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# FLAMMABLE FABRICS ACT AMENDMENTS OF 1967

WEDNESDAY, MAY 3, 1967

U.S. SENATE,  
COMMITTEE ON COMMERCE, CONSUMER SUBCOMMITTEE,  
*Washington, D.C.*

The subcommittee met at 10 a.m. in room 5110, New Senate Office Building, Hon. Warren G. Magnuson, chairman of the committee and subcommittee, presiding.

The CHAIRMAN. The committee will come to order.

We have several members of the committee who will be here. They are on their way. We have a long list of witnesses this morning, so I thought we might as well proceed.

## OPENING STATEMENT BY THE CHAIRMAN

This morning the Consumer Subcommittee of the Committee on Commerce opens hearings on S.1003, the Flammable Fabrics Act Amendments of 1967. This amendment is designed to increase the protection afforded consumers against injurious flammable fabrics. Immediately following my remarks, there will be inserted in the record a copy of S. 1003, a section-by-section analysis of the bill, and the accompanying statement of purpose and need.

We all know that burns from ignition of clothing and other household fabrics clearly constitute an extremely serious health problem in the United States. Thousands of men, women, and children are burned, many fatally, when their clothing accidentally catches fire. Thousands more are burned from bedding and other fabric fires. Because of their slow reactions, an usually high proportion of burns occur amongst children, the elderly, and the infirm.

The Flammable Fabrics Act, enacted in 1953, represented the reaction of Congress to a series of shocking news stories which appeared at the time, of young girls burned by sweaters so highly flammable that they exploded into flames in the presence of a lighted match or cigarette.

This act has served adequately to rid the country of so-called explosive clothing. However, there is much disturbing evidence of the widespread distribution of dangerously flammable fabrics which are beyond the reach of the present law.

Thirteen years have passed since the enactment of the Flammable Fabrics Act. Clearly, the time has come for Congress to reexamine this legislation and to consider amendments to reduce the risks posed by flammable fabrics. The purpose of this hearing is to bring the act up

Staff member assigned to this hearing : Norman K. Maleng.

to date, consistent with many events and many things that have happened since 1953.

(The above-mentioned material follows:)

[S. 1003]

A BILL To amend the Flammable Fabrics Act to increase the protection afforded consumers against injurious flammable fabrics

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That section 2 of the Flammable Fabrics Act (15 U.S.C. 1191; 67 Stat. 111) is amended by—

(1) Amending paragraph (d) to read as follows:

“(d) The term ‘article of wearing apparel’ means any costume or article of clothing worn or intended to be worn by individuals.”

(2) Repealing paragraph (f);

(3) Redesignating paragraphs (e), (g) and (h) as paragraphs (f), (i) and (j) respectively;

(4) Inserting therein, immediately after amended paragraph (d), the following new paragraph:

“(e) The term ‘interior furnishing’ means any type of furnishing made in whole or in part of fabric or related material and ordinarily manufactured, sold, or intended for use in homes, offices, and places of assembly.”

(5) Amending redesignated paragraph (f) to read as follows:

“(f) The term ‘fabric’ means any material (except fiber, filament, or yarn for other than retail sale) 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 any product as defined in subsection (h).”

(6) Inserting therein, immediately after redesignated paragraph (f), the following new paragraph:

“(g) The term ‘related material’ means paper, plastic, rubber, synthetic film, or synthetic foam that is used, sold, or intended for use in any product as defined in subsection (h).”

(7) Inserting therein, immediately after redesignated paragraph (g), the following new paragraph:

“(h) The term ‘product’ means any article of wearing apparel or interior furnishing.”

SEC. 2. Section 3 of the Flammable Fabrics Act is amended to read as follows:

“PROHIBITED TRANSACTIONS

“(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 the sale or delivery after a sale or shipment in commerce, of any product which fails to conform to an applicable standard issued or amended under the provisions of section 4 of this Act, 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 the sale or delivery after a sale or shipment in commerce, of any fabric or related material which fails to conform to an applicable standard issued or amended under the provisions of section 4 of this Act, 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 product made of fabric or related material which fails to conform to an applicable standard issued or amended under section 4 of this Act, 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.”

SEC. 3. Section 4 of the Flammable Fabrics Act is amended to read as follows:

## "STANDARDS OF FLAMMABILITY

"SEC. 4. (a) The Secretary of Commerce shall prescribe and publish in the Federal Register flammability standards (including conditions and manner of testing) for articles of wearing apparel, and fabrics and related materials used in the manufacture of such articles.

(b) In addition to the flammability standards prescribed under subsection (a) of this section, the Secretary of Commerce, if he determines after notice and opportunity for presentation of views that a flammability standard for a fabric related material or product, not subject to subsection (a) of this section, is needed to protect the public against unreasonable risk of the occurrence of fire leading to death, injury, or significant property damage, shall, after notice and opportunity for presentation of views, prescribe and publish in the Federal Register a flammability standard (including conditions and manner of testing) for such fabric, related material or product.

"(c) If at any time after any standard prescribed pursuant to this section becomes effective, the Secretary of Commerce finds that the public interest requires revision of such standard, he shall, after notice and opportunity for presentation of views, amend such standard. The Secretary of Commerce shall, before making such a finding, consider the report prepared pursuant to section 14(a) of this Act.

"(d) Each standard or amendment thereto promulgated pursuant to this section shall adequately protect the public against unreasonable risk of the occurrence of fire leading to death, injury or significant property damage, shall be practicable, shall be stated in objective terms, and shall become effective six months from the date on which such standards or amendments are published, unless the Secretary of Commerce finds, for good cause shown, that an earlier or later effective date is in the public interest, and publishes the reasons for such finding."

SEC. 4. (a) Subsection (c) of section 5 of the Flammable Fabrics Act is amended to read as follows:

"(c) The Commission is authorized and directed to prescribe such rules and regulations, including provisions for maintenance of records relating to fabrics, related materials and products, as may be necessary and proper for administration and enforcement of this Act. The violation of such rules and regulations 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) Subsection (d)(1) of the Act is amended by substituting "product." for "article of wearing apparel or" and by inserting "or related material" immediately after "fabric".

(c) Section 5 of the Act is further amended by adding at the end thereof the following new subsection:

"(e) Every person who shall engage in any of the acts or practices referred to in section 3 of the Act shall maintain proper records showing the nature of the transaction and the acquisition, disposition and intended end use of the fabrics, related materials or products involved. Every person claiming an exemption or exclusion from the Act because fabrics or related materials are purportedly intended for usages not subject to the Act or because transactions involving fabrics, related materials or products are purportedly exempted or excluded from the application of the Act shall maintain proper records showing the nature of the transaction and the acquisition, disposition, and intended end use of such fabrics, related materials or products. Such records shall be maintained or preserved for at least three years. The neglect or refusal to maintain the required records is unlawful, and any person neglecting or refusing to maintain such records shall be guilty of an unfair method of competition or an unfair or deceptive practice, in commerce, under the Federal Trade Commission Act."

SEC. 5. (a) Subsection (a) of section 6 of the Flammable Fabrics Act is amended by inserting, and subsections (c) and (e) of section 5," immediately after "Section 3".

(b) Subsections (b), (c) and (d) of section 6 of the Flammable Fabrics Act are amended to read as follows:

"(b) Whenever the Commission has reason to believe that any product has been manufactured or introduced into commerce or any fabric or related material 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

product, fabric, or related material in any district court of the United States within the jurisdiction of which such product, fabric, or related material 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 products, fabrics, or related materials 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 sample of the product, fabric, or related material seized.

"(d) If such products, fabrics, or related materials 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 products, fabrics, or related materials will not be disposed of 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 products, fabrics, or related materials will not be disposed of until properly and adequately treated or processed so as to render them lawful for introduction into commerce. If such products, fabrics, or related materials are disposed of by sale the proceeds, less costs and charges, shall be paid into the Treasury of the United States."

SEC. 6. Section 7 of the Flammable Fabrics Act is amended by inserting "5(e)" immediately after "Section 3".

SEC. 7. Section 8 of the Flammable Fabrics Act is amended to read as follows:

#### "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 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 standards issued or amended under the provisions of section 4 of this Act show that the fabric, or related material covered by the guaranty, or used in the product covered by the guaranty, conforms with applicable flammability standards issued or amended under the provisions of section 4 of this Act, and (2) has not, by further processing, affected the flammability of the fabric, related material, or product covered by the guaranty which he received. Such guaranty shall be either (1) a separate guaranty specifically designating the product, fabric, or related material guaranteed, in which case it may be on the invoice or other paper relating to such product, fabric, or related material; or (2) a continuing guaranty filed with the Commission applicable to any product, fabric, or related material handled by a guarantor, in such form as the Commission by rules or regulations may prescribe.

"(b) It shall be unlawful for any person to furnish, with respect to any product, fabric, or related material, 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 product, fabric, or related material guaranteed was manufactured or from whom it was received) with reason to believe the product, fabric, or related material 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."

SEC. 8. Section 9 of the Flammable Fabrics Act is amended to read as follows:

#### "SHIPMENTS FROM FOREIGN COUNTRIES

"SEC. 9. Any person who imports or who has attempted to import from any foreign country into the United States any product, fabric, or related material

which fails to conform with an applicable flammability standard issued or amended under the provisions of section 4 of this Act, may thenceforth be prohibited by the Commission from participating in the importation from any foreign country into the United States of any product, fabric, or related material except upon filing bond with the Secretary of the Treasury in a sum double the value of said products, fabrics, or related materials and any duty thereon, conditioned upon compliance with the provisions of this Act."

Sec. 9. Section 11 of the Flammable Fabrics is amended to read as follows:

"EXCLUSIONS

"SEC. 11. The provisions of this Act shall not apply (a) to any common carrier, contract carrier, or freight forwarder with respect to a product, fabric, or related material 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 product, fabric, or related material to become subject to this Act contrary to the terms of the contract or commission service or (c) to any product, fabric, or related material shipped or delivered for shipment into commerce for the purpose of finishing or processing such product, fabric, or related material so that it conforms with applicable flammability standards issued or amended under the provisions of section 4 of this Act."

Sec. 10. The Flammable Fabrics Act is further amended by adding at the end thereof the following new section:

"INVESTIGATIONS

"SEC. 14. (a) The Secretary of Health, Education, and Welfare in cooperation with the Secretary of Commerce shall annually conduct a study and investigation of the deaths, injuries, and economic losses resulting from accidental burning of products, fabrics, or related materials. The Secretary of Health, Education, and Welfare shall submit annually a report to the President and to the Congress containing the results of the study and investigation and identification of such standards prescribed pursuant to this Act as appear to require revision in the public interest.

"(b) In cooperation with appropriate public and private agencies, the Secretary of Commerce is authorized to—

"(1) Conduct research into the flammability of products, fabrics, and materials;

"(2) Conduct feasibility studies on reduction of flammability of products, fabrics, and materials;

"(3) Develop flammability test methods and testing devices; and

"(4) Offer appropriate training in the use of flammability test methods and testing devices.

The Secretary shall annually report the results of these activities to the Congress."

SEC. 11. Notwithstanding the provisions of this Act, the standards of flammability in effect under the provisions of the Flammable Fabrics Act, as amended, on the day preceding the date of enactment of this Act, shall continue in effect until superseded or modified by the Secretary of Commerce pursuant to the authority conferred by the amendments made by this Act.

PROPOSED AMENDMENTS TO THE FLAMMABLE FABRICS ACT

SECTION BY SECTION ANALYSIS

*Section 1*

This section would amend section 2 of the Flammable Fabrics Act (the section containing definitions). The definition of the term "article of wearing apparel" would be broadened to include all articles of wearing apparel, removing the present exclusions for hats, gloves, and footwear. The definition of the term "fabric" would be broadened somewhat by removing exclusions for interlining fabrics and fibers, filaments or yarns intended for retail sale. The definition of the term "interlining" would be repealed, and three new terms would be defined. The term "interior furnishing" would be defined to mean any type of furnishing made of fabric or related material for use in homes, offices, and places of assembly.

The term "related material" would be defined to include paper, plastic, rubber, synthetic film or synthetic foam for use in wearing apparel or interior furnishings. The term "product" would be defined to mean any article of wearing apparel or interior furnishing.

#### *Section 2*

This section would amend section 3 of the Flammable Fabrics Act (the section on prohibited transactions) by making technical conforming amendments and by amending sections (a) and (b) to clarify the authority of the Federal Trade Commission over sales or deliveries after a sale or shipment in interstate commerce.

#### *Section 3*

This section would amend section 4 of the Flammable Fabrics Act to establish authority in the Secretary of Commerce to issue appropriate standards of flammability.

Proposed subsection (a) would authorize the Secretary to issue flammability standards for articles of wearing apparel and their constituent fabrics and related materials.

Subsection (b) would authorize the Secretary to issue standards of flammability for a particular type of interior furnishing or its constituent fabrics or related materials, if he determines after notice and opportunity for presentation of views that a flammability standard is needed for that particular interior furnishing, fabric or related material in order to protect the public against unreasonable risk of the occurrence of fire leading to death, injury, or significant property damage. In other words, there must be a specific determination of need before a standard of flammability may be issued for any particular type of interior furnishing or constituent fabric or related material.

Proposed subsection (c) would authorize the Secretary to amend standards issued pursuant to section 4.

Proposed subsection (d) would require each standard issued pursuant to section 4 to adequately protect the public, to be practicable, and to be stated in objective terms. Standards would become effective six months from their date of issuance unless the Secretary found for good cause shown that an earlier or later effective date was in the public interest and published his reasons therefor.

#### *Section 4*

This section would amend section 5 of the Flammable Fabrics Act by changing subsection (c) and adding a new subsection (e) to give the Federal Trade Commission authority to require reasonable maintenance of proper records of commercial transactions concerning commodities subject to the Act. Minor technical conforming amendments are also made.

#### *Section 5*

This section would make minor technical amendments to section 6 of the Flammable Fabrics Act to bring it into conformance with amendments to sections 2, 4 and 5 of the Act.

#### *Section 6*

This section would make a minor technical amendment to section 7 of the Flammable Fabrics Act to bring it into conformance with section 5 of the Act.

#### *Section 7*

This section would make minor technical amendments to section 8 of the Flammable Fabrics Act to bring it into conformance with sections 2 and 4 of the Act.

#### *Section 8*

This section would amend section 9 of the Flammable Fabrics Act to remove technical obstructions concerning shipments from foreign countries and clarify the authority of the Federal Trade Commission to prevent importation of commodities that do not conform to applicable standards issued under the Act.

#### *Section 9*

This section would make minor technical amendments to section 11 of the Flammable Fabrics Act to bring it into conformance with sections 2 and 4 of the Act.

### Section 10

This section would amend the Flammable Fabrics Act by adding a new section 14 authorizing investigations and research. The Secretary of Health, Education, and Welfare in cooperation with the Secretary of Commerce would annually study and investigate deaths, injuries, and economic losses resulting from accidental burning of products, fabrics, or related materials, and submit an annual report to the President and the Congress. The Secretary of Commerce would be authorized to conduct research into the flammability of products, fabrics and materials, conduct feasibility studies on reducing flammability, develop flammability test techniques, and offer appropriate flammability test training. The Secretary of Commerce would be required annually to report to the Congress on the results of his research activities.

### Section 11

This section would save the standards of flammability presently in effect under the Flammable Fabrics Act until they were superseded or modified by the Secretary of Commerce pursuant to section 4.

#### STATEMENT OF PURPOSE AND NEED

This proposed legislation would amend the Flammable Fabric Act to provide for (1) more effective protection of the consumer against clothing fires; (2) extension of the Act to protect the public-at-large against unduly flammable interior furnishings; and (3) investigation and research to extend our knowledge and strengthen our ability to combat these problems.

#### HISTORY OF THE ACT

Congress enacted the Flammable Fabrics Act (which became effective on July 1, 1954) to protect the public from newly introduced highly flammable clothing, including "torch sweaters" and certain children's cowboy chaps. Congress set the level of protection by incorporating fixed standards of flammability into the Act. These fixed standards were stringent enough to halt the marketing of the highly flammable articles of clothing noted above, but did not affect the marketing of most materials and articles of clothing that were then—and are still now—commonly in use.

Therefore, while the Act has been successful in preventing the marketing of newer highly flammable materials, thereby preventing a likely increase in clothing fire injury and death rates, it has not reduced those rates—they remain unabated. Thus, today, as in the past, approximately a quarter of a million persons every year are injured and burned—some very severely—by clothing fires. About 2,000 of the most severe injuries lead to death. Many of those who do survive must still undergo lengthy and expensive treatment for burns, oftentimes followed by a lifetime of disfigurement. Clothing fires are particularly tragic, in that they disproportionately affect children, the disabled, and the elderly.

#### GENERAL CONSIDERATIONS FOR AMENDING THE ACT

These rates of death and injury must be reduced. Undoubtedly human carelessness plays a significant role, but we believe the rates can be reduced by providing for improvement of the standards of flammability presently incorporated in the Act. The issues involved in improving the present standards are complex, and the situation will change as technological innovation occurs in the pertinent industries. Therefore, we believe that the best approach to improving the present standards, and to improving and revising them further as conditions change, is to authorize administrative revision by the Secretary under suitable statutory guidance. Under such authority the Secretary would consider all pertinent factors, would cooperate closely with the affected industries and all other interested parties and would issue standards that are practicable and worded in objective terms.

The Secretary could promptly utilize this proposed authority to amend the present flammability standards, by developing amendments that could reduce flammability in presently known problem areas; but broader improvements in this complex area of technology would need to be based upon results of the research which these amendments would also authorize. For example, it may be possible to develop a reasonable standard setting significantly higher standards

of flammability for the more hazardous kinds of children's clothing. Development of such a standard would require close cooperation with affected industries and other interested parties, and very careful consideration of many relevant factors, including the relative likelihood that a particular style of children's clothing would be exposed to the danger of fire (as a broad example, little girl's dresses and skirts are more likely to be set on fire than are slacks and blouses). The administrative rule making process is well suited to consideration of the relevant factors, appropriate cooperation with the interested industries and others, and development of such a standard.

Significant generalized improvements in the present standards can be accomplished only after there is intensive research into the nature of flammability, including studies of the feasibility of reducing the flammability of various materials. While methods for reducing flammability exist today, better and less expensive ones need to be found.

There should also be thorough investigation and study of the death, injury and property damage resulting from clothing fires. Such investigation would reveal the detailed causes, and resulting effects, of various types of clothing fires. This information would lead to ways of preventing or reducing the number of such fires and their harmful effects, through amending standards applicable to flammable fabrics.

U.S. Public Health Service figures indicate that over six thousand persons are killed each year by fire or explosion in the home. Often, unnecessarily combustible furnishings contribute to the occurrence or spread of these fires, and some furnishings give off highly toxic smoke as they burn. Certain kinds of draperies will spread fires very rapidly, while some bedding and upholstery will ignite easily. The same principle applies to offices and places of assembly. The multi-million dollar fire that destroyed McCormack Place in Chicago was fed by many flammable display and packing materials.

In many instances, the possibility of fire occurrence or rapid spread could be reduced if ordinary interior furnishings were less flammable. We need to conduct further research and investigation into the effect of the flammability of various interior furnishings upon fire deaths, injuries and losses. The effects studied should include the products of combustion as some materials produce highly toxic smoke as they burn. We also need to develop appropriate test methods for testing the flammability of various flammable materials.

Where it is shown that a standard of flammability is needed for a particular type of interior furnishing in order to protect the public against unreasonable risk of death, injury or significant property damage, the Secretary should have the authority to develop and issue such a standard. In developing such standards, he would be guided by the same basic principles that would apply to issuance of standards for clothing, and would cooperate with the affected industries and all other interested parties to the fullest extent possible.

To carry out the purposes and respond to the needs discussed above, this proposed legislation would make three major changes in the Flammable Fabrics Act, as well as numerous minor technical amendments.

#### WEARING APPAREL

The Act would be broadened to cover all types of articles of wearing apparel, and a broader range of constituent materials, including paper and plastics. The present standards of flammability, now incorporated by section 4 of the Act, would be saved until modified or superceded by the Secretary.

This proposed amendment would authorize the Secretary to make reasonable changes in the existing standards of flammability of clothing materials and clothing, and thus reduce the number of fatal clothing fires that occur annually. In making any changes in the present standards the Secretary would consider all relevant factors and would cooperate fully with the affected industries and any other interested parties.

If this amendment is enacted, it may be possible, on the basis of existing knowledge, to make limited reasonable changes in the present standard, and cause lowering of clothing fire death and injury rates. Substantial changes will need to be based upon the results of appropriate research and investigation.

#### INTERIOR FURNISHINGS

The proposed legislation would give the Secretary, if he first makes a separate determination of specific need, the authority to issue and amend flammability standards for interior furnishings, whether used in homes, offices or

places of assembly. Such furnishings would include—if specific need were found—upholstered furniture, draperies, ornaments, bedding (including bed clothes), rugs and carpeting, and so forth, and the fabrics and related materials (including paper, plastic, rubber, synthetic films or foams) from which they are made.

The requirement that there first be a separate determination of specific need would mean that the Secretary must first, after notice and an opportunity for presentation of views, consider whether standards are needed for a particular type of interior furnishing in order to protect the public against unreasonable risk of death, injury or significant property damage from fire. Only if he reasonably found such a need for standards, would he be authorized to develop and issue standards of flammability for the particular type of furnishing.

If this major amendment is enacted, as investigation and research indicate that undue flammability of any particular type of household furnishing leads to unnecessary risk, the Secretary would develop appropriate and reasonable standards of flammability to minimize such risk. As in the case of standards for clothing, he would consider all relevant factors and cooperate with all interested parties. The occurrence of serious fires would be reduced, as reduction of the chances of ignition and rapid flame spread occurs. Homes, offices and places of assembly would be made safer. The removal of unsuitable furnishings from the market place would aid State and local fire officials in their enforcement of fire safety codes. Furthermore, this proposed legislation would not prevent State or local adoption of fire safety code provisions which are more stringent than standards adopted by the Secretary.

#### INVESTIGATIONS AND RESEARCH

The proposed legislation would add a new section to the Flammable Fabrics Act to authorize investigations and research. Investigation would be conducted by the Secretary of Health, Education and Welfare, jointly with the Secretary of Commerce into the deaths, injuries and economic losses resulting from the accidental burning of wearing apparel, interior furnishings, fabrics, and related materials. The results of such investigations would be reported annually to the President and the Congress.

The Secretary of Commerce would also be authorized to conduct research into the flammability of wearing apparel, interior furnishings, fabrics and materials, including all aspects of their various ways of burning, the products given off during burning, and the feasibility of reducing their rates or intensities of burning. In addition, the Secretary would develop flammability test methods and test devices, and offer appropriate training in the use of flammability test methods and test devices. The training would assist in encouraging uniform performance of standard test methods, and promote understanding among their users as to the exact meaning of test results.

#### ADDITIONAL AMENDMENTS

Most of the Act would be reenacted by this proposed legislation in order to make numerous minor technical conforming amendments. In addition, amendments are also proposed to carry out recommendations of the Federal Trade Commission in a letter to the Director of the National Bureau of Standards dated July 11, 1966.

Subsections (a) and (b) of section 3 would be amended to clarify the authority of the Commission with respect to sales or delivery after a sale or shipment in Interstate Commerce. Section 9 of the Act would be amended to remove technical obstructions and thus clarify the authority of the Commission to prevent importation of non-conforming items into the United States.

Subsection (c) of Section 5 of the Act would be amended, and a new subsection (e) would be added, as recommended by the Commission. These changes would give the Commission clear authority to require reasonable maintenance of proper records of commercial transactions that concern items that may be subject to standards under the Act. The Commission needs this authority because the applicability of flammability standards to an item such as a fabric depends upon the end use to which the item is intended to be put. Thus accurate records are needed to enable determination of whether a particular item is subject to the Commission's jurisdiction.

The CHAIRMAN. Our first witness is the Honorable J. Herbert Hollomon, who is Acting Under Secretary of Commerce. We will be glad to hear from you.

STATEMENT OF HON. J. HERBERT HOLLOWOM, ACTING UNDER SECRETARY OF COMMERCE, DEPARTMENT OF COMMERCE, WASHINGTON, D.C.; ACCOMPANIED BY J. V. RYAN, ASSISTANT CHIEF, FIRE RESEARCH SECTION, NATIONAL BUREAU OF STANDARDS; M. W. JENSEN, MANAGER, ENGINEERING STANDARDS, NATIONAL BUREAU OF STANDARDS; AND ROBERT B. ELLERT, ASSISTANT GENERAL COUNSEL, DEPARTMENT OF COMMERCE

Mr. HOLLOWOM. Thank you, Senator and members of the subcommittee.

I have on my right Mr. Robert B. Ellert, Assistant General Counsel, Department of Commerce.

On my left, Mr. James Ryan, Assistant Chief, Fire Research Section, National Bureau of Standards.

On his left Mr. Jensen, Manager of Engineering Standards of the National Bureau of Standards.

I want to thank you for this opportunity to testify about the bill now pending before your subcommittee to amend the Flammable Fabrics Act. I urge enactment of S. 1003, introduced by Senator Magnuson, chairman of this committee, and Senator Williams of New Jersey.

The Flammable Fabrics Act now prohibits the introduction or movement in interstate commerce of articles of wearing apparel and certain fabrics which fail to pass specified tests of flammability.

While this act has eliminated certain highly flammable materials, it needs amendment to close gaps in the present law. The President, in his message of February 1967, on protecting the American consumer, recommended immediate action to strengthen the Flammable Fabrics Act. He said:

There is one gap, however, in existing legislation which is so glaring that action should not be delayed. The Flammable Fabrics Act of 1953 has done much to keep extremely flammable clothing out of the Nation's stores.

But the standard of flammability established under that Act is deficient. The Act does not cover many articles of clothing which can be consumed by fire almost instantaneously. It is narrowly restricted to certain wearing apparel. It does not extend to such everyday items as baby blankets, drapes, carpets and upholstery fabrics.

Let me explain precisely what the deficiencies in this 14-year-old law mean to the public.

First—The present law covers only certain articles of wearing apparel and fabrics from which they are made. This means that the public does not have legal protection for such things as blankets, bedding, drapes, carpets, upholstery, and other products and materials even when they are unreasonably flammable. The present coverage of wearing apparel also is limited because it does not include hats, gloves, footwear, and inner linings.

Second—The present act writes into law two existing commercial standards—one for the flammability of clothing textiles and the other for general purpose vinyl film. These standards, now 14 years old,

were based on consensus with the industry. They have prevented extreme hazards, but we still have an estimated 2,000 deaths annually related to the combustion of clothing.

There is no administrative authority to revise these standards in light of new and improved technology or test methods. Any time even a slight technical change is desirable to afford better protection, Congress must amend the act and consider each specific technical amendment.

Third—The present law binds us to past needs and makes no provision for new needs in the protection afforded all citizens. There is no administrative authority to issue new flammability standards which would enable the Government to respond more promptly to the changing needs of industry and the consumer, the introduction of new fabrics and materials, the impact of new technology, or the identification of hazards in areas not now covered. There is no present way to introduce new standards as they are needed, short of congressional action in each and every case.

The proposed amendment we favor would remedy these deficiencies by—

Authorizing improvement in present standards for wearing apparel.

Extending coverage of the act to include—but only after a specific finding of need in a particular class of materials or products—interior furnishings such as bedding, draperies, upholstery, and other flammable materials found in the home, office, or public places.

Authorizing administrative issuance of new standards of flammability to allow the Government to respond more quickly after a need is found to set reasonable and feasible safety levels of flammability and other harmful effects.

Recognizing the need for more information on the causes and effects of fires involving relevant flammable materials.

Authorizing research into flammability and its reduction.

Let me now turn to each of these specific objectives.

#### IMPROVING STANDARDS

Studies have been underway at the National Bureau of Standards to determine the efficacy of existing standards. These studies, conducted in cooperation with representatives of industry, trade associations, fire protection agencies, consumer groups, and others, indicate that the present standards may need revision.

Standards-setting involves both fact and judgment. It is a fact that most materials meeting the requirements of the present standards are still flammable. A judgment still has to be made as to whether they unreasonably endanger lives and property.

Although some data exist on this problem, as I will mention later, these data do not identify the specific materials involved and thus do not yet permit us to make a judgment about how much improvement is possible.

We are currently attempting, in cooperation with the Public Health Service, to broaden our knowledge of the role of textiles in burn deaths.

Under this program, the Public Health Service gives us samples of clothing involved in fires. Thus far, 48 cases in the Denver area have been studied.

Our tests indicate that all of the fabrics furnished from these casualties were capable of meeting the present minimum standards for flammability, but the clothing caught fire nonetheless—for whatever reason.

One important piece of information also emerges from this study. Families in the lowest income bracket are more frequently burned because they are more frequently exposed to fire. Whereas the more affluent have automatic disposals, trash pickup, central heating and the like, the poor tend to have space heaters with flames, trash burners in the backyard, and readily available matches for lighting them.

We also find that children, the disabled, and the elderly, are particularly susceptible to burn injury.

The point here is that our clothes, our environment, and our way of living, interact. We cannot ignore this interaction in getting at the problem of how to reduce the severity of clothing fires.

No one is suggesting at this time that we know enough to make clothes 100 percent fireproof and thus eliminate all clothing fires—however caused—any more than that we would advocate going without clothes to avoid catching on fire.

We do believe, however, that our technology can and should be put to use positively to reduce the risk of accidental clothing fires. If a standard is feasible and it is needed because it would make a significant difference in the loss of life and injury rates, then I believe we have a public duty to issue such a standard.

I think we can take reasonable and sound steps to help solve the problem. The National Bureau of Standards for many years has been conducting a limited research program in the flammability of clothing textiles. Recent work has been directed toward better measurement of the heat transfer from burning materials to materials which simulate the skin. This program is particularly important because a person's skin need not actually burn for death or injury to occur. Skin tissue can be destroyed by the heat and flames from burning materials adjacent to it. Terrible injuries can be caused by synthetic fabrics which melt.

We hope to be able to develop measurement techniques that would permit us to determine objectively how heat is transferred from a burning or melting material to the skin simulant.

We believe heat transfer may be a more significant factor than that measured by the test in the present standard, namely, the minimum time for a flame to spread over the test material.

Once we have information on heat transfer, we may find that the current standard is obsolete—because to protect people better we may need different standards for different products based on how heat affects the body rather than on how fast a fabric catches fire and spreads.

#### BROADER COVERAGE

The 1953 act attests to national interest in protecting the U.S. public against death and injury resulting from the flammability of clothing

fabrics. At that time the Congress and the public became aroused by the disclosure of the sale of garments which ignited easily and made their wearers veritable human torches.

Although these cases were particularly spectacular, the flammability of such fabrics differs only in degree from others in common use in clothing. The fact is that the human body is not flammable, and fire can spread over a person's body only by means of the combustion of what he is wearing.

It is not justified to continue to exclude from coverage under the 1953 act such articles of clothing as gloves, footwear and hats. The original act protects principally against extensive burns to the body, which are the most frequent causes of burn deaths. However, severe burns on the head, hands, or feet although usually not fatal, can exact an extreme toll in terms of disfigurement and loss of functional utility.

I do not believe there is justification for failing to extend the scope of the law to all items of wearing apparel. The proposal before you, however, would not extend the existing standard to such items automatically. New standards for such items must be developed, with the proper procedural safeguards.

There is also a need for extending the coverage under this act to fabrics used in exterior furnishings. While building codes throughout the country limit the flammability of the materials, construction, and finish of the building, there is little or no such control over the furnishings later put into the building.

It is apparent that most serious fires develop through the initial ignition of the furnishings, such as upholstery, curtains and drapes, or other materials, of which fabrics are a prominent part.

In addition, burning and smoldering interior furnishings are a principal source of the noxious and poisonous gases responsible for the large number of fire deaths which are not burn related.

However, new standards for specific interior furnishings could be issued only after a specific need had been demonstrated clearly. Here the Government would have to establish that an unreasonable risk of injury or death exists with respect to the particular item. A fair procedure is required.

#### ADMINISTRATIVE ISSUANCE OF STANDARDS

The Secretary of Commerce would be given the authority to issue appropriate new or revised standards of flammability for articles of wearing apparel, constituent fabrics, and related materials under the rule-making requirements of the Administrative Procedure Act. This means adequate notice and opportunity for all interested parties to participate in the process.

The Secretary also would be authorized to issue new standards of flammability for a particular type of interior furnishings, or its constituent fabrics or related materials, only when he determines, after public notice and opportunity for interested parties to participate in the process, that a flammability standard is needed for that particular interior furnishing in order to protect the public.

The issuance of a particular standard likewise would be subject to a fair and reasonable opportunity for private parties to participate.

In issuing standards we would, of course, give consideration to the public interest in terms of balance among all pertinent factors, such as but not limited to, reduction of hazard, cost to public, cost to industry, and effect on durability and wearability.

A standard would become effective 6 months after its date of issuance unless the Secretary finds, for good cause, that an earlier or later effective date is in the public interest. He is required to publish his reasons for any such earlier or later date.

The present standards of flammability, now incorporated into the Flammable Fabrics Act by reference, would remain in effect—applying only to the articles of wearing apparel or fabric to which they now apply—until they were specifically modified or superseded by new standards issued by the Secretary.

Although standards adopted and promulgated by the Secretary would be mandatory, we would anticipate strong industry participation in the development of standards authorized by the amendment.

The National Bureau of Standards frequently is called upon to develop or evaluate test methods and testing equipment that form the technical basis for standards. The Bureau usually takes advantage of the expertise of an involved industry and consults with appropriate representatives during such evaluation.

For example, test procedures to determine the flammability of mats used in Government buildings were established by the General Services Administration after the National Bureau of Standards studies of test procedures recommended by industry.

The proposed legislation also clarifies the enforcement authority of the Federal Trade Commission over sales, or deliveries after a sale or shipment in interstate commerce. The Commission would be given specific authority to require records of commercial transactions covering commodities subject to the act.

The authority of the Federal Trade Commission to prevent the importation of nonconforming commodities would be clarified and strengthened.

#### NEED FOR MORE INFORMATION

If there is one fact that stands out clearly in statistical information on death and injury due to specific flammable materials, it is how little we really know about the subject.

There is enough known, however, to show that there is a general problem and that it urgently needs attention. For example—

The Public Health Service estimates that 150,000 persons suffer injuries annually as a result of the ignition of clothing, and that over 72,000 deaths were caused by fire and explosion during the 10-year period 1956-65.

A 2-year Kansas study revealed 130 deaths from burns and explosions in the home, of which 36 deaths involved clothing ignition.

In 1966, 18 cities reported a total of 81 deaths from bedding, flame, or asphyxiation.

Based on a sample of newspaper and other reports of actual deaths, of a total of 4,399 fire deaths reported, 478 deaths were caused by clothing ignition and 498 deaths were caused by fires in furnishings.

Here are some of the things we need to know and understand better—

How and why various materials burn.

The effects of heat, fumes, and other combustion phenomena on adjacent humans or property.

What can be done, under varying conditions, to minimize the harmful effects of combustion on life and property.

How materials can be made less flammable.

Investigations and research would be specifically authorized by S. 1003. The Secretary of Health, Education, and Welfare, in cooperation with the Secretary of Commerce, would study and investigate deaths, injuries, and economic losses resulting from the accidental burning of products, plastics, and related materials and submit annually a report to the President and to Congress.

The Secretary of Commerce, in cooperation with other appropriate groups, would be authorized to conduct research into the flammability of products, fabrics, and materials, conduct feasibility studies on the reduction of flammability, develop flammability test techniques, and offer appropriate flammability-test training. The Secretary of Commerce would be required annually to report to the Congress the results of his research activities.

Concern has been expressed over bedding, and particularly baby blankets. We doubt that mere extension of the present statutory flammability standard to bedding or other specific items on a piecemeal basis, is a reasonable or an appropriate means for protecting the public.

If bedding standards are needed, they should be adapted expressly to bedding flammability problems. Enactment of S. 1003 will allow a broad and coordinated approach to such specific concerns, since various bedding and other items would all be "interior furnishings."

Thus, upon a showing of need, and after due process, the Secretary would be authorized to issue appropriate flammability standards for bedding and bedding materials.

We oppose any amendment which would limit the Federal Trade Commission's authority to consider the manner in which clothing is actually worn in enforcing flammability standards as an unnecessary and undesirable limitation.

We believe the Commission's existing authority should be improved, rather than limited.

Naturally, the Commission must exercise discretion in determining when clothing is being worn in a potentially more hazardous manner, but we have confidence in the Commission's ability to do so completely.

In any event, S. 1003 offers the advantage that flammability standards could be expressly modified by the Secretary to provide clarification or a more appropriate test procedure for any unusual situations that might develop, considering the expected use of the fabric.

Mr. Chairman, I cannot state that enactment of S. 1003 will lead to immediate and startling reductions in the rates of death and injury from burns. However, I can state that this legislation will authorize the soundest possible approach to this complex and little understood problem.

It will enable the Federal Government to learn more through investigation and research, and to issue constructive and practicable

flammability standards, when they are needed, in the most expeditious manner possible consistent with due process and the state of the art.

S. 1003 will strengthen the Flammable Fabrics Act, as the President has recommended, which you have supported, and I strongly urge its enactment.

The CHAIRMAN. Thank you for your strong statement.

I wish that you would clarify for the record the procedure that now exists if a textile manufacturer desires to test his fabrics. Does he test it on his own initiative or can he go to the Bureau of Standards?

Mr. HOLLOMON. The general procedure is that these tests would be carried out by him or by an independent laboratory. The Bureau of Standards essentially would insure that the test method was certified. But in general he would not have the test carried out by the Bureau of Standards.

The CHAIRMAN. Do many of the manufacturers of fabrics do this?

Mr. HOLLOMON. Either they do it or they have it done by an appropriate laboratory, Mr. Chairman.

The CHAIRMAN. And they try, as I understand it, at least most of them, to find out what kind of a fabric they are putting out to the public as to flammability, don't they?

Mr. HOLLOMON. Yes, sir; particularly in regard to the present flammability tests which are required. I cannot assure you that that is true for materials other than those that are related to wearing apparel.

The CHAIRMAN. That brings me to this question: The present act, as you pointed out, and I did in my opening statement, does not cover hats, gloves, or inner linings, drapes, and similar items. Under the proposed amendment would there have to be a specific finding of need before you could issue a standard for those items that are not covered?

Mr. HOLLOMON. There would not have to be a finding of need for the case of hats, gloves, or other related wearing apparel. I should like to make clear that it is our view that the Congress in a sense has already found that need, and that these items simply should not have been left out of the original legislation. A need would not have to be found for gloves, hats, or shoes. However, standards would have to be issued and those standards would have to be issued under due process, hearings, and the like.

In the case of interior furnishings and draperies, the new materials under the action, a finding of need would have to be made before such standards could be issued.

The CHAIRMAN. Who would take the initiative to examine? Assume that I am making draperies and because of the type of textile I utilized, they were flammable. Who would take the initiative to determine what the need would be?

Mr. HOLLOMON. The Secretary of Commerce or the industry itself.

The CHAIRMAN. Or a combination?

Mr. HOLLOMON. Or a combination. If the industry, for example, felt that there were certain manufacturers or certain products coming on the market which were extraordinarily hazardous, they could bring the matter to the attention of the Secretary in order to, in cooperation with him, determine the need.

On the other hand, if through investigation of fire records or something else which came up dramatically, as in the case of the sweaters,

if it was obvious from the studies of HEW or our own that there were extraordinary hazards, the initiative would come from the Secretary of Commerce. It would come either way, Mr. Chairman.

The CHAIRMAN. Suppose that I made a fabric and it was very flammable. Could you stop me from putting it on the market if I labeled it flammable?

Mr. HOLLOMON. Is it now covered by the existing standard, Mr. Chairman? If it is covered by the existing standard, which is a very moderate test of flammability, the Federal Trade Commission now has certain authority to prevent the sale of that material.

The CHAIRMAN. We will hear from the Commission.

Mr. HOLLOMON. If it is a drapery material—let us go to a case where we are not covered by a standard—and the manufacturer—

The CHAIRMAN. I suppose that there are certain standards in building codes that will have to be complied with?

Mr. HOLLOMON. Some States, some building codes—

The CHAIRMAN. Or cities.

Mr. HOLLOMON (continuing). Cities, would require certain flammable tests.

The CHAIRMAN. Particularly in public places?

Mr. HOLLOMON. Particularly in public places. This has to do with the application of those materials in that particular building happening to be in that city. It has nothing to do with the sale of them. It has to do with whether they are allowed to be installed. That would in no way prevent the manufacturer in the sale of those materials, even though extremely flammable, in places where such building codes did not apply.

The CHAIRMAN. Or if I have a home and I want this material, though highly flammable, you couldn't do anything about that, could you?

Mr. HOLLOMON. At the present time we can't do anything about it.

The CHAIRMAN. Suppose the bill passed. What could you do?

Mr. HOLLOMON. If the bill passed, the first part of the process is to determine whether there is an unreasonable risk, unreasonable hazard, which is created by the sale of that material.

The CHAIRMAN. Suppose I knew it was flammable and I wanted it and put it in my home.

Mr. HOLLOMON. I have to know what the conditions are. Have we issued a standard?

The CHAIRMAN. Not necessarily.

Mr. HOLLOMON. If there is no standard issued you can buy it, put it in your home, and burn up. At the present time that is the circumstance.

The CHAIRMAN. If I know it is flammable and I want this particular material?

Mr. HOLLOMON. It is up to you at the present time.

The CHAIRMAN. If I lived in an apartment house in a city it might be a different thing?

Mr. HOLLOMON. It might be.

The CHAIRMAN. The code might require me not to have this kind of material.

Mr. HOLLOMON. On the other hand, Mr. Chairman, in general, in an apartment house—this is I believe almost universal—what fabrics you

put up as your own draperies is not controlled by the building code. That is your choice.

The CHAIRMAN. Not now.

Mr. HOLLOMON. Not now, that is correct. For some public places, in some building codes, where people gather, such as theaters and the like, there are certain controls on the interior furnishings.

The CHAIRMAN. If this amendment passes, what effect will it have upon a private home? If I wanted to put this paper up as a drapery, and put a match to it, it would burn up.

