and tape holding it).

(viii) Hold the horizontal burner up while sliding the burner assembly forward until the vertical burner stand-off foot just touches the mattress and/or the foundation, then release the horizontal burner. The outer end of the burner tube should extend at least 6 mm to 12 mm ($\frac{1}{4}$ in to $\frac{1}{2}$ in) out beyond the uppermost corner/edge of the mattress so that the burner flames will hit the edge. (For a pillow top mattress, this means the outer edge of the pillow top portion and the distance may then be greater than 6 mm to 12 mm.) If this is not the case, move the burner assembly (perpendicular to the mattress side)—not the horizontal burner alone—until it is.⁹ Finally, move the

vertical burner tube until its stand-off foot just touches the side of the mattress and/or the foundation. (Use the set screw near the vertical burner pivot.)

(ix) Make sure all thumbscrews are adequately tightened. Care must be taken, once this set-up is achieved, to avoid bumping the burner assembly or disturbing the flexible lines that bring propane to it.

(x) If there is *any* indication of flow disturbances in the test facility which cause the burner flames or pilot flames to move around, place screens around the burners so as to minimize these disturbances.¹⁰ These screens (and any holders) must be far enough away from the burners (about 30 cm or more for the top, less for the side) so that they do not interact with the flames growing on the specimen surfaces. For the top surface burner, at least a triple layer of window screen approximately 30 cm high sitting vertically on the mattress top (Figure 9 of this part) has proved satisfactory. For the side burner at least a triple layer of screen approximately 15 cm wide, formed into a square-bottom U-shape and held from below the burner has proved satisfactory. Individual laboratories will have to experiment with the best arrangement for suppressing flow disturbances in their facility.

(i) *Running the test.* (1) Charge the hose line to be used for fire suppression with water.

(2) *Burner Preparation.* (i) Turn AC power on; set propane pressure to 20 psig at bottle; set timers to 70 s (top burner) and 50 s (side burner); with burner assembly well-removed from test specimen, ignite burners and check that, WHEN BOTH ARE ON AT THE SAME TIME, the flowmeters are set to the values that give the requisite propane gas flow rates to each burner. Turn off burners. Set pilot tubes just behind front surface of burners; set pilot flow valves for approximately 2 cm flames. Turn off pilots.

⁸An acceptable spring scale has a calibrated spring mounted within a holder and hooks on each end.

⁹The foot should depress the surface it first contacts by no more than 1 mm to 2 mm. This is best seen up close, not from the rear of the burner assembly. However, if a protruding edge is the first item contacted, compress it until the foot is in the plane of the mattress/foundation vertical sides. The intent here is that the burner be spaced a fixed distance from the vertical mattress/foundation sides, not from an incidental protrusion. Similarly, if there is a wide crevice in this area which would allow the foot to move inward and thereby place the burners too close to the vertical mattress/foundation sides, it will be necessary to use the spacer jig (rather than the stand-off foot) above or below this crevice to set the proper burner

spacing. Compress the mattress/foundation surface 1 mm to 2 mm when using the jig for this purpose.

¹⁰The goal here is to keep the burner flames impinging on a fixed area of the specimen surface rather than wandering back and forth over a larger area.

(ii) Position burner on test specimen and remove sheet metal platen.

(iii) Place screens around both burners.

(3) *Start pilots.* Open pilot ball valves one at a time and ignite pilots with hand-held flame; adjust flame size if necessary being very careful to avoid a jet flame that could prematurely ignite the test specimen (Note that after a long interval between tests the low pilot flow rate will require a long time to displace air in the line and achieve the steady-state flame size.)

(4) *Start recording systems.* With the calorimetry system fully operational, after instrument zeroes and spans, start the video lights and video camera and data logging systems two minutes before burner ignition (or, if not using video, take a picture of the setup).

(5) *Initiate test.* Start test exposure by simultaneously turning on power to both timers (timers will turn off burners at appropriate times). Also start a 30 minute timer of the test duration. Check/adjust propane flow rates (DO THIS ESSENTIAL TASK IMMEDIATELY. Experience shows the flow will not remain the same from test-to-test in spite of fixed valve positions so adjustment is essential.) If not using video, one photo must be taken within the first 45 seconds of starting the burners.

(6) *End of burner exposure.* When the burners go out (after 70 seconds for the longer exposure), carefully lift the top burner tube away from the specimen surface, producing as little disturbance as possible to the specimen. Turn off power to both timers. Remove all screens. Turn off pilots at their ball valves. Remove the burner assembly from the specimen area to facilitate the video camera view of the full side of the specimen. In the case of the room-based configurations, remove the burner assembly from the room to protect it.

(j) *Video Recording/Photographs.* Place a video or still frame camera so as to have (when the lens is zoomed out) just slightly more than a full-length view of the side of the test specimen being ignited, including a view of the flame impingement area while the burner assembly is present. The view must also include the catch pan so that it is clear

whether any melt pool fire in this pan participates significantly in the growth of fire on the test specimen. The camera shall include a measure of elapsed time to the nearest 1 second for video and 1 minute for still frame within its recorded field of view (preferably built into the camera). For the room-based configuration, the required full-length view of the sample may require an appropriately placed window, sealed with heat resistant glass, in one of the room walls. Place the camera at a height just sufficient to give a view of the top of the specimen while remaining under any smoke layer that may develop in the room. The specimen shall be brightly lit so that the image does not lose detail to over-exposed flames. This will require a pair or more of 1 kW photo flood lights illuminating the viewed side of the specimen. The lights may need to shine into the room from the outside via sealed windows.

(k) *Cessation of Test.* (1) The heat release rate shall be recorded and video/photographs taken until either 30 minutes has elapsed since the start of the burner exposure or a fire develops of such size as to require suppression for the safety of the facility.

(2) Note the time and nature of any unusual behavior that is not fully within the view of the video camera. This is most easily done by narration to a camcorder.

(3) Run the heat release rate system and datalogger until the fire has been fully out for several minutes to allow the system zero to be recorded.

(1) *Use of alternate apparatus.* Mattress sets may be tested using test apparatus that differs from that described in this section if the manufacturer obtains and provides to the Commission data demonstrating that tests using the alternate apparatus during the procedures specified in this section yield failing results as often as, or more often than, tests using the apparatus specified in the standard. The manufacturer shall provide the supporting data to the Office of Compliance, Recalls & Compliance Division,

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U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, Maryland 20814. Staff will review the data and determine whether the alternate apparatus may be used.

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§ 1633.8 Findings.

(a) *General.* In order to issue a flammability standard under the FFA, the FFA requires the Commission to make certain findings and to include these in the regulation, 15 U.S.C. 1193(j)(2). These findings are discussed in this section.

(b) *Voluntary standards.* No findings concerning compliance with and adequacy of a voluntary standard are necessary because no relevant voluntary standard addressing the risk of injury that is addressed by this regulation has been adopted and implemented.

(c) *Relationship of benefits to costs.* The Commission estimates the potential total lifetime benefits of a mattress that complies with this standard to range from \$45 to \$57 per mattress set (based on a 10 year mattress life and a 3% discount rate). The Commission estimates total resource costs of the standard to range from \$8 to \$22 per mattress. This yields net benefits of \$23 to \$50 per mattress set. The Commission estimates that aggregate lifetime benefits associated with all mattresses produced the first year the standard becomes effective range from \$1,024 to \$1,307 million, and that aggregate resource costs associated with these mattresses range from \$175 to \$511 million, yielding net benefits of about \$514 to \$1,132 million. Accordingly, the Commission finds that the benefits from the regulation bear a reasonable relationship to its costs.