Mr. HOLLOMON. If this bill passes, and if a standard has been issued, then such materials would be eliminated from the market.

The CHAIRMAN. In other words, I wouldn't have a chance to get it?

Mr. HOLLOMON. You would not have a chance to get it if a standard has been issued; you couldn't get it, simply because it wouldn't be manufactured. In the same way that you cannot now get, except from someone who is violating the law, these sweaters that burn exceedingly rapidly. You just can't buy them.

The CHAIRMAN. Unless you knit your own.

Mr. HOLLOMON. That is a hazard which we may have difficulty controlling.

The CHAIRMAN. When you speak of practical standards and feasible standards, I suppose that this requires a balancing of interests.

Mr. HOLLOMON. What is intended here, obviously, is that if you set the standard of flammability so high, for something that is generally required in our lives, that either it will be an unreasonable cost, or simply we will be unable to manufacture it—

The CHAIRMAN. That is why we use the word "unreasonable."

Mr. HOLLOMON. The cost is not too high compared to the risk, and secondly, that we deal with the manufacturers, the industry, to appreciate their problems such as inventory problems and other things we have to take into consideration.

The CHAIRMAN. Under the present act which we passed through this committee, did the textile industry have a voice in setting the present standards as now covered by the act?

Mr. HOLLOMON. Yes. It was set essentially by the industry, Mr. Chairman.

The CHAIRMAN. Industry went ahead and did it itself?

Mr. HOLLOMON. Essentially. We adopted, Congress adopted an industry-proposed standard in the legislation.

The CHAIRMAN. Insofar as the present act goes?

Mr. HOLLOMON. Yes, sir.

The CHAIRMAN. Why do you keep mentioning hats? What have hats to do with it?

Mr. HOLLOMON. I don't keep mentioning hats. [Laughter.]

The CHAIRMAN. I see in all the statements people want to extend it to hats and gloves.

Mr. HOLLOMON. And shoes.

The CHAIRMAN. And shoes?

Mr. HOLLOMON. Yes. And also inner linings of clothing.

The reason for hats, Mr. Chairman, is that the original legislation, the first bill, the 1953 act, covered wearing apparel with those exceptions. We feel that things that are next to your feet, hands, and head

are just as important to us as general clothing and sweaters. Getting burned on the head is just as traumatic as getting burned on your body.

The CHAIRMAN. I never heard of anybody being burned with their hat.

Mr. HOLLOMON. If it was unusually flammable, Mr. Chairman, you would be in trouble.

The CHAIRMAN. Monday was straw hat day. What do you do with a straw hat? Do you spray it with something?

Mr. HOLLOMON. I am reminded that there is an article. I think in the Star, about a wig catching fire. I am not sure whether that is a hat or not, Mr. Chairman.

The CHAIRMAN. Of course, I would think that the great hazard is not as much in clothing today as it is in homefurnishings.

Mr. HOLLOMON. I think you are probably right. Our need for knowledge of this problem, exactly how the clothing interacts with the burns, is pretty, pretty important. We get data on things like this: so many people were killed, their clothing ignited. We don't know whether or not they ignited because some flammable liquid got on them; we don't know the degree to which the fire was initiated in the clothing or initiated somewhere else. Essentially we just have information that says in so many deaths, so many injuries, the clothing was related. We need to know what role did the clothing play. I think it is important.

The very large importance of this bill is its extension to interior furnishings, bedding, and the like. I agree with that.

The CHAIRMAN. I don't know the statistics. I just get the impression that you read about more deaths from bedding catching fire than any other item. I don't know whether statistics prove that or not. Smoking in bed causes more deaths, I guess, than anything else.

Mr. HOLLOMON. The kind of information that we have indicates that—and it is pretty meager—it is about 50-50. In other words, clothing is related about as frequently as furnishings.

The CHAIRMAN. If this bill is passed, and the extension were made to other items, do you intend to investigate the number of deaths and what causes them and where the priorities are?

Mr. HOLLOMON. Yes, sir. Section 14(a) of the bill precisely specifies that that is exactly what we would do.

The CHAIRMAN. Have the textile people been cooperative as far as the present law goes?

Mr. HOLLOMON. The textile people, fabric people, have been cooperative as far as the present law is concerned. The difficulty with the present law is that it really gives very little encouragement to anybody to try to improve the tests, to try to be sure that the tests really measure the right things, and that we get gradual improvement in the standards because the standard is mandated by the Congress. It is one of the few instances that I know in which the Congress has mandated the technical details of a standard, like how you measure something. The textile people have been very cooperative.

We believe that improvements in that standard can be made, as I indicated in my testimony. I believe that the textile and fabric and clothing and apparel industry will be cooperative.

The CHAIRMAN. Do you anticipate that a drape, for instance, that would come under the law would cost more than the present one?

Mr. HOLLOMON. I think, Mr. Chairman, you have to balance the problem. If, for example, we run into materials which are exceedingly flammable, then in order to prevent a serious hazard I think we are justified in having standards which might raise the cost a little. Where the hazard is relatively small, where if you take appropriate precautions, you shouldn't expect great hazards, then I don't think that the costs would rise. I don't think there is any question that certain things, just as in the case of the original congressional action, will be eliminated from the market, if they are really highly flammable. And if we are going to make an improvement over the long run it may be that there will be some higher costs. But this has to be balanced against the risk, as is always the case.

The CHAIRMAN. One other thing, taking you to another phase of this, what about fabrics in automobiles? What have we done about that as of now?

Mr. HOLLOMON. I do not know from personal knowledge whether these fabrics in automobiles—

The CHAIRMAN. Dr. Haddon would have that?

Mr. HOLLOMON. Yes. Haddon would have this with respect to the Motor Vehicle Safety Act.

The CHAIRMAN. I think one of the regulations—

Mr. HOLLOMON. I believe there is one, but I wouldn't be sure of it, Mr. Chairman.

The CHAIRMAN. To make them nonflammable?

Mr. HOLLOMON. More nonflammable; yes, sir.

The CHAIRMAN. What about the use of sprays on fabrics?

Mr. HOLLOMON. That is certainly one of the ways in which materials can be made less flammable. If materials are exceedingly hazardous, certainly standards could be developed, would be developed, which would permit using such sprays to protect them.

The CHAIRMAN. And I suppose that you are not going to be too concerned with the use of wood in furniture, are you?

Mr. HOLLOMON. It was not our intent to cover the wood parts of furniture. They are much less likely to be ignited by the sources of ignition that concerns us.

Mr. HOLLOMON. Yes, sir; and related material.

The CHAIRMAN. And the type of fabrics that go on the market, and giving the public knowledge that they are flammable or unreasonably hazardous or not?

Mr. HOLLOMON. That is correct, sir.

The CHAIRMAN. And the industry is perfectly willing, as I understand it, to cooperate because I am sure they would rather put on the market something that was not flammable, if it is possible.

Mr. HOLLOMON. I agree with that.

The CHAIRMAN. And reasonable and practical within the sense of the workings of our economy.

Mr. HOLLOMON. I think that the industry probably wants to be sure that there are not unreasonable steps taken. And secondly, that there is a process in which they can participate. And I believe this legislation allows both of those.

The CHAIRMAN. With their cooperation and with all of us working together, they would be able to do it in some cases at even less cost.

Mr. HOLLOMON. That is not impossible, Mr. Chairman.

The CHAIRMAN. Senator Morton?

Senator MORTON. Many of these products which you have referred to are imported into this country; is that not correct?

Mr. HOLLOMON. Yes, sir.

The CHAIRMAN. I am glad you brought it up. That is important.

Senator MORTON. Section 9, which appears on page 10 of the bill introduced by the chairman and Senator Williams of New Jersey, transfers, it seems to me, the responsibility from the exporter, be he in France, Switzerland, or what not, to the importer.

Mr. HOLLOMON. Yes, sir. The reason for that, Mr. Chairman—

Senator MORTON. I would like to have the rationale.

Mr. HOLLOMON. The reason for that is that there is no way to get to the exporter. Here the situation is, how do you reach him with respect to legislation and laws of our country? The import and direction of this change is to try to arrange the circumstance so that you can reach the imported material. This is our proposal, and the Senators' proposal, as to how you reach that importer.

Senator MORTON. It seems to me that some of these countries manage to reach us when we are exporters through nontariff barriers at one time or another.

Mr. HOLLOMON. Right.

Senator MORTON. Carrying this further, you have the requirement for a double bond, is that not correct? If you import \$100,000 worth of sweaters that may be flammable, is there not a double bond required?

Mr. HOLLOMON. Yes. That is under the condition where you are not complying with the law; that is, that there is a possibility of importation of materials which don't meet the standard.

Senator MORTON. Let's assume I am an importer. I am engaged in the importation of foreign goods of great variety for sale in this country. Among them are sweaters which might or might not be flammable. I also import cameras from Japan. Does my double bond extend to all imports or does it extend only to those products covered under section 9?

Mr. HOLLOMON. It is my understanding of section 9, and if the language is not clear we ought to make it clear, that it should apply only to the import of the goods which were subject to the control of this legislation and which are subject to the particular standard with which it does not comply. If that language is not clear, we should clarify it. That is the intent.

Senator MORTON. That question has been raised in correspondence. I assume that the position you have taken is what was intended by section 9. If it is not clear, we ought to make it clear.

Mr. HOLLOMON. Senator—

Senator MORTON. It is so legalistic, I can't understand it.

Mr. HOLLOMON. If it isn't clear, let's clarify it.

Senator MORTON. Under the present act, which has been on the books 14 years, section 4(b) requires the Secretary of Commerce to report to Congress his findings as to the inadequacy of existing standards, and proposals for legislation as he deems appropriate. During the life of this act has the Secretary of Commerce or his predecessors made any such findings to the Congress?

Mr. HOLLOMON. We have, to my memory, reported to the Congress the need for being able to modify the standards so as to adapt them to technological changes and new testing methods. We have sent, on a number of occasions that I remember, such information to this committee, indicating our belief that the standards that were fixed by the Congress should not be so fixed, and we should have the processes which we indicated in this legislation instituted so that the standards could be constantly brought up to date. I know of such reports to the Congress, personally. I cannot tell you, sitting here, how many such reports there have been.

Senator MORTON. Have they directed themselves specifically to the inadequacy of existing standards?

Mr. HOLLOMON. We have reported that we did not have data on actual garments in which people were burned. Without such data, we did not know if the test methods were adequate to determine the hazard to individuals from specific fabrics in wearing apparel.

Senator MORTON. Along the same line, have you indicated areas in which you think these standards need revision, more than just a broad statement that we have to revise the standards? Have they been in any way specific, detailed?

Mr. HOLLOMON. There has been no such indication. However, I can be explicit right here and now, as to what sort of ways I believe the standards should be modified.

The CHAIRMAN. Mr. Ryan, what is the procedure now for a manufacturer to use the facilities of the Bureau of Standards? I never did quite understand the availability. I think we ought to put that in the record.

Mr. RYAN. Mr. Chairman, I am from the Fire Research Section. The activity you speak of would more come under our Engineering Standards activity, which is headed up by Mr. Jensen. So, if you will, I will pass that question to him.

The CHAIRMAN. Very well.

Mr. JENSEN. Mr. Chairman, there is no specific procedure by which a manufacturer would submit textiles intended to be used in wearing apparel for tests as to the performance under the standards. The Federal Trade Commission, of course, has responsibility for enforcement. The National Bureau of Standards has responsibility for development of test methods and for the recommendation of standards. But there is no procedure by which a manufacturer would say, "Here is a piece of clothing, or fabric I hope to put into clothing, I would like to have you test it as to conformance with the standard."

Senator MORTON. Would you yield?

The CHAIRMAN. Yes.

Senator MORTON. If a manufacturer asked you to do that, would you do it?

Mr. JENSEN. If a manufacturer asked us to do that, we would first refer him to appropriate private testing laboratories and tell him how to do this himself rather than undertake the tests ourselves.

The CHAIRMAN. He does it himself and then goes to the underwriters. When he wants to be sure of this, can he come to you?

Mr. HOLLOMON. May I reply? There are a large number of private institutions in the country which we and the National Bureau of

Standards try to keep from competing with. In general, our policy is, if there is a certified private institution where the test method is carried out according to the standards, it should be done privately, and that test is then just as good as the National Bureau of Standards test.

If there is a question as to whether the test method is right, then the National Bureau of Standards would undertake to do an evaluation of the test method.

There are instances, Mr. Chairman, where there are no available private institutions to make certified tests. Under those conditions, we will undertake such tests. But our general policy is to not compete with the private institutions to attempt to become just a central testing laboratory in the Federal Government. And I think that that is the kind of procedure we should press.

If there is a manufacturer who says he cannot get adequate tests and deems that that is the case, we stand ready to help him. But I don't think we should be competing with the private testing laboratories in the country.

The CHAIRMAN. No. I suppose that the Federal Trade Commission and the Bureau would often accept the tests from reliable private institutions, or accept the results.

Mr. HOLLOMON. Mr. Dixon is here. I am sure that that is the case, Mr. Chairman. The important thing is that the test method be that which is prescribed under the standard. And if the test method is adequately set up, then I think it is incumbent upon us to accept the results.

The CHAIRMAN. If this amendment carries, would it make any change in this procedure that goes on now relating to the fabrication of limited amounts covered by the act?

Mr. HOLLOMON. Not immediately. It would probably, after work with industry in due processes, modify the standards, update them, and make them better. But that would have to be through a process of standards development, which would be in cooperation with the industry.

Mr. CHAIRMAN. Clear up again, so there is no misunderstanding, your interpretation of the procedures under the act. I come to you. I am manufacturing some fabrics. And this law is passed, and there is some doubt maybe in my mind or in the mind of the Federal Trade Commission or you people that maybe what I am about to put on the market is unreasonably hazardous. What is the procedure?

Mr. HOLLOMON. The procedure is the following: the first thing we would do would be tests on such material, in cooperation with the industry.

Second, we would—

The CHAIRMAN. Let's stop right there. Who would test them?

Mr. HOLLOMON. We would.

The CHAIRMAN. You would?

Mr. HOLLOMON. Yes, sir.

The CHAIRMAN. Through the Bureau of Standards?

Mr. HOLLOMON. Yes, sir.

The CHAIRMAN. All right.

Mr. HOLLOMON. No standards have been issued. We would test the material.

The CHAIRMAN. All right.

Mr. HOLLOWOM. We would develop the appropriate tests, if they weren't available, for a particular class of materials. We would develop the tests in order to find out how to do it.

Then we would, through investigations in cooperation with HEW, find out whether such materials are used in such a way as to represent an unusual hazard.

The CHAIRMAN. Let's stop there. What are HEW's responsibilities?

Mr. HOLLOWOM. HEW gets into the act because they are the people who are responsible for the relationship between burnings, deaths, and injuries. They have information, but not enough. Having made that step, say we have made a preliminary finding that these materials, used as they intend to use them, represent an unusual risk and hazard. We would publish that in the Federal Register, and we would then set an appropriate time for hearings, so that if somebody said, you are just wrong, you made a mistake, or there has been good experience with this over the years, and it does not represent an unusual hazard, there would be opportunity, through hearings or writing in by reports, to make such an objection.

The CHAIRMAN. How long a time is involved in all this procedure up to now?

Mr. HOLLOWOM. Mr. Chairman, I think it depends—I don't think one can state.

The CHAIRMAN. There is no time limitation?

Mr. HOLLOWOM. There is no limitation in either direction. If it is something really unusual, where people are getting killed all over the country by virtue, say, of a very flammable material which children are using, we would move with great speed. If there is something which a manufacturer says this is a borderline case, we ought to take a look at it, obviously one would move somewhat more slowly.

We would make an additional determination that there was unusual risk and hazard. That determination would then set in motion the development of the standard by which we would call together appropriate people from industry and Government, to develop a standard for that class of materials. That standard would be published. We would get reactions to that standard. It would finally be issued as a mandatory standard. That is the process. So industry has two ways to enter the process. And so does the general public.

The CHAIRMAN. What if industry does not agree that you are right in issuing the standard? What recourse would they have?

Mr. HOLLOWOM. This would come under the Administrative Procedure Act, and they are subject to judicial review, as is called for in 5 U.S.C. 701. It would be subject to judicial review.

The CHAIRMAN. I presume that a public hazard would have first priority. Would this be correct?

Mr. HOLLOWOM. Yes, sir. A wide public hazard.

The CHAIRMAN. It might affect other people around, rather than just me?

Mr. HOLLOWOM. Yes, sir.

The CHAIRMAN. If I want to buy something that burns, it is my business.

Mr. HOLLOWOM. That is something where you may have no control over the matter at all, if there are others who may be affected by your hazardous purchase.

The CHAIRMAN. If I am informed that this is flammable and I want to buy it, that is my business. I don't think we are going to bother that. But if I am going to buy it and it is flammable and I am affecting some people around me—

Mr. HOLLOMON. That is more important.

The CHAIRMAN. That is another matter.

Mr. HOLLOMON. Yes, sir.

The CHAIRMAN. Restaurants, for example. I guess the first law ever passed on this subject was theater curtains.

Mr. HOLLOMON. I suppose that is right.

The CHAIRMAN. City codes on theater curtains?

Mr. HOLLOMON. I suppose that is right.

The CHAIRMAN. They used to have signs, "This curtain is made of asbestos," or something like that.

Senator MORTON. Iron, some of them were made of.

The CHAIRMAN. Or if you live in an apartment house or urban area, this would be in the nature of a public hazard.

Mr. HOLLOMON. Yes, sir.

The CHAIRMAN. Thank you very much. We appreciate your coming, if there are no further questions.

The next witness is Dr. Lee, who is Assistant Secretary for Health and Scientific Affairs, Department of Health, Education, and Welfare. He is accompanied by Dr. Marland, Mr. William White, and Mr. Ellenbogen.

**STATEMENT OF DR. PHILIP R. LEE, ASSISTANT SECRETARY FOR HEALTH AND SCIENTIFIC AFFAIRS, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY DR. RICHARD E. MARLAND, CHIEF, INJURY CONTROL PROGRAM, BUREAU OF DISEASE AND ENVIRONMENTAL CONTROL, U.S. PUBLIC HEALTH SERVICE; WILLIAM V. WHITE, CHIEF, LIAISON SERVICES, INJURY CONTROL PROGRAM, BUREAU OF DISEASE AND ENVIRONMENTAL CONTROL, U.S. PUBLIC HEALTH SERVICE; AND THEODORE ELLENBOGEN, ASSISTANT GENERAL COUNSEL, LEGISLATIVE DIVISION**

Dr. LEE. I appreciate the opportunity, Mr. Chairman, to testify today on S. 1003, the amendments to the Flammable Fabrics Act of 1953. This bill, introduced by the distinguished chairman, Senator Magnuson, represents an important and vitally needed forward step in the protection of the American consumer.

I welcome your action as a representative of the Department of Health, Education, and Welfare. I welcome it also as a physician who has intimate knowledge of some of the things we will be talking about today. We wish to urge early congressional enactment of S. 1003.

Acting Under Secretary Holloman has described the major problems in the existing law. Let me turn my attention to the need for the expansion of the law and the role of the Department of Health, Education, and Welfare in its implementation.

All of us, I am sure, are fully aware of the fact that many fabrics will burn. They will not merely ignite, but sometimes they will burn

so rapidly, so intensely, and so destructively that escape is well nigh impossible.

But I suspect the American public is only dimly aware of the destructiveness and frequency of such fabric fires. Of the estimated 1 million people burned in the home each year, clothing ignition is involved in about 150,000 cases. Thousands more were burned in fires involving bedding, drapes, upholstery, and other household fabrics.

At the University of Michigan, 1,500 severe burn cases have been analyzed since 1964. Of these cases, about 40 percent involved clothing ignitions.

In 1961, a research project was sponsored by the Public Health Service in cooperation with the Tennessee Department of Public Health. Of the 308 burn records studied, 105 patients suffered injuries because their clothing caught on fire.

The death toll alone is shocking—an estimated 2,000 to 3,000 each year.

Deaths from fire rank third—behind traffic accidents and falls—as the chief cause of accidental deaths and injuries in this country.

Many of the victims do not die, but suffer second and third-degree burns involving 10, 20, and even 30 percent of their bodies. They suffer anguish that can scarcely be described—let alone endured. If they survive, many of them are permanently disabled or disfigured. Often the survival is achieved at the cost of medical and surgical treatments reckoned not in hundreds but in many thousands of dollars—and not in days or weeks but in many months of hospitalization. Every year 100,000 persons are hospitalized for burns, occupying 2 million hospital bed days. Another 3.6 million visits to physicians' offices for treatment of burns are made each year.

In Birmingham, Ala., the Public Health Service and the Jefferson County Health Department are conducting a retrospective study of burn patients. Of the 1,395 cases analyzed, 179 were listed as due to ignited clothing. Of these 179 clothing ignitions, 37 percent required skin grafts and extensive surgery. Only 6 percent of those whose clothing did not ignite required extensive surgery.

Perhaps one of the most tragic aspects of these fabric burns is that a large proportion claim as their victims those who are least able to help themselves—the aged, the disabled, the poor, our very young children.

Even though my professional colleagues have remarkable new medical techniques to save the lives of fabric burn victims, and equally remarkable techniques of plastic surgery to repair some of the damage, we can scarcely point with unadulterated pride when we realize that many of those injuries could have been prevented if people had been adequately warned and protected—if more adequate flammability standards had been in effect.

We, of course, are taking steps to help meet the problem. As Acting Under Secretary Hollomon mentioned in his testimony, the Department of Health, Education, and Welfare and the Department of Commerce are working together in an effort to determine the involvement of textiles in burn deaths and injuries. In Denver, the Public Health Service has been conducting extensive field investigations on burn cases. The purpose of these investigations is to document the

physical agents and human factors in burn cases involving clothing and fabrics. When available, samples of the clothing being worn at the time of ignition, or duplicate items, are obtained and submitted to the Bureau of Standards for flammability tests. Results of these tests are added to the Public Health Service analysis of methods of prevention, hospital costs, medical treatment, and rehabilitation.

Little interest in burn injuries had been shown by industry or Government for a number of years after passage of the act in 1953. The Public Health Service, which had established an Accident Prevention Division in 1961, requested the National Fire Protection Association to cosponsor a conference in 1962 on textile flammability. This interest grew out of an analysis of the accidental injury problem, which indicated that fires involving clothing and fabrics were an important segment of the total burn problem. The purpose of the conference was to define the nature of the problem of burns resulting from the ignition of clothing, or other materials, such as bedding, draperies, upholstery fabrics, and household furnishings. A second conference was held last December at the New York Academy of Medicine, with the purpose of developing a plan of action, using all present knowledge and resources to make flame-retardant fabrics more readily available to the American public.

From the New York conference evolved the proposal to establish an information committee on fabric flammability. A preliminary meeting to implement this recommendation was held in New York on February 23 of this year. Eventually, we hope that committee can serve as a clearinghouse for gathering information on the subject and funneling it to those most vitally concerned.

In addition, the Public Health Service has contracted with the University of Michigan Hospital to set up a National Burn Information Center. This unit is collecting case management data on serious burns, their treatment, and their costs as measured in hospitalization, after effects, and mortality. Cooperating in the program are nine major burn centers, including the University of Michigan Medical Center and St. Joseph's Mercy Hospital in Ann Arbor; the University of Cincinnati; the Medical College of Virginia and St. Philip's Hospital in Richmond; Cook County Hospital in Chicago; and Brooke Army Hospital in San Antonio. From this study we expect to define better methods of treating burn cases, more realistic appraisals of total cost, and hopefully, more effective methods for prevention. Our new contract for 1967 will allow the Michigan group to investigate cases involving clothing ignition.

As part of our efforts to encourage industry to use more flame-retardant fabrics in their products, we have consistently and repeatedly made available results of our research. Our research has not centered solely on the development of statistics on injuries and fatalities, but has included studies on the actual use of flame-retardant fabrics.

As an example, the Public Health Service recently cooperated with the Arkansas State Board of Health in an experiment involving the use of treated cotton materials in two nursing homes. The tests provoked no complaints about discomfort, had no adverse medical or toxic effects on the patients, and disclosed that the treated materials re-

tained their flame retardancy after repeated washings. The results of this experiment are readily available.

We have consistently and repeatedly tried to stimulate demand for flame retardants through exhibits and demonstrations before national organizations, and since we believe that we should practice what we preach, the Surgeon General has endorsed the use of such materials in Public Health Service hospitals, nursing homes, and other residential facilities.

We could do much more, but additional legislative authority is sorely needed.

Under S. 1003, the Department of Health, Education, and Welfare would be charged with conducting studies and investigations of the deaths, injuries, and property losses caused by fabric fires and with making an annual report to Congress and the President on standards revisions which appear necessary. This mandate for action will provide for a critical review and assessment of the problem. The resulting baseline will be used for measuring morbidity and mortality trends, and will help to evaluate the effectiveness of existing standards. This total effort should stimulate industry to provide better and safer fabrics in the marketplace.

Through the injury control program of the Public Health Service, we can intensify the surveillance operations of health and safety experts who can investigate all the circumstances surrounding fabric fires, determine which fabrics contribute to them, and recommend preventive actions.

Through this and related research, we can—I am confident—determine which products represent the most serious hazards, which require special warnings to the potential consumer, and which perhaps should be banned from the marketplace.

We can promote research on flame-retardant finishes and fabrics.

By defining the problem, we can stimulate the industry to develop materials which are not merely attractive, economical, comfortable, and stylish—but also safe.

Let me assure the subcommittee that there is no disposition on the part of the Department to be a source of unreasonable harassment to the fabric industry. We realize its economic problems and appreciate its contributions to the Nation's economy. And we are sure that leaders of that industry realize our obligation to protect—to the fullest degree possible—the health and safety of our people. But we are concerned about statements made by representatives of industry that broadened standard setting authority should be delayed until the need for regulation can be demonstrated. Mr. Chairman, every day an estimated 400 persons are burned in accidents involving clothing ignition. Now is not the time for delay, now is the time for action.

We believe that S. 1003 provides a reasonable approach to solving the problem of death and injury due to fabric burns. The bill will not provide an immediate solution but it will provide the Federal Government with the necessary tools—broader research, investigation, and standard-setting authority—to help reduce the number of persons who are the victims of hazardous flammable fabrics.

Mr. WHITE. We would also like to put on a short demonstration on fabric flammability.

The CHAIRMAN. All right.

Mr. WHITE. The points I would like to make, to emphasize some of the things Mr. Hollomon stated, first of all, are the estimated number of people who are involved in burning accidents.

There are approximately a million people who are burned every year, and clothing ignition is involved in about 150,000 of these cases.

There are 2,000 to 3,000 deaths, we estimate, every year from burns involving clothing; 100,000 people are hospitalized from clothing burns. This means two-thirds of the people who are involved in the clothing burns require hospitalization.

Two million hospital days are involved in the care of these people in the hospitals. An additional 3.6 million visits to physicians are required for the care of these individuals. And, I think this reflects the nature of the clothing burn injury particularly. These are not superficial. These are often second- and third-degree burns. They often disfigure the individual physically. And often scar them permanently, psychologically, because it is a very terrible experience, particularly if you are a child, to have your clothing catch fire and be severely burned and then require months of hospitalization, and difficult surgery. So that it is not only physically disabling, but often psychologically a disabling injury.

Also, with clothing burns, a far higher percentage of individuals require skin grafts. On one study, 37 percent of those who had clothing burns, required skin grafts; 6 percent of those with other types of burns required skin grafting.

The CHAIRMAN. I don't like to interrupt, but aren't there a great number of elderly people who suffer burn injuries?

Mr. WHITE. It is exactly the next statement I was going to make. The people who are the victims primarily are the aged, the disabled, the poor, and the very young children. The people who are least able to do something about a clothing fire once it starts. So that it is absolutely a correct point, and one which we also feel is very important. It is appropriate to ask what have we been doing up to now.

The CHAIRMAN. Could I bring out, and you could be helpful, the importance of this amendment. As we know and you in your department know so well, more and more of our citizens are going to homes for the aging in the last 10 years. It is common now. It wasn't common in past years.

I doubt, unless they are downtown in a city where there are building codes, if there are any restrictions on flammability in these homes.

Mr. WHITE. I would agree with that.

The CHAIRMAN. Because they are usually out on land which is nicer. But, unless they are downtown where there are strict building codes, I doubt that there is coverage of this.

Mr. WHITE. It is not only true of the retirement homes where many people are physically well and retired, but this may also be true of nursing homes where people are disabled.

The CHAIRMAN. I am talking of both.

Mr. WHITE. And, of course, then the hazard is even greater, because these often are out in the country where land is cheaper, they are often very small, often in old converted homes. I think we are well aware of the hazards and disasters that have occurred in some

nursing homes where fires have occurred. These have been nationally publicized.

The CHAIRMAN. Some of these elderly people are not in a financial position to go to a home where there are more attendants. Some are understaffed which increases the hazard.

Mr. WHITE. One of the things under the medicare program we have insisted on is certain fire safety standards. We have been put under a lot of pressure to modify those because in some areas, the only homes that existed—

The CHAIRMAN. Many of these old homes are in the country.

Mr. WHITE. That is absolutely correct, and it is another important point to make with respect to the aged, particularly, and the increased hazard, as far as the activities of the Department and particularly the Public Health Service, there has been, since the Division of Accident Prevention—

The CHAIRMAN. Do you have any restrictions in the District of Columbia?

Mr. WHITE. No.

The CHAIRMAN. I live at the Shoreham. I have lived there for a long time. I came home one afternoon and saw a building a block down the street where eight died. They couldn't get out of the fire.

I don't know whether they have changed the law since then, or not. It takes a tragedy to get people awake to these things.

Go ahead.

Mr. LEE. The Public Health Service has been active, particularly since 1961, working not only with the Department of Commerce, but also with industry and a number of private and professional groups to determine the nature of the problem, and also to educate not only industry and the professional groups, but also the public as to the nature of the hazard associated with flammable fabrics and particularly clothing.

They have been, of course, conducting some research studies since 1961. We do not believe that these have been sufficient, as Dr. Hollomon indicated, to give us the information that we need today to do the job. This is one of the reasons that we feel S. 1003 is so important, not only because of the authorities which are provided, but it really would indicate the intent of Congress.

The Secretary of Health, Education, and Welfare, would be required to submit a report to the President and Congress, annually on the studies and investigations of deaths and injuries and property loss caused by fabric fires.

We think this congressional stimulus and oversight will be very important in terms of accelerating the research in this area, which we believe is very much needed.

It seems also, to us, that the mandate for action and the review not only applies stimulus to the Department and the Public Health Service, but also to industry to accelerate their own research and development efforts with respect to this problem.

Through the injury control program in the Public Health Service, we can and will intensify the surveillance operations of health and safety experts who can investigate all the circumstances surrounding fabric fires to determine which fabrics contributed to them and recom-

mend preventative action. The point he made earlier about blankets could be specifically investigated.

Through this and related research request, I am confident we can determine which products represent the most serious hazards, which require special warnings to the potential consumer, and which perhaps should be banned from the marketplace.

We can promote research on flame-retarded finishes and fabrics. By defining the problem, we can stimulate the industry to develop materials which are not only attractive, economical, comfortable, and stylish, but also safe.

Let me assure the subcommittee that there is no disposition on the part of the Department to be a source of unreasonable harassment of the fabric industry. We realize its economic problems and appreciate its contributions to the Nation's economy. And we are sure that leaders of that industry realize our obligation to protect—to the fullest degree possible—the health and safety of our people. But, we are concerned about statements made by representatives of industry that broadened standard-setting authority should be delayed until the need for regulation can be demonstrated. Mr. Chairman, every day an estimated 400 persons are burned in accidents involving clothing ignition. Now is not the time for delay, now is the time for action.

We believe that S. 1003 provides a reasonable approach to solving the problem of death and injury due to fabric burns. The bill will not provide an immediate solution, but it will provide the Federal Government with the necessary tools—broader research, investigation, and standard-setting authority—to help reduce the number of persons who are the victims of hazardous flammable fabrics.

At this point, Mr. Chairman, before concluding my testimony, we would like to put on a short demonstration, with your permission, by Mr. White, who is the chief of the liaison service, injury control program, Public Health Service.

Mr. WHITE. The purpose of this demonstration this morning is to show some of the fabrics and materials available from experimental research and to show some of the burning characteristics or lack of burning of certain fabrics that are now being produced in limited supply by industry.

In addition to trying to define the injury problem in the Public Health Service, we also work very closely with the industry in trying to show them how certain fabrics and fibers may be needed to reduce the flammability of clothing and other materials. This large book represents samples of some materials that we have received from various members of the industry.

We wouldn't attempt to try to show that many. We have furnished you with a small brochure. If you will turn to the third page, where you see two fabric samples, you will notice that I have these mounted on the test frame here.

The CHAIRMAN. Now we are talking about cotton?

Mr. WHITE. The first one we will show will be ordinary cotton broadcloth sheeting. And this is right here in this rack.

This is from the identical bolt of cloth, except it has been treated with a chemical called THPC. It is explained in the brochure.

First, I will ignite the ordinary cotton broadcloth. You can catch the rate of flame spread. And, you will see it very rapidly consumed.

You will also note that when the flame extinguishes itself, you have an afterglow that we have been told is much higher temperature than the original. The afterglow continues for some time after the flame extinguishes itself.

With the piece of cotton which has had the chemical add-on, we can place the flame in the same relative position as we did with the ordinary cotton broadcloth. You will see, first of all, it is very difficult to ignite. The flame persists only as long as you keep the flame attached from the candle imposed upon it. You form a slight char there, but you have had no spread of the flame nor any afterglow.

The second piece of fabric—

The CHAIRMAN. Does the chemically treated cotton cost more than the untreated cotton?

Mr. WHITE. We are not experts on cost, Mr. Chairman, but we have certain—

The CHAIRMAN. Does it cost much more to treat it?

Mr. WHITE. We are told by people in the marketing business that a sheet that would formerly have cost about \$3 would cost about \$4 with this treatment added.

The CHAIRMAN. This is one of the factors that the Commerce Department and you people have to look into.

Mr. WHITE. We also realize it is available in very limited quantities. We don't know what the market cost would be if available in large quantities.

The CHAIRMAN. And the two fabrics feel different?

Mr. WHITE. There is a slight change in hand.

The CHAIRMAN. This is stiffer?

Mr. WHITE. It has a chemical add-on of about 20 percent.

The CHAIRMAN. The other feels soft like cotton. That may be a factor. I might not want to wear the hard shirt.

Mr. WHITE. The piece you have there, the chemical industry says it is a durable flame-retardant finish which means this could be washed for a hundred times without losing its flame-retarding qualities.

The next material is a piece of Fiberglas material normally used for drapes and other decorator fabrics. The Fiberglas does not support combustion. And the flame impinged on here will not ignite the material except that the finish on the material, the finish that is placed on the material itself, is sometimes flammable. It will not support combustion, the Fiberglas itself.

The third one involved here that we will demonstrate is a piece of rayon material. This is 88-percent rayon and 12-percent acrylic. You will notice in your manual it is found in many millions of blankets, and combed cotton, which is similar. The flame spread is very rapid in this particular piece of fabric.

The CHAIRMAN. You say in your brochure there are 40 million blankets of this type sold every year.

Mr. WHITE. That is the figure we received from the industry.

The CHAIRMAN. Of this type of material?

Mr. WHITE. Yes, sir. You will notice that the flame persists and you also get the afterglow to which I referred earlier. I will remove this from the stand and drop it into the tray.

The next piece of material is a synthetic—made of synthetic fiber. This particular one happens to be Verel. There is also one called Dynel,

a modacrylic fiber which is normally flame retardant and does not have to be treated. It is used in decorator fabrics. It is not used generally for clothing.

You will notice that the fabric tends to shrink and melt rather than burn.

The last piece of material that I will show in the frame is a synthetic material called Nomex, and this is a high-temperature-resistant nylon which does not support combustion. You will notice this is a nap fabric which looks like it would be very combustible.

The CHAIRMAN. It sure feels like it.

Mr. WHITE. It does not burn. Again, it forms a char.

To carry this one step beyond the swatch of fabric, I show you some things that are not on the market but are made up experimentally by the industry for purposes of demonstration. This happens to be a girl's dress made of Nomex, the same fiber that you last saw demonstrated on the stand. It is another weight and weave of material from the same fiber. They also made up experimentally a pair of children's sleepers of the nap fabric which will not support combustion. But these are not on the American market or any other market.

This looks like it would be very flammable. It happens to be a small rug made from a modacrylic. This happens to be Dynel. It will not support combustion. It is on sale now through one of our major retail chains.

This is a piece of cloth now under development for clothing which is made of glass fibers and it is called Beta Fiberglas, and it is made from a finer filament of yarn than the other Fiberglas material I showed you earlier.

These are pieces of cotton clothing that were treated after the garment was made with the chemical add-on, just for demonstration purposes. They will not support combustion.

Another little dress here and a pair of children's play trousers that have had the add-on after the garment was made.

And our last garment to show you is a child's bathrobe, made from Morel, a modacrylic synthetic flame-retardant fabric. This particular robe is on sale in London and it sells for \$7.95 in one of their leading department stores. The fibers for this robe are made in Kingsport, Tenn., yet you can't buy one in the United States.

The CHAIRMAN. Why?

Mr. WHITE. It is not on the market.

The CHAIRMAN. Do you know why it is not on the market?

Mr. WHITE. I will venture a guess. No. 1, there is not enough demand. And that there is no inclination at this time on the part of the retailers to put it into production unless they know there is demand, and people will be willing to pay for it. The consumer is not informed.

The CHAIRMAN. I am not critical of that, but it could be put on the market if there is a demand for it?

Mr. WHITE. Yes, sir.

The CHAIRMAN. There is no restriction in putting that on the market?

Mr. WHITE. No, sir.

Dr. LEE. That concludes our formal testimony, Mr. Chairman.

The CHAIRMAN. We are a cotton and wool country, as you know. We like wool fabrics, and we like cotton fabrics. Over the years it has

become a matter of habit to enjoy wearing apparel that is cotton or wool.

Could some of these synthetics be woven into cotton and wool products to make them less flammable?

Mr. WHITE. We have been told that this is possible, and experimentally it has been done.

The CHAIRMAN. Is not the industry working on that in their research?

Mr. WHITE. Yes, sir.

The CHAIRMAN. Senator Brewster?

Senator BREWSTER. I have no question, Mr. Chairman.

Dr. LEE. When you mention cotton, we think it is important not to put this out of context. Cotton is so widely used, and although many of the burns are associated with it, we haven't done enough study to identify precisely which fabrics, done in which ways, are the most hazardous, or in testing new products to determine which ones can be most effectively used to prevent these injuries and deaths.

The CHAIRMAN. Have you any views, any of you who have had some experience in this field, on the safety of paper apparel?

Dr. LEE. I would ask Dr. Marland to answer that question.

Dr. MARLAND. We have had many opportunities to have paper apparel tested. This has been done by the National Bureau of Standards. Paper dresses for the most part, at least all of those which we have encountered, do meet existing flammability standards under present law. They are labeled as such.

Similarly, the protection which is offered the consumer is removed from the garment by washing. Unfortunately there does seem to be in some retail outlets a tendency of the sales clerk to advertise this garment as being washable and rewearable for many times. Since the chemical flame retardant is washed out, we certainly cannot recommend that these garments are safe after they have been washed or drycleaned.

The CHAIRMAN. The washability of some of these items will be very important. When they are put on the market they may be nonflammable, but we don't know yet what happens when they are washed many times, do we?

Dr. MARLAND. For the most part the industry is well aware of the permanency or lack of permanency of the various finishes which they are using.

The CHAIRMAN. They are working on it?

Mr. MARLAND. Yes, sir. I haven't seen any mislabeled.

The CHAIRMAN. Dr. Lee, we should clarify for the record—and you have it in your statement—that if S. 1003 is passed, HEW will be charged with conducting studies and investigating deaths and injuries and property losses caused by fabric fires, and would make an annual report to Congress and to the President on standards revisions which appear to you to be necessary after the research and investigations.

Dr. LEE. That is correct, Mr. Chairman.

The CHAIRMAN. You will also, I suppose, work in close cooperation with the Federal Trade Commission and with the Department of Commerce.

Dr. LEE. Yes, sir.

The CHAIRMAN. Because they are going to have to rely on you folks for a great deal of facts and research and data and priorities.

Dr. LEE. It is particularly relating to the health hazard, which ones are most hazardous and what can be done.

The CHAIRMAN. You conceive this to be your responsibility as you have set forth in your statement?

Dr. LEE. Yes, sir; very definitely.

The CHAIRMAN. If and when the bill is passed?

Dr. LEE. Yes, sir.

The CHAIRMAN. Where do you get your statistics now? The insurance companies?

Dr. MARLAND. The National Center for Health Statistics is the major source of our information on burns. We have within the last 2 years established two epidemiological and surveillance teams. These are now in Denver, Colo., and Boston, Mass. These teams are composed of people with considerable skill in conducting in-depth investigations of injuries that are reported to the medical community in the hospitals in the areas where they are working. We have paid particularly close attention to burns because we feel the technology of prevention is in good shape.

The CHAIRMAN. And there would be no reason why you could not contract out some of the research? The study in Arkansas is one example. Or a university hospital, or a local institution, if you want to?

Dr. LEE. That is correct.

The CHAIRMAN. I wouldn't want to have any restriction on that, because you can take advantage of a great deal that is being done in other places.

Dr. MARLAND. I was discussing the possibility of a contract with a university having these capabilities—only yesterday—and I am sure that that particular university would be very happy to make such studies.

The CHAIRMAN. One of the great needs, I suspect, is that we don't have enough information about this.

Dr. MARLAND. We see the Public Health Service as the agency with responsibility to see that good data are available on which action can be based.

Dr. LEE. We also feel, Mr. Chairman, some people would say that you should do more research and not have the enforcement responsibilities. But it is our view in the Department, and we hold it very strongly, that if you have—or if the Federal Government has the standard-setting responsibility and an enforcement capability, that the whole process is accelerated and we move ahead much more quickly than if we just continue to support research alone.

The CHAIRMAN. It is a very complex field.

There is the question of liability involved in this too. I hope that we will be able to hear from the industry as to their concept of what is the liability if you sell me something that burns up my house, without telling me. I can see the legal responsibility here becomes important, too. I think some manufacturers have been sued, haven't they? There have been some cases. I don't know what the courts ruled on it.

Dr. MARLAND. Yes, sir; we have heard attorneys in meetings concerning flammable fabrics describe lawsuits.

The CHAIRMAN. If there is a good paper on liability on this, we ought to put it in the record.

Dr. MARLAND. It is my impression that other witnesses will provide this.

The CHAIRMAN. Have you had any contacts with the industry directly in this matter?

Dr. LEE. Yes, sir. I would like to have Dr. Marland mention those.

The CHAIRMAN. Put that in the record, too. It is my understanding they are being very cooperative in this field.

Dr. MARLAND. We have found that the industry has been cooperative and interested to the extent that they feel they are in a position to do something about it. In 1961, the Division was first organized, and in 1962 we held the first conference with many interested parties, including the National Fire Prevention Association, and the National Academy of Pediatrics, and industrial concerns. We presented data supporting the kinds of problems that exist from fabric findings at that time.

A second meeting was held last December. This produced a great deal more of the desired effect because now a committee has been created and participated in very, very extensively by industrial representation. This committee will function as a means of promulgating data and information amongst interested parties as soon as data becomes available.

The CHAIRMAN. Senator Morton raised a good point here. There is a gap in the present law on importation. We are going to have to look at that, too. Even though our own industry may be cooperative, sometimes we don't know what is coming in. We will have to do something about that in this law.

Thank you very much for coming. We appreciate it.

The committee will recess until tomorrow morning at 10 o'clock, when we will hear the Chairman of the Federal Trade Commission, and the new Presidential adviser on consumer affairs, Miss Betty Furness.

(Whereupon, at 11:48 a.m., the subcommittee recessed, to reconvene at 10 a.m. on Thursday, May 4, 1967.)

## FLAMMABLE FABRICS ACT AMENDMENTS OF 1967

THURSDAY, MAY 4, 1967

U.S. SENATE,  
COMMITTEE ON COMMERCE,  
CONSUMER SUBCOMMITTEE,  
*Washington, D.C.*

The subcommittee met at 10 a.m., in room 5110, New Senate Office Building, the Honorable Warren G. Magnuson (chairman of the committee and subcommittee) presiding.

The CHAIRMAN. The subcommittee will come to order.

This morning we continue our hearing on S. 1003, which is the Flammable Fabrics Act amendments. We have listed as our first witness Miss Betty Furness, Special Assistant to the President for Consumer Affairs, and Chairman of the President's Committee on Consumer Interests. She is accompanied by Mr. Leslie V. Dix, Acting Executive Director of the President's Committee on Consumer Interests.

We will be happy to hear from you, Miss Furness.

### STATEMENT OF MISS BETTY FURNESS, SPECIAL ASSISTANT TO THE PRESIDENT FOR CONSUMER AFFAIRS, AND CHAIRMAN OF THE PRESIDENT'S COMMITTEE ON CONSUMER INTERESTS

MISS FURNESS. Mr. Chairman, gentlemen, I am very pleased to be here today and to have a chance to express my support of the administration's position on the proposed amendment to the Flammable Fabrics Act of 1953.

I will not for a moment pretend to be an expert in either fabric technology or the technicalities of flammable fabrics legislation. But, since I received your committee's invitation to testify today, I have met with several Government experts. I have read some of the background documents upon which the administration's proposals are based.

Mr. Chairman, what I have seen, what I have read, what I have heard, have convinced me that the passage of S. 1003 is of vital necessity to the consumers of America.

Today, now, in the United States fires in the home pose an unchecked, massive problem. Each year, a million people are seriously burned in their homes. A hundred and fifty thousand of these burns are from clothing fires. Two to three thousand people die every year in clothing fires.

In his message to Congress entitled "To Protect the American Consumer," President Johnson stated that gaps in the Flammable

Fabrics Act were "so glaring that action should not be delayed. The standard of flammability established under that act is deficient," he said.

Here are what I consider to be some of those glaring gaps.

First of all, the current act was a direct response to an intolerable situation. Young girls were being incinerated by sweaters which seemed to explode into flame at the least provocation. The need for action was clear, and the act met that need.

But further need exists today, and we shouldn't be forced to wait until another tragic spectacle goads us to action.

The Flammable Fabrics Act included only articles of clothing. Fabrics which do not meet the standards required for clothing are used in other things: blankets, drapes, carpets, and countless other items which come into contact with the skin.

The current act does not cover furnishings, which ignite many house fires. Building codes provide flammability standards for construction materials, but not for furnishings.

The burn-rate of a fabric is the only consideration under the current act. Other factors—such as the mixing of fibers and the effect of heat on synthetics—are not included in the present standards.

Provisions for study are grossly inadequate. Every day, manufacturers are turning out new fabrics and fibers which make our daily lives more comfortable and more pleasant. Progress in the manufacture of synthetics is very impressive. But we must be given the competence to study these innovations, to make sure that there are not hidden dangers. We must be permitted to determine a need for standards—which, as you know, is not possible under the present law.

Lastly, the current act is deficient in its standards for clothing. A fabric may have a satisfactorily slow burn rate but still melt at a low temperature, searing the skin.

The amendments now before your subcommittee would allow us to cure these defects. They would move us one step further toward insuring the consumer's right to safety.

Not only would they add new items to the act's coverage, they would provide a means to change and strengthen standards as needs arise. They would clarify the existing provisions prohibiting imports of flammable articles. They would provide facilities for an annual study of injuries and losses from the accidental burning of fabrics—and for an annual report on that study to the President and Congress. They would, in short, let the Government respond quickly and efficiently to the changing needs of both industry and the consumer.

I don't think these amendments will seriously hamper the industry. The amendments authorize no one to go on an irrational rampage of standard setting. No new standards would be set without public notice and due process—not to mention exhaustive study and full industry participation.

What we want is the means to determine when there is unreasonable risk. On the one hand, we know we're not going to be able to protect the consumer from his own carelessness. But, on the other hand, the consumer cannot be asked to bear the responsibility for developing his own standards of acceptable flammability. The consumer must be assured that the fabrics he buys are reasonably safe.

Last week, Mr. Chairman, my office received a letter from a man in Florida. I'd like to read it to you, because I think its simple eloquence shows better than I could hope to what our consumers are up against.

I guess it must have just come to his attention that there was somebody to write to. "My sister," he wrote, "was burned to death in a fire. A simple fire from a pack of matches caused her housecoat to explode. Please help."

I want to help. I'm sure you gentlemen want to help. And, with the tools provided by S. 1003, we can help. Thank you.

The CHAIRMAN. Thank you.

Now, I am sure the committee has a few questions to ask you. I can start on the last page of your statement, where you said, "With the tools provided by this amendment to the 1953 act, we can help." I presume by "we" you mean the President's Office for Consumer Affairs. What do you conceive the role of your Office to be, if and when we tighten up this law?

MISS FURNESS. I meant the Federal Government, but as far as my Office is concerned, we can be of help through consumer information and education. We can advise the public what this act will mean to them.

The CHAIRMAN. The act, of course, would provide for a great deal of voluntary cooperation from the textile industry. Do you conceive you might have some role in discussing with the industry the practicability of types of fabrics that might become less flammable?

MISS FURNESS. I would be more than happy to do that. From what I understand, the industry has been very cooperative and I wouldn't be at all surprised if just sitting down and discussing all this would bring developments that would be very helpful.

The CHAIRMAN. I think that your Office could do a great deal in helping bring about this voluntary cooperation.

You suggest in your statement that we know too little about this. This is correct. The purpose, of course, of the amendments is to extend an act we passed in 1953. There was also involved a hodgepodge of building codes throughout the United States which are directed to fire-proofing public buildings.

MISS FURNESS. Yes, sir.

The CHAIRMAN. Some States have it. Some do not. But we have found that in many of these accidents, people that get burned the most are children and the aged or infirm. I was hopeful that the White House and Executive Office might, when you say "we," join us in seeing if we can't suggest a little more uniformity throughout the United States in public places. How do you handle a person who wants to go down and buy a piece of fabric even though he knows it may burn up. That is a problem. I am glad that you have taken this approach to the matter, because I think this is not a question of passing laws and making it mandatory. It's a question of everybody pitching in to see what we can do about it.

You are a little conservative in your estimate of known deaths from fabrics, flammable fabrics. The best information we have is about 5,000 a year. But the statistics are not very good.

MISS FURNESS. That is one of the problems. We don't know.

The CHAIRMAN. How many have first-degree burns and are scarred, need plastic surgery—I don't know. This is one thing HEW will have to take care of. Now, are you familiar, or do you have any information in the short time you have been here, as to whether clothing fires are more or less uniformly distributed?

Miss FURNESS. Well, you have pointed out, sir, that they are not uniformly distributed among ages. The young and old tend to be the victims of more fires. But there is another area and that is an economic area.

The CHAIRMAN. Low-income area?

Miss FURNESS. Low-income people suffer more.

The CHAIRMAN. Why is this?

Miss FURNESS. They are more apt to have open space heaters and fire hazards within their homes that contribute to fabric fires.

The CHAIRMAN. Now of course most of these things are caused by carelessness. If you took it to the extreme, you could abolish matches.

Miss FURNESS. And knives, so people won't cut themselves.

The CHAIRMAN. Why pick on clothing and furnishings? Why that? If people will be careless, they will be careless. What is your concept of why we are doing this?

Miss FURNESS. We can't protect people from their own carelessness, 100 percent. What the amendments to this act ask for is to protect people against unreasonable risk. I think the dramatic example that happened in 1953 is the perfect example of what we are talking about.

The CHAIRMAN. And probably not be able to achieve an agreement with the manufacturers, with people in business and the Government, local and Federal, that certain things that are unreasonably flammable will not be put on the market and therefore they would not be available to these people.

Miss FURNESS. Correct.

The CHAIRMAN. I think that is the main objective of this proposal. That was what we tried to do in the 1953 act. There is one other factor I think you are going to have to concern yourselves with and that is how we handle the importation of fabrics into this country. That might be anything. We don't know. How do we get at that? Do we get at the importer, or do we start with the exporter? Senator Cotton has been a distinguished member of the Textile Subcommittee we have, and I know what he would like to do with some of the exporters in Texas.

Senator SCOTT. He is one of the most flammable—

The CHAIRMAN. Yes; he is flammable on the subject. Senator Cotton?

Senator COTTON. The Chairman anticipated my—

The CHAIRMAN. The Senator from South Carolina is very flammable on the subject of textiles.

Senator COTTON. The Chairman anticipated the question I was going to ask. I realize you had rather limited opportunity from the matter of time, but have you had occasion to have any information as to the general proportion of dangerous inflammable materials that are imported in contradistinction to those of domestic manufacture?

Miss FURNESS. I am sorry, I am not informed on that.

Senator COTTON. And I think the chairman somewhat characteristically asked a fine question and made quite a speech about it and

didn't give you an opportunity to answer it. He, I believe, asked you what your suggestion was about how to handle this matter of insisting on reasonable standards of safety on imported materials. What would be your answer to that?

Miss FURNESS. As I understand this bill, one of the amendments in it covers that in that it seems to be impractical to try to reach the exporter, because he is not within our jurisdiction. Therefore, it must be handled at the level of the importer, which is really the only practical way.

Senator COTTON. We haven't had to wait for a glaring example to wake us up on the danger of furnishings within a building. This fire in the penthouse dining room in Miami, when Sidney Zagri of—

Senator SCOTT. Birmingham or Montgomery.

Senator COTTON. I am sorry. The Miami Chamber of Commerce would have reason to go after me. When Sidney Zagri, who many of us knew as a representative of the Teamsters' Union on the Hill, was among those who lost their lives. That was, as I recollect, in as completely fireproof a structure as can be built, but the real loss of life and the tragedy resulted from the draperies, the furnishings, the rugs, and the furniture. Now, do you feel that this bill goes far enough in granting authority to take care so that when we insist on the expenditure of large sums for a fireproof structure that the Secretary can enforce reasonably fireproof furnishings standards as well?

Miss FURNESS. Yes; I definitely think this bill would cover that. You point out we don't have as good statistics about home furnishings, we just don't know how many people burn themselves to death in bed. Those stories are now so commonplace they are taken for granted, which is horrifying.

Senator COTTON. The bill provides for hearings by the Secretary before he sets standards and an opportunity for interested parties or affected parties to be heard before standards are amended or altered; right?

Miss FURNESS. Yes, sir.

Senator COTTON. He is obliged to give them an opportunity to be heard. Then, with that information, he has full authority to follow his own best judgment in what is reasonable.

Miss FURNESS. Right.

Senator COTTON. Your indication is that it would not be the intent to exact meticulous and unreasonable standards?

Miss FURNESS. I am convinced of that.

Senator COTTON. You think that is provided for. I am sure that you and those who would be administering this act would have that attitude, but we can't speak for everyone in the future. Do you think that that is reasonably provided for in this?

Miss FURNESS. I feel so.

Senator COTTON. By appeal to the courts?

Miss FURNESS. That's correct.

Senator COTTON. I think you have made an excellent statement, and I would only content myself with this observation: There has been a rumor for many years that women are more loquacious than men, and I wish most men who come in to make presentations to this committee would observe the fact that your statement was less than six pages.

Miss FURNESS. Thank you, sir. [Laughter.]

The CHAIRMAN. Senator Cannon?

Senator CANNON. It seems to me that the term "interior furnishing" leaves a lot to be desired in the actual interior parts of a house. Why was this not broadened to include furnishings that, for example, didn't have a part of the fabric or related material but still might have a very high flammability exposure?

Miss FURNESS. Well, I believe this is simply the Flammable Fabrics Act that we are discussing. Mr. Ryan, am I correct about that?

Mr. RYAN. If I may, sir, this term is, I believe, considered to be inclusive enough—

The CHAIRMAN. Talk a little louder, please, because it's very difficult to hear. I don't think you have a room microphone there. I might say to these new witnesses, I want to apologize for this committee. We are the Committee on Communications, also. We handle all communications, but we never yet figured out how to have acoustics right in this room.

Senator SCOTT. We have the worst communications of anybody.

The CHAIRMAN. We don't even have enough microphones.

Mr. RYAN. I believe, sir, that the term "interior furnishings" is broad enough that it will allow for reasonable judgments to be made in the area that you anticipate, up to the point where a material becomes a part of the basic structure of the building. If, however, you feel this term is not adequate, certainly consideration of changing the language to make it clear would be appropriate.

Senator CANNON. Well, I was thinking principally of this type of thing: In many of the houses you have furniture that consists in part of fabric. That fabric cover, that which presumably would come under the definition of the act. On the other hand, if you happen to have furniture in that same room that has no fabric on it, completely wood furniture, as I understand the provision here it wouldn't be included, and I understand it's a Flammable Fabrics Act, but it seems to me that this leaves quite a void in the purpose for which this legislation was written.

Mr. RYAN. Well, sir, I don't wish to get unduly technical. I do not recall having seen a piece of wooden furniture that I think would ignite so readily as to cause the sort of problem we are considering here. Certainly, if the whole house becomes involved, the wooden furniture itself would become involved, also, but I would be surprised to see a piece of all-wooden furniture ignite readily from a source such as a dropped match or dropped cigarette, unless there was some additional matter, like spilled flammable liquids, on that wooden furniture. Of course, in that case, the wood would not be the culprit, as it were.

Senator CANNON. In other words, we would still be getting away from this hazard of flash fire that frequently occurs by reason of some of this highly flammable material that is used as a covering for furniture; is that right?

Mr. RYAN. This would be my belief, sir.

Senator CANNON. Now, getting back to this importation—

The CHAIRMAN. Mr. Ryan, will you identify yourself for the record?

Mr. RYAN. Mr. James V. Ryan, Assistant Chief, Fire Research Section, National Bureau of Standards, and Staff Assistant to the Acting Under Secretary of Commerce.

The CHAIRMAN. He was here yesterday, and I wanted him identified.

Senator CANNON. Now, with respect to this importation question, it seems to me that the provision of the act relative to importation of materials that don't comply is quite weak. Isn't there any possibility of strengthening the act in that regard?

Miss FURNESS. I don't believe I am qualified to answer that. Would you like to have a go at that, Mr. Dix?

Mr. DIX. Senator Cannon, I would venture the observation that the restrictions against allowing flammable fabrics which do not meet the standards of the act into commerce provides the safeguard which concerns you. It would seem to me that where it's unlawful for such fabrics, assuming this bill becomes law, to get into commerce, such violations could be reached, then, by Federal authorities. I would think this would provide—

Senator CANNON. So there would be the authority there, under the commerce provision, the criminal provision there, to go at the importers or the person who brings it in; is that right?

Mr. DIX. That is my understanding of the act; yes, sir.

Senator CANNON. That is all I have, Mr. Chairman.

The CHAIRMAN. Senator Hartke?

Senator HARTKE. Good morning. Good to see you here. Let me ask somebody: Would this apply to the explosive dolls? I don't mean the real kind. [Laughter.]

If you recall, we had—

Senator HOLLINGS. You are not talking about the witness? [Laughter.]

Senator HARTKE. You recall we had some dolls imported from Poland, and they were distributed without any identification of them being imported, and they were called explosive dolls. They would just practically explode in your face. Do you recall that incident which occurred last year? Right around Christmas time.

Mr. RYAN. Yes; I do, Senator. These dolls were made partly of fabric, partly of synthetic hair, and the face itself was made of a very flammable plastic. The question of whether or not the present provisions of the act would cover these might better be answered by an attorney. I am a physicist and have experience in the fire field, so possibly I couldn't answer the legal aspects of your question, but I am familiar with the incident you talk about.

Senator HARTKE. And there are a number of toys with the utilization of new materials which come in the same category, isn't that true, Mr. Ryan?

Mr. RYAN. Toys can be a serious problem. Some of the materials that are easily molded into very interesting shapes for toys, some of these materials—not all of them—but some of them do ignite and burn rather readily.

Senator HARTKE. Well, what I am really trying to find out then is how do you deal with that problem? I recall at that time, for example, in my home State some of the fire marshals issued an order that they could no longer be sold, and then they made a definite search

for the determination of where they had been sold. As I recall that incident, these toys, these dolls were imported from England and—implied they had been imported from England, but they had actually been made in Poland and that the importer in England had imported them from Poland, had subsequently stamped “Imported from England” on them and shipped them here. Maybe these are the wrong witnesses, Mr. Chairman, but I am trying to find out how we get back to that. How do we stop it? What do we do? I have small children. I have seven children, and some have grown, but I have enough small children yet that I don’t want my girls playing around with dolls that will blow up in their faces.

Mr. RYAN. I am a father of small children, too, and I share your concern. Possibly you hit on it. We may not be the right witnesses. Mr. Paul Rand Dixon of the Federal Trade Commission is also here this morning, and might be a bit more expert in the area you touch on.

The CHAIRMAN. Mr. Dixon will be the next witness.

Senator HARTKE. I have an expert here on my right. Senator Cannon points out the term product means any article of wearing apparel or interior furnishings, so possibly I will defer that until we come to those people. But let me ask you a technical question then, Mr. Ryan. Are the new materials such as the plastics, specifically, do they present a special problem in toys which might not be presented in other materials—for example interior furnishing or wearing apparel? Or do you know?

Mr. RYAN. We don’t have specific data that would permit me to say “Yes we know.” I am not sure exactly which new synthetic materials are being used most extensively in toys. I know that some that are used have shown a hazard of flammability. I would think that toys would present a particular problem because this again falls into the area of something that is in the hands of the relatively young who have not lived long enough for their parents possibly to have fully educated them in all the hazards they may face.

None of my children have tried sticking their toys in the fireplace, but they have put them in some other pretty wierd places and it is quite possible that a child, for example, would hold out the new doll she just received on her birthday to show that doll the candles on the cake. I haven’t seen this happen, but I can conceive of it.

Senator HARTKE. That is all the questions I have, Mr. Chairman.

The CHAIRMAN. Senator Scott?

Senator SCOTT. Mr. Chairman, I just want to make a record of a couple of matters. I refer to the fact that the term, “related material,” includes paper, and I am wondering aloud how you are going to protect paper dresses, for example, against flammability.

There has been quite a market recently in paper dresses. I at least wouldn’t want to take them off the market, but how do you handle the question of reasonably fireproofing paper?

Miss FURNESS. I think this is something the Secretary of Commerce would definitely want to study. I purchased some of these paper dresses just to see how carefully they are marked. I bought one which on the outside of the package states it is fireproof. Inside of the back of the dress the label says that if you wash or clean it it will no longer

be fireproof. The other dress carries a big tag on the dress which warns that if you wash or clean this dress it will no longer be fire resistant and it also has a label in the dress.

This seems to indicate different degrees of willingness to warn the public. But at least until they are washed or until they are drycleaned, I believe that they are quite safe.

I have seen some newspaper stories where they have set matches to paper dresses and found that they scarcely burned at all, or in point of fact did not, but I think this is something the Secretary of Commerce would want to study as to how we can protect the consumer against his own carelessness or ignorance if she washes or cleans such items.

Senator SCOTT. I rather suspect the same thing might be true of certain coatings or glazings on raincoats and rainwear. It is quite possible that these particular garments would be much more flammable after they had been drycleaned than before, because that glaze goes and I would think dropping a cigarette on it seems to make a bigger burn after it has been cleaned, for example.

The other question, Miss Furness, has to do with the fact that a great many accidents occur because people smoke in bed, against all signs and cautions, and I take it you would agree with me that since the term product includes interior furnishings, that standards of safety will be provided for sheets, blankets, mattresses, and things of that sort.

Miss FURNESS. That is a specific area of interest; yes.

Senator SCOTT. That is all I have.

The CHAIRMAN. Yesterday when Mr. Ryan was here we had a good demonstration of some of these things. One of them is the question of cotton. Cotton is a common product. Americans are used to buying cotton for everything, and one is a chemically treated cotton which is a little stiffer and the other is regular cotton.

I suppose that men would prefer untreated cotton for shirts, but we still don't know, as you pointed out, when you start to wash this treated cotton what will be there.

Miss FURNESS. Some tests have been run on that and it has been proven to be very effective. The flameproof of that fabric has been washed as many as 75 times with no bad effect.

The CHAIRMAN. And we have synthetic glass fibers and here is a blanket which is 88 percent rayon and 12 percent acrylic, of which about 40 million were sold each year for the past 10 years. They are made from cotton and rayon blends. This one will burn up fast.

Miss FURNESS. I ran a test in my own office on that particular fabric and I wouldn't want to be lying under it if a match hit it.

The CHAIRMAN. Then here is a new product, Miss Furness, nylon fiber that looks like it might burn, but won't burn at all. It is softer than the other one. This is what we have to find out.

Miss FURNESS. Yes, sir.

Senator SCOTT. I understand these various fabrics used in airlines are all as thoroughly flameproofed as they can be.

The CHAIRMAN. They are supposed to be. The Secretary of Commerce, under our Auto Safety Act, has issued some regulations on the flammability of the fabrics in automobiles which can be easily taken care of, I think.

Senator Williams, do you want to ask Miss Furness any questions? Senator Williams is from New Jersey and one of the coauthors of the bill.

Senator WILLIAMS. I am a cosponsor, and honored to be one. I have a statement I would like to include in the record.

I was very impressed with this testimony. It reinforces my feeling that this kind of legislation is necessary. We, after we talked about dolls, we talked about interior furniture. On the Aging Committee we found that older people, particularly, are at a disadvantage where draperies, bedclothing, you know, the whole bit, are flammable. I happen to be chairman of that committee and that is one of the particular reasons—I guess our older people are only 9 percent of the population, but 27 percent, as I recall, of the people who are injured in fires within their homes are older people. Obviously because of failing eyesight, lack of mobility, so I am all for this, Senator Magnuson.

I would appreciate it if I could include this in the record.

The CHAIRMAN. We will put your statement in the record in full, but I wish you would point out to the people here who are going to be participating in the administration of this act if we pass it that you have been very active for some time in that Special Committee on the Aging, and I wish you would take 2 or 3 minutes and enlarge upon what you think these amendments to the act will do in that field of elderly citizens. Here is one place where a lot of this happens.

Senator WILLIAMS. Could I expand that in the record? You have been here a lot longer than I have. I am supposed to meet Mrs. Johnson over in the courtyard at 10 minutes before 11, and do you think it is important I be there before she is? [Laughter.]

The CHAIRMAN. All right.

Senator WILLIAMS. That is in my statement.

The CHAIRMAN. We will put in in the record in full.

(Statement of Senator Williams follows:)

STATEMENT OF HON. HARRISON A. WILLIAMS, JR., U.S. SENATOR  
FROM THE STATE OF NEW JERSEY

I appreciate the opportunity to state my views in support of S. 1003. I am not only pleased but delighted to be a co-sponsor.

This bill would amend the Flammable Fabrics Act so as to give needed protection against fire that was not included in the original 1953 Act.

I support this bill on behalf of all of our citizens, but particularly on behalf of those over the age of 65. As Chairman of the Special Committee on Aging, I know that many of our elderly citizens have great abilities which we are not using as we should, but many also have disabilities which require our thorough consideration.

Fire is a peril to everyone. To the elderly it is frequently an overwhelming disaster. Testimony before our Committee has indicated that 9 percent of the people are over 65, but 27 percent of those injured by fire are in this age group. I mention this at the outset to indicate that while this bill is in the interest of all, our elderly citizens have a very great stake in this important safety measure. Hampered by fading eyesight and hearing, and unable to run or even move quickly, many older persons are naturally subject to panic and particularly subject to the horrible ravages of fire.

Let us now consider this particular bill and why its reasonable provisions are vital and necessary.

Human beings act when jolted by tragedy. That is precisely what happened when Congress passed the original Act in 1953.

The country was stunned by newspaper stories of young girls who were horribly burned by fire caused by sweaters that were so flammable that they exploded and burst into flames from a lighted cigarette.

The Congress met the situation and passed legislation that was very helpful, but, as so often happens, its applicability was limited to the precise situation that caused the injury. This bill, S. 1003, seeks to eradicate other dangers which are just as great and just as real.

The original injuries were caused by flammable sweaters, and the Act was limited to wearing apparel. It is apparent that flammable draperies, curtains, bedclothes and other articles present the same type of hazard. This bill would make the necessary amendment.

It now appears that even wearing apparel is not completely protected against flammability under the existing Act. This Act has a fixed and definite standard that only covers some situations. It covers the situation that existed when the sweaters exploded, but the standard is not sufficiently broad to cover other equally dangerous situations arising even from flammable wearing apparel. Many new fabrics have been developed and the situation calls for elastic criteria which will fully protect the consumer.

The amendment not only seeks to afford full protection, but also gives every reasonable consideration to the producer.

Under Section 3 of the bill, the original Act is amended to permit the addition of fabrics used in articles other than wearing apparel, but this may be done only if the Secretary of Commerce determines that a particular standard is necessary to protect the public from unreasonable risk from fire because of the flammability of the particular material sought to be included.

Under Section 3 of the bill, the Secretary of Commerce must find that the proposed standards does in fact protect the public against such risk. It is to be noted that the standards are not to protect against all risk but only reasonable risk. It is also provided that the standard adopted must be unpracticable. Notice and an opportunity to present views is required.

What the Act really does is to adopt standards of reasonableness and practicality. Who can object to the protection of our people from unreasonable risk of injury to life, person, or property by fire? Protection against such risk is not only the duty of an enlightened government, it is also the duty of the businessman. Furthermore, it's good business.

Undoubtedly tragedies sought to be eradicated by this bill have occurred. The exact number probably cannot be determined, because it is difficult to ascertain the exact cause of a fire that destroys a home.

The main point is that the danger is there. We should legislate on the basis of the hazard—not on the basis of statistics.

We should not wait until newspapers give graphic accounts of old men and women, young children and others being burned to death in their homes and even in their beds with definite and clear-cut proof that the fire was caused by flammable drapes, curtains, bed clothes, or other household articles in everyday use. It is our duty to act when the danger is apparent. We should not wait until proof of the cause of tragedy jolts us into action.

I thank you for your consideration and urge your support of this important bill.

Senator COTTON. I came back from another committee. I don't think this is a question that can properly be asked of this witness, but I just want to touch on this and see that it is in the record. We have a Wool Labeling Act. And, from the information I have been able to receive, we have never been able to get real enforcement of it because to find out what is in the wool, we have to go to the records of the foreign manufacturers and of course we can't see them.

There has never been a decision on the part of those administering the act to insist that samples be furnished and analyzed for their contents in American laboratories.

When we get up against this matter of flammable materials, I am wondering if there is any danger of a repetition of this situation. As the witness has very well said, we can't very well get at the foreign exporters. We have to go at it through the domestic importers, and should there not be some assurance in view of our experience with the Wool Labeling Act, that importers be obliged to submit samples of the

material for laboratory examination and analysis, to make sure they comply with the standards set for flammable materials.

Mr. DIX. Senator, I would respectfully defer to the jurisdiction of the Department of Commerce in this instance. It is my feeling professionally, however, Senator, that this act well provides the legal footing for the kind of surveillance over foreign imports that you are concerned about. I believe it is implicit in the thread of the whole bill, but again I think the Department of Commerce, because of the importance of the legislative history, should speak to this point by the form of a supplemental statement addressing itself to your concern.

Senator COTTON. I have been informed that you, in performance of your duties, have had a good deal to do with the enforcement or the lack of enforcement of the Wool Labeling Act. I haven't examined the act recently, but it is my understanding there was enough authority in the Wool Labeling Act to do exactly what I am talking about, but it hasn't been done.

I know what happens. Everybody knows what happens when we begin to go after these importers. We get kickbacks from the State Department and everybody who is interested in foreign relations and so forth and undoubtedly they have their duties to perform in their situations, and perhaps in the case of flammable materials the push, because of the danger involved to human life, might be much more powerful. But there is no use writing an act setting standards—I don't care whether it is standards of correct labeling of wool imports or whether it is standards of flammability of materials—and then enforcing those standards against the domestic manufacturer and then sit back on our hands and not enforce them against the importers. I would gladly wait for the Department of Commerce but I can't, and I would have to take it up further later but I still had a feeling that you could throw some light on this.

Mr. DIX. Senator Cotton, I am not in the enforcement area of the Federal Government. I am the acting executive director for Miss Furness' office. We have no direct enforcement role or authority. But I do think you raised a salient point of concern that should be addressed and satisfied during the course of this hearing.

Senator COTTON. I understand that and I don't want to press you. However, if I were in the position of being the President's adviser and liaison between the President of the United States and the Department of Commerce concerning the administration of any act, I would almost feel that I did have at least some influence on the policies and enforcement of that act. I can't imagine anyone being closer to the most high in this particular field than you and that is why I think it was a proper question to address to you.

Mr. DIX. Your concern is noted and we will cause everything on our part to be done.

Senator COTTON. I wish I had a dollar for every time I have been told downtown that my concern was duly noted. [Laughter.]

Senator SCOTT. I want to note that Senator Cotton is right, as always, when he observed not long back that the lady was more concise in her verbiage than some Senators.

[Laughter.]

The CHAIRMAN. All right.

Senator HARTKE. Mr. Chairman, on this question of enforcement there is, in the present law, a penalty section which is section 7, which for all intents and purposes makes all of the prohibited acts in section 3 liable to criminal penalties if they are done willfully. As I understand the amendments, it retains these criminal penalties. You do believe they should be retained, do you not?

Miss FURNESS. Yes, certainly.

Senator HARTKE. I won't ask you to comment, but personally I find it rather inconsistent that we can say that a person who manufactures a flammable fabric can be guilty of criminal penalties, but if you willfully, at the present time, mix water in brake fluid, for example, knowing you are doing it, you are not subject to any criminal penalties because we took that out of the law with the Highway Safety Act.

I am not asking you to comment, but I find this a rather peculiar contradiction in how we are trying to protect the consumer.

The CHAIRMAN. If there are no further questions, thank you very much.

The CHAIRMAN. Our next witness is Chairman Dixon.

All right, Mr. Chairman, we will be glad to hear from you.

We again express our apologies for not getting you on yesterday, but we have so few ladies in Government, that we often defer to them and I am sure you enjoyed her testimony yourself.

**STATEMENT OF HON. PAUL RAND DIXON, CHAIRMAN OF THE FEDERAL TRADE COMMISSION; ACCOMPANIED BY HENRY STRINGER, BUREAU CHIEF, TEXTILES AND FUR BUREAU; JOHN V. BUFFINGTON, ASSISTANT TO THE CHAIRMAN, FEDERAL TRADE COMMISSION; AND JOHN N. WHEELOCK, EXECUTIVE DIRECTOR OF THE COMMISSION**

Mr. DIXON. I was delighted to listen to her testimony.

To my left is Mr. Henry Stringer, who is the Bureau Chief of our Textiles and Fur Bureau. To my right, Mr. John V. Buffington, my assistant. On the far right, Mr. John N. Wheelock, Executive Director of the Commission.

I am sorry Senator Cotton left, Mr. Chairman, because I wanted to straighten out what he was talking about, about wool. This Federal Trade Commission is the enforcement agency of the Wool Act. It is the enforcement agency of the Flammable Fabrics Act. There is no other agency that has any enforcement responsibility here.

The CHAIRMAN. And under this bill, you still would be the—

Mr. DIXON. That is correct. No reason to talk about Commerce or anybody else, unless Congress changes it. Commerce has the responsibility in this bill, if you pass it, to redefine some standards under procedures that you have outlined and when they get through, we still have got to enforce the bill as it is now, or as it will be then amended or perfected by the rulemaking, but with respect to the comment on the wool problem, since you passed it—

The CHAIRMAN. And the Fur Labeling Act and Truth in Fabric Act?

Mr. DIXON. Yes, and the Flammable Fabrics Act came in the middle. But, historically, this Commission, the Federal Trade Commission attempted to move against questionable wool imported products by moving against the importer.

Now, within the period of my chairmanship at the Federal Trade Commission, we have become increasingly aware of the floods, particularly of sweaters that were coming in from the European countries, and the effect that it was having upon the domestic market, the domestic manufacturer who has very stringent obligations under the Wool Products Labeling Act, and bringing it to the Commission's attention we attempted to proceed against those people who had bought these articles.

Of course, we only found out about them after they were in the stream and the damage was done.

Acting upon that attempt of ours and in pursuit of attempting to do something more effective about it, we proposed, through the Federal Register, a so-called rule 36 change promulgation of a rule to the Wool Products Labeling Act as we administer it.

We have had such hearings, and you can imagine the type of record we have. We have even from my own State Department representations that this is going to interfere with the Kennedy round of negotiations.

We heard from the importers that we are going to ruin the importers business, because there would be undue delay holding these goods up at the port of entry, while they are tested.

Of course, we heard from the industry as to the need. Now, that record is before us right now for, in practical respects, for us to finally act upon it. Of course, we believe that we solemnly have this authority. We believe we proceeded under the APA Act. We believe our propositions are sound, and I will hope that when we make the decision, our decision is sound, but we are very near to it.

Now, if I may, I would like to turn to the statement. I don't think it is too long, Mr. Chairman, because, though there are some technical aspects of this thing, I would prefer to read it.

The CHAIRMAN. All right.

Mr. DIXON. As Chairman of the Federal Trade Commission, the agency Congress has designated to administer the Flammable Fabrics Act of 1953, I am happy to discuss with you S. 1003 which is a bill introduced by Chairman Magnuson and Senator Williams of New Jersey, to amend and modify the act in several respects and to extend its coverage.

As we interpret S. 1003 the effect of the bill would be to broaden the application of the Flammable Fabrics Act by removing certain articles of apparel and parts of clothing from their present exemption from the act; to make interior furnishings subject to the act where the Secretary of Commerce determines that a standard of flammability should be established for such products.

I think the objective is very simple to understand, historically, the original act exempted certain articles of wearing apparel. These exemptions would be taken away if you pass the bill and the act would fully apply.

Then, as to the interior furnishings, as has been previously explained to you and the Secretary of Commerce finds the need and promulgates a rule, they would do that.

It also provides that the Secretary of Commerce shall, under the rulemaking authority granted him, establish standards of flammability with respect to clothing and interior furnishings; establish record-keeping requirements showing the disposition and end use of products subject to the act, or claimed to be exempt therefrom; clarify the provision prohibiting importation of flammable articles; and provide for investigations in the interest of the public safety by the Secretary of Health, Education, and Welfare, and the Secretary of Commerce.

Senator Hartke asked specifically, and maybe others have, about clarifying the provision prohibiting importation of flammable fabrics. On that part, the Wool Products Labeling Act, the Fur Products Labeling Act and the Textile Products Identification Act, all contain the same language with this respect, that is here proposed. In other words, it brings this act in this respect in conformity with the other three. Up until this moment, it has been different. We believe it was an oversight that the word "exporter" was used originally, instead of "importer," but if there are any deficiencies, or what might be said to be more responsibility upon the importer than the domestic manufacturer, Congress did it in the other three bills with their eyes wide open, and it is proposed they do the same thing here.

But also, in that respect, there are provisions very similar in this bill to provide under the seizure provision, to proceed in proceeding against the domestic violator.

Now, section 2 of the act would be amended by S. 1003 to remove present exclusions from the act as to hats, gloves, and footwear, and to remove the exclusion of interlining fabrics from the act, so that all these products would be subject to the testing requirements of the act. Other definitions necessary to effectuate the broadening of the act are contained in the proposed amendment to section 2, including the term "interior furnishings" which would apply to furnishing used in homes, offices, and places of assembly, made in whole or part of fabric or related material. "Related material" would include paper, plastic, rubber, synthetic film or synthetic foam intended for use for wearing apparel or interior furnishings.

I think the definitions are very clear, but it has been called to my attention that in section 9 of the bill, for instance, it reads, any person who imports or who has attempted to import from any foreign country into the United States any product, fabric, and so forth.

Now, if that is confusion, I would suggest to the committee that that be clarified because I find I have no doubt in my mind that you, as the sponsor of this legislation—I don't believe you intended to include anything other than products that had fabric or related material within the meaning of the definition. That is, wearing apparel or interior furnishings.

The CHAIRMAN. We will be glad to have your suggestions because we want to make it as clear and practical as possible.

Mr. DIXON. It may be better we make a written suggestion on that, but just drop the word "product." Any fabric, or related material. The second time it appears, any fabric or related material. The word "products" seems to confuse some people.

Now, section 4 of the act would be amended to authorize the Secretary of Commerce to prescribe and promulgate flammability standards

for articles of wearing apparel as well as fabrics and related material used in the manufacture of such apparel. Additionally, the Secretary of Commerce would, where necessary for the public protection, be authorized to establish standards for flammability for various types of interior furnishings after notice and opportunity to be heard and after publication in the Federal Register.

This procedure differs from the method used in the establishment of the present commercial standards utilized for testing articles of wearing apparel and fabrics under the Flammable Fabrics Act, as it now stands. Under the present act, Commercial Standard 191-53, "Flammability of Clothing Textiles," and Commercial Standard 192-53, "General Purpose Vinyl Plastic Film," are voluntary standards written in large part by those to be regulated by them. Under the proposed amendment to section 4, final authority for promulgating and amending appropriate standards would rest in the Secretary of Commerce rather than industry members. It is simple. You put the responsibility on the Secretary of Commerce. We believe that this procedure would be much more appropriate than the present method for establishing flammability standards.

Amended section 4 also sets forth certain criteria which the Secretary of Commerce shall consider in promulgating standards of flammability and contains provisions as to the effective date of such standards.

Under amended section 4 the Secretary of Commerce would make a specific determination of the need for standards to be established for particular interior furnishings, and would then hold hearings to determine the type of standards which would be appropriate with respect to the particular category of interior furnishings involved. In other words, the Secretary would, by this procedure, determine whether or not specific interior furnishings should be subject to the act. The Secretary of Commerce would also make appropriate changes as to standards applicable to articles of wearing apparel.

The present standards were developed in 1953 and have been valuable in preventing what might be termed as extreme hazards of flammability of products to which they might be applied. However, they have not been successful in preventing many annual deaths and injuries arising from flammability of certain types of clothing and from what might be considered as "interior furnishings" and "related material" under S. 1003.

The Commission is presently engaged in a survey of fire marshals with respect to the flammability of certain types of articles, including those textile articles not presently subject to the act. We have, to date, received replies from slightly over half of the officials surveyed. The survey revealed that statistics with reference to injury and death from burning are poorly kept and without any standardized form or system of reporting.

Indications from this survey are to the effect that the articles from which the greatest number of deaths and injuries result are items of bedding and upholstered furniture. On the basis of the inquiry, we have received reports of 233 deaths and 1,747 injuries because of the ignition and burning of bedding. The survey also contained reports of 45 deaths and 2,168 injuries from the ignition of upholstered furniture.

As a result of the survey, a minor number of other deaths and injuries from other interior furnishings were reported. These reports were generally for the past year, although, here again, there is no standard means of reporting, and different fire marshals reported for different periods.

It should be emphasized that these figures are incomplete and to a degree conjectural because of the lack of uniformity in gathering statistics and in view of the fact that many fire marshals do not maintain records of this nature. Additionally, many of the persons reporting used subjects such as, for example, "careless smoking" or "children with matches" without indicating what material was ignited. From the same survey we were able to extract 131 instances where death was due to the burning of clothing, even though the survey was not directed to this end.

The members of the Commission's staff who have been concerned with the administration of the Flammable Fabrics Act advise me that in all probability most of the injuries and deaths referred to above resulted from articles which would pass the present flammability tests under the act. For example, it is readily apparent that a fabric which would not present any unusual hazard when used in an article of clothing by a person who is wide awake could present a substantial hazard to a sleeping person if it should ignite and burn. The Secretary of Commerce would undoubtedly need to explore the question of appropriate flammability standards for such items as bedding and upholstered furniture which result in a substantial number of deaths and injuries every year.

S. 1003 would amend section 5 of the present act so as to require reasonable maintenance of proper records of commercial transactions concerning commodities subject to the act, or as to which an exemption or exclusion from the act is claimed. This particular amendment is important to the Commission inasmuch as the Commission has experienced difficulty in tracing fabrics under the present act, which contains no specific statutory recordkeeping requirements. It is readily apparent that the disposition of flammable products is a matter which may in many instances involve the public safety.