(d) *Least burdensome requirement.* The Commission considered the following alternatives: alternative maximum peak heat release rate and test duration, alternative total heat released in the first 10 minutes of the test, mandatory production testing, a longer effective date, taking no action, relying on a voluntary standard, and requiring labeling alone (without any performance requirements). The alternatives of taking no action, relying on a voluntary standard (if one existed), and requiring

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labeling alone are unlikely to adequately reduce the risk. Requiring a criterion of 25 MJ total heat release during the first 10 minutes of the test instead of 15 MJ would likely reduce the estimated benefits (deaths and injuries reduced) without having much effect on costs. Both options of increasing the duration of the test from 30 minutes to 60 minutes and decreasing the peak rate of heat release from 200 kW to 150 kW would likely increase costs significantly without substantial increase in benefits. Requiring production testing would also likely increase costs. Therefore, the Commission finds that an open flame standard for mattresses with the testing requirements and criteria that are specified in the Commission rule is the least burdensome requirement that would prevent or adequately reduce the risk of injury for which the regulation is being promulgated.

§ 1633.9 Glossary of terms.

(a) *Absorbent pad.* Pad used on top of mattress. Designed to absorb moisture/body fluids thereby reducing skin irritation, can be one time use.

(b) *Basket pad.* Cushion for use in an infant basket.

(c) *Bunk beds.* A tier of beds, usually two or three, in a high frame complete with mattresses (see Figure 11 of this part).

(d) *Car bed.* Portable bed used to carry a baby in an automobile.

(e) *Carriage pad.* Cushion to go into a baby carriage.

(f) *Chaise lounge.* An upholstered couch chair or a couch with a chair back. It has a permanent back rest, no arms, and sleeps one (see Figure 11).

(g) *Convertible sofa.* An upholstered sofa that converts into an adult sized bed. Mattress unfolds out and up from under the seat cushioning (see Figure 11).

(h) *Corner groups.* Two twin size bedding sets on frames, usually slipcovered, and abutted to a corner table. They also usually have loose bolsters slipcovered (see Figure 11).

(i) *Crib bumper.* Padded cushion which goes around three or four sides inside a crib to protect the baby. Can also be used in a playpen.

(j) *Daybed*. Daybed has foundation, usually supported by coil or flat springs, mounted between arms on which mattress is placed. It has permanent arms, no backrest, and sleeps one (see Figure 11).

(k) *Dressing table pad*. Pad to cushion a baby on top of a dressing table.

(l) *Drop-arm loveseat*. When side arms are in vertical position, this piece is a loveseat. The adjustable arms can be lowered to one of four positions for a chaise lounge effect or a single sleeper. The vertical back support always remains upright and stationary (see Figure 11).

(m) *Futon*. A flexible mattress generally used on the floor that can be folded or rolled up for storage. It usually consists of resilient material covered by ticking.

(n) *High riser*. This is a frame of sofa seating height with two equal size mattresses without a backrest. The frame slides out with the lower mattress and rises to form a double or two single beds (see Figure 11).

(o) *Infant carrier and lounge pad*. Pad to cushion a baby in an infant carrier.

(p) *Mattress foundation*. This is a ticking covered structure used to support a mattress or sleep surface. The structure may include constructed frames, foam, box springs or other materials used alone or in combination.

(q) *Murphy bed*. A style of sleep system where the mattress and foundation are fastened to the wall and provide a means to retract or rotate the bed assembly into the wall to release more floor area for other uses.

(r) *Pillow*. Cloth bag filled with resilient material such as feathers, down, sponge rubber, urethane, or fiber used as the support for the head of a person.

(s) *Playpen pad*. Cushion used on the bottom of a playpen.

(t) *Portable crib*. Smaller size than a conventional crib. Can usually be converted into a playpen.

(u) *Quilted* means stitched with thread or by fusion through the ticking and one or more layers of material.

(v) *Roll-away-bed*. Portable bed which has frame that folds with the mattress for compact storage.

(w) *Sleep lounge*. Upholstered seating section which is mounted on a frame. May have bolster pillows along the

wall as backrests or may have attached headrests (see Figure 11).

(x) *Stroller pad*. Cushion used in a baby stroller.

(y) *Sofa bed*. These are pieces in which the back of the sofa swings down flat with the seat to form the sleeping surface. Some sofa beds have bedding boxes for storage of bedding. There are two types: the one-piece, where the back and seat are upholstered as a unit, supplying an unbroken sleeping surface; and the two-piece, where back and seat are upholstered separately (see Figure 11 of this part).

(z) *Sofa lounge*—(includes glideouts). Upholstered seating section is mounted on springs and in a frame that permit it to be pulled out for sleeping. Has upholstered backrest bedding box that is hinged. Glideouts are single sleepers with sloping seats and backrests. Seat pulls out from beneath back and evens up to supply level sleeping surface (see Figure 11).

(aa) *Studio couch*. Consists of upholstered seating section on upholstered foundation. Many types convert to twin beds (see Figure 11).

(bb) *Studio divan*. Twin size upholstered seating section with foundation is mounted on metal bed frame. Has no arms or backrest, and sleeps one (see Figure 11 of this part).

(cc) *Trundle bed*. A low bed which is rolled under a larger bed. In some lines, the lower bed springs up to form a double or two single beds as in a high riser (see Figure 11).

(dd) *Tufted* means buttoned or laced through the ticking and upholstery material and/or core, or having the ticking and loft material and/or core drawn together at intervals by any other method which produces a series of depressions on the surface.

(ee) *Twin studio divan*. Frames which glide out (but not up) and use seat cushions, in addition to upholstered foundation to sleep two. Has neither arms nor back rest (see Figure 11).

(ff) *Flip or sleeper chair*. Chair that unfolds to be used for sleeping, typically has several connecting fabric covered, solid foam core segments.

Subpart B—Rules and Regulations**§ 1633.10 Definitions.**

(a) *Standard* means the Standard for the Flammability (Open-Flame) of Mattress Sets (16 CFR part 1633, subpart A).

(b) The definition of terms set forth in the §1633.2 of the Standard shall also apply to this section.

§ 1633.11 Records.

(a) *Test and manufacturing records C general.* Every manufacturer and any other person initially introducing into commerce mattress sets subject to the standard, irrespective of whether guarantees are issued relative thereto, shall maintain the following records in English at a location in the United States:

(1) Test results and details of each test performed by or for that manufacturer (including failures), whether for qualification, confirmation, or production, in accordance with §1633.7. Details shall include: name and complete physical address of test facility, type of test room, test room conditions, time that sample spent out of conditioning area before starting test, prototype or production identification number, and test data including the peak rate of heat release, total heat release in first 10 minutes, a graphic depiction of the peak rate of heat release and total heat release over time. These records shall include the name and signature of person conducting the test, the date of the test, and a certification by the person overseeing the testing as to the test results and that the test was carried out in accordance with the Standard. For confirmation tests, the identification number must be that of the prototype tested.

(2) Video and/or a minimum of eight photographs of the testing of each mattress set, in accordance with §1633.7 (one taken before the test starts, one taken within 45 seconds of the start of the test, and the remaining six taken at five minute intervals, starting at 5 minutes and ending at 30 minutes), with the prototype identification number or production lot identification number of the mattress set, date and time of test, and name and location of testing facility clearly displayed.

(b) *Prototype records.* In addition to the records specified in paragraph (a) of this section, the following records shall be maintained for each qualified, confirmed and subordinate prototype:

(1) Unique identification number for the qualified or confirmed prototype and a list of the unique identification numbers of each subordinate prototype based on the qualified or confirmed prototype. Subordinate prototypes that differ from each other only by length or width may share the same identification number.

(2) A detailed description of all materials, components, and methods of assembly for each qualified, confirmed and subordinate prototype. Such description shall include the specifications of all materials and components, and the name and complete physical address of each material and component supplier.

(3) A list of which models and production lots of mattress sets are represented by each qualified, confirmed and/or subordinate prototype identification number.

(4) For subordinate prototypes, the prototype identification number of the qualified or confirmed prototype on which the mattress set is based, and, at a minimum, the manufacturing specifications and a description of the materials substituted, photographs or physical specimens of the substituted materials, and documentation based on objectively reasonable criteria that the change in any component, material, or method of assembly will not cause the subordinate prototype to exceed the test criteria specified in §1633.3(b).

(5) Identification, composition, and details of the application of any flame retardant treatments and/or inherently flame resistant fibers or other materials employed in mattress components.

(c) *Pooling confirmation test records.* In addition to the test and prototype records specified in paragraphs (a) and (b) of this section, the following records shall be maintained:

(1) The prototype identification number assigned by the qualified prototype manufacturer;

(2) Name and complete physical address of the qualified prototype manufacturer;

(3) Copy of qualified prototype test records, and records required by paragraph (b)(2) of this section; and

(4) In the case of imported mattress sets, the importer shall be responsible for maintaining the records specified in paragraph (b) of this section for confirmation testing that has been performed with respect to mattress sets produced by each foreign manufacturing facility whose mattress sets that importer is importing.

(d) *Quality assurance records.* In addition to the records required by paragraph (a) of this section, the following quality assurance records shall be maintained:

(1) A written copy of the manufacturer's quality assurance procedures;

(2) Records of any production tests performed. Production test records must be maintained and shall include, in addition to the requirements of paragraph (a) of this section, an assigned production lot identification number and the identification number of the qualified, confirmed or subordinate prototype associated with the specimen tested;

(3) For each qualified, confirmed and subordinate prototype, the number of mattress sets in each production lot based on that prototype;

(4) The start and end dates of production of that lot; and

(5) Component, material and assembly records. Every manufacturer conducting tests and/or technical evaluations of components and materials and/or methods of assembly must maintain detailed records of such tests and evaluations.

(e) *Record retention requirements.* The records required under this Section shall be maintained by the manufacturer (including importers) for as long as mattress sets based on the prototype in question are in production and shall be retained for 3 years thereafter. Records shall be available upon the request of Commission staff.

(f) *Record location requirements.* (1) For mattress sets produced in the United States, all records required by this section must be maintained at the plant or factory at which the mattress sets are manufactured or assembled.

(2) For mattress sets produced outside of the United States, a copy of all

records required by this section must be maintained at a U.S. location, which must be identified on the mattress set label as specified in §1633.12(a).

§ 1633.12 Labeling.

(a) Each mattress set subject to the Standard shall bear a permanent, conspicuous, and legible label(s) containing the following information (and no other information) in English:

(1) Name of the manufacturer, or for imported mattress sets, the name of the foreign manufacturer and importer;

(2)(i) For mattress sets produced in the United States, the complete physical address of the manufacturer.

(ii) For imported mattress sets, the complete address of the foreign manufacturer, including country, and the complete physical address of the importer or the United States location where the required records are maintained if different from the importer;

(3) Month and year of manufacture;

(4) Model identification;

(5) Prototype identification number for the mattress set;

(6) A certification that the mattress complies with this standard.

(i) For mattresses intended to be sold without a foundation, a certification stating "This mattress meets the requirements of 16 CFR part 1633 (federal flammability (open flame) standard for mattresses) when used without a foundation"; or

(ii) For mattresses intended to be sold with a foundation, a certification stating "This mattress meets the requirements of 16 CFR part 1633 (federal flammability (open flame) standard for mattresses) when used with foundation <ID>." Such foundation(s) shall be clearly identified by a simple and distinct name and/or number on the mattress label; or

(iii) For mattresses intended to be sold both alone and with a foundation, a certification stating "This mattress meets the requirements of 16 CFR part 1633 (federal flammability (open flame) standard for mattresses) when used without a foundation or with foundation(s) <ID>." Such foundation(s) shall be clearly identified by a simple and distinct name and/or number on the mattress label; and

(7) A statement identifying whether the manufacturer intends the mattress to be sold alone or with a foundation.

(i) For mattresses intended to be sold without a foundation, the label shall state “THIS MATTRESS IS INTENDED TO BE USED WITHOUT A FOUNDATION.” See Figures 16 and 17 of this part; or

(ii) For mattresses intended to be sold with a foundation, the label shall state “THIS MATTRESS IS INTENDED TO BE USED WITH FOUNDATION(S): <Foundation ID>.” See Figures 12 and 13 of this part; or

(iii) For mattresses intended to be sold both alone and with a foundation, the label shall state “THIS MATTRESS IS INTENDED TO BE USED WITHOUT A FOUNDATION OR WITH FOUNDATION(S): <Foundation ID>.” See Figures 14 and 15 of this part.

(b) The mattress label required in paragraph (a) of this section must measure 2¾” in width and the length can increase as needed for varying information. The label must be white with black text. The label text shall comply with the following format requirements:

(1) All information specified in paragraphs (a)(1) through (6) of this section must be in 6-point font or larger with mixed uppercase and lowercase letters. The text must be left justified and begin ¼” from left edge of label. See Figure 12–17 of this part.

(2) The statement specified in paragraph (a)(7)(i) of this section must be in 10-point Arial/Helvetica font or larger, uppercase letters with the words “WITHOUT A FOUNDATION” bolded and the word “WITHOUT” in italics. The text shall be centered in a text box with the width measuring 2½” and the length increasing as needed. See Figures 16 and 17 of this part.

(3) The statement specified in paragraph (a)(7)(ii) of this section must be in 10-point Arial/Helvetica font or larger in uppercase letters. The foundation identifier should be in 12-point font or larger, bolded, and underlined. The text shall be centered in a text box with the width measuring 2½” and the length increasing as needed. See Figures 12 and 13 of this part.

(4) The statement specified in paragraph (a)(7)(iii) of this section must be

in 10-point or larger Arial/Helvetica font, uppercase letters with the words “WITHOUT A FOUNDATION OR” bolded and the word “WITHOUT” in italics. The foundation identifier should be in 12-point font or larger, bolded, and underlined. The text shall be centered in a text box with the width measuring 2½” and the length increasing as needed. See Figures 14 and 15 of this part.

(c) The foundation label required in paragraph (a) of this section must measure 2¾” in width and the length can increase as needed for varying information. The label must be white with black text. The label shall contain the following:

(1) The information specified in paragraphs (a)(1) through (5) of this section; and

(2) The words “Foundation ID:” followed by a distinct name and/or number that corresponds to the name and/or number used on the mattress. This text must be in 10-point or larger bold Arial/Helvetica font, and the foundation identifier must be underlined. See Figures 12 through 15 of this part.

(d) The statements specified in paragraphs (a)(6)(i) through (iii) and (a)(7)(i) through (iii) of this section may be translated into any other language and printed on the reverse (blank) side of the label.

(e) No person, other than the ultimate consumer, shall remove or mutilate, or cause or participate in the removal or mutilation of, any label required by this section to be affixed to any item.

[71 FR 13498, Mar. 15, 2006, as amended at 73 FR 6843, Feb. 6, 2008]

§ 1633.13 Tests for guaranty purposes, compliance with this section, and “one of a kind” exemption.

(a) *Tests for guaranty purposes.* Reasonable and representative tests for the purpose of issuing a guaranty under section 8 of the Flammable Fabrics Act, 15 U.S.C. 1197, for mattress sets subject to the Standard shall be the tests performed to show compliance with the Standard.

(b) *Compliance with this section.* No person subject to the Flammable Fabrics Act shall manufacture for sale, import, distribute, or otherwise market

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or handle any mattress set which is not in compliance with the provisions under Subpart B.

(c) *“One of a kind” exemption for physician prescribed mattresses.* (1)(i) A mattress set manufactured in accordance with a physician’s written prescription or manufactured in accordance with other comparable written medical therapeutic specification, to be used in connection with the treatment or management of a named individual’s physical illness or injury, shall be considered a “one of a kind mattress” and shall be exempt from testing under the Standard pursuant to §1633.7 thereof: Provided, that the mattress set bears a permanent, conspicuous and legible label which states:

WARNING: This mattress set may be subject to a large fire if exposed to an open flame. It was manufactured in accordance with a physician’s prescription and has not been tested under the Federal Standard for the Flammability (Open-Flame) of Mattress Sets (16 CFR part 1633).