S. 1003 would amend section 9 of the act to make the prohibition against the importation of flammable fabrics applicable to the importer rather than to the exporter as is the case under present section 9. Since the importer and not the foreign exporter is subject to the Flammable Fabrics Act, this amendment is clearly in the public interest.

I think some importers are a bit disturbed about the bond provisions as set forth in this new section 9. It might be said this is rather stringent, because it says once the Commission has made a determination that there has been a failure to conform to this standard issue it may henceforth be prohibited by the Commission from participating in the importation from any foreign country of any product, fabric, or related material, except upon filing bond with the Secretary of the Treasury, and in a sum double to, and so forth, meaning there that if we found an importer and he has been found under our proceedings that he had violated the law with that experience, the Commission could require him to put up such a bond and then if he were to fail thereafter, he would have to forfeit that bond. It would be rather

expensive. I understand that, and I understand the fear, but I say to you this is identical to what is in the other three acts.

The bill also makes technical changes to sections 3, 6, 7, 8, and 11 of the act. These are clarifying amendments which bring these sections into conformance with the other amendments of the bill.

The bill would add an entire new section 14 which authorizes investigation and research. It provides that the Secretary of Health, Education, and Welfare, in cooperation with the Secretary of Commerce would annually study and investigate deaths, injuries, and economic losses resulting from accidental burning of products, fabrics, or related materials, and submit an annual report to the President and Congress.

This new section also authorizes the Secretary of Commerce to conduct research into the flammability of products, fabrics, and materials, conduct feasibility studies on reducing flammability, develop flammability test techniques, and offer appropriate flammability test training; he would also be required annually to report to Congress on the result of his research activities.

We would suggest one change in S. 1003. We suggest that paragraph (d) of section 2 be made to read: "(d) The term 'article of wearing apparel' means any costume, article of clothing or accessory worn or intended to be worn by individuals."

This would insert a reference to "accessory" in the definition for the purpose of eliminating questions which have arisen as to the application of the act to such items as artificial corsages, et cetera.

Take a paper lei you put around your neck. Suppose it were to burn? Is it wearing apparel? You are wearing it when you have it there.

The Federal Trade Commission has gained considerable experience in administering the Flammable Fabrics Act. For example, since January 1, 1961, the Commission has issued 46 orders under the provisions of this act. During the period from April 1962 to date, the Commission has also accepted 261 assurances of voluntary compliance under this act. The orders pertain to such fabrics or wearing apparel as wood fibers, napped fleece fabrics, silk illusions, scarves, dresses, leis, bridal illusions, silk squares, and rayon fabrics. With the exception of napped fleece fabrics, the rest of those examples were on imported goods. That question was put, where do these dangerous goods come from? I might say with the exception of those cases that were napped fleece fabrics, I have been told by our Bureau Chief, that the rest of them are imported.

With the promulgation of new standards as provided in S. 1003, satisfactory flammability tests could be made of bedding, mattress tickings, upholstered furniture, and other possibly flammable materials falling within the category of "interior furnishings" which, because of the limitations of the existing law and of the tests of flammability, are not subject to the provisions of the Flammable Fabrics Act.

I need not recall to your memory the horrible destruction which arose from the multi-million-dollar fire that destroyed McCormick Place in Chicago which, as I understand, was fed to a large extent by the wallpaper.

Recently, I am informed, a fire was caused by the ignition of a baby's cotton receiving blanket when the mother was lighting a ciga-

rette. Fortunately, she was able to remove the blanket and there was no injury. There is little question but that such blankets, with a highly brushed surface, are dangerously flammable even under the tests set forth in the present act; however, the Commission has been unable to take action against them because it would not appear that these blankets come under the provisions of the existing law. They were read out during the hearings before the committee when the act was passed.

The staff of the Commission found that cotton and rayon pile bed blankets which have raised surfaces are highly flammable although not covered under the existing act. I think you held up a piece of that material.

I might add that the Department of Health, Education, and Welfare estimates that 2 million people are burned in the United States from all causes each year, and about 100,000 of these victims require hospitalization. Undoubtedly many of these fatalities and injuries are related to textiles and interior furnishings.

Just a few words now about the proposed amendment to the Flammable Fabrics Act, which would add a new section 14 authorizing investigations and research. It is the opinion of the Commission's Bureau of Textiles and Furs that it would be most desirable to have all children's clothing made fire resistant by applying a chemical finish to all combustible fabrics or by having such clothing made of non-flammable material.

The statistics already collected by the Department of Health, Education, and Welfare show many instances of children being burned because of wearing flammable clothing.

Therefore, we suggest that the Secretary of Health, Education, and Welfare, in cooperation with the Secretary of Commerce in its study and investigation of death and injuries resulting from the accidental burning of products, as provided by section 14 of S. 1003, keep the object of fire resistant clothing for children constantly in view. When there is a breakthrough by science in the development of a suitable means of providing such safety to our children, at a reasonable cost to their parents, appropriate recommendations may be made to Congress for this type of legislation in addition to that proposed in S. 1003.

While we can give no assurance that enactment of S. 1003 will lead to immediate and startling reductions in the rate of death and injury from flammable products, we believe that such enactment will greatly strengthen the effectiveness of the Flammable Fabrics Act and again I reiterate the strong approval of this bill by the Federal Trade Commission.

The CHAIRMAN. Thank you.

Tomorrow we expect to hear from the industry and, of course, we will want to explore with them the question of cost. Of course, since the 1953 act, many new techniques and new procedures have been evolved, and they are not very expensive, but we must get some testimony as to how much it would cost, whether it would be too expensive for these things, or not. We will get that tomorrow.

Mr. DIXON. One of the bills I testified to in front of the House committee had to do with sweatshirts. One bill was put in to remove the sweatshirts completely from the bill unless the garment was intended to be worn. If a bunch of these young kooks who like to wear them in-

side out, do it, it is their fault. The purpose, I would understand, of the introduced bill was that it would be too expensive to treat these articles.

The CHAIRMAN. I think that the basis of some of the exceptions in the 1953 act was the plea that the cost would be too great.

Mr. DIXON. For the benefit—

The CHAIRMAN. I didn't agree with much of this at the time, but the committee did make some exceptions because we wanted to get a bill passed, and prior to the 1953 act, there was little or nothing.

Mr. DIXON. The reason I picked this example out of the air is that we put out a proposed rule that would require these things, that the act was—we were going to proceed against them by making it effective the first of next year, but the Cotton Council and their representative came in and assured us before the first of the year, they would be able to treat every sweatshirt that is manufactured by rendering it safe, at least under the present standards of the act, at a very minor or insignificant cost, so the problem will disappear.

The CHAIRMAN. Now, you mentioned earlier in your testimony that in dealing with sweaters, the Commission apparently had no way of knowing about the danger of these sweaters until after it happened.

Why was that? Lack of Legislation? Lack of authority?

Mr. DIXON. I don't know what you can do about this. This act is clearly understood, I believe, throughout the textile industry. I believe this. We had a recent example of this occurrence, and it happened this way: The invoice showed the napped goods were shipped to a buyer with the intention that they were going in as bootliners, which was exempt from the present law. But he in turn sold them to someone else, and this someone else made sweaters out of them. Then they were picked upon the streets in New York, and as soon as it came to our attention, I asked for the television and press conference, and I burned those sweaters, so people would know about it, and got in touch with the New York police, and they seized those sweaters overnight and destroyed them.

The point is, the law is there. I am quite sure the man that made it didn't intend they would go into a sweater, but they got there.

I don't know how we are going to pass any better legislation in that respect, than you have. But, if they come from abroad, now when they come in here, it is the importer's responsibility and this—if we have some experience that this has happened, obviously we can proceed very quickly, seize and destroy, and then, with that experience, with this new amendment to the law, we can put him under pretty strict prohibition to where he would get those things tested before he sells them.

The CHAIRMAN. Now, in your statement, you make an important point, that the final authority for promulgating and amending the appropriate standards would rest in the Secretary of Commerce rather than with industry members.

Mr. DIXON. This is a change.

The CHAIRMAN. By that, however, you don't mean to imply that the Secretary could not adopt those standards suggested by industry as his own?

Mr. DIXON. I certainly would not. But, the point is, it is his responsibility.

The CHAIRMAN. What you are saying is that this act would place the responsibility in one place.

Mr. DIXON. That's right. Suppose the industry was split in 10 different views. The problem would still be there. He has to resolve it. Obviously, I listened to Dr. Holloman's testimony here very carefully the second time I heard it, and I think I made it pretty plain to the committee they will work as they customarily do with industry here.

The CHAIRMAN. We will consider your suggested amendment to paragraph (d), section 2. I think that would strengthen the act because the language is a little vague.

Mr. DIXON. Yes, sir.

The CHAIRMAN. Thank you very much.

Our next witness is Peter Hackes. He is a well-known news correspondent, NBC News, and we asked him to testify because he has experienced a great personal tragedy.

#### STATEMENT OF PETER HACKES, NEWS CORRESPONDENT, NBC NEWS, WASHINGTON, D.C.

Mr. HACKES. Mr. Chairman, my name is Peter Hackes. I live at 5045 Klingle Street NW., in Washington, D.C. I am employed by the National Broadcasting Co. as a Washington news correspondent.

I do not purport to be an expert on fabrics. I am not an expert on fires, medical treatment, or on legislation. But I feel I have become an expert on one family's experience with a burning fabric. And I have come here this morning to appeal to you to press for enactment of the proposed amendments to the Flammable Fabrics Act, which I feel may help prevent the incident which occurred on May 15, 1966.

On that date, almost exactly 1 year ago, my daughter Carole became the victim of a flaming piece of cotton. She was 11 years old at the time, a slightly better-than-average student at the National Cathedral School here in Washington, who enjoyed being a pre-teenager.

On the morning of May 15, 1966, I was out of town on assignment to cover a Gemini space flight, Gemini 9. My wife and three children were at home. It was to have been a quiet Sunday because my wife, as it happened, had her right arm in a cast, the result of a fall at home.

Carole still hasn't told us what her reason was, but she struck a match, which dropped onto her cotton blouse, which ignited immediately. At first it smoldered, and when she beat at it, it appeared to go out.

Momentarily, however, there came a lick of flame—which again looked to be out each time she beat it. But within seconds it had flared up.

Carole panicked and ran. My wife, arm in a cast, running after her. The running only served to fan the flames, which produced a sort of shock reaction and shrieks of pain.

Finally my wife caught up with the child and managed to wrap her up in a towel. But even the big towel didn't seem to smother the flames, which were doused only when my wife stood the screaming child in a tub and turned on a cold shower.

I was spared the original horror of the accident because, as I have said, I was away from home at the time, but I flew back immediately upon receiving an emergency telephone call.

My wife has filled me in on all of it—including the excruciating pain involved.

The events of May 15, 1966, are seared into the minds of the rest of my family—and especially into Carole's, like the details of a nightmare.

A hospital examination showed the flaming blouse had produced second- and third-degree burns over about 15 percent of Carole's body, from a point just above the navel to high on the front of the neck just under the chin. Actually she was lucky at that—there were no burns on her face and her hair did not catch fire.

Carole spent the next 9 weeks in two hospitals here in Washington. Her stay at Children's Hospital was often accompanied by severe pain because of certain procedures involved in her burn treatment. During that period her door had to be closed at all times. But her screams of pain had little trouble filtering into the hallway during times of burn treatment.

She was in isolation against infection. She could be visited only by me and my wife, and then only when we wore hospital gowns and masks.

Carole had to have special private nurses 24 hours a day, and later on had the services of a physical therapist.

Carole was transferred to George Washington University Hospital at the end of 3 weeks at Children's Hospital, and spent the next 6 weeks there in the care of a plastic surgeon. Through his care—which included the use, among other medications, of an experimental drug still under development—Carole was able to leave the hospital the last week of July 1966. During his treatment the surgeon performed skin graft covering a large part of Carole's chest.

There followed a period of weeks of recovery at home. Carole then returned to school last fall with a little more than half her plastic surgery out of the way. Her neck was—and is—a series of long, tendon-like welts. Most of the time it looks like raw meat—an angry red color.

The surgeon says he plans more plastic surgery to correct this, during the coming summer months. He is hopeful he can rid Carole of much of the disfigurement she carries with her, but as you know, there are no guarantees in this area.

Quite naturally Carole is sensitive and embarrassed by her appearance. She wears high-neck clothing whenever possible. Much of her deep scarring, however, is impossible to cover up because of its location.

In the course of the last school year Carole's ability to deal with life's problems has been impaired—in some part, we have been told, because of the burn experience.

We are advised that boarding at school might help and for a time Carole was a boarding student. Most recently she has begun psychiatric treatment which, we have been told, will probably continue for some time to come.

I must hasten to add that unpleasant as our problems have been, they are almost miniscule compared to the almost unbelievable fabric-burn cases I saw in the hospital and have since become familiar with.

The courage with which these victims and their families face this type of tragedy is most remarkable. I am speaking of cases in which children—most of them very young—have been so badly burned that no amount of plastic surgery or time can really restore them.

I am speaking of cases in which the mental anguish that so often accompanies a burn will remain a constant companion for many, many years, and possibly for life.

Many other parents could tell you tales of suffering from fabric burns far more upsetting than my story.

As I said at the outset, I am not an expert in these matters. Until Carole's unfortunate accident the only clothing burn incidents I had run across were those that appeared occasionally on the news wire. I had no idea how easily some clothing can ignite, nor how serious can be the consequences.

As an average consumer with no background in this area, I assumed that under the law I was protected against any harmful item, be it an explosive toy, a poisoned food, or a hazardous electrical fixture.

Having had only a vague knowledge of the fact that there was such a thing as a Flammable Fabrics Act, I took the remains of Carole's burned blouse to have it tested. I was told that the cotton fabric from which it was made lies within the burning-time standards. Nothing, in other words, could be done under the existing law to prevent another Carole from having to undergo the same torture from a burn caused by the same or a similar fabric.

This, basically, is my reason for endorsing the legislation before you. The National Safety Council says 1,500 persons die each year in this country from clothing burns or ignitions. And 100,000 others are seared by clothing burns. The Safety Council says there are other figures—namely, those of the National Fire Protection Association—which are even higher.

These are conservative figures. A more likely figure would be upward of 3,000 deaths.

Mostly the victims of clothing fires are young children and elderly persons. Quite often they are female, wearing such flammable fabrics as light, filmy nylon.

If some of these deaths and injuries, or even one for that matter, can be avoided by passing this bill, it will be justified.

I am aware of the industry argument that the public is not concerned, that there have been few complaints about the flammability of fabrics, particularly clothing. The simple fact is that consumers like me think we are buying safe products.

How many auto buyers, for example, were concerned or made complaints about cars until a fellow named Nader pointed out—forcibly—that the product Detroit was selling as safe, really wasn't?

They never realized until then that there were certain manufacturing flaws in each car, which were not corrected in some cases until the Congress and particularly your committee and the Federal Government stepped in with compulsory auto safety legislation.

I am also aware of the industry argument that the public will not buy a flameproofed item, that it doesn't have the proper feel or the correct color, or doesn't somehow live up to the demands of the buying public. To them I would offer an invitation to visit with my daughter

Carole, or with the thousands of other youngsters badly burned by clothing. They would need no other convincing.

I am aware also of the industry argument that today's technology has not advanced to the point where every fabric can be made flame retardant. As I understand it, one of the provisions of this legislation would attack just that problem by setting up a mechanism to study and develop improved fabric technology.

Hopefully these hearings will provide the impetus to impel fabric and clothing manufacturers—who in my judgment have a moral obligation if not a legal one—to do whatever is necessary, with or without Government prodding, to produce a safer clothing fabric.

I also hope that these hearings produce two other effects: that they will lead to stricter burn standards for fabrics, and that they will focus national attention on this problem.

At this point only the doctors, nurses, insurance companies, damage-claim lawyers—and grief-stricken families—are vividly aware that the problem exists. But it took only a flaming instant for my own family to acquire that awareness.

My visits to the burn clinic at Childrens Hospital indicated to me there must be thousands around the Nation who are becoming shockingly aware of the danger of fabric burns.

When the general public, and the Congress become convinced a problem exists, their interest and concern will be manifest. Not only will there be stricter flammable fabric regulations, but the consumer will refuse to buy some of the products now offered for sale. She will, instead, demand a flame-retardant item.

The public must be made aware of the seriousness of the problem. And the manufacturers must offer alternate, flame-processed item of clothing, even if it costs money to develop a process that is acceptable.

For my own part I will do all I can to inform the public of the problem. I trust Congress will do its part by passing this legislation. And I hope an enlightened industry will respond in a humane fashion.

My own thought is that the first company to develop an acceptable flameproofed cotton fabric, for example—through a proper advertising campaign—could sell more textile material than it can manufacture, merely by pointing out the benefits.

To use a worn-out cliché: "the time is painfully short." American children and adults are being burned every day by clothing that catches fire. In my view we can't wait for more Caroles to be burned before some action is taken.

The CHAIRMAN. Thank you for your statement. I haven't any questions because I think your statement speaks so well for itself that I don't want to clutter up the record with any questions.

Senator Hartke?

Senator HARTKE. I have no questions. It is good to see you.

The CHAIRMAN. Thank you very much.

We will recess the hearing until tomorrow morning at 10 o'clock, because we have to be back on the floor.

(Whereupon, at 11:45 a.m., the subcommittee was recessed, to reconvene at 10 a.m., Friday, May 5, 1967.)

## FLAMMABLE FABRICS ACT AMENDMENTS OF 1967

FRIDAY, MAY 5, 1967

U. S. SENATE,  
COMMITTEE ON COMMERCE,  
CONSUMER SUBCOMMITTEE,  
*Washington, D.C.*

The subcommittee met, pursuant to recess, at 10:18 a.m., in room 5110, New Senate Office Building, Hon. Warren G. Magnuson (chairman of the committee and subcommittee) presiding.

The CHAIRMAN. The committee will come to order.

This morning we have scheduled as our first witness Dr. George Crikelair, who is professor of surgery and director of the plastic surgery service at the Columbia-Presbyterian Medical Center, New York City.

Doctor, we will be glad to hear from you.

### STATEMENT OF DR. GEORGE F. CRİKELAIR, PROFESSOR OF SURGERY AND DIRECTOR OF PLASTIC SURGERY SERVICE, COLUMBIA-PRESBYTERIAN MEDICAL CENTER, NEW YORK, N.Y.

Dr. CRİKELAIR. Good morning, Mr. Magnuson.

Mr. Maleng called me and asked me to appear before this committee. I consider this a great honor and a privilege. I knew that discussions concerning the flammability of clothing were going on and that numerous textile people would be here in Washington. I next received Senator Magnuson's letter requesting 75 copies of my text, and I knew then that the paper people had preceded the textile people in Washington.

The CHAIRMAN. I want to suggest this is not particularly the wish of the committee. This is because we have a number of people, press and otherwise, very deeply interested in this matter, and they always like copies of the witnesses' statements.

We used to ask for about 12, but their numbers have increased. So about 75 just suffices.

Dr. CRİKELAIR. I mention this, Senator, because time and facilities, as I told Mr. Maleng, allowed me to bring only 13 this morning.

The CHAIRMAN. We try to be helpful when we can.

Dr. CRİKELAIR. Thank you.

My interest in the problem of burns secondary to clothing began several years ago as a purely personal venture after two of my pediatric patients whose clothing caught on fire died of their extensive and severe burns. Over a period of years, through exposure to many disciplines and through the kind acceptance of these many disciplines to my interest, I think I have learned a good deal about this problem.

In reading much that has been said here in Washington about this proposed bill, I was pleased to see so many references to the conference in December at the New York Academy of Medicine. This conference was primarily set up by me with the help of an extremely capable committee. And I should like in front of this committee to extend my thanks to William White, chief liaison officer, Injury Control Service of the Public Health Service for the help he has been to us in all of this.

The reason we set up this conference was because we did not want the matter of burns secondary to clothing to drop and because it seemed that such a meeting might produce some action on the part of the many disciplines involved. Both of these aims were met. It is my hope that this year we may see the formation of an organization made up of all interested disciplines to further pursue this problem.

My purpose in being here today, however, is I believe to give my thoughts on the proposed bill, S. 1003, of which I have a copy.

Now, I am neither a technical expert, a chemist, nor an attorney, and I have had my troubles with the bill, but the following comments in all good faith seem to me pertinent:

(1) The all-inclusive term "wearing apparel" including any costume or article of clothing worn or intended to be worn seems wise.

(2) Why "interior furnishings" are included in this bill escapes me at the moment, mainly because of the poor statistics presently available.

(3) Section 4 of this bill gives the Secretary of Commerce the power to prescribe and publish standards and testing procedures and to change these as needed.

On the basis of my exposure to the present testing measures, I agree that they are inadequate. This entire problem is going to take some careful thought and work.

I would prefer to see the Secretary of Commerce work on this problem for a year with all other interested groups, and then report back to this Senate committee, because I would prefer to see a definite plan or process agreed upon and then put into law.

I think that for the first time in my exposure to the problem of flammable clothing, industry, Government, medicine, and all allied interests are willing now to discuss and work on this problem.

(4) Section 14a deals with an annual study and investigation of deaths and burns by the Secretary of Health, Education, and Welfare. This I favor strongly as evidenced by my appearing before a committee of the House of Representatives in 1965 requesting funds for the Public Health Service to conduct such a study. This is going to be a difficult task, even though the Public Health Service, if supplied with proper funds, has the machinery for such a study.

I have some ideas on this which I will be discussing with the American College of Surgeons this month.

What role "interior furnishings" will play in this seems obscure to me and must be proved. However, and I think this is a very vital point as far as I am concerned, whatever these statistics reveal on clothing burns, the problem is a real one, especially in children, and steps to prevent these injuries and deaths must be taken.

(5) I find section 14b confusing because it is unclear to me whether this authorizes research in developing nonflammable textile products or whether it authorizes finding out if such can be done.

Certainly if there are to be standards, there will have to be tests. It seems to me the present test methods are fallacious. They are good in that very combustible materials have been eliminated. In many of the burned children which I see secondary to burning clothing, the clothing has been tested by our present standards and it passes the tests. Senator Magnuson made a similar reference to this problem in his address to the Senate on February 16, 1967.

In our own limited laboratory studies, it seems more reasonable to test an entire garment, hung the way it will be worn and used, ignited by a flame comparable to what is found around the home. We have used a bunsen burner put to the bottom of a hanging dress so that it is properly exposed to the air. Perhaps, if any garment burns under these circumstances, it should carry a label stating "This garment will burn."

Definite legislation such as this would protect the legal aspects of the textile industry, would be a great step in educating the public to the hazards of burning clothing, and I think would encourage the development of flame-retardant clothing.

Encouragement is needed now—encouragement to industries to make faster strides in flame-retardant clothing, encouragement to government to help in this undertaking, and encouragement to many disciplines to continue education of the public in this matter.

Flame-retardant clothing is not now available in large quantities and especially it is not available for children's clothing. There is also no public demand for such at the moment. It is possible, in my opinion—and this is really a personal opinion—that such a law proposed at this time may well sweep into a forgotten corner a major problem which is now commanding sharp interest and study and action by many disciplines.

I am opposed, therefore, to giving the authority to the Secretary of Commerce to put forth rules and regulations which affect so many without these rules and regulations being more definite and without them being reviewed by a committee such as this before being put into law.

Again, in my opinion, given a year's study, I think all interested parties will help in this matter and come up with some realistic suggestions for a new law which will have definite rules and regulations.

The CHAIRMAN. Well, thank you, Doctor. I think some of your observations are very pertinent.

The purpose of the bill is to encourage, of course, first, a definite study on the statistics involved.

Dr. CRIKELAIR. Yes.

The CHAIRMAN. As we mentioned yesterday, we do not have enough statistics in that field yet, but we are hopeful that HEW will bring up some statistics which will help establish priorities.

That is, should the Secretary of Commerce start first dealing with, say, the bedding industry? Is that the most prevalent dangerous fabric? Or clothing? Or both?

I think your suggestions here are very helpful, although as you point out you may not have any particular legal expertise in this. We are trying to do that, and we will so word the bill that we can do as you suggest.

Dr. CRIKELAIR. There is no question in my mind, Senator, in just thinking about this and looking at what statistics we have available, that the clothing, particularly in children and the elderly, is a major thing.

We are at present coming up with some suggestions through the College of Surgeons and through the AMA in hopes that we too can give you some help with these statistics in the next year, because this won't be perfect but it certainly ought to be better than what we have now.

The CHAIRMAN. Then, of course, I assume from your statement that you would favor more information to the public by a manufacturer as to the nature of the textile involved, whether it be clothing or furnishings?

In other words, if as you point out in your statement, a garment will burn, and if the garment is susceptible to quick combustion, at least they ought to know about it when they buy it.

Dr. CRIKELAIR. I think more than that. I think never mind if it is quick combustion. I think the very fact that it burns would be of considerable help both for the education of the people and for their protection.

The CHAIRMAN. Yes. And someone may still want to buy it anyway, but at least the responsibility of Government in this matter would be carried out.

Dr. CRIKELAIR. Yes. But I think it would do even more than that. I think it would help the industries to further their studies in the development of flame-retardant materials.

The CHAIRMAN. If there is more research, if the manufacturer or manufacturers in common would produce fabrics, clothing, or furnishings, that were less susceptible to burning, they would probably sell them. They probably would be in demand on the market as against a fabric or textile that was dangerous.

Dr. CRIKELAIR. I am sure of that, if you can make this demand known.

The CHAIRMAN. Yes.

Do you find in your work that you are dealing mainly in burns in children?

Dr. CRIKELAIR. Well, this depends a little bit on what area you are speaking of. You see, in our particular setup at Columbia, we have two or three hospitals involved in this, and in the Children's Hospital there are all children.

In the other areas it varies a great deal, and I think it varies this way across the country.

But I think the limited statistics we do have available do point to the major problem in children.

You see, they can't get away from it. If their clothing catches on fire, they respond in a manner in which a child responds. They run, and this fans the clothing. And, of course, this has been incriminated by many as not being the fault of the clothing but of actions taken after the clothing was afire.

But I think we have to be realistic about this and accept that these children are going to be involved in household injuries, and they are going to run, and they are going to take these actions.

Now, if it were one of us in this room, we would maybe have enough sense to roll on the ground and put the fire out.

If you get into the older age person, maybe because of his infirmity or his illness or such he again cannot get away if this thing starts to burn.

This I think statistically will be borne out as these studies come forth.

The CHAIRMAN. Well, generally, from what statistics we have now it seems to be that the problem is more prevalent with the aged and the infirm and the children.

Dr. CRIKELAIR. In the children. That is right.

The CHAIRMAN. Well, we thank you very much for coming down. We appreciate it.

Dr. CRIKELAIR. Thank you, sir; for the invitation.

The CHAIRMAN. And thank you for adding a great deal of information and your opinions on this matter. I hope the College of Surgeons keeps busy on it.

Dr. CRIKELAIR. We are going to do our best, sir.

The CHAIRMAN. All right.

Mr. Arnold Elkind is here, an attorney who represents the American Trial Lawyers Association.

Mr. Elkind is from Beacon Street in Boston.

#### STATEMENT OF ARNOLD ELKIND, SPOKESMAN AND FORMER CHAIRMAN OF THE CONSUMER PROTECTION COMMITTEE, AMERICAN TRIAL LAWYERS ASSOCIATION

Mr. ELKIND. Correction, Senator, I am from New York City. The American Trial Lawyers Association has its office in Boston.

The CHAIRMAN. I see. That is the headquarters of the association?

Mr. ELKIND. Yes.

Senator, I would like to thank you on behalf of the American Trial Lawyers Association for your invitation to come here and express the views of the American Trial Lawyers Association on S. 1003.

At the conclusion of my remarks, Senator, I intend to submit—I have already filed 50 copies—a proposed amendment to S. 1003 which we believe is quite important if this legislation does become law.

The American Trial Lawyers Association—

The CHAIRMAN. Well, I am very pleased that you are giving us this information both on behalf of the association and your own personal viewpoint, because the legal liability in this field is a very, very important facet.

Mr. ELKIND. Yes, sir.

I thought preliminarily, because of that factor, Senator, that it might be well for me to put on the record of this hearing, if I may, a couple of observations with respect to the state of the liability law in this field generally.

The CHAIRMAN. Yes.

Mr. ELKIND. And then I will zero in on how the situation with respect to the Flammable Fabrics Act has affected personal injury litigation in this area.

The CHAIRMAN. All right. Because, as you know, we have found here in many of these consumer bills and safety bills and hazardous sub-

stance bills that the question of liability is often more persuasive than the bill itself.

Mr. ELKIND. Yes, Senator.

The CHAIRMAN. More persuasive to do the job that should be done.

Mr. ELKIND. We feel—

The CHAIRMAN. Strict liability sometimes causes people to be more careful, more cautious, and do the things that they have not done in this field and other fields.

Mr. ELKIND. We feel that the rule of strict liability is the greatest development in the last 10 years for the consumer and that it has more therapeutic value than schedules or restrictive legislation.

In that connection I would like to point out that this year Dean Prosser, whom of course, you know, characterized what has ensued as the most rapid and altogether spectacular overturn of an established rule in the entire law of torts and that this has all happened within the last 6 years, when the *Hennickson* case came down in New Jersey.

And in the 6 years following *Hennickson*, over 200 decisions in more than 30 State have adopted a rule of strict liability.

The strict liability rule promulgated in 1965 by the American Law Institute in the second restatement of torts, section 4402(a), is very influential in that area, and I think it should be spread on the minutes of this hearing as well.

The CHAIRMAN. All right. We will look at it.

Mr. ELKIND. I will not read it now.

The CHAIRMAN. We will put that in the subcommittee files, and you may proceed with your statement.

Mr. ELKIND. Now, as a practical lawyer—and I am testifying now as a practical lawyer with respect to what happens with a Flammable Fabrics Act case, Senator—

The CHAIRMAN. All right.

Mr. ELKIND (continuing). Parents will come in, and they may even have witnessed an experience in which their child's dress suddenly went up in flames, uncontrollable until the child was wrapped in a blanket or in a rug and all oxygen excluded from the flames.

And according to the parent's description, the witnesses' description, this all happened in a very short space of time, almost spontaneously.

Now, if the lawyer is fortunate enough—or unfortunate enough, depending on your point of view—to have some of the remaining fabric or a companion piece of fabric to the piece that was involved in this unfortunate tragedy, the customary procedure and the lawyer-like way to behave under the circumstances is to take that dress, and, in the knowledge that there is a Flammable Fabrics Act on the books, to send that dress off to a testing laboratory and find out whether or not the dress meets the standards of the act.

But almost invariably the report will come back from the testing laboratory that it does meet the standards.

So that the average lawyer confronted with that proposition and with that dichotomy, is moved to disbelieve his client's testimony, and he feels that his client is exaggerating.

But even if he accepts the credibility of his client and proceeds to court and tries his case, he is confronted with the following almost

insuperable obstacle in terms of jury psychology: That the defendant, the manufacturer, will introduce into evidence as a part of their case this very compelling testimony that the dress did comply with the standards of the Flammable Fabrics Act.

And, of course, you know, Senator, that the standards that were adopted were essentially voluntary standards. And the original purpose of the existing legislation was to keep out from the market these radical, almost explosive articles which had created a scare just prior to the adoption of that legislation.

But in a real sense the existence of the act has been a deterrent to the lawyer in carrying out the normal therapeutic process of liability litigation, because the lawyer will, in the face of the obstacle that he must overcome in the courtroom, tend to either settle the case or postpone it, settle it for a nominal amount, and he does not believe that he has much of an opportunity to overcome the burden that the defendant imposes on him by showing that the article has complied with the standards.

So that in order to establish a balance between the consumer and the manufacturer in this product liability area of flammable fabrics, we would hope that that part of the legislation, of whatever is adopted, will include a principle or adopt a principle that will bar the manufacturer from introducing evidence that he has complied with the governmental standard unless that issue is raised by the claimant and unless the claimant introduces evidence which would tend to establish that the manufacturer has in fact put something on the market which is below governmental standards.

Because otherwise, sir, the adoption of these standards which are going to represent and must in our system represent the views of the manufacturer will turn out to be a shield for a delinquent manufacturer rather than an aid to the consumer.

Because we believe that the therapy of a good lawsuit and a good damage recovery—and these damage recoveries in burn cases can be quite substantial—represent a great goal to the manufacturer to accelerate what research they have started in order to develop flame-retardant materials.

And we believe that the pressure from these lawsuits represents one of the great hopes of bringing about an increase in flame-retardant fabrics.

Now, we do support, sir, that provision of the legislation that provides for improving the standards, whether it be by the Secretary of Commerce or whatever method is assumed. Anything will be an improvement—providing the subject is kept alive and does not go back on the shelf for another 14 years.

We also very strongly support that part of the legislation which seeks more hard information under the auspices of the Health, Education, and Welfare Department, because we think that these people have demonstrated from our own observation a keen interest in the subject and a professional approach and that they can acquire this information and make it available to the public in a way that will be helpful in improving this whole picture.

The CHAIRMAN. You mention you had a suggested amendment to the bill?

Mr. ELKIND. Yes, sir. May I hand it up at this time? I have already filed 50 copies.

Would you like me to read it into the record?

The CHAIRMAN. Well, we will put it in the record for our consideration. We are glad to have it in the record.

Mr. ELKIND. It says, Senator:

In any action at law in which it is claimed that personal injuries or wrongful death were suffered by reason of excessively flammable characteristics of any of the fabrics or materials referred to in this Act, the defendant shall not be permitted to introduce evidence that it has complied with the standards issued or amended under the provisions of section 4 of this Act or otherwise call the attention of the court and jury to the fact of compliance, unless the plaintiff shall both claim and introduce opinion testimony tending to establish that the fabric did not conform with the applicable standard of flammability established under the provisions of section 4 of this Act.

This rule of evidence shall apply to any such action at law regardless of injuries if there has been a showing that the fabric involved was moved or sold in interstate commerce.

I will be very happy, Senator—

The CHAIRMAN. Well, what you are saying again is that unless the issue is raised by the plaintiff in a suit that the fabric did not comply with the standards, the defendant should be prohibited from putting in evidence that it did?

Mr. ELKIND. Exactly, sir.

The CHAIRMAN. It must be raised by the plaintiff as I understand you?

Mr. ELKIND. That is our suggestion, sir. In other words, it would work out like in a lawsuit you are not allowed for the jury to know that the defendant has insurance. If any evidence that the defendant has insurance comes into the trial, it is a mistrial. The parties have to do it over.

That is the principle we would like here, unless, of course, the plaintiff introduces evidence to show there has been a noncompliance.

The CHAIRMAN. Yes, unless the plaintiff makes a point about the insurance or lack of insurance or type of insurance, the defendant can't raise the issue of insurance as I remember.

It has been a long time since I practiced law, but that is how I remember it.

Mr. ELKIND. This can be done either in the form that I suggested or merely as a statement. I am sure that the courts could honor it if there were a statement of public policy that made that thought clear in some other fashion.

The CHAIRMAN. We might put a statement in the report to this effect.

Mr. ELKIND. I beg your pardon, sir?

The CHAIRMAN. We could, if the committee agreed, put a statement in the report that this was our intention on the bill.

All right. Thank you very much.

Mr. ELKIND. Now, I have departed quite a bit from the text that I submitted.

The CHAIRMAN. It is very short. Would you like to read the statement of the Trial Lawyers Association?

Mr. ELKIND. May I ask leave that my statement be filed?

The CHAIRMAN. Oh, yes. It will be put in the record in full.

Mr. ELKIND. Thank you very much.

(The prepared statement of Mr. Elkind follows:)

STATEMENT OF ARNOLD B. ELKIND, ESQ., SPOKESMAN AND FORMER CHAIRMAN  
OF THE CONSUMER PROTECTION COMMITTEE OF THE AMERICAN TRIAL LAWYERS  
ASSOCIATION

Mr. Chairman and members of the Subcommittee, my name is Arnold B. Elkind. I am an attorney. A very substantial part of my practice involves the representation of people who have sustained personal injury. I am aware of the many hazards to the public and the terrible injuries suffered by those unfortunately hurt by accidents.

I am testifying as the representative of the 25,000-member American Trial Lawyers Association. For three years I served as chairman of the Consumer Protection Committee of the association, which is the second largest bar association in the United States with 70 affiliates and branches. At the present time I am a liaison officer of the association, designated to cooperate with the federal government in connection with legislation which affects consumer interests in the area of product safety.

During the past 25 years there have been important and far-reaching changes in many jurisdictions in the common law which have a bearing on the legislation before the Subcommittee. Generally speaking, these changes have eliminated artificial concepts which insulated the manufacturers of goods from damage lawsuits by people who sustained personal injuries by virtue of a product's deficiencies. There are variations from jurisdiction to jurisdiction at the present time, but hopefully, if and when Senator Magnuson's Senate Resolution 33 and Congressman Moss' companion legislation (House Joint Resolution 280) become law, and the National Commission on Product Safety is established, the American people can look forward to a uniform Act which will eliminate this artificial immunity in all jurisdictions.

It is in anticipation of such legislation that the import of my testimony can best be understood. It is our view that the trial bar has a very important role to perform in the area of consumer safety. We do not deprecate the value of governmental standards, providing that the standards represent a fair balance between the competing interests of the consumer and the manufacturer. I think you will all agree that that is quite a proviso.

We ask Congress, however, in connection with the proposed legislation, not to overlook the important therapeutic value of the damage suit as a deterrent to sub-standard manufacturing processes and as an economic spur for more research and development in manufacturing techniques, quality control, and more truth in advertising and describing products.

It is well recognized today that almost all manufacturers carry product liability insurance. It is also known that the processing of a personal injury claim, even through an insurance company, has an impact on the manufacturer. The manufacturer is caused by this type of suit to think specifically in terms of greater consumer safety. If he does not, his insurability becomes jeopardized, his rates are increased, and his expenditures for sales and production are threatened.

With the advent of the present revolution in consumer law the role of the personal injury lawyer, at least in the area of products liability, is quite different from what it was 20 or 25 years ago.

The personal injury lawyer in a free society must be viewed as a valuable adjunct in accomplishing the aims that President Johnson, and President Kennedy before him, have set for consumer protection in the area of public safety.

As an ally in a common endeavor, a consumer-oriented Congress should, I believe, analyze proposed legislation bearing on product safety with a view toward emphasizing the contribution that the personal injury lawyer can make, so that it will be possible for the therapeutic damage suit to play an increasingly useful role in directing industry's activities toward greater consumer safety.

This is particularly true in the area of flammable fabrics. The risks of ignition by careless cigarette smoking and children playing with matches are well known primary sources for the most horrible, the most painful, and the most grotesque of all personal injuries—the burned body. The impact of the personal injury lawyer, if not neutralized by legislation, can produce valuable changes in the care that is taken by manufacturers.

People who sustain burns, if they are entitled to recover in a personal injury action under the legal rules that apply, may very well recover substantial damages from a jury. This is because pain and suffering is compensable in a common law action for personal injuries and because juries respond to and identify with a burn injury with much greater facility than they do to other types of disabling injuries of comparable nature.

I am told that there are approximately 150,000 cases each year in which clothing becomes ignited and people are badly burned. One would think that at least one half of these cases would find their way into the courts, but instead of the 75,000 cases that you would anticipate, I doubt whether there are as many as 100 cases throughout the entire United States in a year that actually find their way to a jury verdict. There are probably more abandoned flammable fabrics cases or cases settled for a nominal amount, percentage-wise, than in any other branch of products liability litigation. The blame, we think, for this lack of damage suit therapy, is the Flammable Fabrics Act as it now stands and its Commercial Standard 191-53. As you know, of course, these were voluntary standards written in large part by the manufacturers supposed to be regulated thereby.

This is what has been taking place in a lawyer's office: The client comes in with a scarred child who suffered excruciating pain, has required and will continue to require many skin grafting operations. He brings in the remaining parts of a charred dress, or a dress similar to one that was totally consumed by fire. It may very well be that witnesses are present who can describe what happened from the moment that the source of ignition reached the dress to the moment that the child was finally wrapped in a blanket or rug and the flames extinguished. The story that the client tells is a description of the garment bursting into flames in an exceedingly short period of time, the flaming process being virtually uncontrollable until all oxygen supply for the flames is eliminated. The lawyer then takes the fabric and sends it to a testing laboratory, because he is aware of the federal standards for flammable fabrics. Almost invariably the report comes back from the laboratory that the fabric tested passes the standards of 191-53. The lawyer may reason that the witnesses have exaggerated, and consequently refuses to take the case. Or, if he believes the client and the witnesses, he realizes that when he gets to trial the defendant can prove to the jury that the dress met the standards of the Flammable Fabrics Act established by the federal government. He knows that the impression thereby created in the minds of the jurors will be extremely difficult to overcome. So he avoids trying the lawsuit and either settles for a nuisance value or allows the case to languish in his office files.

While the standards in the Flammable Fabrics Act may have eliminated grossly explosive types of material, their chief practical value is as a sword for manufacturers, enabling them to place flammable fabrics in the hands of the public with a relative degree of immunity from the normal consequence of their conduct.

It is well established that Congress did not intend to pre-empt the common law duty of a manufacturer to exercise reasonable prudence, and that the jury can find for the plaintiff, even though the defendant has complied with the requirements of the Flammable Fabrics Act. But this, in most instances, is merely lip service, and, in terms of jury psychology, the manufacturer will win if he shows that he has complied with the federal standards.

It would therefore be my hope that, regardless of the methodology that Congress finally intends to employ in order to arrive at a mechanism for determining flammability standards, an amendment be added which would bar from the courtroom any evidence that a manufacturer complied with the federal standards, unless the plaintiff claims that there has been a lack of compliance with the federal standards and actually introduces evidence to the jury to demonstrate a lack of compliance.

Since manufacturers are going to insist on a role in setting the standards, either as a matter of law or as a matter of practice, the competing interests in a personal injury law suit can only be brought to an even footing by excluding from the law suit evidence that the manufacturer complied with standards which he may very likely have set himself.

This is particularly important with respect to cotton. Many of the claims of excessively flammable characteristics which have come to my attention have involved this otherwise excellent and most important fabric. Because of its

utility, and abundance and importance to our economy, we can not expect Congress to legislate the use of cotton out of existence or to insist on its being flame retardant until such time as it becomes economically feasible to flame retard cotton.