(ii) Such labeling must be attached to the mattress set so as to remain on or affixed thereto for the useful life of the mattress set. The label must be at

least 40 square inches (250 sq. cm) with no linear dimension less than 5 inches (12.5 cm). The letters in the word “WARNING” shall be no less than 0.5 inch (1.27 cm) in height and all letters on the label shall be in a color which contrasts with the background of the label. The warning statement which appears on the label must also be conspicuously displayed on the invoice or other sales papers that accompany the mattress set in commerce from the manufacturer to the final point of sale to a consumer.

(2) The manufacturer of a mattress set exempted from testing under this paragraph (c) shall, in lieu of the records required to be kept by §1633.10, retain a copy of the written prescription or other comparable written medical therapeutic specification for such mattress set during a period of three years, measured from the date of manufacture.

(3) For purposes of this regulation the term physician shall mean a physician, chiropractor or osteopath licensed or otherwise permitted to practice by any State of the United States.

FIGURE 1 TO PART 1633—TEST ASSEMBLY, SHOWN IN FURNITURE CALORIMETER (CONFIGURATION A)

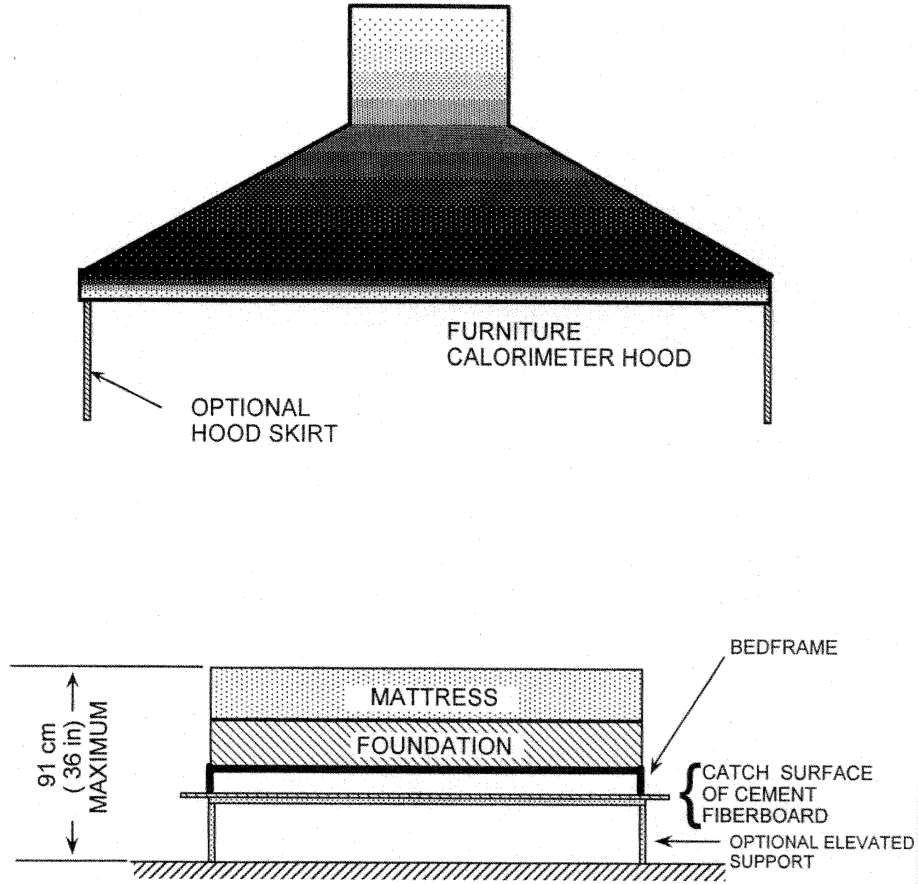


FIGURE 1. TEST ASSEMBLY, SHOWN IN FURNITURE CALORIMETER. (CONFIGURATION A.)

FIGURE 2 TO PART 1633—TEST ARRANGEMENT IN 3.05M × 3.66M (10 FT × 12 FT) ROOM (CONFIGURATION B)

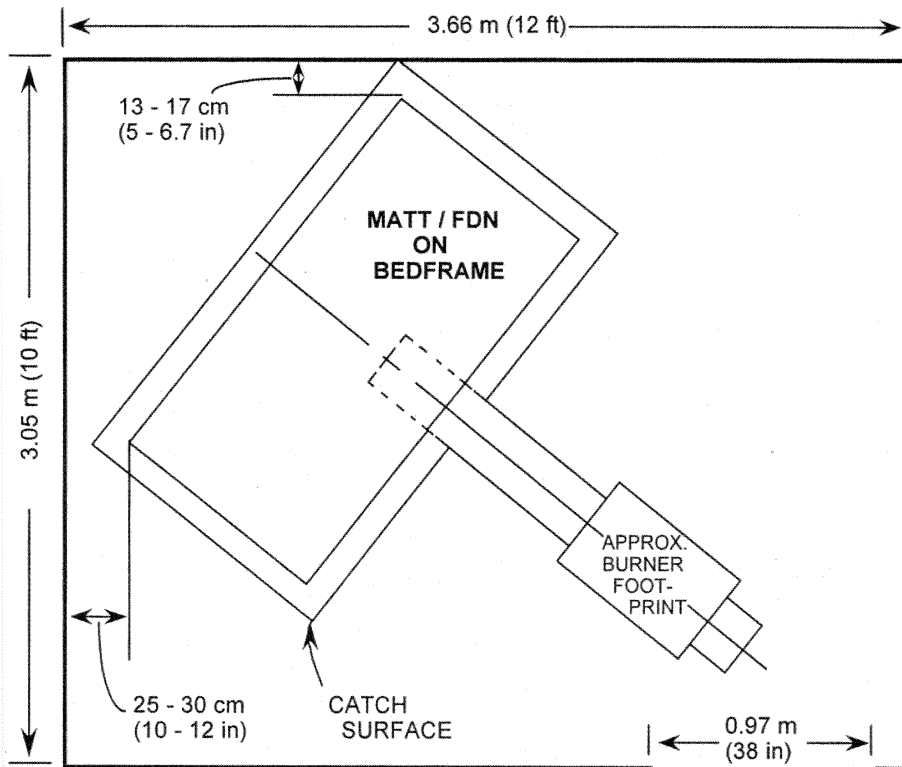


FIGURE 2. TEST ARRANGEMENT IN 3.05m X 3.66 m (10 ft x 12 ft) ROOM; CONFIGURATION B.

FIGURE 3 TO PART 1633—DETAILS OF HORIZONTAL BURNER HEAD

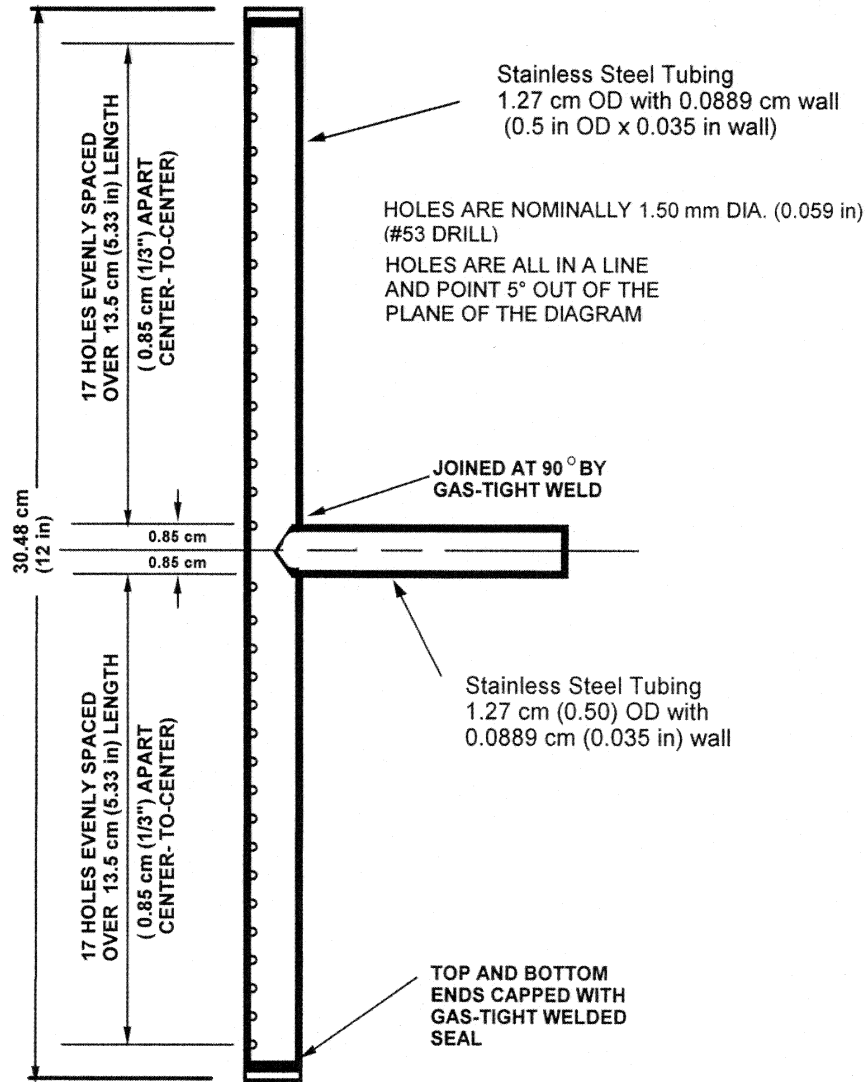


FIGURE 3. DETAILS OF HORIZONTAL BURNER HEAD.

FIGURE 4 TO PART 1633—DETAILS OF VERTICAL BURNER HEAD

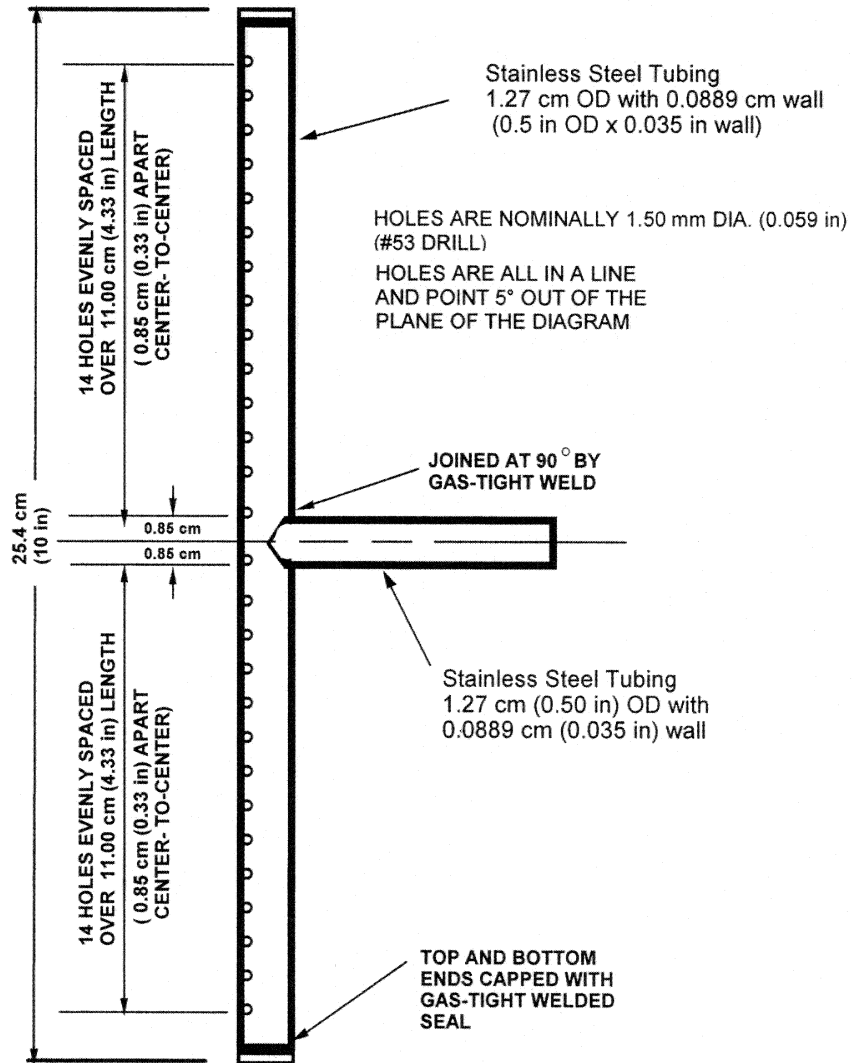


FIGURE 4. DETAILS OF VERTICAL BURNER HEAD.

FIGURE 5 TO PART 1633—DETAILS OF BURNER STAND-OFF

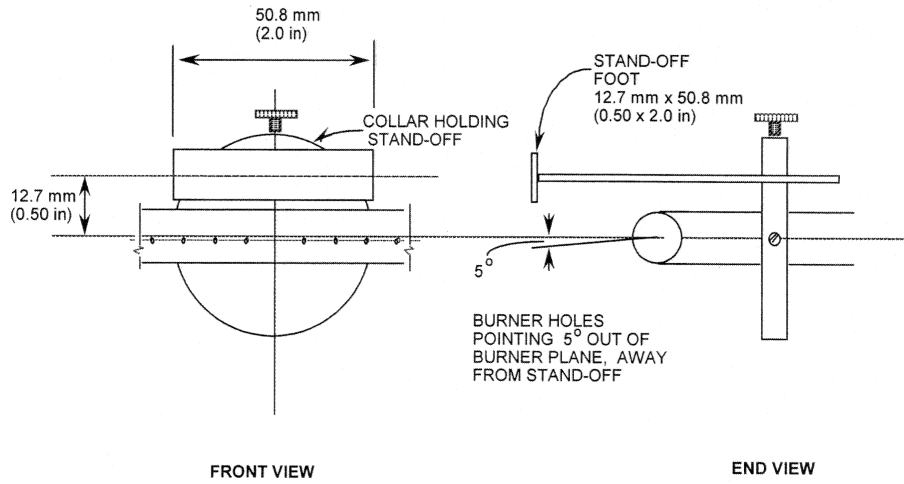


FIGURE 5. DETAILS OF BURNER STAND-OFF

FIGURE 6 TO PART 1633—BURNER ASSEMBLY SHOWING ARMS AND PIVOTS (SHOULDER SCREWS), IN RELATION TO, PORTABLE FRAME ALLOWING BURNER HEIGHT ADJUSTMENT