But in the interim, until a feasible flame retardant is developed for cotton which will be acceptable to that industry, the personal injury lawyer can provide the economic spur of jury verdicts to cause the cotton industry to step up research and develop methods to produce flame retardant cotton fabrics.

We feel, as a practical matter, that the problem of flammability will haunt the conscience of Congress until the cotton industry itself is convinced that its own interest will be served by flame retarding cotton fabrics.

We favor the expansion of the Flammable Fabrics Act to cover bedding, draperies, upholstery and other household fabrics, and we agree with the proposed legislation insofar as it authorizes the Secretary of Commerce to elevate the standards contained in Commercial Standard 191-53. We think that any modification will represent some improvement, but regardless of what standard may ultimately be adopted at this time, there still remains the need to legislatively prevent that standard from becoming a sword for the imprudent manufacturer rather than a shield for the consumer.

We also agree that there is a deficiency in hard information respecting this subject and welcome the participation of the Department of Health, Education and Welfare in the effort to learn more of the nature of the flammable fabrics problem.

For a number of years the American Trial Lawyers Association has maintained a consumer information exchange at the Editorial Offices of the American Trial Lawyers Journal in Watertown, Massachusetts. Those facilities and that information have been made available to the United States Public Health Service, and we will continue to cooperate in every way possible with the Injury Control Program of the United States Public Health Service.

The problem of burned people has been of tremendous concern and distress to the American Trial Lawyers Association. We are extremely pleased that this subject is again in the spotlight after 14 years. I wish to assure the Senators that the 25,000 lawyers I represent here today, almost to a man, are concerned about and deplore the hazardous conditions and circumstances in the home, on the highways and in industry that glut our court calendars with personal injury damage suits.

In terms of flammability, we think that at the heart of the problem are the flammable characteristics of cotton, and the cotton industry's projects to discover and improve methods for producing fire retardant cotton fabrics must be accelerated.

In our judgment, the economic spur applied by the damage suit, through the traditional method of our democratic trial by jury, can be a valuable and useful goad to the cotton industry to accomplish this public service endeavor.

The CHAIRMAN. Our next witness is Dr. Paul Winslow from the Children's Hospital, District of Columbia.

We will be glad to hear from you, Doctor.

#### STATEMENT OF DR. PAUL R. WINSLOW, CHILDREN'S HOSPITAL OF THE DISTRICT OF COLUMBIA, WASHINGTON, D.C.

DR. WINSLOW. Thank you.

Mr. Chairman, I am Paul R. Winslow, physician and surgeon, presently employed as a full-time research associate and instructor in surgery at Children's Hospital here in the District of Columbia.

Throughout the last 10 years I have devoted a large portion of my time to the investigation and treatment of burns and should like to take this opportunity to share some of my thoughts with you.

Of the estimated 2 million persons burned each year, about 100,000 require hospitalization. Eighty percent of these, or 80,000 cases, are considered minor—that is, they involved less than 20 percent of the skin surface, and if adequately treated should result in no mortality.

Twenty percent, or 20,000 cases, are considered major—that is, they involved more than 20 percent of the skin surface.

It is this latter group that causes the greatest concern to the physician due to the high mortality rate, the prolonged hospitalization, and the necessity of long and tedious reconstructive procedures.

However, even within this group there are 10,000 whose burns, though covering a large area, do not penetrate deep enough to produce full thickness skin loss and if carefully controlled will result in survival without significant disability or deformity.

The remaining 10 percent, or 10,000 cases, are responsible for the major disability and disfigurement so characteristic of the burn wound. It is these cases that require the utmost in medical and surgical care to obtain survival. It is also these cases which are primarily responsible for the high cost of care attributed to the burn.

When we consider measures to protect the populace from burns, we must consider the possible causes. Many statements have been made that the necessary supporting data is not available. I think this is not necessarily accurate. Arguments indicting such household goods as flammable liquids, clothing, gases, et cetera, are oversimplification.

Suffice it to say the burn results from a combination of heat and length of exposure to that heat. The higher the heat the less time it takes to produce a full thickness of burn.

Water from a hot water faucet usually has a temperature of 180° F., and exposure of skin to this temperature for a meager 15 seconds results in full thickness loss. The common, everyday cotton T-shirt burns at a temperature of 1,600° F. and exposure to this temperature for only 1 second produces the same full thickness burn.

Treatment of a fabric with flame retardant chemicals does not necessarily reduce the temperature at which the fabric burns but does reduce the ease with which it ignites. To simply reduce the speed with which it burns would only increase the possibility of full thickness loss. However, this is considering the fabric alone and not the person involved.

If we investigate the people involved we find certain high-risk age groups, primarily the very young and the elderly. Why are these persons more susceptible? To understand this we must consider their reactions to the dangers involved. If we study the common sources of heat involved in burns, we find by far the majority result from hot liquids and flame.

The reduced awareness and reactivity of the elderly usually results in prolonged exposure. Unfamiliarity of the child to the inherent dangers make him more susceptible, but it is his inappropriate reaction that is usually responsible for his sustaining a major burn.

Scalding from hot liquids is extremely frequent, resulting from curiosity about boiling pots on the stove, bounding into the tub without testing the water, or turning on the hot water in the shower. Sustaining such a burn, he usually sits and cries for his parents, resulting in prolonged exposure. Fortunately, it is rare that scalding results in full thickness loss.

His curiosity about flame is even more disastrous. Should clothing of any one of us here in this room catch fire, regardless of source of ignition, we would rapidly extinguish it by whatever means available,

resulting in a limited though painful minor burn. Not so in the child under 10 years of age. He will rapidly run to mother, fanning the flames higher until he is caught and the flames extinguished by an adult.

The result is all too frequently a major catastrophe and results not from the source of ignition, the type of clothing, nor the negligence of parents, but simply from the inappropriate reaction of the child. The slower burning the fabric, the greater opportunity the child has to reach an adult before more extensive burning occurs.

Now, what of results? With recent applications of newer techniques in burn treatment, marked reductions in mortality have occurred. However, greater survival results in more children grotesquely disfigured.

If I may, I should like to direct your attention to the photograph booklets.

These are pictures of children surviving typical major clothing burns treated here at Children's Hospital.

As you can see, the burn scars, developing in areas of full thickness loss, are a mute testimony to the inadequacy of treatment at the present time to control the major disability associated with burns.

Future research holds little promise in controlling this reaction, and it is this reaction that requires the long and tedious reconstructive and plastic procedures to produce an acceptable result.

What data do we have that will support the allegation that the treatment of clothing by flame-retardant chemical will significantly change these results?

In a study just completed, we have reviewed our experience with burns over the last 6 years. Of over 240 cases hospitalized for burns, 81 percent were considered minor and no deaths resulted. Nineteen percent were considered major, in which seven deaths occurred, a mortality rate of approximately 20 percent. Two of the deaths occurring early in the series are avoidable with present-day techniques. This leaves five deaths for an adjusted mortality rate of 14 percent.

More important, however is the percentage of major burns directly related to clothing. Of the five principal causes of major burns, including scalds, clothing fires were responsible for 60 percent. If we accept the fact that scalds rarely result in full thickness loss with its resultant disfigurement, we find that clothing fires were responsible for 79 percent of the burns requiring extensive hospitalization and major reconstructive surgery. The remaining 21 percent were the result of explosions or household fires.

Not a single case could be found that was directly attributable to toys, dolls, blankets, or other paraphernalia in the vicinity. Most often the child and his clothing were the only things burned.

The source of ignition of the clothing varies, as is to be expected. There were involved matches, flammable liquids, gas and electric ranges, open fires and electrical outlets. Only two mattress fires occurred, one set by an older sibling when the child was asleep and the second ignited by the child playing with an electrical wall socket adjacent to his crib.

It is of interest to note that in all of the household fires seldom did an adult sustain a major burn unless they were unable to remove themselves from the premises, while the child almost invariably did when clothing caught fire.

From these and previous studies I have become convinced that the only reasonable approach to the burn injury in children is prevention. Since the majority of major full thickness burns in children result from clothing burns, I see no other practical approach then the eventual elimination of flammable clothing for children under age 10.

Careful interrogation of parents and children involved in major clothing burns indicate the difficulty to be expected in appraising these people of the benefits of nonflammable clothing.

There was appalling agreement of all persons questioned to the opinions that if both nonflammable and flammable clothing of the same material design and color were made available at a 10-percent difference in cost: (1) They would have bought the cheaper flammable clothing prior to the incident; (2) they would now buy the more expensive nonflammable clothing for all their children; but more significantly (3) they seriously doubt that anyone not having a similar experience could be convinced of the efficacy of the increased cost and protection.

Therefore, it is my conclusion that simply providing a selection of nonflammable materials will do little to curb the burn injury. It would seem necessary to eliminate from the children's clothing market those fabrics, treated or untreated, which will independently support combustion once ignited.

Can this suggestion be achieved in a reasonable period of time? Inquiries sent to personal friends and relatives within the textile industry disclosed a confidence that, if sufficient demand and money were made available significant control of flammability of synthetic and natural fibers could be effected within 5 years and that the cost of an acceptable process would decrease rapidly once developed for commercial use.

How can the cost of research and development be justified? Investigation into the cost of care of the clothing burns at Children's Hospital during 1965-66 showed the cost to average approximately \$10,000 per patient for the first year. It is readily realized that, when all reconstructive surgery and rehabilitation treatments are over, the final cost will approximate \$30,000 per burn.

If we consider only the first year expenses for the 10,000 cases occurring each year, a 5-year period would represent a loss of \$500 million. The total cost would represent \$1,500 million.

Therefore, I am wholeheartedly in support of the proposed bill to strengthen and broaden the control of flammable fabrics. I should like to suggest, however, that due consideration be given to a proposal to set some reasonable time limit after which flammable materials will be severely restricted.

Thank you.

The CHAIRMAN. Thank you, Doctor. I think you made a significant contribution, which is a little unusual coming from a doctor—it usually comes from statisticians—as to what we like to call in public work projects the benefit-to-cost ratio in this particular instance.

You, as well as I suppose, all the doctor witnesses—the previous one from Presbyterian and all of you—suggest that when these things happen, they become very expensive cases for the people involved, and without adequate hospital insurance it could almost financially wreck a family, could it not?

Dr. WINSLOW. Yes, sir.

The study that we have, if I may, on a randomized sample of 14 patients admitted over the last 6 years, the total hospital charges for those 14 patients—and this is not primarily major clothing burns but this is of major burns—were \$60,000. This was the hospital charges.

Payment received, whether it be from welfare or from welfare organizations as well as insurance and from the patient, was \$54,000.

The loss to the hospital was the difference of about \$6,000 to the hospital alone. This is considered bad debt and has been written off the books.

If we take the principal sources of income back to the hospital from these injuries, we find that insurance and welfare pay the greatest proportion.

In our particular series, because we are located within the Cardozo school district, we are principally responsible to the welfare organizations, and approximately 60 percent of this \$60,000 was developed from Government sources.

So that we feel that very few people are capable of paying this type of expense, and since it is—

The CHAIRMAN. Well, if we did not have the welfare program, you would have many patients that could not afford to pay anything.

Dr. WINSLOW. Yes, sir.

The CHAIRMAN. And I am familiar with the operation of the Children's Hospital at a loss. I am constantly reminded of it by Mr. James Lemon once a year at least—my friend James.

Now, we are talking about, if we go into this research, taxpayers' money. But I would conclude that you have concluded that whatever we spend might save the taxpayers' money in research to get at this thing—

Dr. WINSLOW. Yes, sir.

The CHAIRMAN (continuing). Because of the tremendous cost per patient when welfare has to pay for it.

Dr. WINSLOW. Yes, sir.

The CHAIRMAN. I would think, generally speaking, that most of these clothing or other burns of children occur—we have statistics that they do occur—in low-income or welfare families.

Dr. WINSLOW. Yes, sir. Primarily.

The CHAIRMAN. And also I think you make another pertinent point—that even if there was adequate warning that the clothing was flammable, many of these people that we are talking about with the \$60,000 cost could probably ill afford to go down and buy that type of item anyway—

Dr. WINSLOW. Yes, sir.

The CHAIRMAN (continuing). If it is going to cost more, a great deal more, to make this clothing, children's clothing.

So you suggest that we proceed to open the avenue with the help of the Federal Government to see that this type of clothing for children does not have to be put on the market at all.

And, of course, I do hope the bill will allow at least the opportunity for the people involved to make such a decision if they deem it wise.

Dr. WINSLOW. Yes, sir.

The CHAIRMAN. And if it does not do that, we will see that the language will be broad enough and adequate so that they might.

It could possibly be in this case that the textile industry and the people themselves might wish this sort of thing.

It would take care of that liability we were just talking about, and I am sure there is no personal reason why they want to put things on the market when they could do otherwise that would not cause these troubles.

Now, both you doctors questioned why we have furnishings in this bill, because you deal mainly with clothing burns, and you do deal mainly with children. The reason we have no statistics on interior fabrics, interior decoration, is that in most of the cases because of the fabric the whole house burns down.

And you read about it at least once a week where three or four young children are burned up because the house burned up. And we don't know just how it burned up.

But at least if you had some fabrics in there that were not as flammable, it might not be the villain in the problem.

Dr. WINSLOW. I think this is true. I think as I recall, in the last year there were eight cases presented—

The CHAIRMAN. You read about them all the time.

Dr. WINSLOW (continuing). In the area of Metropolitan Washington, D.C., none of which reached Children's Hospital. They were all—

The CHAIRMAN. Yes.

Dr. WINSLOW. They were all DOA's at other hospitals.

The CHAIRMAN. The parents would be gone, and the youngsters would be at home, and nobody knows just what happened.

But at least if you have around the house fabrics that are not so flammable, we reduce a little bit the prospect of the house burning.

Dr. WINSLOW. Yes, sir. I think our major interest and major direction toward clothing is not necessarily to negate a responsibility in the other areas of fabrics, but necessarily that we feel that a more significant reduction will result from clothing. And the burns that we have studied principally that have survived and reached hospitalization have been those that are unrelated to household fires.

The statistics available to us as to the number of patients involved in household fires that survive without clothing being directly responsible or indirectly responsible are very limited, and those statistics really are not available to us in the medical profession. They probably are if we studied it in concert with fire departments and other controllable fire agencies.

But as far as the hospital itself is concerned, our biggest concern is, at the time of a burn, the survival of the child immediately.

Now, in Children's Hospital, when Mr. White asked me with regard to some of these statistics, I find myself reticent to take the time to stop and ask mother or parent who is there at the time how the accident occurred. Most of them are reasonably hysterical—understandably so. And the information obtained is somewhat nebulous.

But after that, approximately 3 to 4 weeks, or subsequently, even 6 months later, we find that their concern for intricate detail is very accurate.

And so it is not in the hospital record, but it could very well easily be obtained by retrospective studies after the incident of the burn.

The CHAIRMAN. Sometimes they don't do it. The fire department reports that the house burned down and a number of children or older people died in the fire.

Now, the reason we talk every once in a while about bedding—and we do not have adequate statistics on this—is that they involve people who cause their own fires, smoking I suppose. And they don't burn. They just suffocate.

Dr. WINSLOW. Yes, sir.

The CHAIRMAN. Because if there is not an actual fire, it smolders. Isn't that correct? There is a lot of suffocation?

Dr. WINSLOW. Well, it is very difficult to determine. By the time the individual has been overcome by smoke inhalation, there usually is a significant amount of fire in the area at the same time. So the result is a combination of smoke inhalation, which is very difficult to prove by autopsy statistics, in addition to a large, major burn.

Our concern right now and our feeling is primarily the result of the evidence that rarely does a patient die of a major burn within the first 8 hours regardless of the percent. Within 4 hours we feel that the majority of them can be transported into hospital facilities.

But smoke inhalation and suffocation result in a mortality within less than 5 minutes.

So that we feel—

The CHAIRMAN. It does? In less than 5 minutes?

Dr. WINSLOW. Yes, sir.

The CHAIRMAN. In some cases?

Dr. WINSLOW. So that this is the difficulty in arranging any amount of study that would allow us separation of those two factors.

The CHAIRMAN. Well, we thank you very much for your contribution.

Dr. WINSLOW. Yes, sir.

The CHAIRMAN. The next witness is Dr. Bergman, who is director of the Children's Orthopedic Hospital and Medical Center in Seattle.

Doctor, we are glad to hear from you. We are glad to welcome you back to Washington.

When I talked to Dr. Paul Winslow about the necessity of financing the Children's Hospital of Washington, I am constantly reminded of it by my friend James Lemon, and I want to suggest when I am home I am constantly reminded about the Children's Orthopedic Hospital too.

But we have, as you know, been able to help in getting some good grants for you people and personal contributions, because it is a similar type of institution.

We thank you for coming. We will be glad to hear from you.

**STATEMENT OF DR. ABRAHAM B. BERGMAN, DIRECTOR OF OUT-PATIENT SERVICES, CHILDREN'S ORTHOPEDIC HOSPITAL AND MEDICAL CENTER, SEATTLE, WASH.**

Dr. BERGMAN. Mr. Chairman, the treatment of burns remains completely unsatisfactory despite advances in other fields of medicine. We haven't materially improved the survival rate in over 30 years, nor have we done much to alter morbidity. The best plastic surgery still leaves terrible scars, as Dr. Winslow's illustrations show.

Our modern treatment of shock has merely meant that patients die 3 weeks after their burn rather than 3 days.

Perhaps we can save an occasional life by some treatment methods that have recently come on the scene—but there is little hope on the horizon that medical science will materially alter this grim picture. Therefore, if we want to do anything about the problem of burns, prevention is the only answer.

In view of the continuing toll of severe burn injuries, especially among young children, our current methods of prevention—namely, half-hearted safety slogans—must be considered a failure. Our efforts must be directed toward the source of the injury. The great majority of serious burns in children occur through ignition of their clothing. Passage of the Federal Flammable Fabrics Act Amendments of 1967 (S. 1003) will be a positive step toward solving the little publicized and appalling toll of clothing burns in the United States, and I am proud that the senior Senator from our State, and chairman of this committee, along with Senator Williams, is the sponsor of the bill.

Mr. Chairman, 3 weeks ago in Richland, Wash., a little 2½-year-old girl, Suzy, was playing in the living room with her older sister. The sister rushed into her parents' bedroom, crying, "Suzy's on fire!" Indeed she was. When her mother reached Suzy, she was a human torch. It was the all-too-familiar story. She was wearing a flannel nightgown, and there was a space heater in the room.

She sustained full-thickness burns (3d degree) over 85 percent of her body. The only areas spared were her lower legs and feet.

I have pictures of Suzy here with me, but have elected not to show them to you—there is no point. I didn't even have the heart to take my medical students into the room last week, because she looked so horrible.

It was apparent from the moment we saw Suzy that she must inevitably die—the question was only how long it would take. In cases such as this I earnestly pray that the end comes sooner, rather than later. There fell to me the job of talking to the parents every day, attempting to comfort them and prepare them for the outcome.

In fact, Suzy is still alive in Seattle today, but the outcome is still inevitable.

Understandably, Mr. Vanderwinn, a patrolman in a small town, and his wife had a difficult time accepting this. What finally seemed to help was their eventual realization that were a miracle to ensue, her life after surviving such a severe burn would be worse than death.

In all honesty I must say that I do not consider it a triumph when the life of a severely burned child is saved. A lifetime of operations, pain, disfigurement, scarring, and rejection by society and self lie ahead. Death may be more merciful.

This is the nightgown material, Mr. Chairman, that Suzy wore. This is a companion piece. She had two nightgowns. And here is another one of another little girl in the hospital, Margo. Here is the arm burned off of a nightgown.

Margo sustained only a rather small burn, 12 percent, but this 12 percent is the whole arm and the side of her face.

And this little girl is going to be successful as far as plastic surgery treatment is concerned.

But I would say that it was a distinct rarity for a child who has sustained a severe burn injury ever to go through life as a happy, productive citizen.

In my testimony I have mentioned several cases that we have had of children who have been treated at Children's Orthopedic Hospital for many years who are technically as good as plastic surgery can make them, but whose lives have been ruined by this injury.

Of course, children should be careful, and parents should be watchful to keep them from dangerous situations. However, children will always be curious, for this is how they learn. I believe accidents will always be with us, and it doesn't do much good to be morally indignant about how they occur, particularly when they involve children. Our most effective and realistic path would seem to be toward mitigating the serious effects of accidents.

Surely we must increase our efforts in safety education, but not use calls for safety education, which cost little and hurt no one, as a rapier to fend off action which will be more effective in achieving the end result. The target population for burn injuries, as I have mentioned, are not the people who read the magazine section of the New York Times, or Consumers Reports, and are not likely to be susceptible to educational efforts as we know them. They will continue to buy the cheapest clothes, and to heat their homes with space heaters and open fireplaces.

What is needed to prevent serious burn injuries is clothing which does not readily support combustion. I am not competent to speak about the technical aspects of flammability standards. I can only state that the less combustible the fabric that goes into children's clothing, and the more widely such clothing is distributed, the greater will be the reduction in mortality and morbidity from burn injuries.

The only practical method of assuring that children's clothing is relatively flame resistant is through Federal legislation such as S. 1003, allowing minimum standards to be set for fabric flammability.

The members of this committee should clearly recognize that any other methods, such as calling for voluntary efforts in the industry, would be temporizing. Everyone must abide by the same standards to both lower the cost of flame proofing, and prevent the responsible manufacturer from being undercut.

Dr. Winslow mentions the cost, and I would also like to go a little bit into cost-benefit analysis.

A special report on childhood burns was prepared by Dr. Gerald R. Bassett, director of the Washington State Crippled Children's Service, which I would like to submit as part of my testimony. He states that clothing fires are the No. 1 cause of burn injuries in children cared for by his program, and that these are most apt to involve the youngest of children. He points out that less than 1 percent of the Crippled Children's Services caseload consists of burn victims, yet these same individuals accounted for over 5 percent of the total program service expenditures for the same time period.

Mr. Chairman, in the United States, 6 percent of our gross national product is spent on health services. It is doubtful if we can or should commit a much higher percentage. Wise allocation of our existing resources is necessary. It is easier said than done, but priorities for

the health dollar should not be decided by the vociferousness of the backers of particular diseases.

Accident victims have no national organization representing them and they have no fundraising drives. An analogy might be drawn to the lack of a large consumer lobby in Washington. The fearless stand of this committee and you, sir, on the auto safety issue demonstrated to the American people that it is possible to pass major consumer protection legislation in the face of fantastic pressure to retain the status quo.

To place the burn problem in perspective, each year in the United States there is a death rate from burns which is practically twice as great as the number of cases—not deaths—of poliomyelitis that used to occur in the prevaccine era, yet the relative attention devoted to these problems by the public cannot be compared.

Using future earning capacity as a guideline for estimating cost-benefit ratio, it would see that a program for prevention of burns in children might be at least as good an investment as providing medical care to the aged. I'm not criticizing needed care for the aged, or for the diseases of the aged such as heart disease, cancer, and stroke. Other values besides future earning capacity exist.

I am saying that if Congress wishes to make a significant impact on the health of the American people, dollars for prevention are a better investment than dollars for health care.

Remember burns occur in previously well individuals, and every one is preventable.

The public has the image of physicians frequently saving lives. We save precious few lives. We are more in the health maintenance business. You Senators are in a position to save far more lives than physicians.

Dr. Lester Breslow, health director of the State of California, said at a recent meeting out in Seattle:

In terms of making a significant impact to improve the health of our citizens, if I were offered the choice of doubling the number of physicians in California tomorrow, or banning the sale of cigarettes, I would have little hesitation in choosing the latter.

Mr. Chairman, you can be justly proud of playing an instrumental role in founding the National Cancer Institute. The dividend for that accomplishment, however, will hopefully come from saving lives in the future. Far greater impact on the lives and health of our citizens today will accrue from your efforts in consumer safety legislation.

Flame-resistant clothing may cost the industry and consumer, particularly at first. I'm sure, however, that "sanforized" cloth and "durapress" cloth also cost a lot too when they were first developed. I have great faith in the ingenuity of the American textile industry. If a fraction of the effort that goes into salability goes into safety, flame-retardant fabric will be taken for granted, and cases like Suzy will indeed be a rarity.

I thank you very much for the privilege of appearing before this committee.

The CHAIRMAN. We appreciate your coming all this way to give us the benefit of your experience and your contribution to the committee.

I was going to ask this first: In your statement it seems to me that the cost figures of yourself and Dr. Winslow are around the same.

Dr. BERGMAN. Yes, sir.

The CHAIRMAN. They will run up to \$10,000 or \$11,000 and higher.

Dr. BERGMAN. Yes, sir.

The CHAIRMAN. And I think you gave us a good statistic that in the Crippled Children's Services caseloads only 1 percent of the children are there for burns, but they account for 5 percent of the total program of expenditures.

Dr. BERGMAN. That is correct, sir.

The CHAIRMAN. A case coming in, a burn case, costs five times more than the average other case?

Dr. BERGMAN. I might add, sir, that that statistic is even more striking because the Crippled Children's Services in our State do not even cover acute burn care. This is only for plastic surgery reconstructive care.

So if you put acute burn care into the hopper, it would be a much higher ratio.

The CHAIRMAN. So your conclusion that you draw is somewhat similar to the other two of your colleagues—that what we had better think about here—and this is our responsibility or where we can do something—is the prevention of these things.

Dr. BERGMAN. Yes, sir.

The CHAIRMAN. And I assume that you might generally agree with Dr. Winslow that we just have to do something so that these things do not come on the market, particularly children's clothing.

Dr. BERGMAN. Right.

The CHAIRMAN. Do you have any opinion concerning interior fabrics being included?

Dr. BERGMAN. Yes, sir. I have the same doubts as Dr. Winslow expressed.

The CHAIRMAN. But they could be a great cause. We ought to give whoever is going to handle this some authority to go in and see what they can do about that situation.

The bill does not provide any specific authorization as to amounts. We will have to meet that down in the Appropriation Committee when we get there, if the bill passes.

But you are also suggesting that in this whole field of health research—and I thank you for your kind remarks, because I have been involved in it quite a bit over the last few years—that maybe the questions of priority might be looked at a little more in depth?

We started years ago with cancer, and then we had polio, and now we are in heart and the so-called common killers.

But in the field of prevention I think you are correct. I do not think we have had any priorities particularly. It is the group that, as you say, is the most vociferous. Because they are all good.

I think you have offered a great suggestion to the Appropriations Committee. I will see that your testimony goes down there. The HEW appropriations will be meeting here very shortly. And we will see if we can't in this prevention field take a little better look at some of these things.

What experience have you had in the Seattle Hospital—and I suppose Dr. Winslow in the Children's Hospital here would have similar experience—in, other than burns, what we call the hazardous substance field?

Dr. BERGMAN. Not very much, sir. I think the main problem is clothing burns in children. That is the serious problem at the moment.

My experience is also comparable to Dr. Winslow's in that I have not seen or heard of any serious cases from the hazardous substances.

The CHAIRMAN. We have had some cases with mechanical toys.

There are some electrical shocks that are quite hazardous. We are establishing a commission to take a look at it.

There the industry has suggested that they can be very helpful because their research people have said over and over again that there must be a better way to make a light socket than the way they make it now, a safer one. And they put themselves up to that challenge.

It seems to me that you have posed a question here that the textile industry might have a challenge themselves in this case.

Dr. BERGMAN. I'd like to pose a challenge to the textile industry, when they call for more research, that perhaps they themselves might wish to finance some of the research.

It seems strange to me sometimes that those who are against all types of Government action want the Federal Government to spend the money for the research.

And I think it would behoove the industry itself to show some interest in compiling the statistics that they say don't exist.

Dr. Winslow presented some very beautiful statistics this morning. Other types of that material are available. I would sure like to see the textile industry help in that effort along with Government and not say that Government, only Government, can spend the money for research.

The CHAIRMAN. Sometimes it takes hearings such as this, sometimes threatened Government action, sometimes a persuasive "dip" together, and sometimes mandatory action to get people to do certain things.

That is why we have this Consumers' Subcommittee, and that is why we have involved ourselves in many, many consumer bills. They are not new around this committee. But there seems to be much more interest in them, and more things seem to be happening.

You agree though that we must get a few more statistics than we have?

Dr. BERGMAN. Yes.

The CHAIRMAN. And HEW can do that.

We thank you very much for coming, and we appreciate your contribution.

All right. Now Mr. William Segall of the Washington office of the National Cotton Council.

We will be glad to hear from you.

**STATEMENT OF WILLIAM M. SEGALL, ON BEHALF OF NATIONAL COTTON COUNCIL OF AMERICA, AND ALSO CHAIRMAN, COMMITTEE ON CLOTHING FLAMMABILITY, AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS; ACCOMPANIED BY J. BANKS YOUNG, WASHINGTON REPRESENTATIVE, NATIONAL COTTON COUNCIL OF AMERICA**

Mr. SEGALL. Mr. Chairman, I have with me Mr. J. Banks Young, who is Washington representative of the National Cotton Council.

The CHAIRMAN. We are glad to have him.

Again I want to announce, if some of the witnesses leave, that we will leave the record open, because we are dealing here with a complex matter, and sometimes the witnesses may want to add some material or more statistics that we are talking so much about.

I want to announce that yesterday the committee was going to pose a few more questions to the Chairman of the Federal Trade Commission, but in the interest of time we had to let him go. We are going to pose them to him in writing, and he will answer them in writing.

All right. Go ahead.

Mr. SEGALL. Mr. Chairman, on order to save the committee's time, I have filed a complete statement—

The CHAIRMAN. We will put it in the record in full.

Mr. SEGALL. Right, I will present only a summary of that statement. (The prepared statement of Mr. Segall follows:)

STATEMENT BY WILLIAM M. SEGALL, NATIONAL COTTON COUNCIL OF AMERICA

My name is William M. Segall, and I appear before you representing the National Cotton Council of America, which is the overall organization of the raw cotton industry with headquarters in Memphis, Tennessee. The Council is made up of, and represents, all seven branches of the industry that produce, handle and process raw cotton and cottonseed. These branches are producers, ginners, warehousemen, cooperatives, merchants, spinners, and cottonseed crushers in each of the nineteen cotton-producing states from the Carolinas to California.

In addition to representing the Council, I am also Chairman of the Committee on Clothing Flammability of the American Association of Textile Chemists and Colorists, ad hoc Chairman of the Testing Committee of the Information Council on Fabric Flammability, and a member of the Department of Commerce Standing Committee for CS 191, the current flammability standard for clothing fabric.

The raw cotton industry has always been willing to support any measures that promise to promote greater safety for consumers—those who wear or use items made from our product. But we are opposed to some of the provisions of S. 1003 because it is our feeling that (a) they will *not* necessarily contribute to greater safety; and (b) they have at least the potential of being harmful and disruptive to the operations of the raw cotton and cotton textile industry.

While we oppose the bill in its present form—and urge that it be amended or modified before adoption—the raw cotton industry pledges full cooperation with the Department of Commerce, the Department of Health, Education and Welfare, the Federal Trade Commission, and any other agencies of the Federal Government in working toward practical solutions to the problem of burn injuries, and in the development of treatments for textile materials, test methods, and flammability standards that can truly contribute to greater consumer safety.

Our reservations about S. 1003 stem from the fact that we are not sure what the proponents of the Bill have in mind.

In 1953, the 83rd Congress addressed itself to a clearly defined task. The Report on H.R. 5069, the Bill that later became the Flammable Fabrics Act, described that task as “. . . to discriminate between the conventional fabrics that present moderate and generally recognized hazards and the special types of fabrics which present unusual hazards and are highly dangerous.” In this, the Flammable Fabrics Act has done its job admirably.

This clearly defined scope—the elimination from the market of clothing fabrics that are highly dangerous *as defined by Commercial Standard 191-53*—is quite different from the present Bill, which expands the scope to “interior furnishings” where the need has not been clearly demonstrated, and refers to the “. . . unreasonable risk of the occurrence of fire . . .” but leaves the definition of what is unreasonable to some future determination.

The present Flammable Fabrics Act is restricted to wearing apparel, and the 83rd Congress resisted efforts to broaden it. Wearing apparel obviously calls for special attention because of the difficulty offered by buttons, zippers, and other fastenings. It takes time to remove a garment, and a garment is in intimate contact with the body; a blanket, however, can be thrown off the body, and one can

simply walk away from burning upholstery or drapery. "Interior furnishings" are no more unique in their ability to create hazard than the lumber used in building construction, or the newspapers and any other flammable items that exist in any other household.

The original proposals for flammability legislation in 1953 provided that changes in flammability standards could be made by the Secretary of Commerce—the same kind of provision that is in S. 1003. At that time, the industry objected to such a provision, and suggested that the Secretary of Commerce be restricted to the procedure that was then in effect for the development of Commodity Standards. The final Act embodies a compromise. Quoting from Report No. 400 of the U.S. Senate on H.R. 5069, "The compromise reached by the House Committee on the procedure to be used in . . . changes is a good one. The House solution places responsibility for changes in the applicable commercial standards on the Congress, where such responsibility should rest." We feel that this is still where the responsibility should rest in an issue which affects so broadly the interests of the general public and one of our country's major industries.

The Flammable Fabrics Act has worked well. It has done the job it was designed to do. Unusually hazardous, highly dangerous fabrics have been kept off the market. The problem is, of course, that accidents still occur—as a result of carelessness and other factors—and the majority of fabrics involved in these accidents are normal fabrics, that could not by any stretch of the imagination be considered unusually hazardous. Thus, it is generally recognized by fire safety experts and by textile authorities that no significant reduction in the number of accidents could be accomplished by (for example) a considerable increase in the permissible "time of burning" as currently specified in the flammability standard. On the other hand, even a slight increase in the permissible time of burning would remove from the market vast quantities of fabrics that we all wear and consider completely safe.

We recognize that there are certain shortcomings in the current flammability standard. It lacks precision, which means that while it can differentiate between fabrics that differ widely in their flammability characteristics—and this, after all, is what the test was designed to do—its ability to make finer distinctions is subject to question.

There is also some question about the validity of the test. Fabrics which in everyone's opinion are completely safe are sometimes eliminated from commerce because of the failure of the test to provide adequate discrimination of flame intensity. For example, I know of instances where two light-weight fabrics both burned rapidly—one with a small flame in less than  $3\frac{1}{2}$  seconds, the other with a voluminous flame in slightly more than  $3\frac{1}{2}$  seconds. The latter was undoubtedly the more dangerous fabric, but it passed the flammability test, while the fabric that burned with the small, non-intense flame was declared hazardous and banned from the market.

Another failure of the test method is that it does not take into account elements of hazard other than flaming. There are certain fabrics that resist flame propagation by melting and falling away. These thermoplastics are known to cause injury when used in apparel; the hot-melting characteristic of these synthetic fibers has been cited by medical authorities as a hazard frequently more serious than flaming; but since no "time of burning" can be established, fabrics made from these fibers pass the standard test. It is clear therefore, that we recognize the value of having some mechanism by which standards can be improved. But it is our feeling that changes in standards should be proposed to the Congress by the Secretary of Commerce as called for in the present Act. (The Secretary, incidentally, has proposed no change in the more than 13 years since the Act was adopted.) Our concern is that some unrealistic change will be made in the standards that will outlaw large quantities of cotton textiles—to the detriment of both the industry and the consumer.

There is a very real danger that standards arbitrarily promulgated would promote the use of certain specialized fire-resistant fibers at the expense of other fibers which may be more combustible but which have provided complete consumer satisfaction for centuries.

Modacrylic fibers have a degree of inherent flame resistance, and are being promoted for carpets, rugs, and certain clothing and household uses. These fibers are expensive and difficult to dye; they are non-absorbent and thus not comfortable in clothing; they have limited launderability. As yet, they are not a major factor in the textile market but arbitrary standards could give them an unfair advantage.

Glass fiber is another example. It is totally non-absorbent and would be unsuitable for any clothing use. It can cause skin rashes, and its low abrasion resistance and other disadvantages limit its acceptability to the consumer. But arbitrary standards could unfairly change this picture.

Even wool, an excellent natural fiber that is highly satisfactory for many uses, could unfairly profit from ill-drawn standards. Wool is quite fire resistant, and we are aware that certain interests favor the proposed legislation because they see in it the prospect of larger markets. However, the relatively high price of wool, its limited launderability, and its tendency to irritate the skin would make it entirely unsuitable for many uses, as for example baby blankets.

I want to make it clear that my references to other fibers are not intended to be critical. These fibers all have their place in the textile market, a place that is now and should continue to be determined by the consumer on the basis of price and performance. It would not be fair to the public or to the industry to provide a market for specialized fire-resistant fibers at the expense of other fibers that consumers find to be eminently more satisfactory.

A perfect example of the way in which a standard can unfairly discriminate in favor of certain fibers is provided by the British legislation known as The Children's Nightdresses Regulations 1964. There have been several references to the British law during hearings on these Bills and I would hate to think that it was being held up as an example to be emulated by the U.S. Congress.

In order to be considered suitable for children's nightdresses in England, a fabric must satisfy the requirements of British Standard 3121, "Performance Requirements of Fabrics Described as of Low Flammability." The test method consists of applying a flame to the bottom of a 72-inch strip of fabric, and measuring the time required for the flame to travel between two markers 50 inches apart. This time, in seconds, is multiplied by two to give the "flame-resistance rating". If this rating is more than 150 (or if reported "self-extinguishing" or "flame not propagated"), the fabric passes.

The problem arises with thermoplastic synthetic fibers which melt as well as burn. When nylon, for example, is tested in the form of a vertical strip, the burning material melts and falls away from the main body of the test specimen, thus extinguishing the flame. But we know that if such a thermoplastic fabric is supported on a framework of some type so that the melted material cannot fall away, the fabric burns vigorously. And in a garment, the body itself can act as such a framework. This situation prompted Mr. E. B. Jones of the British Textile Institute, the organization that developed the test method, to say in a recent technical article, "It has been found that notwithstanding the fact that a fabric containing synthetic fibers might pass the standard flammability test . . . nevertheless a garment made up from it might burn readily."

Whether the Children's Nightdresses Regulations have reduced burn accidents in England is questionable. The legislation has probably not been in effect long enough to tell. But there is no question that this law has created a market for nylon fabrics at the expense of other textile materials that are in many ways more suitable for this use but suffer from the arbitrary application of an unreasonable standard.

Another provision of the S. 1003 to which we take exception is the proposal that new standards, and hence further expansions of the scope of the Act, "shall become effective six months from the date on which such standards or amendments are published." It seems to us that six months is totally unrealistic. The Flammable Fabrics Act, when originally passed, provided a 12-month waiting period—in addition to the fact that the industry had had considerable prior experience with the standard, and thus knew to a large extent what fabrics would be excluded. It is a well established fact that many textile products are in the channels of trade for periods up to two years. So we would urge that this provision of the Bill be changed to give at least 18 months delay in the implementation of any new or amended standards.

We do support the authorization for the Secretary of Health, Education and Welfare to conduct investigations into deaths, injuries and losses resulting from burning. In the opinion of the industry, such investigations are long overdue. There is a complete lack of factual information on the subject of burn injuries involving textile fabrics. Figures cited in press releases and in the Congressional Record concerning these hearings are obviously conflicting and largely incorrect. Many of them refer to fires "involving" clothing. But "involving" cannot be taken as equivalent to "caused by". The person who is seriously

burned because he was sprayed with flaming oil by an exploding heater would have been injured no matter what he was wearing. Since most people wear clothing most of the time, it seems certain that clothing will be "involved" any time the wearer is exposed to a conflagration.

We hope that the proposed study by the Department of Health, Education and Welfare will fully assess causes, major and minor, of these accidents. From such studies information can be obtained on which to base significant work toward solutions of the whole problem of burn injuries.

We also favor the authorization for the Department of Commerce to conduct research on test methods, and on treatments to reduce the flammability of textiles. In our opinion, the best long-run answer to the problem of fire safety will be the development of efficient, economical fire retardant treatments applicable to a wide variety of fabrics. Unfortunately, this kind of treatment is not available now.

Chemical treatments of various kinds to prevent the burning of textile fabrics have been used for many years. Simple, non-durable treatments are still in fairly wide use—for applications such as drapery in public buildings—where properties such as hand and stiffness are not critical, and durability is not needed. But for most textile applications, a durable treatment is needed, one that has no adverse effect on other properties of the fabric or garments. At the present time, there are durable finishes suitable for certain applications—outdoor fabrics, and a few specialized clothing and household items. But, in general, these finishes are seriously deficient in that they greatly affect the texture and absorbency of the fabric, as well as other properties important in most applications. Their deficiencies are particularly apparent when applied to lighter weight fabrics, in which the need for added protection is generally greatest. Their effect on fabric properties is to a large extent a result of the excessive amount of chemical that must be added (frequently 0-22% of the weight of the fabric) to produce the flame resistance. This large "add-on" results also in high chemical cost, which makes the treated items in many cases too expensive to be acceptable to consumers.

And so there is a great need for research to develop improved fire resistant finishes, with lower cost, with minimum effect on other fabric properties, and if possible with other benefits that consumers find desirable. The U.S. Department of Agriculture has a long record of successful accomplishments in the area of fire resistant treatments. The raw cotton industry has encouraged this work by the Department, and we are confident that it will continue to produce significant advances. Scientists of the Department of Agriculture announced just last week a new process, designated THPOH, which while admittedly still in the experimental stage, appears to offer some improvements over currently available durable treatments. The cotton industry itself has increased its research effort in this direction. A project has been placed by the Cotton Producers Institute with a major research institute for the development of improved methods for producing fire retardant cotton fabrics. Additional research studies of this type are being planned.

In summary, the raw cotton industry is highly in favor of the proposed research and statistical studies that are provided in Section 10 of the bills. We have definite reservations, however, about the features of the bill that would (a) expand the scope of the Flammable Fabrics Act without any clear demonstration of need, and (b) place the authority for making changes in, or amendments to, flammability standards in the hands of an Executive Department. We urge that Congress give consideration to delaying action on both of these proposals until such time as the need can be shown, and firm, realistic standards can be proposed.