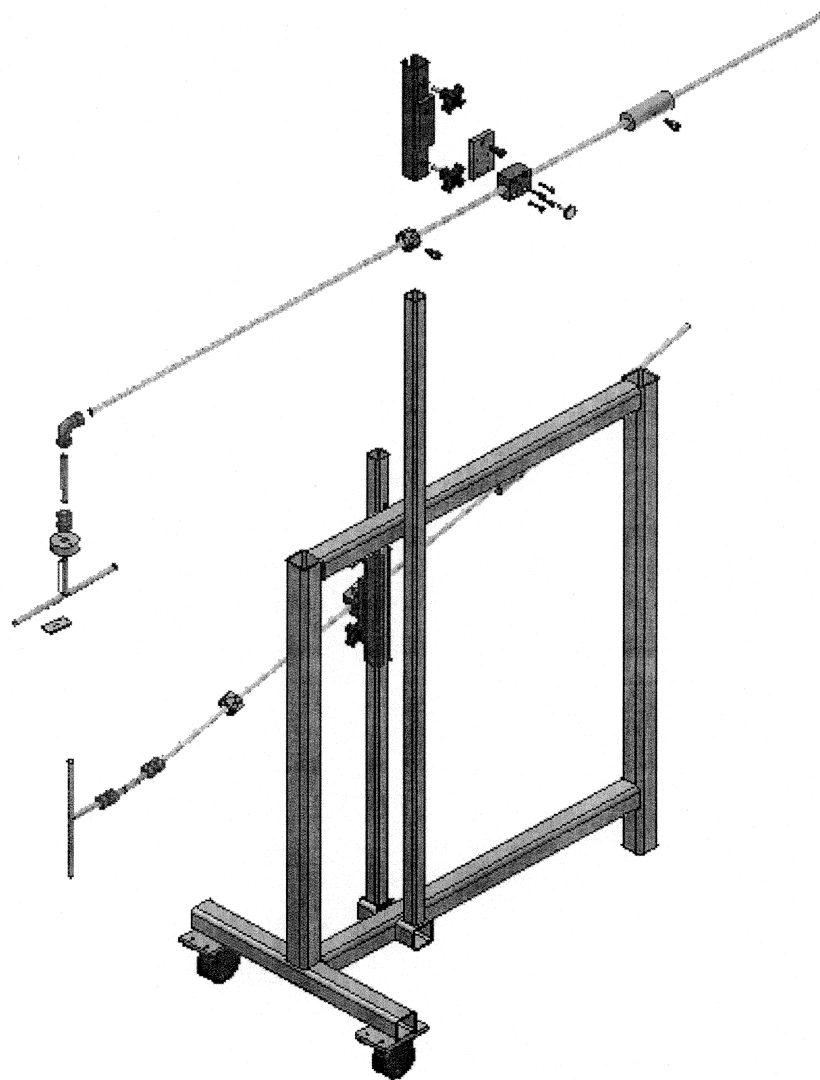


FIGURE 6. BURNER ASSEMBLY* SHOWING ARMS AND PIVOTS (Shoulder Screws), IN RELATION TO, PORTABLE FRAME ALLOWING BURNER HEIGHT ADJUSTMENT.

*Note that the feed tube for the side burner will be horizontal when the side burner pivot is locked in place, as is usual during a test exposure.

FIGURE 7 TO PART 1633—ELEMENTS OF PROPANE FLOW CONTROL FOR EACH BURNER

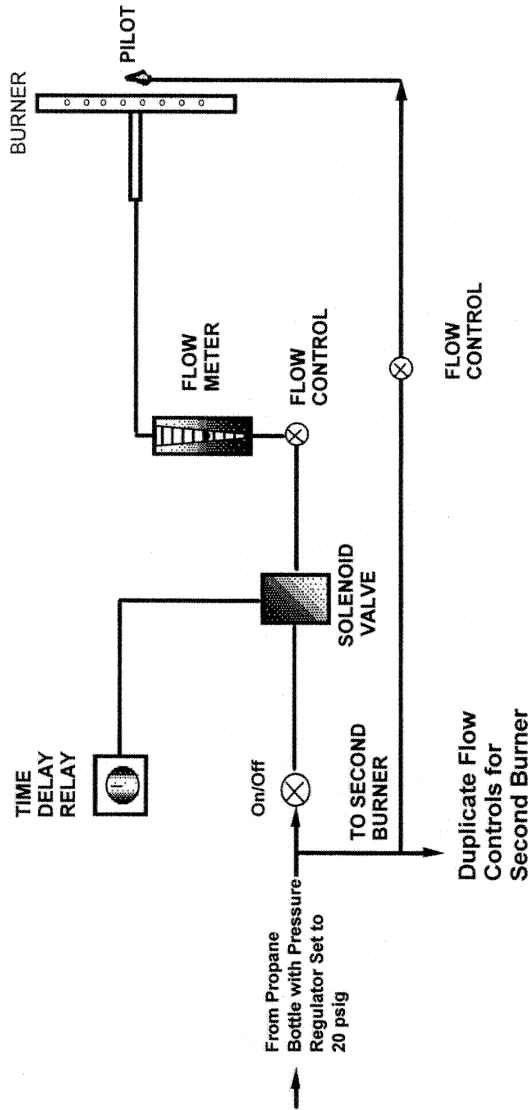


FIGURE 7. ELEMENTS OF PROPANE FLOW CONTROL FOR EACH BURNER

FIGURE 8 TO PART 1633—JIG FOR SETTING MATTRESSES AND FOUNDATION SIDES IN SAME PLANE

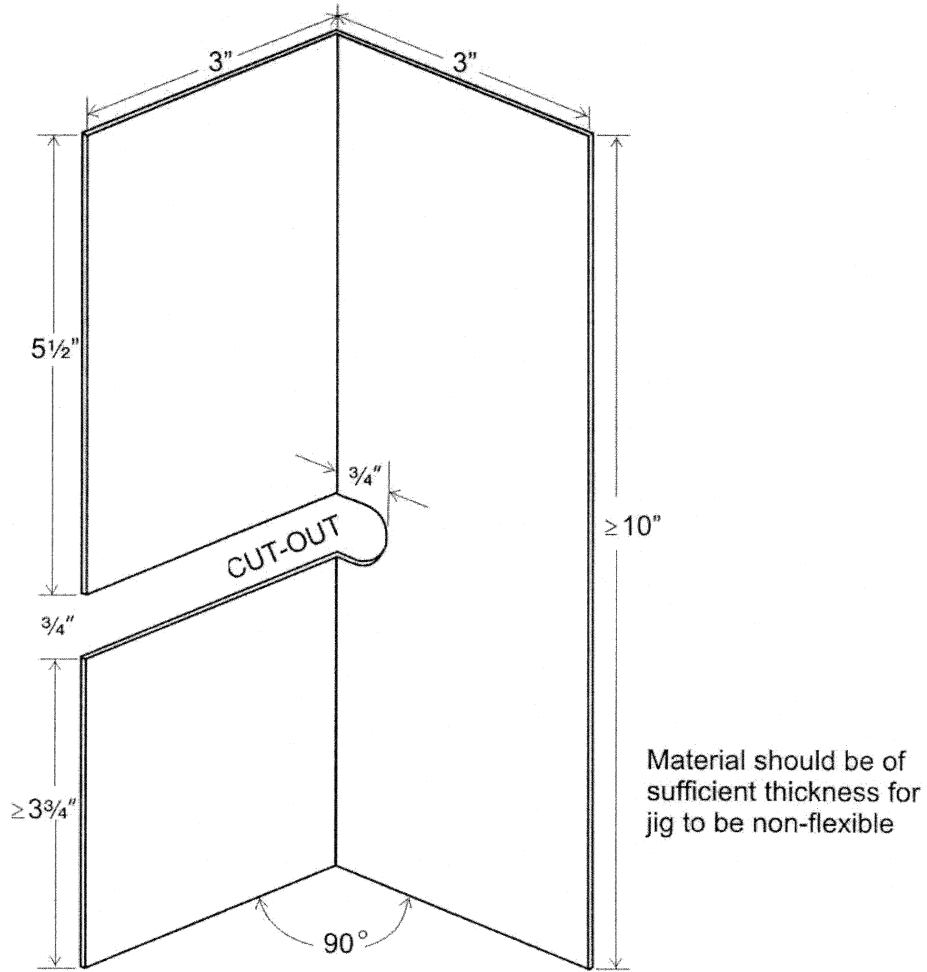


FIGURE 8 JIG FOR SETTING MATTRESS AND FOUNDATION SIDES IN SAME PLANE

FIGURE 9 TO PART 1633—BURNER PLACEMENTS ON MATTRESS/FOUNDATION

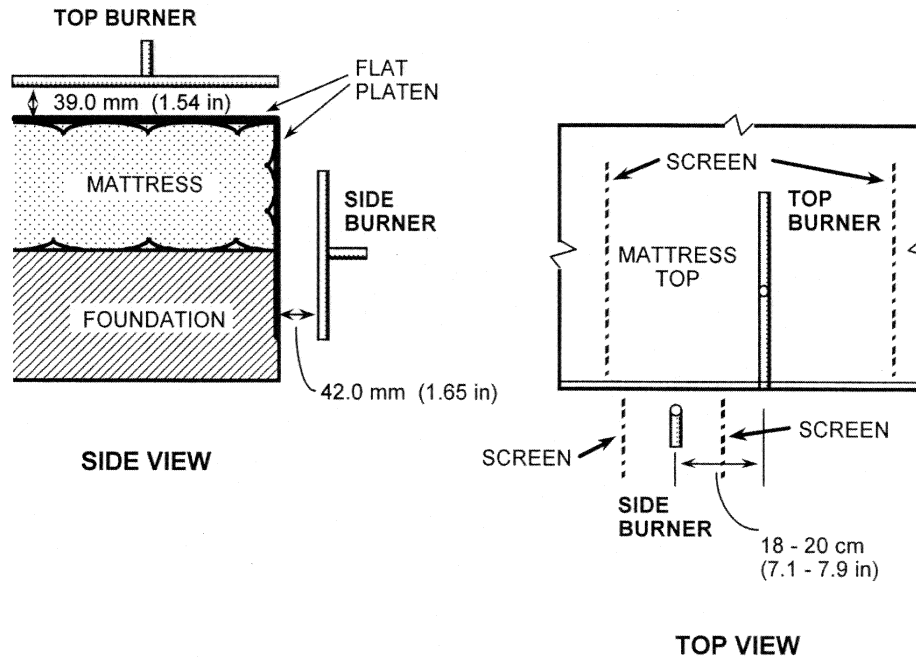
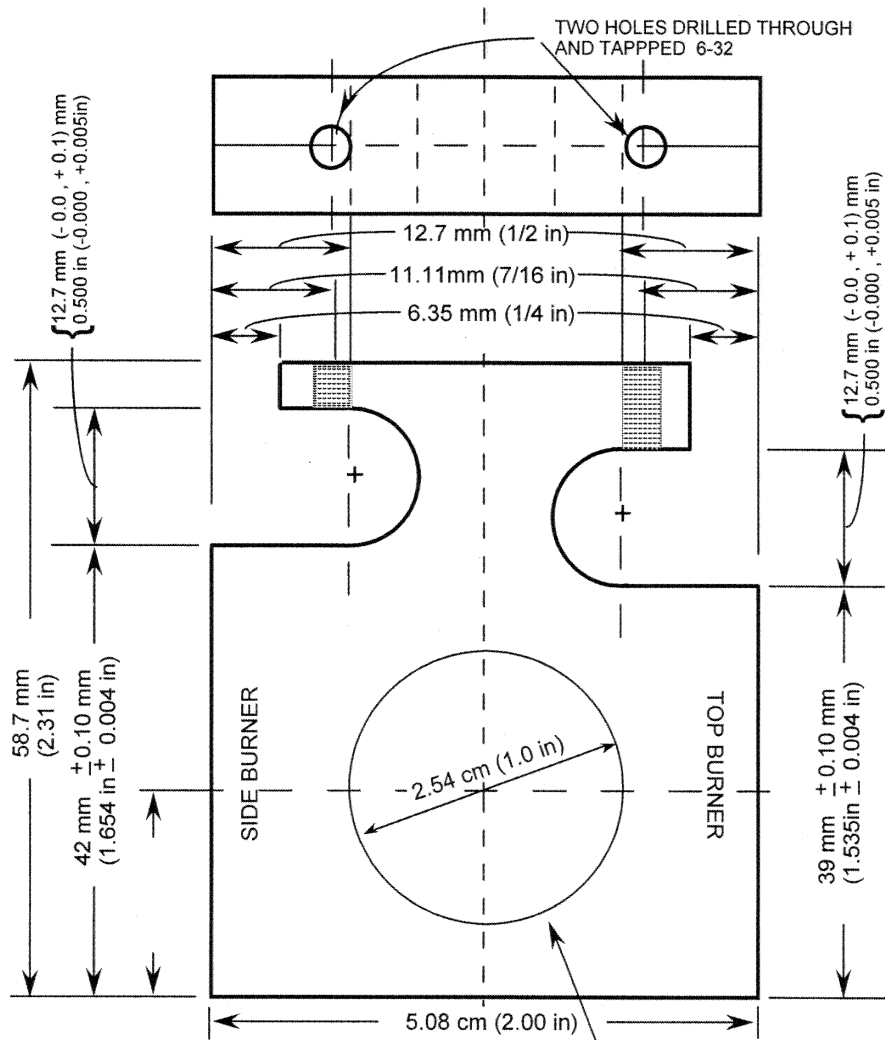


FIGURE 9. BURNER PLACEMENTS ON MATTRESS / FOUNDATION

FIGURE 10 TO PART 1633—JIG FOR SETTING BURNERS AT PROPER DISTANCES FROM MATTRESS/FOUNDATION



NOTE: PUNCH WORDS SHOWN ON BOTH FLAT FACES OF JIG.

PLACEMENT AND DIAMETER NOT CRITICAL (THIS HOLE IS JUST FOR LOWERING THE WEIGHT OF THE JIG).