Mr. SEGALL. My name is William M. Segall, and I appear before you representing the National Cotton Council of America, which is the overall organization of the raw cotton industry with headquarters in Memphis, Tenn.

The council is made up of, and represents, all seven branches of the industry that produce, handle, and process raw cotton and cottonseed. These branches are producers, ginners, warehousemen, cooperatives,

merchants, spinners, and cottonseed crushers in each of the 19 cotton-producing States from the Carolinas to California.

In addition to representing the council, I am also chairman of the Committee on Clothing Flammability of the American Association of Textile Chemists & Colorists, ad hoc chairman of the Testing Committee of the Information Council on Fabric Flammability, and a member of the Department of Commerce Standing Committee for CS 191, the current flammability standard for clothing fabric.

The raw cotton industry has always been willing to support any measures that promise to promote greater safety for consumers—those who wear or use items made from our product. But we are opposed to some of the provisions of S.1003, because it is our feeling that (a) they will not necessarily contribute to greater safety; and (b) they have at least the potential of being harmful and disruptive to the operations of the raw cotton and cotton textile industry.

While we oppose the bill in its present form—and urge that it be amended or modified before adoption—the raw cotton industry pledges full cooperation with the Department of Commerce, the Department of Health, Education, and Welfare, the Federal Trade Commission, and any other agencies of the Federal Government in working toward practical solutions to the problem of burn injuries, and in the development of treatments for textile materials, test methods, and flammability standards that can truly contribute to greater consumer safety.

Our reservations about S. 1003 stem from the fact that we are not sure what the proponents of the bill have in mind.

In 1953, the 83d Congress addressed itself to a clearly defined task—the elimination from the market of clothing fabrics that are highly dangerous, as defined by commercial standard 191-53. This is quite different from the present bill which expands the scope to “interior furnishings” where the need has not been clearly demonstrated, and refers to the “. . . unreasonable risk of the occurrence of fire . . .” but leaves the definition of what is unreasonable to some future determination.

The present Flammable Fabrics Act is restricted to wearing apparel, and the 83d Congress resisted efforts to broaden it. Wearing apparel obviously calls for special attention because of the difficulty offered by buttons, zippers, and other fastenings. It takes time to remove a garment, and a garment is in intimate contact with the body; a blanket, however, can be thrown off the body, and one can simply walk away from burning upholstery or drapery. (It is this consideration, as well as the difficulty of testing, that accounts for the present exemption for hats, gloves, and footwear.)

“Interior furnishings” are no more unique in their ability to create hazard than the lumber used in building construction, or the newspapers and other flammable items that exist in any household.

The original proposals for flammability legislation in 1953 provided that changes in flammability standards could be made by the Secretary of Commerce—the same kind of provision that is in S. 1003. At that time, the industry objected to such a provision, and suggested that the Secretary of Commerce be restricted to the procedure that was then in effect for the development of commodity standards. The final act embodies a compromise.

Quoting from Report No. 400 of the U.S. Senate on H.R. 5069, the bill that later became the Flammable Fabrics Act:

The compromise reached by the House Committee on the procedure to be used in . . . changes is a good one. The House solution places responsibility for changes in the applicable commercial standards on the Congress, where such responsibility should rest.

We feel that this is still where the responsibility should rest in an issue which affects so broadly the interests of the general public and one of our country's major industries.

The Flammable Fabrics Act has worked well. It has done the job it was designed to do. Unusually hazardous, highly dangerous fabrics have been kept off the market. We recognize that there are certain shortcomings in the current flammability standards. It lacks precision, there is some question about its validity, and it does not take into account elements of hazard other than flaming.

We recognize the value of having some mechanism by which standards can be improved. But it is our feeling that changes in standards should be proposed to the Congress by the Secretary of Commerce as called for in the present act. (The Secretary, incidentally, has proposed no change in the more than 13 years since the act was adopted.)

Our concern is that some unrealistic change will be made in the standards that will outlaw large quantities of cotton textiles—to the detriment of both the industry and the consumer.

There is a very real danger that standards arbitrarily promulgated would promote the use of certain specialized fire-resistant fibers at the expense of other fibers which may be more combustible but which have provided complete consumer satisfaction for centuries.

A perfect example of the way in which a standard can unfairly discriminate in favor of certain fibers is provided by the British legislation known as the children's nightdresses regulations, 1964. There have been several references to the British law during hearings of these bills, and I would hate to think that it was being held up as an example to be emulated by the U.S. Congress.

In order to be considered suitable for children's nightdresses in England, a fabric must satisfy the requirements of the British Standard 3121, "Performance Requirements of Fabrics Described as of Low Flammability." The test method consists of applying a flame to the bottom of a 72-inch strip of fabric, and measuring the time required for the flame to travel between two markers 50 inches apart. This time, in seconds, is multiplied by two to give the "flame-resistance rating." If this rating is more than 150 (or if reported "self-extinguishing" or "flame not propagated"), the fabric passes.

The problem arises with thermoplastic synthetic fibers which melt as well as burn. When nylon, for example, is tested in the form of a vertical strip, the burning material melts and falls away from the main body of the test specimen, thus extinguishing the flame. But we know that if such a thermoplastic fabric is supported on a framework of some type so that the melted material cannot fall away, the fabric burns vigorously. And in a garment, the body itself acts as such a framework.

This situation prompted Mr. E. B. Jones, of the British Textile Institute, the organization that developed the test method, to say in a recent technical article:

It has been found that notwithstanding the fact that a fabric containing synthetic fibers might pass the standard flammability test . . . nevertheless a garment made up from it might burn readily.

Whether the children's nightdresses regulations have reduced burn accidents in England is questionable. The legislation has probably not been in effect long enough to tell. But there is no question that this law has created a market for nylon fabrics at the expense of other textile materials that are in many ways more suitable for this use but suffer from the arbitrary application of an unreasonable standard.

We do support the authorization for the Secretary of Health, Education, and Welfare to conduct investigations into deaths, injuries, and losses resulting from burning. In the opinion of the industry, such investigations are long overdue.

We also favor the authorization for the Department of Commerce to conduct research on test methods, and on treatments to reduce the flammability of textiles.

In our opinion the best long-run answer to the problem of fire safety will be the development of efficient, economical fire-retardant treatments applicable to a wide variety of fabrics. Unfortunately, this kind of treatment is not available now.

For most textile applications, a durable treatment is needed, one that has no adverse effect on other properties of the fabric or garments. At the present time, there are durable finishes suitable for certain applications but, in general, these finishes are seriously deficient in that they greatly affect the texture and absorbency of the fabric, as well as other properties important in most applications. Their deficiencies are particularly apparent when applied to lighter weight fabrics, in which the need for added protection is generally greatest.

The U.S. Department of Agriculture has a long record of successful accomplishments in the area of fire-resistant treatments. The raw cotton industry has encouraged this work by the Department, and we are confident that it will continue to produce significant advances.

Scientists of the Department of Agriculture announced just last week a new process, designated THPOH, which while admittedly still in the experimental stage appears to offer some improvements over currently available durable treatments.

The cotton industry itself has increased its research effort in this direction. A project has been placed by the Cotton Producers Institute with a major research institute for the development of improved methods for producing fire-retardant cotton fabrics. Additional research studies of this type are being planned.

In summary, the raw cotton industry is highly in favor of the proposed research and statistical studies that are provided in section 10 of the bill. We have definite reservations, however, about the features of the bill that would (a) expand the scope of the Flammable Fabrics Act without any clear demonstration of need, and (b) place the authority for making changes in, or amendments to, flammability standards in the hands of an executive department.

We urge that Congress give consideration to delaying action on both of these proposals until such time as the need can be shown, and firm, realistic standards can be proposed.

Thank you.

The CHAIRMAN. Well, now, the chairman and you could go into the question of demonstration of need all day and probably come up with opposite conclusions.

I think what we are trying to do is at least, as maybe you even suggest, make further progress in this field, because there are a great number of people who feel that there is a need and a great number of Members of the Senate who feel there is a need such as they did in 1953.

But you say the Secretary of Commerce has not suggested any amendments to the 1953 act in 13 years, which is correct officially. During those 13 years do you have any statistics as to the percentage the industry has put into research, percentage of their expenditures?

Mr. SEGALL. Into research on fire retardant—

The CHAIRMAN. On flammable products.

Mr. SEGALL. No, sir. I would have no idea.

The CHAIRMAN. Well, tell us them, if you do not have those statistics dollarwise, what have they done since the 1953 act?

You are on one of the committees, are you not?

Mr. SEGALL. Yes, sir. I am on several of the committees. There has not been much progress in the development of fire-retardant textiles. This is perhaps due to a lack of success in research: there is no guarantee in any research area that you can be successful in that research.

There has been work done in this area, but I know of no great strides that have been made since the early 1950's, the work of the Department of Agriculture which resulted in the THPC treatment.

The CHAIRMAN. Has the work that has been done been done by the industry as a whole, or has it been done by individual textile people within their own house?

Mr. SEGALL. Individual textile companies, as well as the chemical industry, which has a considerable stake in such a market, have been working on this literally for decades.

The only important durable treatment that exists now happen to have been developed by Government research in the Department of Agriculture.

The CHAIRMAN. Is that this new one you talk about?

Mr. SEGALL. No. It is a treatment called THPC which is a fore-runner of the work that I mentioned in my statement.

The CHAIRMAN. Does the Department of Agriculture under the present law have any means other than suggesting of enforcement in these cases if they came to the definite conclusion this should be done?

Mr. SEGALL. No, sir.

The CHAIRMAN. Don't you think that there should be—if everyone comes to the conclusion that there is a demonstration of need—a process, a method whereby someone ought to be able to say, "This is what you do"?

Let's take children's clothes.

Mr. SEGALL. Yes, sir. I think Congress has that opportunity, and should say what is to be done.

The CHAIRMAN. If we found out in the field of children's clothing that nonflammable materials should not be put on the market, would you believe that the Government should have the authority to make it mandatory?

Mr. SEGALL. I'm sure the Government has such an authority. And if I were convinced that there were some practical way of doing it—

The CHAIRMAN. I understand.

Mr. SEGALL (continuing). I would be in favor of it.

The CHAIRMAN. Well, who would have the authority in government now under the present law?

Mr. SEGALL. The authority? Congress has the authority to pass the law.

The CHAIRMAN. Well, but they would have—

Mr. SEGALL. Enforcement would be by the Federal Trade Commission.

The CHAIRMAN. Excuse me. I think I stated my question wrong. There is no executive department that now has that authority?

Mr. SEGALL. No, sir.

The CHAIRMAN. And if Congress decided to pass a law, they would have to delegate that authority to some executive department, would they not?

Mr. SEGALL. They would have to delegate the enforcement responsibility.

The CHAIRMAN. Yes.

Mr. SEGALL. Certainly—as they have delegated the enforcement responsibility of the Flammable Fabrics Act to the Federal Trade Commission.

The CHAIRMAN. Federal Trade Commission.

And isn't this bill merely an extension of the pattern that we set in the 1953 act to different types of materials, other types, further types?

Mr. SEGALL. With this exception, Mr. Chairman: In 1953 the Flammable Fabrics Act was passed to cover clothing fabrics. A standard existed at that time which would cover them, so that the industry knew what it was faced with.

You are considering legislation now in which the industry does not know what could happen.

Mr. YOUNG. The difference, Mr. Chairman, is that the Congress put the flammability standard in the Flammable Fabrics Act of 1953, whereas the current bill would authorize the Secretary of Commerce to promulgate standards.

The CHAIRMAN. Well, I don't think we spelled out the standards in 1953.

Mr. SEGALL. Yes, sir; you did.

Mr. YOUNG. It did so by reference to the standard number in the act.

The CHAIRMAN. We put a minimum on them as I remember the act. I will get the act and put it in the record.

Mr. SEGALL. The act contains the number of the standard, which is CS-191-53.

The CHAIRMAN. This is the committee you are on?

Mr. SEGALL. That is the standing committee on which I sit. That commercial standard is a document which sets up the standards, and that was, in effect, frozen by Congress in passing the Flammable Fabrics Act.

That standard cannot be changed without congressional action.

The CHAIRMAN. It was a minimum as I remember it. Anyway, we will check on it.

That is as I remember it. Now, this is a long time ago. It was a minimum standard.

Mr. SEGALL. Would you like me to describe the standard—

The CHAIRMAN. Yes.

Mr. SEGALL (continuing). And test method?

The CHAIRMAN. Yes. I think we ought to have it for the record, because you have been working with it a long time, and I have not.

Mr. SEGALL. Yes, sir.

The test method for testing fabrics for clothing flammability consists of applying a flame to a 6- by 2-inch sample of fabrics which is arranged at a 45° angle. The flame is applied to the face of the specimen at its base, and the amount of time for the flame to travel over 5 inches of that fabric is measured by a stopwatch.

The time is set by the standard. For flat fabrics it is 3.5 seconds. For raised fabrics, as they are called, napped fabrics (flannels, et cetera) the time is 4 seconds.

And this is the standard, in essence. If a fabric burns in less time than that, it fails the standard and hence cannot be—

The CHAIRMAN. Put on the market?

Mr. SEGALL. Put on the market.

The CHAIRMAN. Who makes these tests? Who has been making them?

Mr. SEGALL. The tests are made by the manufacturers themselves in order to control their own production. They are made by the Federal Trade Commission obviously where there is an enforcement question about the act, when there are fabrics picked up on the market which might be dangerous.

There are a number of private laboratories who are equipped to do this for manufacturers who do not want to do their own testing.

The CHAIRMAN. And the findings in many cases of these private laboratories are accepted usually by the—

Mr. SEGALL. Are accepted; yes.

The CHAIRMAN (continuing). By, say, the Federal Trade Commission.

Obviously, the testimony is that the standard that you mention is not adequate.

Mr. SEGALL. In my complete statement I pointed out a number of shortcomings of the standard and discussed them. There is work going on right now to amend that standard.

We had a meeting on Tuesday of this week at which the standards were discussed and amendments were proposed.

The CHAIRMAN. This week?

Mr. SEGALL. This week.

The CHAIRMAN. That was a very appropriate time to have it—this week. We sent out announcements of this hearing a week ago. And I can understand that.

Mr. SEGALL. I plead not guilty on that; those meetings are called by the Department of Commerce, not by the industry.

The CHAIRMAN. I understand.

Mr. SEGALL. It is a Department of Commerce committee, not an industry committee.

The CHAIRMAN. Well we have that problem with departments, too, you know.

Mr. SEGALL. This committee has been meeting over the past year and a half since you, Mr. Chairman, wrote a letter to the Secretary of Commerce asking him to investigate the standard.

At that time the standing committee was reconstituted.

The CHAIRMAN. We were concerned about the adequacy of standards, whether technology over 13 years has changed things, or whether the standards that you folks have are any good at all.

But you suggest now that we set the standards in the bill. We still have to delegate the authority to enforce it. And we have some legislative oversight responsibility to that department.

But when the British did it in their 1964 act, you say we should not follow their procedure.

Mr. SEGALL. I said they did a very poor job.

The CHAIRMAN. Do you think we should do a more strict and better job?

Mr. SEGALL. Yes, sir.

The CHAIRMAN. Who is going to give this committee the information of the standard that would take care of the situation we have heard about?

Mr. SEGALL. I would hope that a group similar to the standing committee for the present commercial standard, which has representatives of industry, the consumer, and government.

The CHAIRMAN. You figure that we could rely upon them for information?

Mr. SEGALL. I would hope so.

The CHAIRMAN. Well, we would have to get it someplace.

Mr. SEGALL. Yes.

The CHAIRMAN. We are not experts in it.

Mr. SEGALL. Yes.

The CHAIRMAN. Now, I think you must realize that in the past 2 or 3 years on all of these bills relating to consumer safety we have followed pretty much of a pattern of delegating the authority to an agency to meet with industry, to look at what research is available to talk with people who have experts in the field, and for them to set the standards.

But you don't think this should apply to the flammable fabrics standards?

Mr. SEGALL. That's correct. I do not.

The CHAIRMAN. Because, frankly, I think we are very inadequate ourselves in setting the standards, and our experience with the 1963 act has probably proven that—that the standard or at least the framework of the standard we set hasn't been adequate.

Mr. SEGALL. As I said in my statement, I am not unhappy with the Flammable Fabrics Act. I think it has done the job that Congress intended it to do.

I think it ruled off the market fabrics like the "torch sweater" and the brushed rayon cowboy chaps and the various fabrics that Congress at that time realized had to be ruled off the market.

This is what it was designed for, and this it did admirably.

The CHAIRMAN. Well, I think, of course, in the whole field of fabric manufacture, textile manufacture, there have been some great changes technically and technologically—new types of fabrics, substitutes for cotton, wool, combinations.

It has been an expanding, almost—I hate to use this term—it has been almost explosive, hasn't it?

Mr. SEGALL. I don't like the term either.

The CHAIRMAN. In this field?

Mr. SEGALL. Yes, sir. And I would hope that this could be taken care of by the same type of provision that is made in the current Flammable Fabrics Act, a provision for the Secretary of Commerce to recommend to the Congress that changes be made.

The CHAIRMAN. Now, tell me this for the record: Under the 1953 act there were as I recall—I do not have them here, but we will put them in—certain procedures set up for the Secretary of Commerce to meet with industries or committees, were there not? Well, have they done that?

Mr. SEGALL. No, sir—

The CHAIRMAN. We suggested that in the report, didn't we?

Mr. SEGALL. Yes in the report.

The CHAIRMAN. That they meet and discuss things, yes. We didn't spell out when and how.

Mr. SEGALL. The standing committee for CS-191, the group on which I sit which oversees the commercial standards, did not have a meeting between 1955, if I recall correctly, and the fall of 1965. It was completely dormant during that 10-year period. It was reconstituted in 1965.

The CHAIRMAN. It met at first, then there was a hiatus in there, and now you are starting again?

Mr. SEGALL. No, it has been active since you wrote the letter to the Secretary in November of 1965.

The CHAIRMAN. Yes. I mean—

Mr. SEGALL. It has been active.

The CHAIRMAN. There was that hiatus of about 10 or 11 years, wasn't there?

Mr. SEGALL. There was a hiatus of some 10 years.

Incidentally, if I may comment, Mr. Chairman, this development of standards is not as easy as it might seem. The current standard, the standard that I just described, took some 7 years to develop, from 1946.

In 1946 the equipment existed essentially as it exists now, but the refinements of that equipment took 7 years from 1946 to 1953.

The CHAIRMAN. By "equipment," what do you mean?

Mr. SEGALL. I mean the physical equipment on which the test is based, the rack for mounting the fabric specimen, the ignition medium, the means for measuring the time all existed in 1946 essentially as they are now. But refinements of that method were worked on constantly from 1946 to 1953 before either the industry or the Government felt that it had a standard that it could rely on.

The CHAIRMAN. Who was working on it?

Mr. SEGALL. It was being worked on by the headquarters staff of the American Association of Textile Chemists & Colorists, the organization for which I am now chairman of the flammability committee. I was not chairman of that committee at that time.

But they have a laboratory, and their staff was working on this method all those years and producing reports every year.

The CHAIRMAN. What you say I assume is correct factually—depending on how much of their efforts they put into it. You say that they did. But it is hard to understand that it would take that long to be able to find something that would burn a fabric to determine whether or not it was flammable.

Mr. SEGALL. The problem is—

The CHAIRMAN. We had some tests here the other day that took us about 5 minutes and we could find out whether they were flammable.

Mr. SEGALL. The problem is, Mr. Chairman, not in determining—

The CHAIRMAN. Isn't it a problem of everybody dragging their heels in this whole field?

Mr. SEGALL. No, sir. No, sir, it was not.

The CHAIRMAN. Well, I think it is.

Mr. SEGALL. If I may make the statement, Mr. Chairman, it is not a matter of determining whether a fabric will burn, because the shirt I have on will burn.

The CHAIRMAN. Yes.

Mr. SEGALL. But everyone agrees, or agreed at that time, that this was not a dangerous fabric. We had fabrics that we agreed were not dangerous; we had fabrics that a majority of us would agree were dangerous. The problem was to find a test which would always rule out the dangerous fabrics and always leave in the safe fabrics. And this is not as easy as it sounds.

The CHAIRMAN. Well, I say I am no expert in it, but it seems to me that it shouldn't have taken that long.

Mr. SEGALL. And that is the problem with the current amendment, in that no one has said to me or to anyone else, "this is a dangerous fabric."

The CHAIRMAN. Well, I think then we begin to quarrel about the relative danger of a fabric as it affects the market or as it affects the cost or as it affects the life of a child.

Mr. SEGALL. Or even as it affects the life of a child, yes.

The CHAIRMAN. What weight do we put on it?

Mr. SEGALL. I don't have the answer to that.

The CHAIRMAN. Well, I know what side I would be on, but I'm no expert. I would put the weight—I would err on the side of safety, if you were going to err.

Why not have stringent standards?

That's what I can't understand.

Mr. SEGALL. The answer is that you rule off the market too many fabrics which the consumer is happy with.

The CHAIRMAN. That are now on?

Mr. SEGALL. That are now on and that the consumer is happy with.

Mr. YOUNG. Or, Mr. Chairman, you require the kind of treatment that will adversely affect absorption and other qualities that the consumer wants.

The CHAIRMAN. And you would have to change a great deal of the buying habits of people who buy all types of textiles I would think.

Mr. YOUNG. That is correct, sir. You see, in the automobile—

The CHAIRMAN. I see some ladies in this room, and I suppose sometimes they go down and buy drapes and other items by the feel.

Mr. YOUNG. As I understand the automobile safety problem, you still do not require changes to make a car safer that would prohibit a

car from transporting a person from here to the place he wanted to go. But here you might require a fire retardent treatment that would completely eliminate, or potentially eliminate, some of the desirable characteristics of the fabric, some that the fabric is bought for.

I will use absorption as an illustration.

The CHAIRMAN. Because of the complexity of some of these automobile safety suggestions and because of the things we mentioned, this is why we deliberately said that the authority to make the standards should be delegated to an executive department who would in turn meet with everybody and try to work these out and err, we hope, on the side of safety if they were going to err.

Mr. YOUNG. But if the only way you err on the side of safety is to require a treatment that will prevent the fabric from burning and that treatment also eliminates the absorption and that's the purpose that the consumer wants the fabric for—

The CHAIRMAN. Yes, I understand.

Mr. YOUNG (continuing). Then you might as well take the fabric off the market.

The CHAIRMAN. Well, that is why is it so difficult for us to write a standard here in Congress. I think these things should be worked out, and I would be hopeful they would be worked out. I do not suppose we will ever eliminate it all, but we do want to reduce to a minimum the possibility of fabrics burning and still make them palatable and usable for the American public for what they want.

I don't see how we can write that into a law. If it took that group 7 years to work with a machine, it would take us 17 up here to agree on language.

Mr. YOUNG. Well, it is a judgment factor, and I would rely on the Congress judgment a little ahead of the judgment of a Cabinet officer. And this is no reflection on any Cabinet officer.

The CHAIRMAN. Well, this committee seems to be of the opinion that, whether we are ahead or behind, we ought to let somebody start to do it and then we take a look at them. If they are not doing it fast enough, like in automobile safety, we will, in effect, jump on them.

Do you have any objection to extending—let's just take this part of the act—to extending these other items to the scope of the 1953 act? Let's leave out the procedures.

Mr. SEGALL. What other items? Interior furnishings?

The CHAIRMAN. Yes.

Mr. SEGALL. Yes, because I don't know that anyone has demonstrated need or shown that hazard could be measured. When someone does that, then I think they probably should be included.

Mr. YOUNG. Let's take the cotton baby-receiving blanket as an illustration, Mr. Chairman. If the fabric from which those blankets were made were brought within the purview of the existing act and required to pass the existing standard in order to be sold, they would not pass the existing standard.

But we cannot find one instance of a child being injured by being burned from a baby blanket, a cotton baby-receiving blanket.

If you lay a cigarette on it it will char but it would not flame.

Oh, you can burn it. It will burn. It would not pass the test. But there's no record off the hundreds of millions of blankets of a child being injured from a cotton baby blanket.

The CHAIRMAN. Well, I don't know. We are going to have some other testimony. I have the opposite impression. I don't know.

Mr. YOUNG. Well, we have correspondence from the Federal Trade Commission indicating they have no record of such injury.

The CHAIRMAN. A certain type of baby blanket? Is that correct?

Mr. YOUNG. A cotton baby-receiving blanket, the common type used by mothers.

The CHAIRMAN. Surely there have been many children burned from baby blankets on the market.

Mr. YOUNG. Well, the blanket that was covered by the proposed legislation of a year or so ago, there is no record that we can find in Government or outside of Government of a child being injured from that blanket burning.

The CHAIRMAN. I will accept your word for it. I don't know.

Do you have any objection to extending this to children's clothing?

Mr. SEGALL. I don't know how it would be done. I don't know what the children's clothing would be treated with at the moment to solve the problem.

The CHAIRMAN. But you think interior drapes and covers, couch covers, and bedding, and those things should be exempt?

Mr. SEGALL. Until the need has been demonstrated.

Interior drapes, of course, are covered in places of public assembly by municipal ordinances and are treated in many cases with nondurable treatments which can be simply applied. There is no problem of hand—

The CHAIRMAN. That is true. I think we ought to always keep in mind that there are different regulations on public places than there are private. And I think most of the cities at least have strict fire ordinances on flammable fabrics in public places.

But we run into instance after instance where either they are not enforced or they have no ordinance or fire regulation at all or the person when he bought it didn't understand how flammable it was or it was not stated by the person that manufactured it or by the person that sold it. He might have thought he was complying.

And the lack of money to inspect all the time is prevalent in many cities. They will inspect a new building as to fireproofing, the actual corridor construction, but after the building is completed, too many city inspectors walk away.

Then they start to furnish it, and that is what causes a lot of these accidents. One that comes to my mind is that one in Montgomery, Ala.

But when you get beyond a city ordinance, you find very, very few regulations on flammable equipment and flammable fabrics. Very few.

Mr. YOUNG. Mr. Chairman—

The CHAIRMAN. Particularly out in the counties and in the great numbers of homes now that are semipublic that may be an aged home or nursing home or combination of that type.

Mr. YOUNG. Mr. Chairman, may I refer back to the baby blanket again? Please pardon this personal reference but we have discussed people suffering from burns. I happen to have an allergy. I am allergic to certain types of fabrics. I don't think anybody knows how much suffering you might cause on the part of children if you required those baby blankets to be fireproofed.

When my face touches a certain kind of fabric, within 12 hours my face is as burning as if caused by a flame. It takes about 3 days for cortisone to get that fire out.

The CHAIRMAN. Well, you submit to the committee for their consideration such amendments or such modifications of the bill as you think in your mind are desirable, and we will give them consideration.

Mr. SEGALL. Thank you, sir.

Mr. YOUNG. Thank you very much, Mr. Chairman.

The CHAIRMAN. Mr. W. Frank Evans, president of Red Kap division of Blue Bell, Inc., Nashville, Tenn., representing the American Apparel Manufacturers Association with offices here in Washington.

He is accompanied by Ellis E. Meredith, the executive vice president of the Apparel Manufacturers Association, and John H. Brebbia, associate general counsel of the same association.

We are glad to have you all here, and we are glad to hear from you.

**STATEMENT OF W. FRANK EVANS, PRESIDENT, AMERICAN APPAREL MANUFACTURERS ASSOCIATION; ACCOMPANIED BY ELLIS E. MEREDITH, EXECUTIVE VICE PRESIDENT, AND JOHN H. BREBBIA, ASSOCIATE GENERAL COUNSEL**

Mr. EVANS. Mr. Chairman, I am appearing before you today on behalf of the American Apparel Manufacturers Association of which I am president. The association has members in 41 States manufacturing all major items of wearing apparel for men, women, and children. Total volume represented by the association's membership is estimated at more than \$6 billion at manufacturers' wholesale prices.

I should like to say at the outset that the association and its members will wholeheartedly endorse and support any reasonable program aided at improving consumer safety. Our association is convinced, however, that we need a great deal more information as to the nature of whatever problems exist before recommending ways to remedy or alleviate them.

For this reason, we believe that any intelligent approach to the problem must begin with the conduct of the studies and research called for in section 10 of the proposed bill. Such studies should result in the assembling of a body of information regarding deaths and injuries due to burning wherein apparel items are involved. They should also help ascertain what connection, if any, actually existed between whatever deaths or injuries have occurred and the fact that a particular item of apparel was being worn by the victim at the time.

In addition, studies with regard to the reduction of flammability of apparel items and the development of better flammability test methods and devices should go a long way toward alleviating any problems that might be uncovered by such studies.

Accordingly, our association recommends the immediate adoption of section 10 of this bill.

In addressing ourselves to the remaining provisions of S. 1003, we do not feel it proper to comment upon those portions which would expand the coverage of the act to products other than apparel. Our products are already covered, and my remarks will be limited to the effect of the proposed amendments on our membership.

At this point it may be useful to comment briefly upon the history of the present act. Congressional hearings were held on the subject of flammable fabrics as far back as the year 1945, but none of them resulted in legislation being enacted until the present act was passed in 1953.

The impetus for this legislation was a rash of burnings which occurred in connection with (1) highly flammable sweaters made of brushed rayon and (2) highly flammable children's cowboy playsuits.

At that time, the Federal Trade Commission advised this committee that the existing statutes were not adequate to forestall continued danger to the public as a result of the introduction of dangerously flammable garments into the stream of interstate commerce. Industry stood uniformly behind the then proposed grant of authority because it realized the need for corrective action and realized also the need for uniform enforcement of that authority from State to State.

In the course of their deliberations as to the present act, the House and Senate committees handling the bill both characterized the major problem as that of discriminating between the conventional fabrics that present moderate and generally recognized hazards and the special types of fabrics which present unusual hazards and are highly dangerous.

We submit that, with regard to wearing apparel, the problem does not differ today from what it was then. Present legislation was aimed at correcting all of the then-known abuses in the apparel field and to our knowledge it was successful in doing so.

We are unaware of any pressing problems concerning the inadequacy of the present standard governing wearing apparel and therefore assume that the main thrust of these amendments is to expand the coverage of the act to include other items which are not of direct concern to our industry.

Unfortunately, from our point of view, in so doing the amendments also seek to confer power on the Secretary of Commerce to promulgate flammability standards. That issue was the subject of much debate during the course of hearings on the original bill.

At the time industry expressed serious reservations as to the granting of such power, and Congress responded by writing into the statute commercial standards 191-53 (clothing textiles) and 192-53 (vinyl plastic film).

Commercial standard 191-53 was a voluntary standard developed through the combined efforts of representatives of the cotton and rayon producers, fabric manufacturers, finishers, converters, wholesalers, retailers, and consumers in cooperation with the National Bureau of Standards. Commercial standard 192-53 was industry approved as well.

The CHAIRMAN. As I remember now, Mr. Evans, the Senate version of the bill, at least at the beginning, was somewhat similar to this approach of the Secretary. Then the House insisted that the standard be put in, and in conference we agreed to it as I remember. Do you remember that?

Mr. EVANS. I think you are correct, yes, Senator.

The CHAIRMAN. I will check on it, but that is the way I remember it now.

But in conference they said we should write the standard that was referred to here.

Mr. EVANS. I think the issue at the time and what we are going by has been mentioned in previous testimony this morning.

The CHAIRMAN. I will check the old report and get it into the record.

Go ahead.

Mr. EVANS. As we read S. 1003, it would leave the present standards in effect until such times as new ones were promulgated and put into effect. As a result, even if the amendments were adopted in their present form, there would be no immediate changes which would affect the apparel industry.

Therefore, it would appear that consumer flammability safety ends would just as well be served in the apparel field by having Congress retain its standard-setting authority and ordering the conduct of studies in this area provided for in section 10 of the amendments.

Once the studies are completed, if they indicate a need for a change in standards, then the change could easily be made by Congress as appropriate new standards were developed.

In the event Congress does deem it necessary to amend the present act in this respect, it is our view that the proposed legislation is of sufficient import to warrant express provisions for:

1. Application of the Administrative Procedures Act to any and all Department of Commerce proceedings in connection with the act;
2. Judicial review of any mandatory standards or amendments which are promulgated by the Department.

With regard to the other provisions of the proposed amendments, there are several which appear on the surface to be unduly burdensome and which would, if left in the present form, put apparel manufacturers to undue expense.

Of immediate concern is the failure to provide an exemption from the provisions of the act for those fabrics or finished products which have already entered the stream of commerce when a new or revised standard is adopted. It is easy to imagine the possible financial consequences when, as has already been mentioned, our members alone account for more than \$6 billion worth of apparel annually at wholesale prices.

In addition, one would have to take into account the vast stocks of yard goods on hand and in transit, from which the finished products are made. Losses in this area would work a particular hardship upon the smaller firms.

It may be that the best way to remedy this deficiency would be to provide a minimum effective date of 18 months from the date of publication for any new standards. The resulting timelag should be sufficient to allow every level of distribution to eliminate inventories of the products in question.

The new recordkeeping provisions are another matter of concern to our members. The proposed changes would appear to require more records than are necessary to show compliance with the law which is their apparent aim.

Inasmuch as the practice in the apparel industry is for the fabric suppliers to stamp the guarantees upon their invoices and for the

manufacturers to do the same with the finished product, the maintenance of the invoices for only the required period should be sufficient to satisfy the intent of the recordkeeping provisions.

In a number of respects our recommendations coincide with those made by the organization representing our most important suppliers—the American Textile Manufacturers Institute—when that organization appeared before the Subcommittee on Commerce and Finance of the House Interstate and Foreign Commerce Committee as it was considering legislation similar to S. 1003.

The CHAIRMAN. Mr. Evans, right there so that we can clear it up as much as we can, when you buy the bolts of textiles for the apparel that one of your members is going to make, naturally there would be the invoice of the price and what it is. Is there any mention of the flammability character of the textile on the invoice?

Mr. EVANS. All invoices?

The CHAIRMAN. I'm talking generally. Now, there may be some textile manufacturers that do it and others that do not, but generally is that in there?

Mr. EVANS. Generally I think it is, sir. The guarantee normally is stamped on the invoice. I don't say every one, but the majority, that it complies with the Flammability Act.

The CHAIRMAN. I suppose too if it is a certain type of cloth that is commonly known to the industry they would say that this is this type of cloth, and the nonflammability or the flammability of the cloth would be directed not to that bolt or that order but to the type of cloth generally, would it not?

Mr. EVANS. It would be spelled out on that particular shipment, whether it may be 500 yards or 10,000.

The CHAIRMAN. For a particular shipment?

Mr. EVANS. That is right.

The CHAIRMAN. So that the garment manufacturer would have the information, at least as much as they get now, on invoice?

Mr. EVANS. That is correct.

The CHAIRMAN. When you ship the garment to the wholesaler or the retailer, do you then also put on that invoice the same information?

Mr. EVANS. I think that is the general practice; yes, sir.

The CHAIRMAN. Is that true with imports?

Mr. EVANS. I am not familiar with imports.

The CHAIRMAN. You don't know? I don't know either. We are going to explore that. Because, after all, there is a problem here of imports in this whole field, and as we said yesterday the textile people are very "flammable" when we discuss imports.

Many of the instances have been caused here by the carelessness of use, not checking imports in textiles.

Mr. EVANS. No question.

The CHAIRMAN. But we are going to find out—I don't know whether the invoice or the bill of lading or the custom license on that particular shipment contains any of this information or not. I don't know. But you do say that the textile manufacturer gives it to you on the invoice, and then you in turn, generally speaking—there may be some instances where it does not happen—when you sell to the wholesaler or the retailer or the buyer transfer the same information on your invoice?

Mr. EVANS. That is correct.

The CHAIRMAN. And do you make suggested procedures when they sell the garment?

Mr. EVANS. In what way, Senator?

The CHAIRMAN. Well, sometimes you will see in a store a certain garment on which there is a great deal of information as to its flammability, its washability, and so on and so forth.

Mr. EVANS. I don't think you would probably find anything relating to flammability except those garments that claim nonflammability—

The CHAIRMAN. Yes.

Mr. EVANS. Of which there are a limited number on the market today.

The CHAIRMAN. I was thinking whether or not the manufacturer has made some suggested descriptions to be put on a garment that comes from them. You do it on many things, don't you?

Mr. EVANS. No, we do not, because this is primarily sales information to help sell the garment, and this hasn't been considered as important.

The CHAIRMAN. So that if a retailer did put it on they would do it on their own initiative for the purpose of sales technique, wouldn't they?

Mr. EVANS. I would think it might help. At the same time it has really not been brought to anybody's attention. I think that is probably the purpose of this bill and this hearing to really acquaint people with it. This is important information on a garment as well.

The CHAIRMAN. Well, I think the average good, reliable retailer usually tries to bring out on any product he is selling what the assets of the product are as to safety, flammability, wearability, washability, and all these things so he can sell it.

But what I am trying to point out for the record is that that does not come from the garment manufacturers.

Mr. EVANS. Not generally, except on more or less flameproof—not flameproof but nonflammable fabrics.

The CHAIRMAN. All right. Thank you.

Mr. EVANS. We would like at this point to endorse specifically the following two additional recommendations of the Textile Institute:

1. A requirement that any new or amended standards be based on the results of the investigation and research to be conducted under the legislation.

2. Explicit provisions for Federal preemption.

Just as the textile manufacturers have pointed out the importance of cost considerations in any attention given this question, so must our organization call this element specifically to the attention of the subcommittee. Unfortunately, the limited time available to us to prepare for these hearings did not permit as exhaustive an analysis of this consideration as we would have liked.

However, I can advise that in our own company the most basic garment we manufacture—the coverall—could conceivably be affected by an upward adjustment of as much as \$2 a garment at retail, from a current retail price of \$5, should the present standards be altered significantly. Since this item is obviously an important one in the

wardrobe of many workingmen with limited budgets, I am sure the potential impact is obvious.

The CHAIRMAN. Now, there you are speaking of the standards as to flammability?

Mr. EVANS. We make a coverall—

The CHAIRMAN. I mean that is what you are talking about, is it not?

Mr. EVANS. That is right.

The CHAIRMAN. Not other standards on the coverall?

Mr. EVANS. That is right. This is the only difference.

The CHAIRMAN. You are limiting yourself specifically to the standards that apply to the coverall, say, that your company makes as to flammability?

Mr. EVANS. Correct.

The CHAIRMAN. And why would the cost go up? I hope that isn't a naive question.

Mr. EVANS. The cost goes up because of the additional process of making the fabric inflammable.

The CHAIRMAN. Well, is it now flammable?

Mr. EVANS. It is not. I mean—

The CHAIRMAN. Well, here we go again. We are right back where we started.

Mr. EVANS. It is not dangerously flammable.

The CHAIRMAN. Oh, when you add the word "dangerously," it describes the standards as they are now?

Mr. EVANS. That's right.

The CHAIRMAN. Is that correct?

Mr. EVANS. Yes.

The CHAIRMAN. And by that you say it is not dangerously flammable?

Mr. EVANS. That is correct.

The CHAIRMAN. But if you altered it to make it so it was flame-proof, it would cost a couple of dollars?

Mr. EVANS. That is right.

The CHAIRMAN. A couple of dollars more?

Well, I don't know. Maybe someone would want to pay that extra few dollars.

Mr. EVANS. We are not saying that the public won't, sir. We are only—

The CHAIRMAN. Why don't you make both? Why don't you say "This is one that complies with the standard of not dangerously flammable, and this one over here costs \$2 more but, it won't burn at all," and see what happens?

Mr. EVANS. Well, we have sales records, and for the one that won't burn the sales aren't too high.

The CHAIRMAN. Sales aren't too high?

Mr. EVANS. No.

The CHAIRMAN. All right. Go ahead.

Mr. EVANS. Having concluded my remarks with regard to the amendments to the act proposed in S. 1003, we should like to propose an amendment of our own. We feel that the basic responsibility for adherence to the standards of flammability set by the act should rest

squarely upon the fabric supplier who furnishes the apparel manufacturer with the basic products, unless the apparel manufacturer by further processing affects the flammability of the wearing apparel to a degree which causes a particular apparel item to violate the standard.

This responsibility should also rest with the fabric supplier if processing is carried out in accordance with his instructions.

For this reason the act should be amended to require fabric suppliers to conduct flammability tests on all products sold and to provide uniform continuing flammability guarantees with regard thereto which meet the present as well as any future standards established by the act. Penalties should be prescribed for failure to provide said guarantees.

For the sake of uniformity, the required form of guarantee should be specified as being the "General Form" prescribed in rule 9 of the Federal Trade Commission Rules and Regulations under the act.

In addition, in order to insure that the guarantees will be honored, we recommend that penalties be prescribed for suppliers who fail to honor guarantees when called upon to do so.

Under the latter arrangement, apparel manufacturers in turn could give guarantees to their wholesale and retail customers which would result in assuring the consumer that a minimum standard exists in connection with the flammability of all fabrics or items of apparel available for purchase. At the same time, it would provide apparel manufacturers with statutory recourse against suppliers who fail to meet the standards.

Mr. Chairman, this concludes my formal statement. Our association is currently endeavoring to accumulate additional information which could provide further data of interest to you and your colleagues. If information which appears to be of value is obtained, we would appreciate the opportunity of offering it to the subcommittee.

The CHAIRMAN. Yes, we will be glad to have it, and for any immediate information you may have we will leave the record open.

I think your proposed amendment, the last one, is a good one. It puts some responsibility maybe where it originally belonged. And the wording of that type of amendment will have to be carefully considered, because we are running into some very serious problems of where liability exists in these cases.

There has to be a line of liability down from the consumer to the original manufacturer of the product.

So we will take a good look at that proposed amendment in the last part of your statement.

Now, No. 2 is explicit provisions for Federal preemption. Could you enlarge upon that a little more?

Mr. EVANS. I will refer this to our counsel, if you please.

The CHAIRMAN. You are Mr.—

Mr. BREBBIA. We are simply concerned that we have a provision in here which preempts the field from State legislation in the area. Perhaps a simple amendment to that effect that the standards would be set by the Government, and we would not have to be concerned with the individual States setting standards of their own which might differ from the new standards which might be set under the act.

The CHAIRMAN. We can find out for the record, but, if you do know, how many States have any comparable flammable fabrics legislation?

Mr. BREBBIA. I confess ignorance, and there may be none.

The CHAIRMAN. Well, the counsel suggests there may be 10 or 12 of some form of flammable fabric acts, but we will find out for the record.

Because you are correct in this respect: With any piece of legislation that is going to effect purposes that we hope this will, you have to try and achieve as much uniformity as you can throughout the country. Otherwise, you run into all kinds of problems.

And there is a great hodgepodge, of course, of fire ordinances, zoning ordinances, city ordinances, and I suppose there are scores of them that are different.

So that in this whole field of safety the committee has always tried to meet that objective and have as much uniformity as possible. But uniformity usually can only come by Federal preemption.

If there are not many States that do it now, I don't suspect there will be too much opposition based on the general States' rights theory.

Mr. BREBBIA. I might add, Mr. Chairman, that under the Hart bill there is a uniform weights and measures law which has been enacted by many States, and yet they recognized the fact that the Hart bill—at least the conference does—has preempted them as far as its provisions go, and they are moving to get the uniform act in line with the Hart bill as it was passed.

The CHAIRMAN. Well, we will take a look at that.

Now, on your other suggestion, we talked about the recordkeeping. I don't know why it is, but there must be some reason based on experience that in all this type of legislation everybody suggests—particularly industries involved in this legislation—that we add to the individual bill items that will make the Administrative Procedure Act apply to any procedures.

And we think that it automatically applies and that, therefore, it is superfluous to put it in a bill.

Maybe you can tell us. We have no indication at any time where we have thought that it automatically applied where it has not.

Mr. BREBBIA. And I know of none, Mr. Chairman.

The CHAIRMAN. No.

Mr. BREBBIA. This is an extra precaution. It may be that it does apply, although—

The CHAIRMAN. Well, we have this at all times. But what we do to make it sure, if you need extra assurance in this, is we usually, rather than clutter up the bill, put it in the report that it is understood that the Administrative Procedure Act will automatically apply to this legislation.

Mr. BREBBIA. Well, that certainly would be satisfactory to us.

The CHAIRMAN. And maybe that is why we have had no problem with it.

Mr. BREBBIA. Could well be.

The CHAIRMAN. Now, the same is true, is it not, in the judicial review of any mandatory standards?

Mr. BREBBIA. Well, I might add, for instance, the Hart bill—the amendment—specially refers to the judicial review standards set in

the Food and Drug and Cosmetics Act, wherein the judicial review is set forth in particular.

So it could be that there may be access to judicial review, but there are instances where it has been put in bills—

The CHAIRMAN. I don't think we have any problem there. We can make it clear that these should apply, particularly if you are going to delegate to an executive agency the authority to set standards.

Now, you also are concerned about there being no exemption provision for fabrics, finished products, that have entered the stream of commerce if a new and revised standard was placed on the fabric.

Mr. EVANS. That is correct.

The CHAIRMAN. Well, what if something was out that somebody found out was dangerously flammable?

Mr. EVANS. I think the present act covers that, Senator.

The CHAIRMAN. Something that has gone beyond you, gone out. I think the testimony here is that we did not find out about the sweaters until after they had been sold by the retailers.

Mr. EVANS. Well, I think the Federal Trade Commission has that authority now, sir.

The CHAIRMAN. I think they are reasonable about that.

And we dealt with it in the Truth in Packaging Act and tried to clear it up so that there would be no dangerous change in inventories.

But I am sure the committee will take a look at this.

Mr. EVANS. Our only thing is if the standard is upgraded that this apply. Naturally, if there is something dangerous on the market, I mean the present act will take care of that.

The CHAIRMAN. If it is upgraded I think we would have to have some escape clause where they could deal with dangerously flammable fabrics.

Mr. EVANS. Oh, certainly.

The CHAIRMAN. Yes. And the Federal Trade Commission would have to have that.

Mr. EVANS. Yes, sir.

The CHAIRMAN. They might find something in a store that has gotten all the way through. Maybe the standards at the time applied, but it turned out to be dangerous. They would have to have the authority to grab it and seize it.

Mr. EVANS. We don't question that.

The CHAIRMAN. We do this in the Food and Drug Act, particularly in canned foods, even though there is a lot of it on the market.

Sometimes they seize it and grab it because it has turned out that even with all the tests it is the wrong thing.

All right. We thank you very much and appreciate your coming.

All right. The next witness is Frederick B. Dent, who is president of Mayfair Mills in Arcadia, S.C., and president-elect of the American Textile Manufacturers Institute.

I might say, Mr. Dent, that we have a letter from Ernest Hollings, who wished he could have been here to greet you, but he found that he was called away.

He is highly complimentary of you in your field in this matter of flammable fabrics.

STATEMENT OF FREDERICK B. DENT, FIRST VICE PRESIDENT,  
AMERICAN TEXTILE MANUFACTURERS INSTITUTE, INC.; ACCOMPANIED BY PAUL STAM, RICHARD FEIS, JOHN FIELD, MILTON EISENBERG, AND ROWLAND KIRKS

Mr. DENT. I thank you very much, Mr. Chairman.

The CHAIRMAN. I will put the letter in the record.

Mr. DENT. I appreciate it very much. We are gratified that Senator Hollings can serve on the subcommittee with you.

(The letter referred to follows:)

U.S. SENATE,  
COMMITTEE ON COMMERCE,  
May 5, 1967.

HON. WARREN G. MAGNUSON,  
Chairman, Committee on Commerce,  
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: I regret that I cannot be present today and introduce to you and the members of the Consumer Subcommittee a fellow South Carolinian and personal friend, Mr. Frederick B. Dent. A prior commitment, however, requires that I be out of Washington.

Few residents of my state have contributed more to its growth and development than Mr. Dent. As a business, church and civic leader he has constantly worked for the betterment of his fellow men, his community, and his state.

As a devoted father and humanitarian he has always exhibited a strong interest in the welfare of his family, friends and employees.

As a leader in his field he will bring to your committee an expert appraisal of the flammable fabrics situation. I am certain you will find his testimony most helpful to the committee in its consideration of this testimony.

With warm regards, I am,  
Sincerely,

ERNEST F. HOLLINGS.

Mr. DENT. I would like to introduce the people with me. On my far left is Dr. Paul Stam, vice president and research director, J. P. Stevens Co.; Mr. Richard Feis, technical director of (Cone) Mills; John Field, vice president of (Cone) Mills and chairman of the ATMI Flammability Committee. On my right Milton Eisenberg, outside counsel, and Dr. Rowland Kirks, our inside counsel.

Mr. Chairman, I am Frederick B. Dent, president of Mayfair Mills of Arcadia, S.C., and I appear before you today as first vice president of the American Textile Manufacturers Institute, a trade association which represents companies producing approximately 85 percent of the more than 17 billion square yards of textiles produced annually in the United States.

The textile industry is one of America's oldest, largest, and most important. It is estimated that the annual national expenditure for wearing apparel is over \$30 billion. It is also estimated that over 4 million American workers are directly and indirectly involved in its operations. The value of all products containing fabrics now in the economy is in the hundreds of billions of dollars.

The members of the ATMI are constantly seeking ways of improving the quality of their products to deliver even better values to the consumer. We have welcomed the opportunity to join together with other public and private groups in cooperative efforts to meet whatever problems and challenges have arisen over the years.

The industry's concern with improving the quality of its products has included concern with their safety.

Reference has been made in testimony before the subcommittee to the conferences on textile flammability which have taken place under the sponsorship of the Public Health Service. The textile industry has been a full participant in these conferences.

We have also worked closely with the technical personnel of the National Bureau of Standards on fabric flammability problems.

A committee of the ATMI met just this past month with members of the National Bureau of Standards with particular responsibility in this area. The purpose of this meeting was to ascertain whether there were any areas requiring immediate or prompt action to protect the public from hazardous fabrics. We wanted to know whether any problem had arisen for which new or revised standards or controls would be appropriate.

The ATMI's representatives made it clear at this meeting that if such a situation existed, we would cooperate to the fullest extent in making certain that the problem was met. No such situation was presented.

This does not mean that fabrics in common use today do not burn. The contrary is true. Almost 70 percent of total mill consumption in the year 1966 consisted of cotton and rayon. Another 24.6 percent consisted of man-made fibers, largely nylon and polyesters. All of these fabrics representing the major part of the total production of the textile industry will burn readily if ignited. But so will almost any other substance under certain conditions, including substances which are commonly found in our homes: the newspapers and magazines we read, the wood in our homes and household products, cardboard boxes and containers, liquids such as lighter fuel and gasoline, and, of course, matches and cigarettes. The relevant question is not whether fabrics burn, but the extent to which this fact presents an unreasonable risk to the public.

There has been some research into the extent to which specific fabrics have been associated with injuries and deaths involving burns. But this research has been meager and very little reliable data are now available. We agree with Dr. Holloman's statement in his testimony before this subcommittee that—

If there is one fact that stands out clearly in statistical information on death and injury due to specific flammable materials, it is how little we really know about the subject.

A similar conclusion was expressed by Dr. Robertson, Chief of the Fire Research Section of the National Bureau of Standards, at the December 1966 Conference on Textile Flammability. In referring to the problem of casualties associated with fires involving clothing, Dr. Robertson stated:

Although the National Fire Protection Association, the National Safety Council and the Public Health Service publish information which may be used to estimate the overall size of the problem, information on the circumstances leading to the accidents, and character of combustible material involved is, unfortunately, not available.

In view of the admitted dearth of information on this subject, we are surprised at the figures presented by some witnesses in testimony before this subcommittee. No sources are shown for most of these figures, and in our judgment they must be received with considerable

caution. At the very least we would suggest that the witnesses be asked to document their estimates before such figures are relied upon for legislation.

Of course, it would be incredible if there were not some cases of injury or death associated with clothing and other fabrics catching fire. Measured against the number and volume of such products, the percentage of such cases cannot be considered substantial.

Let me make it clear, however, that the industry would like to eliminate all such cases. We welcome any contribution that can be made toward the development of a feasible process for accomplishing this objective and toward convincing the American consumer, who will ultimately have to pay the cost, that an additional investment in safety is warranted.

I state categorically that if modern science and technology can develop techniques for fireproofing textiles in a manner which would give the public the products they desire at prices they will pay, the textile industry would immediately, and without question, utilize these techniques.

In our prepared statement which we will file with the committee we discuss in some detail the demonstrations before the subcommittee by Mr. William White of the Public Health Service of the flame retardant character of several types of products, including one chemical treatment for cotton and several synthetic fibers.

As we point out in the statement, the industry is using such flame-retardant processes and materials as are now available to produce flame-retardant fabrics to meet whatever demand exists for them. These processes and materials, however, are expensive, are in limited supply, and most cases adversely offset other desirable fabric qualities, such as durability, feel and color.

Moreover, there are many lightweight fabrics in use today, in great demand by consumers, on which present durable flame-retardant processes cannot be used at all. This is true of the fabrics used in such items as shirts, blouses, women's dresses, lingerie, nightwear, and underwear—fabrics which constitute an important part of our industry's total production.

Nevertheless, our industry has and will continue to experiment in the development of new flame-retardant fabrics for clothing and other products. We would welcome an increase in the demand for such fabrics by safety-conscious customers willing to pay the extra cost of fire-retardant fabrics and products. We have no doubt that an expanding market for safe products, in the long run, will benefit business as well as consumers.

The extra cost to consumers of fire-retardant fabrics under existing conditions can only be roughly estimated. In one of the demonstrations before the subcommittee it was indicated that a flame-retardant sheet would cost \$4 compared to \$3 for a conventional sheet. This is an increase of  $33\frac{1}{3}$  percent in the cost of a single sheet. In addition, our experts estimate that a flame-retardant sheet will wear out about twice as fast as a conventional sheet. This means that it would cost the consumer \$8 for the service he now gets out of a \$3 investment in a sheet.

When we consider that more than 150 million sheets are produced annually, it is evident that we are dealing in substantial sums of

money—in this case alone, an added cost to consumers of \$750 million annually.

Indeed, if a similar factor were applied to the cost of all of the clothing and furnishings containing fabrics purchased by consumers—almost all of which will now burn—the total increase in the cost of living to consumers would be in the billions of dollars annually, with the heaviest burden of this increase falling on the lower income families.

Some of these figures must be considered hypothetical, since we do not now have the technical ability for flame-proofing all fabrics and further research and development may result in cost reductions. But these estimates give some indication of the astronomical costs consumers may have to assume before all fabric products can be made flame-retardant.

Consideration of the problem of fabric flammability should also recognize the need for educating consumers to exercise more personal care in their daily lives. Statistics maintained by the Division of Accident Prevention of the U.S. Public Health Service make it evident that the principal cause of burns is human negligence.

While there are occasions when people, because of age or infirmity or for other reasons, must be protected from themselves, we cannot do too much to educate the public to use better judgment and to exercise a higher standard of personal responsibility, particularly when the safety and very lives of children and older persons may be at stake.

In the keynote address at the December 1966 Textile Flammability Conference, Dr. Richard A. Prindle, Assistant Surgeon General and Chief of the Bureau of State Service of the Public Health Service, defined the purpose of the conference to be:

To develop a plan of action, using all present knowledge and resources, to make flame-retardant fabrics more readily available to the American public.

Dr. Prindle reiterated the same point in another part of his address in these words:

Let the housewife determine for herself what she wants for herself, for her family, or for her home, and above all, allow her the privilege of deciding whether she can afford to buy assured safety.

This same emphasis on expanding consumer choices was stressed by other speakers, and I was pleased to note its endorsement by the chairman of this subcommittee during the hearings earlier this week.

On the basis of the foregoing considerations, we believe it is reasonable to suggest that any legislation on this subject should satisfy the following criteria:

First: It should recognize the limited data now available on this subject and the need for factual data on the extent to which specific fabrics have been associated with injuries and deaths involving burns.

Second: It should recognize the need for more experimentation and research in the development of fire-retardant processes for fabrics and the limitations of the present state of the art.

Third: It should recognize that whatever problems of fabric flammability may exist are not significantly different from those involving other household products.

Fourth: It should result in promoting an increase in the choices available to consumers and not in the removal from the market of products which for generations have provided satisfactory service and utility to consumers at reasonable cost.

Fifth: It should recognize that this is a difficult and complex subject matter and allow maximum flexibility in the adoption of regulations after full consultation with public and private groups.

In the light of these criteria, the ATMI supports the provisions of the bills before the subcommittee which would authorize and require a study and investigation of deaths and injuries resulting from accidental burning of products, fabrics or related materials.

We also support the provisions of these bills which would authorize research into determining the specific products, fabrics, and related materials requiring flammability protection consideration; the conduct of feasibility studies on reduction of flammability of these products, fabrics, and related materials requiring flammability protection consideration.

In general, we also would support a voluntary administrative mechanism for feasible revisions of flammability standards whenever it is demonstrated that such revision would provide additional protection to the public. We are concerned, however, about language in these bills which would put the cart before the horse by delegating the power to issue mandatory standards before the necessary research and investigation have taken place.

If existing standards were to be made more stringent today and in the present state of technology, the effect would be either to remove from the market fabrics or products which have provided safe and satisfactory service to generations of Americans or to substantially increase the cost of these items to the public. Such mandatory action would serve to frustrate, rather than further, the objective of increasing consumer choice.

We have prepared an amendment to the proposed legislation which we would like to submit to the subcommittee for its consideration. This amendment would provide a voluntary administrative mechanism for updating flammability standards on the basis of our developing knowledge and experience. In our judgment, it would serve to foster a truly cooperative endeavor in which government, industry, and consumer groups would be working together in a partnership for progress.

I want to emphasize our interest in providing an administrative mechanism that will be effective in assuring the adoption of any new standards warranted by advances in technology. We do not want to convey the impression in submitting this amendment that we would be unwilling to support alternatives which might be more suitable to this objective.

For example, it might be desirable to provide for mandatory enforcement of such standards as are prescribed to eliminate the possibility of noncompliance, although we sincerely believe such cases would be rare.

We are fully prepared to work with the committee and its staff in devising sound procedures for assuring that whatever action is feasible will be taken whenever justified by facts and experience.

However, it is our view that a basically voluntary procedure would be more appropriate to the accomplishment of the objectives of this legislation than immediate grant of broad powers to the Secretary of Commerce to issue mandatory standards with a minimum of procedural safeguards.

We also believe the subcommittee should review carefully the record-keeping requirements contained in these bills. They appear to us to be unworkable and could become oppressive, particularly to small business firms.

Other procedural and due process issues are raised by some of the language in these bills. For example, no provision is made for the orderly disposition of inventory and the 6-month time period provided before new standards become effective could not be met without severe losses and dislocations. The criteria for new standards appear to be vague, and we are surprised by the omission from the bill of any provisions for judicial review or of any required procedures before the adoption of new standards for wearing apparel.

Most of those problems would become academic if the subject of flammable fabrics was included in the jurisdiction of the proposed National Commission on Product Safety or if voluntary procedures were substituted for the mandatory power proposed in these bills. This we strongly recommend.

If, despite the considerations which we believe would make a delegation of mandatory authority at this time unwarranted, Congress in its judgment determines that there is some compelling necessity for an immediate delegation of mandatory power, we submit that, as a minimum, the safeguards set forth in our prepared statement should be written into the law.

Even if all these safeguards were written into the legislation, it would be the position of the American Textile Manufacturers Institute that voluntary measures are preferable to coercion and are more likely to promote consumer protection.

In our judgment, the primary objectives at this time must be (1) to develop scientific information defining those areas, if any, of fabric use and fabric type which might cause unreasonable hazards to consumers, and (2) to encourage research on flammability so that improvements can be made by the industry whenever the need is shown to exist. We strongly support the provisions of the legislation before the subcommittee directed toward these goals.

We all share in the objective of securing greater safety for the American consumer. We ask only that the language of these bills be carefully reviewed in the light of the evidence before this subcommittee, so that the substance as well as the stated purpose of any measure enacted will be based upon fact and need and be in the public interest.

The CHAIRMAN. We thank you for your statement. Because of the lateness of the hour, the chairman won't ask any particular questions except to point out that some of the matters suggested here such as judicial review and the Administrative Procedures Act can be handled.

Second is the question of disposal of inventory stock. And I think like yourself that the recordkeeping thing is a little bit too complicated and probably is not necessary to accomplish any of the objectives you talk about. It is just too much of a harassment. There are too many records generally now, and we could do this in a simpler way.

Mr. DENT. Yes.

The CHAIRMAN. So we will put your statement in the record in full. (The prepared statement of Mr. Dent follows:)

## STATEMENT BY FREDERICK B. DENT, FIRST VICE PRESIDENT OF THE AMERICAN TEXTILE MANUFACTURERS INSTITUTE, INC.

## I. THE TEXTILE INDUSTRY

I am Frederick B. Dent, President of Mayfair Mills of Arcadia, South Carolina, and I appear before you today as First Vice-President of the American Textile Manufacturers Institute, a trade association which represents companies producing approximately 85% of the more than 17 billion square yards of textiles produced annually in the United States.

Approximately 951,000 men and women are directly employed by the textile industry and an additional 1,396,000 in the related apparel industry. Another 2,000,000 American workers produce the wool, raise the cotton, manufacture the man-made fibers and supply the other raw materials and equipment used by textile manufacturers.

This industry is one of the oldest in America. The industrial revolution was started by the textile industry. The fabrics we produce and distribute have been in common use for generations and are contained in tens of thousands of products.

The annual national expenditure for wearing apparel is estimated by the Department of Commerce at about 30.5 billion dollars or about 7 per cent of the total of all personal expenditures. The annual national expenditure for such items as rugs, curtains, draperies, blankets and articles of furniture containing fabrics also is in the many billions of dollars. While it is difficult to give exact figures, it is obvious that the value of all products containing fabrics now in the economy is many billions of dollars. There is not a household nor an individual in America that does not use a score of such items in the routine of daily living—when we sleep at night, dress in the morning, work during the day, or relax in the evening after we return home from earning our daily bread.

This vast industry represented by the members of the ATMI is as conscious as any group of its public responsibilities. Our members are constantly seeking ways of improving the quality of our products to deliver even better values to the consumer. We have welcomed the opportunity to join together with other public and private groups in cooperative efforts to meet whatever problems and challenges have arisen over the years.

The industry's concern with improving the quality of its products has included concern with their safety. When highly dangerous sweaters—the so-called "torch sweaters"—appeared in the market in the early 1950's, we supported legislation to outlaw these and other such dangerous items of wearing apparel. This legislation has accomplished its purpose and such products have been completely eliminated from the market. We stand ready to deal just as forthrightly against any other fabrics which do not offer adequate protection to the public.

Reference has been made in testimony before the Subcommittee to the Conferences on Textile Flammability which have taken place under the sponsorship of the Public Health Service. The textile industry has been a full participant in these Conferences. The last such Conference was held in December 1966 at the New York Academy of Medicine. As a result of this Conference, a proposal was made to establish an Information Committee on Fabric Flammability. A meeting to implement this recommendation was held in New York on February 23 of this year. The industry is represented on this Committee with other interested private groups and government agencies. We share the hope Dr. Lee has expressed that eventually this "committee can serve as a clearing house for gathering information on the subject and funneling it to those most vitally concerned."

Under present law, the Secretary of Commerce has the responsibility for recommending changes in existing flammability standards at any time the standards become inadequate for the protection of the public. This responsibility has been delegated to the National Bureau of Standards and we have worked closely with the technical personnel of this agency on fabric flammability problems. A committee of the ATMI met just this past month with members of the National Bureau of Standards who have particular responsibility in this area. The purpose of this meeting was to ascertain whether there were any areas requiring immediate or prompt action to protect the public from hazardous fabrics. We wanted to know whether any problem had arisen for which new or revised standards or controls would be appropriate. The ATMI's representatives made it clear at this meeting that if such a situation existed, we would cooperate to the fullest extent in making certain that the problem was met. No such situation was presented.

## II. NEEDED: MORE SCIENTIFIC INFORMATION

This does not mean that fabrics in common use today do not burn; the contrary is true. Almost 70% of total mill consumption in the year 1966 consisted of cotton and rayon. Another 24.6% consisted of man-made fibers, largely nylon and polyesters. All of these fabrics representing the major part of the total production of the textile industry will burn readily if ignited. But so will almost any other substance under certain conditions including substances which are commonly found in our homes: the newspapers and magazines we read, the wood in our homes and household products, cardboard boxes and containers, liquids such as lighter fuel and gasoline, and, of course, matches and cigarettes. The relevant question is not whether fabrics burn, but the extent to which this fact presents an unreasonable risk to the public.

There has been some research into the extent to which specific fabrics have been associated with injuries and deaths involving burns. But this research has been meager and very little reliable data is now available. We agree with Dr. Holloman's statement in his testimony before this Subcommittee that "if there is one fact that stands out clearly in statistical information on death and injury due to specific flammable materials, it is how little we really know about the subject."

A similar conclusion was expressed by Dr. Robertson, Chief of the Fire Research Section of the National Bureau of Standards, at the December 1966 Conference on Textile Flammability. In referring to the problem of casualties associated with fires involving clothing, Dr. Robertson stated: "Although the National Fire Protection Association, the National Safety Council and the Public Health Service publish information which may be used to estimate the overall size of the problem, information on the circumstances leading to the accidents, and character of combustible material involved, is, unfortunately, not available."

In view of the admitted dearth of information on this subject, we are surprised at the figures presented by some witnesses in testimony before this Subcommittee. No sources are shown for most of these figures and in our judgment, they must be received with considerable caution. At the very least, we would suggest that the witnesses be asked to document their estimates before such figures are relied upon for legislation.

Of course it would be incredible if there were not some cases of injury or death associated with clothing and other fabrics catching on fire. Measured against the number and volume of such products, the percentage of such cases cannot be considered substantial. Let me make it clear, however, that the industry would like to eliminate all such cases. We welcome any contribution that can be made towards the development of a feasible process for accomplishing this objective and towards convincing the American consumer, who will ultimately have to pay the cost, that an additional investment in safety is warranted.

I state categorically that if modern science and technology can develop techniques for fire-proofing textiles in a manner which would give the public the products they desire at prices they will pay, the textile industry would immediately and without question utilize these techniques.

There are some flame-retardant processes and materials available at the present time and our industry is producing flame-retardant fabrics to meet whatever demand exists for them, primarily for industrial and commercial uses where working conditions create abnormal fire hazards. These processes and materials, however, are expensive, are in limited supply, and in most cases adversely offset other desirable fabric qualities, such as durability, feel, and color. The cost of some of these materials and processes is prohibitive. Others are still in the experimental or developmental stage and the industry understandably must exercise care in using new fibers or in chemically treating billions of yards of fabric before such materials and processes have been fully tested against harmful side-effects and have become commercially feasible. Moreover, there are many lightweight fabrics in use today, in great demand by consumers, on which present durable flame-retardant processes cannot be used at all. This is true of the fabrics used in such items as shirts, blouses, women's dresses, lingerie, nightwear and underwear—fabrics which constitute an important part of our industry's total production.

The limitations in the usefulness of any extensions of present flammability standards was noted by several speakers at the 1966 Conference on Textile Flammability. Dr. Robertson of the National Bureau of Standards, for example, very

candidly stated that "at present we have no basis for predicting a reduction in the burn accident experience if, for instance, a decision was arbitrarily made to characterize fabrics as hazardous when they burn in times less than 20 seconds rather than the  $3\frac{1}{2}$  seconds required by the present Federal law." In other words it was his conclusion that the public could not be assured greater protection even by the use of fabrics which would burn at only one-sixth the rate of fabrics now on the market.

Nevertheless, our industry has and will continue to experiment in the development of new flame-retardant fabrics for clothing and other products. We would welcome an increase in the demand for such fabrics by safety-conscious customers willing to pay the extra cost of fire-retardant fabrics and products. We have no doubt that an expanding market for safe products, in the long run, will benefit business as well as consumers.

### III. THE DEMONSTRATIONS BEFORE THE SUBCOMMITTEE

Following Dr. Lee's testimony, Mr. William White of the United States Public Health Service demonstrated the flameretardant character of several types of products, including one chemical treatment for cotton and several synthetic fibers. Obviously, if any of these were satisfactory in all respects, consumer demand would arise and manufacturers would rush to fill this demand. Even today, research is continuing in an effort to develop products which will be salable.

Let us examine the demonstrations presented by Mr. White.

First, an untreated cotton sheeting was burned and was compared to a similar fabric chemically treated with APO-THPC. This finish, which was developed in 1956, is still the best available for its purpose. It is quite true that the untreated fabric burned and the treated one did not. However, as Mr. White said, the added cost of the chemically treated cotton sheeting would have been  $33\frac{1}{8}\%$ .

In addition, according to Mr. George Drake, of the Department of Agriculture's Research Service, who also spoke at the December 1966 Conference, "The APO-THPC finish is best on fabrics weighing six ounces per square yard and heavier. It is somewhat less than completely satisfactory for cotton on print cloth and other lightweight goods weighing less than four ounces per square yard." He goes on to say that "... but lighter fabrics require higher add-ons (15-18%), which stiffen and weaken the fabric." Cotton bed sheets weigh about four ounces per square yard, which would place them in Mr. Drake's, "less than completely satisfactory" group.

Second, Mr. White showed a piece of fiber glass fabric which would not burn. Fiber glass is generally available to the public in items such as curtains, draperies and bedspreads.

Third, Mr. White burned a blanket made of a blend of rayon and acrylic fiber. For a number of years approximately 75% of the total blanket production of the textile industry has consisted of napped blankets made from cotton or rayon blends with the same flammability characteristics as the blanket used by Mr. White in his demonstration. Each year for the past ten years approximately 40 million such blankets have been sold to consumers, which means that during the past ten years in excess of 400 million such blankets have been distributed to the American public. While in a verticle flame test, the ignition and burning rate of these products is dramatic and sensational, reported cases of accidents associated with blankets from any source have been extremely rare.

These facts are fully substantiated by a letter of June 17, 1964, from Mr. White to the Staff Counsel of this Committee on this very subject. In this letter, Mr. White reports that investigation by the Public Health Service "does not reveal a single case where the receiving blanket can be identified as an agent involved in the burn injury." There is no evidence of which we are aware which suggests any change in this situation since that report by Mr. White.

Fourth, Mr. White demonstrated the flammability qualities of a modacrylic, or "Verel" fabric. This synthetic, after being available to the market for well over ten years, has not yet been able to gain wide public acceptance, even with the merchandising skills of a major manufacturing company. The reasons must be its price of about \$.75 per pound compared to about \$.28 for cotton, its relative lack of strength and wear life, and its sensitivity to heat (which makes it difficult to launder and dry without harming its feel).

Fifth, we were shown a green dress specially made of nomex nylon. This special high temperature resistant product was developed several years ago for specialty uses such as drag-chutes, flight uniforms, etc., where its high strength and heat resistance would justify its extremely high price of \$9 per pound, compared to about \$.28 per pound for cotton. After mentioning this price, any discussion of the fiber shortcomings would be academic.

These facts suggest the severe limitations in our present technology. They fully justify Mr. White's conclusion in his testimony before the House Committee on Interstate and Foreign Commerce that the present state of the art in fire-retardancy is "crude."

#### IV. EDUCATING CONSUMERS: THE COST OF SAFETY

The extra cost to consumers of fire-retardant fabrics under existing conditions can only be roughly estimated. In one of the demonstrations before the Subcommittee, as I have noted, it was indicated that a flame-retardant sheet would cost \$4 compared to \$3 for a conventional sheet. This is an increase of 33 $\frac{1}{3}$ % in the cost of a single sheet. In addition, our experts estimate that a flame-retardant sheet will wear out about twice as fast as a conventional sheet. This means that it would cost a consumer \$8 for the service he now gets out of a \$3 investment in a sheet. When we consider that more than 150 million sheets are produced annually, it is evident that we are dealing in substantial sums of money—in this case alone, and added cost to consumers of \$750 million annually.

Indeed, if a similar factor were applied to the cost of all of the clothing and furnishings containing fabrics purchased by consumers—almost all of which now will burn—the total increase in the cost of living to consumers would be in the billions of dollars annually, with the heaviest burden of this increase falling on lower income families.

Some of these figures must be considered hypothetical since we do not now have the technical ability for flame-proofing all fabrics and further research and development may result in cost reductions. But these estimates give some indication of the astronomical costs consumers may have to assume before all fabric products can be made flame retardant.

Some of the problems of selling safety to consumers were discussed at the December 1966 Conference on Textile Flammability. Mr. Henry D. Stringer, the Director of the Bureau of Textiles and Furs of the Federal Trade Commission, pointed out in his remarks that: "Safety is one of the hardest things to sell that I know of. I have heard that an experiment was made in a lady's dress department where the same dresses, some with a fire retarded finish and others with conventional finish, were put on sale. The women were fully advised of the safety factor, yet they invariably bought the dresses with the conventional finish because they were cheaper! Such is human nature."

Another speaker at the Conference, Mr. P. J. Flynn, Chairman of the Technical Committee of the National Retail Merchants Association, and an official of one of the Nation's largest retail chain stores, described the experience of his company in attempting to sell customers flame-proofed garments. In his words: "Some time ago during a flare-up of nationwide publicity about apparel burn cases, we created a particular garment in a flame-proofed version and promoted it vigorously in our stores with special displays. Because of the hard realities these garments were necessarily priced about one dollar higher than comparable non-treated garments. A few weeks later the special price was removed and the stock was mixed with the regular garments because no one was buying the safety garments at the premium price."

Along these same lines, Mr. Louis Segal, the Chairman of the Committee on Wearing Apparel of the National Fire Protection Association, another participant in the Conference, pointed out that "Currently, the primary effort of our committee is to foster and encourage a vigorous program of public education regarding the hazards of flammable clothing. We are convinced that herein lies the only hope for an immediate, significant reduction in clothing fire casualties."

Consumer education should include another dimension—the need for exercising more personal care in our daily lives. Statistics maintained by the Division of Accident Prevention of the United States Public Health Service make it evident that the principal cause of burns is human negligence. These statistics indicate that improper use of a petroleum product to start a fire is the leading cause of home conflagrations that result in deaths and injuries to children. Faulty wiring and defective stoves or flues are also contributing factors.

Burns caused by hot substances, corrosive substances, steam or open flame account for some 400 deaths per year, primarily among pre-school children and elderly persons. Infants frequently are burned from being placed in extremely hot bath water, or turning on hot water taps when left unattended while being bathed, or from crawling over hot floor grates or while using hot stoves and space heaters for support. Children have been burned by parents spilling hot coffee and other hot beverages on them. This is also true of ashes from lit cigarettes or the hot tip of a cigarette itself. Children have been burned by sparks from trashfires, open flames of stoves, unscreened fireplaces, contact with pilot lights of space heaters, or by sticking metal objects in wall sockets.

While there are occasions when people because of age or infirmity or for other reasons must be protected from themselves, we cannot do too much to educate the public to use better judgment and to exercise a higher standard of responsibility, particularly when the safety and very lives of children and older persons may be at stake.

#### V. SOME COMPARISONS

In his testimony before the House Committee on Interstate and Foreign Commerce, Dr. Hollomon stated that over 1,000,000 injuries each year are associated with twelve types of appliances used in and around the household—and that four of these, power mowers, washing machines, cooking utensils, and power tools, accounted for over 400,000 injuries annually. I was surprised to learn from Dr. Hollomon's testimony that at least one group of experts has found many such products "to be unreasonably hazardous for home use."

Dr. Hollomon, while pointing out that there were no reliable statistics on injuries due to specific flammable fabrics, indicated in his testimony that the Public Health Service estimates that 150,000 persons suffer burn injuries annually. Certainly this is a significant number even as applied to burns from all causes, but fortunately it does not begin to approach the figures given for injuries from appliances. Furthermore, I know of no group of experts who have ever found textiles and other fabrics in common use today to be "unreasonably hazardous" from any point of view.

#### VI. DEFINING OUR OBJECTIVES

In the keynote address at the December 1966 Textile Flammability Conference, Dr. Richard A. Prindle, Assistant Surgeon General and Chief of the Bureau of State Service of the Public Health Service, defined the purpose of the Conference to be "to develop a plan of action, using all present knowledge and resources, to make flame-retardant fabrics more readily available to the American public."

Dr. Prindle reiterated the same point in another part of his address in these words: "Let the housewife determine for herself what she wants for herself, for her family, or for her home, and above all, allow her the privilege of deciding whether she can afford to buy assured safety."

Dr. Robertson, in a similar vein, expressed the hope that industry "will continue research on and the development of flame retardant treated clothing materials which will be economically, esthetically and usefully acceptable to the public." This same emphasis on expanding consumer choices was stressed by other speakers.

None of the many participants in the Conference representing government agencies, the academic world, the medical and public health professions, the legal profession, industry and other groups concerned with this subject, recommended new legislation to accomplish the purposes outlined by Dr. Prindle. Indeed, as Dr. Prindle himself stated in answering his own question as to whether "we need a law?"—"I hope not. Cooperation is preferable to coercion."

On the basis of the foregoing considerations we believe it is reasonable to suggest that any legislation on this subject should satisfy the following criteria:

First. It should recognize the limited data now available on this subject and the need for factual data on the extent to which specific fabrics have been associated with injuries and death involving burns.

Second. It should recognize the need for more experimentation and research in the development of fire retardant processes for fabrics and the limitations of the present state of the art.

Third. It should recognize that whatever problems of fabric flammability may exist are not significantly different from those involving other common household products.

Fourth. It should result in promoting an increase in the choices available to consumers and not in the removal from the market of products which for generations have provided satisfactory service and utility to consumers at reasonable cost.

Fifth. It should recognize that this is a difficult and complex subject matter and allow maximum flexibility in the adoption of regulations after full consultation with interested public and private groups.

#### VII. THE LEGISLATION BEFORE THE SUBCOMMITTEE

In the light of these criteria, the ATMI supports the provisions of the bills before the Subcommittee which would authorize and require a study and investigation of deaths and injuries resulting from accidental burning of products, fabrics or related materials.

We also support the provisions of these bills which would authorize research into determining the specific products, fabrics, and related materials requiring flammability protection consideration; the conduct of feasibility studies on reduction of flammability of these products, fabrics and related materials; the development of flammability test methods and testing devices to cover these items; and the offering of appropriate training in the use of these flammability test methods and testing devices.

We believe that duplication of effort and inconsistency can be avoided by providing that such investigations and research be carried on under the auspices of the proposed National Commission On Product Safety, but are not opposed to any supplemental or special programs in the specific area of fabric flammability. However, the fact that there is existing legislation with regard to flammable fabrics should not be an argument against inclusion of this subject in the work of the Commission if our objective is to avoid piece-meal solutions to the problems of consumer-safety. We do not know any more about whether fabrics in common use today pose an unreasonable risk to the public and what action is justified on this subject that we know about other commonly used home products.

In general, we also would support a voluntary administrative mechanism for feasible revisions of flammatory standards whenever it is demonstrated that such revision would provide additional protection to the public. We are concerned however, about language in these bills which would put the cart before the horse by delegating the power to issue mandatory standards before the necessary research and investigation have taken place.

If existing standards were to be made more stringent today, in the present state of technology, the effect would be either to remove from the market fabrics or products which have provided safe and satisfactory service to generations of Americans or to substantially increase the cost of these items to the public. Such mandatory action would serve to frustrate, rather than further, the objective of increasing consumer choice.

A voluntary program, in our judgment, is much more likely to assure that new flame retardant products will be introduced in the market-place as soon as our technology permits without depriving consumers of the privilege of deciding for themselves what products they should buy and at what price.

The time may come when our technology will permit all fabrics to be made flame-proof without impairing their quality, utility or variety and without substantially increasing their cost. Our industry would welcome such a development. The research and investigation which is contemplated by the legislation now being considered could hasten such a day. But no objective observer with knowledge of the facts can reasonably contend that that day is now upon us.

This does not argue against an administrative mechanism for revising or issuing new flammability standards which is voluntary and which will assure fair procedures to all interested parties. The present procedures of the Department of Commerce for the adoption of voluntary product standards could be given statutory recognition and application for this purpose. We have prepared an amendment to the proposed legislation which would accomplish this objective and would like to submit this amendment to the Subcommittee for its consideration. This amendment would provide an administrative mechanism for updating flammability standards on the basis of our developing knowledge and experience. In our judgment, it would serve to foster a truly cooperative endeavor in which government, industry and consumer groups would be working together in a partnership for progress.

I want to emphasize our interest in providing an administrative mechanism that will be effective in assuring the adoption of any new standards warranted by advances in technology. We do not want to convey the impression in submitting this amendment that we would be unwilling to support alternatives which might be more suitable to this objective. For example, it might be desirable to provide for mandatory enforcement of such standards as are prescribed to eliminate the possibility of non-compliance by any manufacturer, although we sincerely believe such cases would be rare. We are fully prepared to work with the Committee and its staff in devising sound procedures for assuring that whatever action is feasible will be taken whenever justified by facts and experience.

However, it is our view that a basically voluntary procedure would be more appropriate to the accomplishment of the objectives of this legislation than an immediate grant of broad powers to the Secretary of Commerce to issue mandatory standards with a minimum of procedural safeguards. Coercion could stifle the process of cooperation and experimentation which it is hoped will be stimulated by the investigations and research contemplated by this legislation. It is true that the present law contains a criminal sanction, but this is because the present law is limited to identified substances which were known to be highly dangerous to consumers at the time the law was written. Such criminal sanctions are not justified for the enforcement of standards which have not been written for fabrics or products which at present cannot even be identified.

We also believe the Subcommittee should review carefully the record keeping requirements contained in these bills. They appear to us to be unworkable and could become oppressive, particularly to small business firms.

Other procedural and due process issues may be raised by some of the language in these bills. For example, no provision is made for the orderly disposition of inventory and the six month time period provided before new standards become effective could not be met without severe losses. The criteria for new standards appear to be vague and we are surprised by the omission from the bill of any provisions for judicial review or required procedures before the adoption of standards for wearing apparel.

In many respects, the regulatory provisions of these bills go far beyond those in recently enacted consumer protection legislation. Legislation such as the Fair Packaging and Labeling Act and the Traffic Safety Act and even the Child Protection Act generally contain explicit provisions for judicial review and hearings similar to those under the Administrative Procedure Act. These laws do not contain the stringent criminal penalties and forfeiture and seizure provisions which would be applicable under these bills. In addition, they generally provide for Federal pre-emption, the exclusion of items for export, and much more flexibility in the adoption of regulations, and exemptions, and in the requirements for record keeping, than is provided in the bills before the Subcommittee. And, of course, in comparison to what is proposed for products under the proposed National Commission on Product Safety, the regulatory provisions of these bills are unique.

Most of these problems would become academic if the subject of flammable fabrics was included in the jurisdiction of the proposed National Commission on Product Safety or if voluntary procedures were substituted for the mandatory power proposed in these bills. This we strongly recommend.

If, despite the lack of scientific information on this subject, the problems of technology and the problem of substantially increased cost to the consumer, which we believe would make a delegation of mandatory authority at this time unwarranted, discriminatory and unfair, if despite these considerations, Congress in its judgment determines that there is some compelling necessity for an immediate delegation of mandatory power, we submit that as a minimum the following safeguards should be written into the law:

Express provision for judicial review of any mandatory standards or amendments promulgated by the Secretary.

Express provision for application of the Administrative Procedure Act to the proceedings before the Secretary.

Statutory assurance that representatives of industry and other affected groups will participate in the drafting of new or amended standards by the creation of a National Advisory Council on flammability standards.

A requirement that any new or amended standards be based on the results of the investigation and research to be conducted under the legislation.

Explicit provision permitting the orderly disposal of inventory and stock in the trade before new standards become effective, and a more reasonable period of time, normally 18 months, before new standards become mandatory.

The limitation of criminal liability and seizure and forfeiture penalties to cases involving violations of standards set forth in the basic law.

Explicit provisions for Federal pre-emption.

Explicit provisions negating any extra-territorial application of the Act.

Explicit provisions allowing regulations other than mandatory standards, such as labeling, to be utilized.

Explicit provisions limiting the record keeping requirements to such records as are reasonably necessary and feasible to show compliance with the law.

More explicit criteria to prevent the promulgation of mandatory standards which would outlaw from the market-place fabrics and products in common use for generations.