FIGURE 10. JIG FOR SETTING BURNERS AT PROPER DISTANCES FROM MATTRESS / FOUNDATION

FIGURE 11 TO PART 1633—DIAGRAMS FOR GLOSSARY OF TERMS

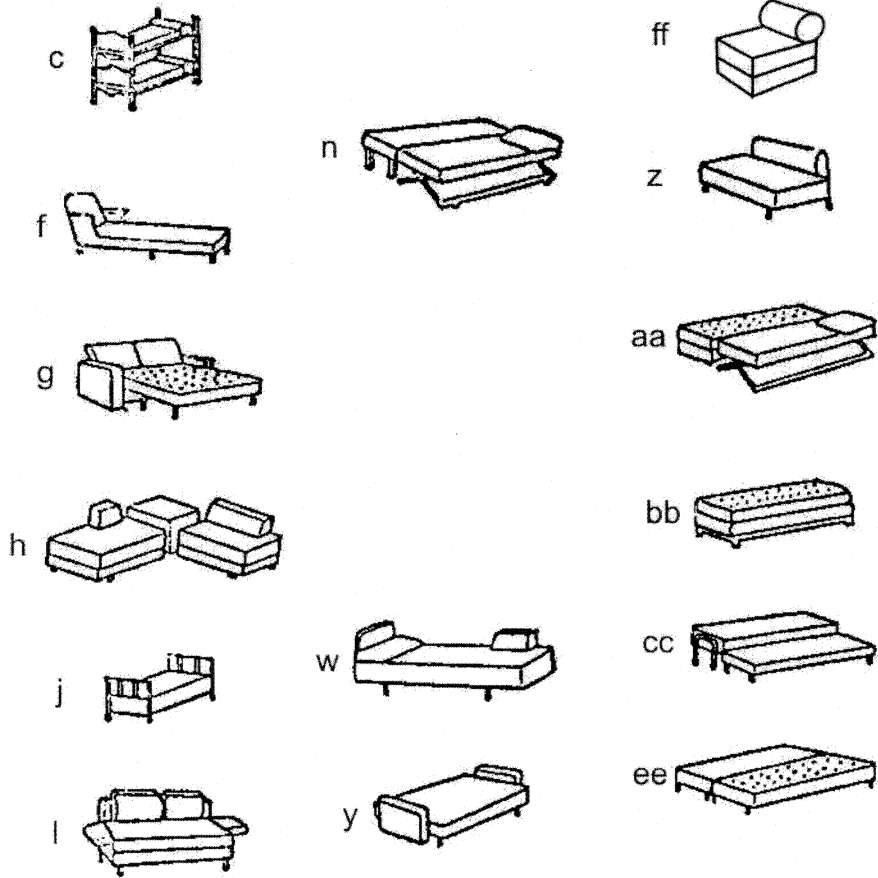


FIGURE 11. DIAGRAMS FOR GLOSSARY OF TERMS

FIGURE 12 TO PART 1633—LABELS FOR DOMESTIC MATTRESS WITH FOUNDATION

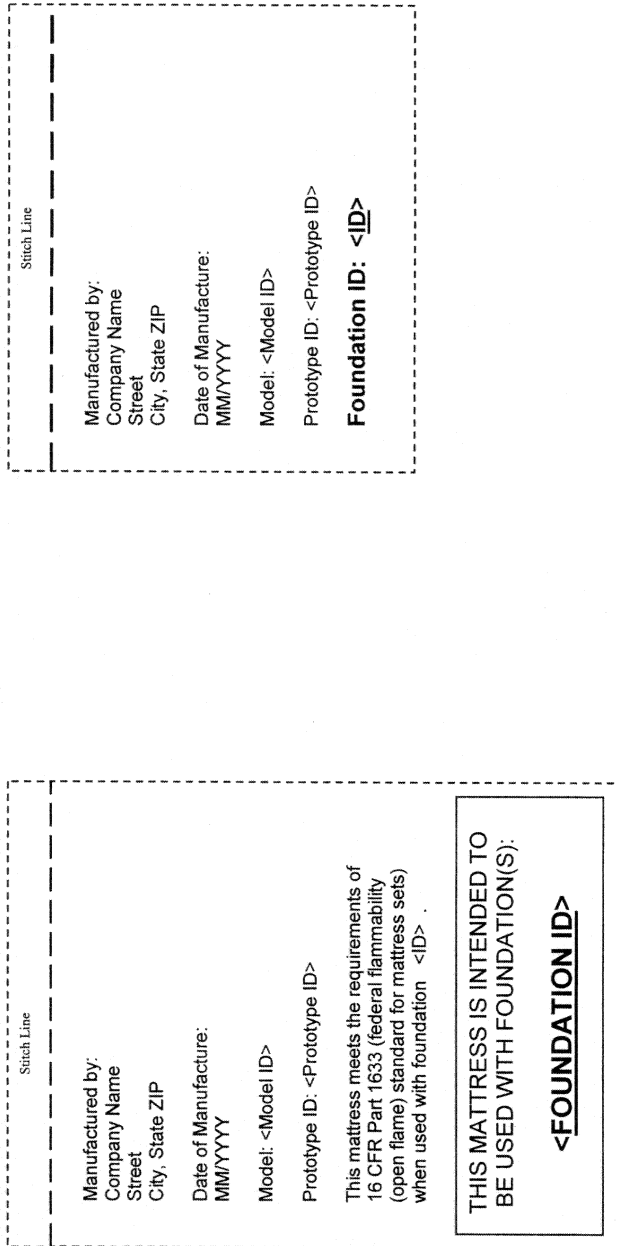


Figure 12. Labels for Domestic Mattress w/
Foundation

FIGURE 13 TO PART 1633—LABELS FOR IMPORTED MATTRESS WITH FOUNDATION

Stitch Line

Manufactured by:
Foreign Company Name
Street
City, State
Country

Date of Manufacture:
MM/YYYY

Importer/U.S. Records Location:
Importer Name
Street
City, State ZIP
Model: <Model ID>

Prototype ID: <Prototype ID>

Foundation ID: <ID>

Stitch Line

Manufactured by:
Foreign Company Name
Street
City, State
Country

Date of Manufacture:
MM/YYYY

Importer/U.S. Records Location:
Importer Name
Street
City, State ZIP

Model: <Model ID>

Prototype ID: <Prototype ID>

This mattress meets the requirements of 16 CFR Part 1633 (federal flammability (open flame) standard for mattress sets) when used with foundation <ID>.

<FOUNDATION ID>

**Figure 13. Labels for Imported Mattress w/
Foundation**

FIGURES 14 AND 15 TO PART 1633—LABEL FOR DOMESTIC MATTRESS ALONE AND WITH FOUNDATION AND LABEL FOR IMPORTED MATTRESS ALONE AND WITH FOUNDATION

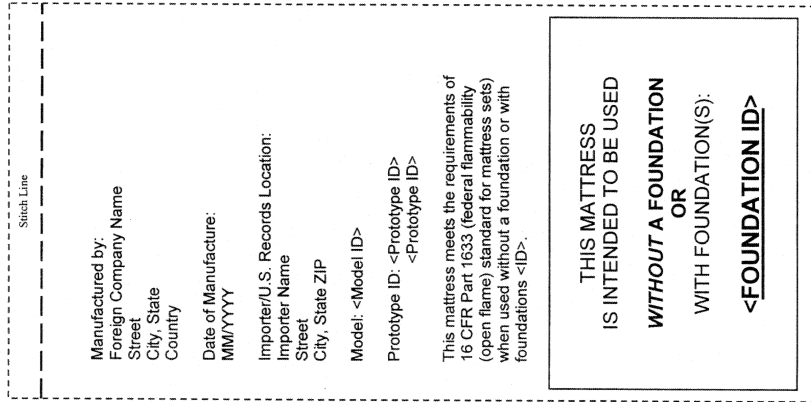


Figure 15. Label for Imported Mattress Alone and w/ Foundation

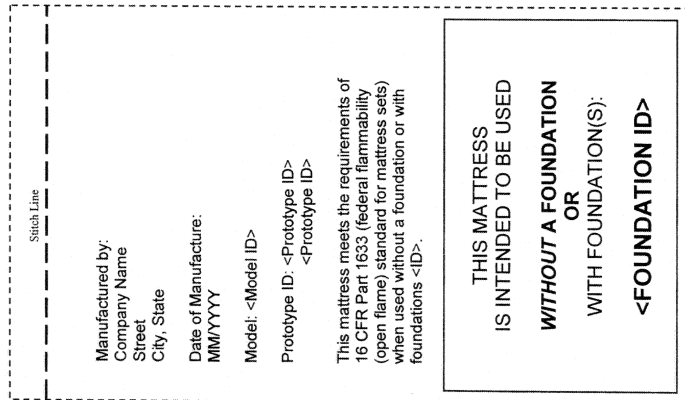


Figure 14. Label for Domestic Mattress Alone and w/ Foundation

FIGURES 16 AND 17 TO PART 1633—LABEL FOR DOMESTIC MATTRESS ONLY AND LABEL FOR IMPORTED MATTRESS ONLY

Stitch Line

Manufactured by:
Foreign Company Name
Street
City, State
Country

Date of Manufacture:
MM/YYYY

Importer/U.S. Records Location:
Importer Name
Street
City, State ZIP

Model: <Model ID>

Prototype ID: <Prototype ID>

This mattress meets the requirements of 16 CFR Part 1633 (federal flammability (open flame) standard for mattress sets) when used without a foundation.

**THIS MATTRESS
IS INTENDED TO BE USED
WITHOUT A FOUNDATION**

Figure 17. Label for Imported Mattress Only

Stitch Line

Manufactured by:
Company Name
Street
City, State

Date of Manufacture:
MM/YYYY

Model: <Model ID>

Prototype ID: <Prototype ID>

This mattress meets the requirements of 16 CFR Part 1633 (federal flammability (open flame) standard for mattress sets) when used without a foundation.

**THIS MATTRESS
IS INTENDED TO BE USED
WITHOUT A FOUNDATION**

Figure 16. Label for Domestic Mattress Only