#### VIII. IN SUMMATION

Even if all these safeguards were written into the legislation, it is the position of the American Textile Manufacturers Institute that voluntary measures are preferable to coercion and are more likely to promote consumer protection.

In our judgment, the primary objectives at this time must be (1) to develop scientific information defining those areas, if any, of fabric use and fabric type which might cause unreasonable hazards to consumers, and (2) to encourage research on flammability so that improvements can be made by the industry whenever the need is shown to exist. We strongly support the provisions of the legislation before the Subcommittee directed towards these goals.

We all share in the objective of securing greater safety for the American consumer. We ask only that the language of these bills be carefully reviewed in the light of the evidence before this Subcommittee so that the substance as well as the stated purpose of any measure enacted will be based upon fact and need and be in the public interest.

#### PROPOSED AMENDMENT

Section 10 of the bill to amend the Flammable Fabrics Act is amended by changing the title to read "Investigations and Voluntary Flammability Standards," and by adding at the end thereof the following additional subsections:

"(c) Whenever the Secretary determines on the basis of the investigations and research conducted under subsections (a) and (b) of this section that any fabric, related material, or product may be so highly inflammable as to be dangerous when used for the purpose for which it is intended, he shall invoke the Procedures for the Development of Voluntary Product Standards (15 C.F.R. part 10) for the purpose of determining and publishing an appropriate flammability standard (including conditions and manner of testing) or an amendment to any existing flammability standard for such fabric, related material or product.

"(d) If, (1) after one year after the date on which the Secretary invokes the Procedures for the Development of Voluntary Product Standards as provided in subsection (c) of this section, he determines that such a standard or amendment will not be published pursuant to the provisions of such subsection (c); or (2) if such a standard or amendment is published and the Secretary thereafter determines that it has not been effective, he shall promptly report such determination to the Congress with a statement of the efforts that have been made under the voluntary standards program and his recommendation as to whether Congress should enact into law a flammability standard or an amendment to any existing flammability standard for such fabric, related material or product.

"(e) Any flammability standard or amendment thereto published pursuant to the provisions of subsection (c) of this section, shall become effective eighteen months from the date on which such standard or amendment is published, unless the Secretary determines for good cause shown, that an earlier or later date is in the public interest.

"(f) No flammability standard or amendment thereto published pursuant to the provisions of subsection (c) of this section shall be interpreted to preclude the continued use or orderly disposal of any fabric, related material, or product in inventory or with the trade as of the date on which such flammability standard or amendment becomes effective."

(NOTE.—Section 3, subsection (c) of section 4, and section 11 of the bill would be stricken; other sections would be appropriately redesignated, and conforming

changes would be made where necessary in the language of other provisions of the bill. These changes would result in adding to the Act a voluntary mechanism for the adoption of additional flammability standards and amendments without interfering with the sanctions for violation of the standards contained in the present law. Striking subsection (c) of section 4 would eliminate the broad record keeping requirements in this section of the bill but would not interfere with the proposal under section 4(a) of the bill to authorize the Commission to "prescribe such rules and regulations, including provisions for maintenance of records relating to fabrics, related materials, and products as may be necessary and proper for administration and enforcement of this Act.")

The CHAIRMAN. As I told the gentlemen that accompany you, we will probably either have you come back on specifics or maybe, if the committee has some specific questions in writing, you can submit answers for the record.

Thank you very much, Mr. Dent.

Mr. DENT. If we can assist the staff in any way, please do not hesitate to call upon us.

The CHAIRMAN. All right.

Mr. DENT. Thank you very much, Senator.

The CHAIRMAN. But I wanted to tell you that I think you used a word in your statement that probably you want to reconsider. There is no attempt to "coerce" anybody. Our objectives are the same.

All right. The last witness is Charles Seitz of W. T. Grant, who is also chairman of a panel of witnesses.

Others appearing with him include William Burston, vice president of the National Retail Merchants Association; Philip W. Schindel, executive director of the Variety Stores Association; Alfred Neu of W. T. Grant; David Adams, attorney for F. W. Woolworth; Louis Rothschild, executive director, Men's Wear Retailers of America; and Douglas Whitlock II of the American Retail Federation.

Who is going to read the statement?

Mr. SEITZ. I will.

The CHAIRMAN. We will put all the other statements in the record in full.

**STATEMENT OF CHARLES SEITZ, AMERICAN RETAIL FEDERATION,  
ON BEHALF OF NATIONAL RETAIL MERCHANTS ASSOCIATION,  
THE VARIETY STORES ASSOCIATION, THE INSTITUTE OF DISTRI-  
BUTION AND THE MEN'S WEAR RETAILERS OF AMERICA, IN  
COOPERATION WITH THE AMERICAN RETAIL FEDERATION;  
ACCOMPANIED BY WILLIAM BURSTON, PHILIP W. SCHINDEL,  
ALFRED NEU, DAVID ADAMS, LOUIS ROTHSCHILD, AND DOUGLAS  
WHITLOCK II**

Mr. SEITZ. Mr. Chairman, my name is Charles Seitz, group merchandising director for fashion merchandise of the W. T. Grant Co. You have already introduced my colleagues, and I will defer that.

I would like to state, however, that general merchandise, apparel, and home furnishings retailers realize that they had a very substantial stake in S. 1003, legislation they favor but must live with operationally as well as technically.

All major groups met. There were trade association executives, department store merchants, lawyers, merchandise testing specialists,

and those familiar with government affairs. The group identified a number of points which they all agreed should be presented at this hearing.

It was thought that all groups would join in our coordinated statement, that which I am about to make.

It has also been agreed, as you have mentioned, NRMA will submit its own separate supporting statement for the record.

The points on which all agreed will be included in my remarks, as I serve as chairman of this panel.

The others with me are specialists from our craft. They are here to assist in answering any questions from the subcommittee. They all took part in the industry meeting which developed this statement.

We bring you the views, the needs of all of us in retailing, from the smallest single-store owner on up the scale.

Retailers were the original sponsors of the present Flammable Fabrics Act which was passed in 1953. They agree with President Johnson and the chairman that it is time to take a new look at this 14-year-old statute. It is time to consider broadening its coverage and providing the means to keep standards of flammability tests current with technology and with the needs of a growing society.

The present law has done what it was intended to do. It has eliminated dangerously flammable, torchlike apparel from the marketplace. If there are similar hazards in textile home furnishings, these too should be eliminated.

Section 10 of the bill, entitled "Investigations" is particularly meritorious. It would authorize study and investigation by the Secretaries of HEW and of Commerce of deaths, injuries, and economic loss resulting from accidental burning of products, fabrics, and related materials. Facts, more facts than are presently available, are needed in the delicate area of making practical judgments on how far to go and in determining the dividing line between "injurious" flammable fabrics and others.

It is as supporters of this protective legislation that we offer several suggestions which are designed to make S. 1003 more effective, more practical, and more workable without detracting from its goal of increased consumer safety.

#### GOODS IN COMMERCE

Our first suggestion is that there should be specific language added to the bill to make it very clear that there will be no retroactive effects from extending coverage or from any changes in flammability standards. All goods properly produced and in the stream of commerce before the effective date of any changes should be permitted to be sold.

Let me illustrate why this point is needed and is logical. It is probable that at some future time the flammability standard for apparel will be changed. That merchandise which was produced before the new standard becomes effective met a standard which had been used for 13 or more years. There seems to be no reason why this merchandise, because of changes in standards, distinguished from changes in the goods, should suddenly be declared "dangerous."

The simplest, fairest solution is to permit such merchandise to clear. A jacket made in March may go through several wholesalers and

jobber channels before it gets on the retailer's rack in December. In small stores it is not unusual to have to carry over unsold odds and ends of staple merchandise to the next winter selling season. Thus 20 months or more might be needed for some items to clear.

A precedent for this proposed provision was included in the packaging law passed last year. The Senate accepted the Monroney amendment which states "nor shall any regulation under this act preclude the orderly disposal of packages in inventory or with the trade as of the effective date of such regulation."

The CHAIRMAN. Well, we will just ask two or three questions as we go along here.

If it is not clear on goods in commerce we should clear it up and only leave the very rarest escape clause where, after the thing has gone all through, somebody might have made a mistake or was careless and you find it dangerous.

You folks would not want that on your shelves anyway. But that would be the rare case I would think.

But if it is passed through the laws as they are now, nothing should be retroactive. I thoroughly agree with that.

Mr. SEITZ. Thank you, sir.

The CHAIRMAN. Next you have the guaranty provision.

Mr. SEITZ. The Flammable Fabrics Act now provides for two types of guaranties which suppliers might give to their retail customers. A separate guaranty with each shipment of covered merchandise and a continuing guaranty filed with the FTC.

The Textile Products Identification Act adds another and a very useful alternative. It permits a supplier to furnish each of his customers with a continuing guaranty—a guaranty which includes all covered goods shipped to that retail account. This is valid until it is rescinded.

Because continuing guaranties filed with the FTC can be rescinded or may not be renewed every 3 years, and because there is no published record of this, we ask that the option be added to the Flammable Fabrics Act of a continuing guaranty which may be filed by a supplier with his customers.

This is the simplest, most efficient guaranty provision we know about.

The CHAIRMAN. When you talk about continuing guarantee, you are talking as to a given type of product or all products?

Well, I guess that question is not worded very well. Suppose a manufacturer is making a type of product which you folks finally buy. His guarantee as to that type of product would be a continuing one?

Mr. SEITZ. That is correct.

The CHAIRMAN. He tells you how much is in it and details you may need to know, but the guarantee that it complies with whatever regulations there are at the time—

Mr. ADAMS. That is correct, Mr. Chairman. However, under the bill as presently amended by this amendment, there are only two types of guarantees. There is one that has to be provided with each invoice or each shipment as it comes through and one which is provided to the Federal Trade Commission.

Now, we would like one that continues along from the supplier.

The CHAIRMAN. As you point out, this means is more efficient, more simple.

Mr. ADAMS. It is.

The CHAIRMAN. Let me ask this: Has it worked well with you people?

Mr. ADAMS. Yes; it has.

Mr. SEITZ. Yes.

The CHAIRMAN. That is the best proof there is.

#### IMPORTERS-EXPORTERS

Mr. SEITZ. The proposed bill shifts the responsibility for imports meeting flammability standards from exporters to importers.

However, there is another change in this section of the law which we think should have been included in S. 1003 and which we strongly recommend.

Should the committee shift the burden to the importers, we recommend that the importer be prohibited from subsequent imports of that specific product from that specific resource which fails to conform to the applicable standard—but not to all subsequent imports of “any product, fabric, or related material.”

Should the importer utilize the permissive bonding provision, such bond should be an amount double the value of that product from that resource—but not double the value of all subsequent imports covered by the bill.

The CHAIRMAN. Well, there you mean that he bonds himself. Would it be an individual shipment?

Mr. SEITZ. To an individual shipper?

The CHAIRMAN. Shipment.

Mr. SEITZ. Shipment? No, it would be to the item itself.

Mr. ROTHCHILD. Type of an item.

The CHAIRMAN. If he is shipping a certain type of item and he wants to take out a bond, permissive bond, he would take that out as to that type of item?

Mr. SEITZ. That specific item.

The CHAIRMAN. But he might be shipping other items to you folks?

Mr. SEITZ. That is correct.

The CHAIRMAN. In other words, he can select? Isn't that what you are trying to say? The type of the item?

Mr. ROTHCHILD. A manufacturer in Spain manufactures leather jackets with some trim. He also manufactures sweaters.

The CHAIRMAN. Yes.

Mr. ROTHCHILD. It may well be a sweater item violates the statute. So that his bond would be on the sweater item and would not cover the leather jacket item.

The CHAIRMAN. Because he may deal in some items where there is no necessity to have a bond? Isn't that right?

Mr. SEITZ. That is correct.

Mr. SCHINDEL. May we answer that, sir? As the law is written now, the burden is on the exporter. We understand why you in this bill might want to shift the burden to the importer—somebody you can reach.

But, sir, we ask that when you shift that burden to the importer you don't put the bond requirement on double, all of the imports by that importer, but only the specific item which has been found at fault.

The CHAIRMAN. I see what you mean. I think the record will be clear on that.

Mr. SEITZ. Recordkeeping.

We want to make sure that the recordkeeping provision in section 4 of S. 1003 applies to procedures and those introducing covered goods into commerce and not at the retail level. As we understand it, retailers will always be protected by guarantee provisions from their suppliers and will not be required to keep "end use" or other such records. This is so vitally important that it warrants specific language in the pending bill.

The problem comes into focus when one considers a large counter with piles of short lengths of material, premeasured and marked with a large enough pin-ticket to hold the folds of material together. Customers select what they want and take it with their other purchases to a checkout counter at the front of the store. It is impossible for the retailer to "maintain proper records showing the nature of the transaction, and acquisition, disposition, and intended end use of the fabrics, related materials or products involved." Who knows what a woman will do with a fabric after she gets it home?

Even exempt merchandise requires similar detailed records as the bill is now written, so please make it clear that invoices or receiving records will be sufficient "recordkeeping" for merchandise for which standards or coverage are changed and which we trust will be permitted to continue through distribution channels.

The CHAIRMAN. I think I thoroughly agree with that. If the bill is not clear on this recordkeeping, we ought to do everything we can to reduce it down to the simplest form and to a minimum. You gentlemen have got enough paperwork to do now without getting into more of it.

#### DELEGATION BY CONGRESS

Mr. SEITZ. The proposal to take the specific standards for flammability out of the present law is a serious one. It has been studied seriously by the industry. Alternative proposals have been weighed.

We can understand why Congress does not want to keep standard making and standard approval in its hands and why with the proposed new coverage of the Flammable Fabrics Act, this seems to be an appropriate time to delegate that responsibility—but to whom?

A special committee might be created to work on standards and new coverage, but this idea was rejected.

The U.S.A. Standards Institute, through its predecessor, the American Standards Association (ASA) has had a long and enviable record in the standards field. While we respect greatly and contribute to USASI and the work it has done, we agree that for this proposed legislation with mandatory standards, the best place to assign responsibility is to the National Bureau of Standards through the Secretary of Commerce.

This Senate Commerce Committee gave NBS responsibility to eliminate proliferation of package sizes and a good start has been made.

So, for this serious, important, and difficult task we go along with NBS, but, for the record, want to make sure that we understand what this consumer subcommittee intends and what S. 1003 requires in the way of certain procedures which are to be followed by the Commerce Department and by the National Bureau of Standards.

For merchandise not now covered by the act it is our understanding that coverage extension would be as follows:

The Secretary of Commerce would announce the probable need to cover certain merchandise or categories of merchandise, like blankets. A hearing would be held on this probable need.

If this need was substantiated, a board would be established to develop a standard for flammability for that merchandise.

When ready, the proposed standard would be published and a public hearing would be held to evaluate its effects.

If the above is not substantially correct, we have several suggestions to make. Perhaps it would be more accurate to say we have several requests to make.

One. Court review. In the other body at the hearing on this legislation it was stated by a witness that there would be very limited right to court review of decisions on extending coverage or changing standards. We ask that the right to full court review of regulations be clearly assured, as has been done in other protective legislation, like the Food and Drug Act, Traffic Safety Act, and the Packaging and Labeling Act.

The CHAIRMAN. Right there, you heard the testimony. We think you are automatically afforded court review. But if there is any doubt about it, we will attempt to put language in that will make it clear so there will be no question about it.

Mr. SCHINDEL. We understand, sir, that while court review of a limited sort is available under the Administrative Procedure Act—

The CHAIRMAN. Yes.

Mr. SCHINDEL (continuing). We have referred to three specific laws in which there is a little bit more useful court review provided.

The CHAIRMAN. All right. We will be glad to get those suggestions.

Mr. SEITZ. Two. Representation on standards boards. A memo from the Department of Commerce notes that the present Standing Committee for Flammability of Clothing Textiles represents "the textile industry, commercial testing laboratories, insurance, consumer and Federal interest." This committee and a subcommittee of it worked for a considerable time on changes in the present standard. But we who sell to the ultimate consumer were not represented.

We request that S. 1003 be amended to state positively that retailers shall be represented on all Flammable Standards Boards set up under this amendment.

Precedent is found in the packaging law which requires such representation on NBS committees on package proliferation.

Third. Clothing exemption. It is assumed that it is intended that apparel for which the specific exemption in the present law is to be deleted would be treated as newly covered merchandise and subject to the same procedures as "interior furnishings."

At present only the exposed side of a textile is tested. Interlinings are exempt as are hats, gloves, and shoes. The same general conditions

prevail today as in 1953 when the law was passed. Hats have not caused trouble even though, we understand, some millinery veiling would not pass today's test.

The CHAIRMAN. I keep asking myself how hats got in this bill anyway. I don't know. Maybe somebody on the committee got them in. But I don't know that we are too much concerned with hats.

Mr. SCHINDEL. You know, they are not going to pass the test, and what are we going to do? We are concerned, sir.

The CHAIRMAN. I don't know how hats got in here, but if it is in here we will have to take a look at it.

Mr. SEITZ. As far as we have been able to determine, interlinings have not caused problems. Yet there is question about how it could be tested as well as why a test should be established. Wigs are not known to be hazardous. They would be subject to coverage.

FTC has very wisely used discretion and has permitted the sale of bridal veils, which are hopefully intended for only one wearing, provided those veils are treated with a temporary "one-shot" flame retardant. This treatment is good only until the veil is washed or cleaned. FTC requires that such veils have a label warning the customer of the facts.

If the present apparel exemptions are deleted, the spokesman for the Commerce Department said at the opening session of this hearing that all merchandise affected, including the nonexposed side of clothing fabrics, would be subject to whatever flammability standards might be developed. There would be no need for the Secretary of Commerce to first establish that there is a probable need for a standard.

In view of the fact that the exemptions in the present law have not seemed to cause problems, and in view of the uncertainty on the part of at least some members of the present Standards Board on Flammability of Clothing as to what this loss of the exemption would mean, we ask that this merchandise be treated as all other newly covered furnishings and subject to the same procedures.

#### SUMMARY

In this consolidated presentation by the retail groups most concerned, we have supported the aims of S. 1003. We agree that it is time to bring the Flammable Fabrics Act up to date and extend its coverage.

We applaud the emphasis given to study and the need for facts about the extent of hazard from flammability of clothing and interior textile furnishings.

We agree that the Secretary of Commerce and the National Bureau of Standards are best equipped to assume the responsibility for establishing new, mandatory standards of flammability.

We have proposed that S. 1003 be amended to take care of these operational problems:

Goods in commerce should be protected from retroactivity.

Continuing guarantees which each supplier could file with each of his business customers should be authorized.

The penalty bond requirement for importers should be limited to twice the value of the previous year's importation of merchandise failing to meet the standards rather than of total imports.

Retailers should be exempt from any impossible recordkeeping such as intended end use.

There should be a specific requirement that all flammability standards boards set up under these amendments would have retailer representation.

Court review of standards and of proposed areas of new coverage should be permitted.

New apparel coverage brought on by the elimination of the exemptions in the present law covering apparel should be treated as all other areas of new coverage.

Thank you for this opportunity to appear before you and to present these suggestions on behalf of retailing.

The CHAIRMAN. Well, I thank you gentlemen for coming, and I appreciate this statement. I think you have made some good suggestions.

Mr. BURSTON. Mr. Chairman, would you indulge me just a moment? I am William Burston of the National Retail Merchants Association and, of course, I am submitting the statement I have for the record. I have a supplemental statement to make. It is not long, and I would be grateful if you would let me read it for the record.

The CHAIRMAN. Put it in the record.

Mr. BURSTON. All right. I would like to read it.

The CHAIRMAN. Go right ahead.

Mr. BURSTON. This is just for emphasis because I am sure we have covered it.

Domestic manufacturers and distributors of fabrics and products potentially covered by the Flammable Fabrics Act are uniquely aware of the flammable characteristics of the products which they sell or should be so aware. On the other hand, retailers of such fabrics and products are uniquely unaware of such characteristics and must rely upon the representations of their suppliers.

Accordingly, the NRMA urges that the statute be revised to place primary responsibility for compliance upon the manufacturers and wholesalers from whom the retailers buy.

Indeed, the retailer generally has no means of knowing the flammability characteristics of the merchandise he buys. The average retailer can't afford the expense of laboratory tests.

Hence, we urge that the retailer be exempt from the requirements of the Flammable Fabrics Act—under, of course, specified statutory conditions.

These conditions would provide that if the retailer discovers that products which he is offering for sale fail to meet the statutory flammability standards, the retailer under penalties of the statute would be required to withdraw such merchandise from the shelves and return it to his supplier.

Of course, the exemption would not apply to items imported by the retailer.

Should Congress determine that it would be inappropriate to grant the suggested exemption, then at the very least revisions of the statute should be incorporated which would place a greater responsibility upon the manufacturers and wholesalers of merchandise which may be flammable.

In this connection the NRMA recommends that the statute be amended to make it mandatory that domestic manufacturers and wholesalers of merchandise within the purview of the Flammable Fabrics Act issue guarantees to their retail customers for the fabric and products which they sell.

The guaranty issued by the distributor or wholesaler could be based upon the guarantee which the wholesaler receives from a domestic supplier, except that when the wholesaler is an importer he would be required to issue an independent guarantee.

However, in view of the limited protection accorded by such guarantees under section 8 of the act, they aren't a full answer to the retailer's problem. The guarantee does not afford the retailer the factual information which he needs to determine whether he can safely sell the product obtained from his suppliers.

Moreover, since he has neither the resources nor the expertise to conduct his own tests, additional obligations should be imposed upon the domestic suppliers.

For example, when a fabric or product is subject to any of the special flammability labeling requirements promulgated by the Federal Trade Commission, the invoice issued by the manufacturer or wholesaler should be required to contain a statement indicating either that the labels attached to the fabric or product contain the necessary information or else explaining the reasons for the manufacturer's or wholesaler's failure to do so.

More specifically, according to the Commission's rule 5(a) under the statute, fabric or wearing apparel which loses its flame resistance after washing or drycleaning must be labeled to indicate that the fabric or wearing apparel will be dangerously flammable if drycleaned or washed.

This would cover products like the bridal allusion which was mentioned earlier or the recently developed paper-wearing apparel.

If a manufacturer or distributor or wholesaler sells such products and fails to attach this specific type of label required by rule 5(a), he should be required to explain on his invoice the reasons for the omission.

It may well be that the product in question will not lose its flame resistance if washed or drycleaned, and it is for this reason that the information has been omitted.

But the retailer is in no position to make this determination, and therefore must be so informed by his supplier. Otherwise there is the danger of the consumer being unwittingly sold an improperly labeled, potentially hazardous item.

Accordingly, it is a necessity that the statute require the retailer's supplier either to attach the necessary labels or to assure the retailer on the invoice that the necessary tests have been made and that the product in question will in fact meet the flammability standards both as originally sold and after washing or drycleaning.

Thank you, sir.

(The prepared statement of Mr. Burston follows:)

PREPARED STATEMENT OF THE NATIONAL RETAIL MERCHANTS ASSOCIATION

My name is William Burston, I am the authorized spokesman for the National Retail Merchants Association. Our organization comprises 2,000 members who operate some 16,000 retail stores in the United States. I am a vice president of the Association and manager of its merchandising division.

The Committee may wish to know that it was the National Retail Merchants Association which sponsored the Flammable Fabrics Act of 1953. We are motivated now as we were motivated fourteen years ago by a constant concern for the welfare of the consumer and the safety of merchandise on the American market.

We will support any necessary, practical and obtainable standards for that end.

1. *No Standards Exist.*—Yet the Committee must be aware that at this time there isn't available sufficient technology to properly evaluate a broad spectrum of household furnishings.

Only standards for tests of clothing are available. Items such as bedding, draperies and carpets have different exposure conditions, our Technical Committee advises. Hence the use of present apparatus will not be appropriate.

Linings, interlinings and foam cushioning would be covered by the proposed legislation. The burning propensities of these materials, I am advised, are a function of such coverings as may be used with them. To evaluate these as sub-components would be inappropriate.

As the bills are written, it is conceivable that the Department of Commerce may impose different standards on different end use products. For example, children's or infants' clothing may require a greater degree of flame resistance than would men's or ladies' apparel. Identical fabrics may however be used for either classification. The existence of multiple standards would rule out the possibility that the fabric manufacturer be responsible for test and resultant certification.

Since he would have no prior knowledge of the end use, he could not guarantee compliance. The garment manufacturer, the small independent retailer generally have no facilities for testing. They could, of course, obtain the services of commercial laboratories, but this for a small manufacturer or retailer would materially increase costs.

A fabric made by one large mill might go to hundreds of manufacturers and thousands of retailers. Each would be obligated to test, thus imposing a staggering dollar burden on the consuming public.

2. *Ask USASI to Get Up Standards.*—We believe that the new standards can best be developed by delegating that work to the U. S. A. Standards Institute. NRMA has worked with this organization for many years. The Institute has the facilities, the organization, the procedures to do this work most efficiently. It has also the confidence of industry. The point of view of the consumer would be emphasized by the Institute's Consumer Council.

Working with the USASI should be representations of the U.S. Department of Commerce and interested industry groups; also technical societies like the American Society for Testing Material (ASTM), the National Safety Council, textile manufacturers, retailers, consumer organizations, and textile laboratories. ufacturers, retailers, consumer organizations, and textile laboratories.

3. *Big Question: How Control the End-Use?*—One of the big problems the Congress will face in considering this legislation is how to control the end-use of a product. How will legislation keep people from misusing fabrics, or buying them for one purpose and converting them to other uses—one of them or several of them possibly dangerous? How can Congress anticipate situations involving the consumer's use of a product for which that product was never intended, or which the mill or converter or manufacturer cannot possibly predict?

A new test technology will have to be evolved to yield results that correlate with the new uses.

All textiles are consumed by fire and most of them support combustion or contribute actively to any encompassing flames. There are some fibers which are difficult to ignite and once ignited will extinguish themselves upon removal of the igniting flame or will only smolder or burn slowly. Closest to being fireproof are metal fabrics, fiberglass and asbestos and even these can melt or in other ways be destroyed as fabrics. This applies also to fabrics chemically treated to suppress combustion. There are no fireproof textiles nor known means of rendering them fireproof.

Chemicals can be applied to many textiles to make them resistant to ignition and become self extinguishing but such chemicals, if they are to be durable to washing and dry cleaning, will invariably affect the appearance, feel or other aesthetic properties of the fabric such as to render it unsuitable for many uses, especially in apparel. Also the chemical treatments may have as yet unexplored potential for causing allergic reactions and dermatitis to the wearer.

Attempts to confine apparel or household textile specifically to non-burning or slow burning fibers or to fabrics chemically treated for fire-resistance will drastically limit the consumer's wide freedom of choice in matters of color, texture, tactile qualities, style and other aesthetic properties presently available in great variety and diversity of products.

In addition to drastic restrictions in choice there would be unavoidable and considerable increases in cost to the consumer.

Any regulation of garment manufacturing to specify the fiber and chemical properties of manufactured garments intended for particular end-uses such as garments for children or the aged could not control homemade items or the adapting by the consumer of other materials to such uses.

It is an unfortunate condition of life that a certain number of individuals in every age group will die in any selected interval of time and that whatever the forces that determine the random distribution of causes of death, they will result in some number of deaths attributable to fire.

Do the statistics support the view that there exists in the general experience of deaths and injuries by fire a condition that could be eliminated by using fire resistant textiles?

How often in cases of injury or death by fire has clothing been the sole or chief cause. Anyone involved in an encounter with fire may be seriously burned regardless of the nature of the clothing worn.

How many deaths by fire could actually have been prevented if the victim had been wearing fire retarding clothing? A single untimely death and a single burn suffering is one too many, but how far should legislative regulation be carried in attempts to reduce death and suffering caused by flammable apparel when such regulation will reduce for the total population its capacity for living a life of free choice?

Many untimely deaths result from what are normally such innocuous agencies as bees, mushrooms and vaccinations. Must such things then be eliminated? The U.S. Public Health Service, by public statement of Dr. James Goddard, has statistics to show that death can result from ingestion of a single aspirin tablet and that statistically one child dies every three days from the effects of aspirin.

Are these untimely deaths to be controlled by denying the entire population the choice of availing themselves freely of the undeniable benefits of a proven beneficial drug?

Perhaps a broad, long-term program of consumer education is needed. We are not sure, yet this might be one of the auxiliary benefits from this legislation. I need hardly say that the NRMA will give every assistance that it can devise if this is a decision.

4. *Who Should Keep the Records?*—We believe the Congress should clarify the proposed record-keeping requirements. The proposed legislation would require record keeping at all levels of distribution.

The retailer would be required to maintain records for three years, disclosing the "nature of transaction, acquisition and *intended* end use." This is hardly possible, as we have already suggested. Would our salesclerks have to ask, "Madam, are you buying this junior size dress for yourself or your daughter?" In our fabric departments, we would have to ask: "Madam, what are you going to make out of this fabric?" We have untold instances of people buying fabrics for one purpose and then deciding to use them for another.

We are not for shirking our responsibilities. But here it is obvious that the record-keeping must be the obligation of the resource from whom we buy the merchandise. We have no choice but to rely on what the vendor tells us. The retailer should therefore be exempt from the record-keeping requirement. He should be able to rely—as he does in the original Flammable Fabrics Act, and in other legislation the Congress has passed—the Wool Products Labeling Act, the Fur Products Labeling Act—on the guarantee he receives from his supplier.

5. *Why Shift Responsibility on Imports?*—Regarding the importer of merchandise and his responsibility, may we ask why the emphasis on the responsibility of the *exporter* stated in the original Act of 1953 should in this new legislation be put upon the *importer*? There is no evidence, thus far presented, that the American consumer has been inadequately protected under the original provision, or that this provision has not worked.

To authorize the potential prohibition of all subsequent imports from any source, except upon filing a bond prohibitive in amount, would be a threat to the continuity of the nation's importing programs.

We ask that the original clause, putting the responsibility upon the *exporter*, remain unchanged.

6. *Permit Unsold Merchandise to be Sold.*—May we also assume—because this also has been accepted past practice—that merchandise in the pipe-lines of distribution should the bills become law will be permitted to be sold? And that the 6-months' provision for the test standards' effectiveness be applied only to new merchandise. If applied to merchandise already in the channels of distribution when the legislation takes effect, too little time would be allowed for the merchandise to be sold. This should apply also to merchandise in process of contracted for all the mill level. A standard published in January, for example, would become effective in July. Unsold inventory of winter styles might become unsalable the following winter season. If there is any question about an item's hazard, the responsible merchant will of course remove it from sale.

7. *For HEW Making Study.*—A final comment: we commend the proposal to have the Department of Health, Education, and Welfare study the incidence of accident due to the burning of textile products. There are apparently no reliable statistics available at this time.

I'm grateful to the Committee for the opportunity to express the NRMA's views on the pending bills. I repeat our offer to help in every way possible to provide greater and wider protection to the public. Each of us, we remember, is also a member of that public. We are therefore protecting ourselves. But vital questions need to be answered, complexities resolved, and responsibilities properly appointed.

The CHAIRMAN. Well, I hope generally there is an intent here to extend this to only people who should be responsible for this and not people who are not responsible. A retailer would have no way of testing anything.

Mr. BURSTON. No, sir.

The CHAIRMAN. He has to rely upon his supplier.

Mr. BURSTON. That is right.

The CHAIRMAN. And the supplier I suppose has to rely upon the manufacturer, and he is the one—

Mr. BURSTON. It goes all the way back.

The CHAIRMAN. There are serious questions of liability involved in this.

Then, as a human element, if you leave flammable fabrics out or anything else—I don't care what it is—when someone is not satisfied or something happens with an article when bought, the first place they go down and raise the devil with is the retailer.

Mr. BURSTON. Yes.

The CHAIRMAN. And he is the conduit, and he may not know about it. He has to accept what he gets unless it is a patent thing that he realizes and knows. And if that is true, he does not want to put out anything that is not good. He would not be in business very long, would he?

Mr. BURSTON. No, sir.

The CHAIRMAN. All right. Thank you.

The subcommittee is adjourned.

(Whereupon, at 1:35 p.m., the subcommittee adjourned, subject to the call of the Chair.)

STATEMENT OF EDWIN E. MARSH, EXECUTIVE SECRETARY, NATIONAL WOOL GROWERS ASSOCIATION

Mr. Chairman and Members of the Committee, this statement is presented on behalf of the National Wool Growers Association, which has its principal membership in a 22-state area where 86 per cent of the nation's sheep, lambs and wool are produced. The Association was organized 102 years ago and is generally recognized as the spokesman for the sheep producers of the United States.

At our 102nd Annual Convention in January of this year we adopted the following resolution:

"We support proposals which will strengthen the Flammable Fabrics Act. Specifically, we endorse legislation which would have the effect of including blankets and bedding under the Act."

We endorse S. 1003 and feel enactment of this bill would improve the Flammable Fabrics Act and would give more protection to the consumer. There is a bill referred to the House Interstate and Foreign Commerce Committee, H.R. 7920, which contains the language of S. 1003 with an added provision which we would like to endorse and respectfully recommend for the favorable consideration of the Senate Commerce Committee. This provision broadens the definition of "interior furnishings" to include those used in vehicles or vessels for air or surface transportation, including automobiles, buses, railroad cars, boats, ships and airplanes. H.R. 7920 also provides for establishment of minimum standards of flammability and fiber content for furnishings used in such vehicles or vessels.

We assume that the term "interior furnishings" in S. 1003 would include blankets and bedding. However, if they are not included, we strongly urge inclusion of both blankets and bedding in these proposed amendments to the Flammable Fabrics Act.

In unofficial tests our Association has conducted with samples of three blankets (wool, acrylic and viscose-rayon), some very dramatic results have been observed. A lighted match was applied to each blanket for five seconds. While the wool blanket will burn, we have found it will only burn while a lighted match continues to be applied to it. When you take the match away, burning stops immediately and the only damage is a black spot. This illustrated to us that wool will not support combustion. On the other hand, the two synthetic fiber blankets ignited immediately, continued to flame profusely, and melted rapidly even after the lighted match was removed.

If there is any question about these advantages of wool, we would welcome official laboratory tests for flammability of this fiber; also for mohair, which has this same non-combustible quality. We feel that greater use of wool and mohair would provide an important solution to the fire hazard problem.

Not only is it important for the U.S. government to set flammability standards for fabrics used in furnishing homes, offices and places of assembly, but it is also important to protect people's lives by setting standards for automobiles and airplanes as well as buses, railroad passenger cars, and boats.

Mr. Chairman, we commend the Committee for holding hearings on S. 1003 to strengthen and improve the Flammable Fabrics Act. We urge that you favorably report this bill with the added provision we have recommended in this statement which would broaden the definition of "interior furnishings".

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NATIONAL MILLINERY PLANNING BOARD, INC.,

*New York, N.Y., May 16, 1967.*

To: Senate Commerce Committee.

Subject: Flammable Fabrics Act—Headwear.

Why is headwear included in this Act? A colloquy between Chairman Magnuson and a witness at the hearings point up this question, a transcript of which is attached to this letter.

In this United States of America, we are supposed to live a life of liberty where regulations are imposed, not merely to regulate something or to be arbitrary, but for some purpose affecting the public welfare.

Fourteen years ago, as is hereinafter related, hats, provided they did not form a covering or part of a covering for the neck, face or shoulders, were exempted from the bill even though we objected to even the mention of them. Now, the Federal Trade Commission is having its staff study the question of what length veils should be allowed even though during that entire *fourteen* years (and for that matter) for a thousand years before that, they have not been able to point to a single, solitary woman who has been injured or damaged by the ignition of a veil during that entire period.

It is probable that most of the reason for this is that hair is composed of water to such a large extent that it will not readily burn. This is best demonstrated by the experience which I had as a boy of seeing men who were sufficiently

affluent, have their hair "singd" with a lighted taper at the same time it was cut. This was a perfectly safe procedure because the hair would not burn.

At the time of the original adoption of the Flammable Fabrics Act, the framers of the Act exempted all headwear and then someone got in a proviso to the exemption which, in effect, read as follows:

"Sec. 2(d) The term 'article of wearing apparel' means any costume or article of clothing worn or intended to be worn by individuals (at which point the definition in the present Act would end) *except hats \* \* \* provided such hats do not form a covering for the neck, face or shoulders when worn by individuals.*" (Italic portion is the portion to which this petition objects.)

A year after the adoption of this Act and at about the time it was going into effect, the Senate Committee on Interstate and Foreign Commerce issued a Report No. 1323, 83d Congress, 2d session, dated April 14, 1954, which said, among other things, the following:

"Some of the communications received by your committee from business men pointed out that a considerable amount of sheer silk from Japan and of other domestic and imported sheer conventional fabrics are used in the manufacture of flags and handkerchiefs. Some of the correspondents requested that they be exempted from the application of the Flammable Fabrics Act. Obviously, flags cannot by any stretch of the imagination be considered articles of wearing apparel and are not contained within the scope of the Act. Committee counsel has advised your committee that a handkerchief is a mere accessory and cannot reasonably be considered as an article of wearing apparel within Section 2(d) of the Act. A handkerchief can easily be discarded or dropped if it is ignited. It was not intended at the time of the enactment of the act to include handkerchiefs as an 'article of wearing apparel' or 'clothing worn or intended to be worn by individuals.' Obviously, one does not normally wear a handkerchief, but simply carries it as an accessory either in one's hand or in a pocket.

"Under usual circumstances, it may be quickly removed when ignited and does not constitute the type of unusual hazard which the act was intended to ban. Accordingly, your committee believes that this doubt on the part of industry can easily be disposed of through administrative regulations.

\* \* \* \* \*

"Importers, domestic manufacturers of millinery veiling and of millinery have pointed out to your committee that millinery veiling on ladies' hats is a conventional fabric, has a long record for safety, presents no unusual hazards, and is not usually washed by the owner of the hat. They have asked that millinery veiling be expressly excluded from the application of the act. Committee counsel has advised your committee that the usual types of millinery veiling traditionally used on ladies' hats cannot be interpreted reasonably as constituting or forming 'part of a covering for the neck, face or shoulders' within the first proviso of Section 2(d) of the act. Your committee agrees that the traditional types of millinery veiling made of conventional fabrics which present no unusual hazards were not intended to be and are not included within the ban of the Flammable Fabrics Act, and that this is a matter that can safely be left to the discretion of the Federal Trade Commission which can include by regulation within the ban of the act types of millinery veiling which otherwise 'constitute or form part of a covering for the neck, face, or shoulders when worn by individuals,' as intended by the Congress. Again in this instance, this is a situation which lends itself well to a reasonable administrative interpretation of the act."

This was immediately brought to the attention of the Federal Trade Commission. Pursuant to it, the five members of the FTC on June 3, 1954 issued an interpretation of the above quoted definition of article of wearing apparel so far as it relates to millinery 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.'" This exempting hats with such veils from the terms of the Act.

Practically all of this veiling used in America is imported from France and from a practical standpoint, it is impossible to flameproof it because to use it as it is used in America, it is necessary to be "blocked" into the form of a hat or whimsy. If it is flameproofed, it will not take blocking and immediately loses its desired shape.

Twelve years later, after all of the members of the Federal Trade Commission who had been on it in 1954, and all of the members of the Senate Committee on Interstate and Foreign Commerce, who had been on the Committee in 1954, were no longer in office, the Federal Trade Commission suddenly, without warning to the millinery industry or to importers of veiling, rescinded the above interpretation without even discussing the matter with members of the millinery industry.

Almost immediately counsel for the industry petitioned the Federal Trade Commission to suspend this rescission because millions of dollars of veiling had been imported under the interpretation which had been adopted and millions of dollars of veiling was then in inventory on the shelves of importers and millinery manufacturers which had been imported into this country at a time when the above interpretation was in effect.

We are very glad to report that as soon as the Federal Trade Commission heard the complaint of the importers of veiling and the millinery manufacturers, they instantly suspended the rescission of the interpretation and have sent it back to the staff of the Federal Trade Commission for further consideration and it is being given sincere consideration by Mr. Henry D. Stringer and other members of the Bureau of Textiles and Furs. However, these staff members are not sure what the Federal Trade Commission wanted when it sent the matter back to them.

In the argument before the Federal Trade Commission, it was clearly shown that the language in Section 2(d) of the Act said that hats were exempt "that do not constitute or form part of a covering for the neck, face or shoulders."

Up until that time and even at that time, the FTC was reading this language to mean that the only millinery that was exempt was millinery which does not form "*part of a covering for the neck, face or shoulders.*"

The difference is obvious. Under the Act there must be a complete covering for the neck, face or shoulders. Under the thinking which was being given, if part of the forehead was covered, it brought the entire hat under the Act because it formed a covering for *part of the face. This never was the intention of Congress.*

Under the new amended Act which has been introduced, Section 2(d) which defines these matters, has been completely revised so that there is no reference to headwear. The proposed bill amends the definition of wearing apparel to the point where it reads as follows:

"(d) The term 'article of wearing apparel' means any costume or article of clothing worn by individuals."  
thus eliminating any reference to the exemption for headwear.

We most respectfully allege that so far as we know, there never has been an accident or danger to a woman from the fact that a hat or hair caught on fire for the reason stated above and we most respectfully allege that if the question were directly asked from anyone familiar with statistics he would readily state this. If so, there is no reason for including headwear in this Statute.

Sincerely yours,

JOHN M. KEATING.

#### SUPPLEMENT TO STATEMENT

Some of the testimony that has come in clearly shows (prepared statement of Acting Under Secretary of Commerce J. Herbert, Hollomon) that the Department intends to do great research and set up tests for blankets, drapes, etc., but not to do this under *hats, gloves or shoes*, notwithstanding the fact that Congress in 1953, when they prepared this bill, already considered that question, and found that there was insufficient danger of fire in these articles to justify inclusion in the Flammable Fabrics Act.

"It does not extend to such everyday items as baby blankets, drapes, carpets and upholstery fabrics."

The Under Secretary then states that:

"\* \* \* we still have an estimated 2,000 deaths annually related to the combustion of clothing."

But he does not attribute a single one of these deaths to the ignition of a hat.

In his prepared statement, the Acting Under Secretary said:

"It is not justified to continue to exclude from coverage under the 1953 Act such articles of clothing as gloves, footwear and hats."

Even though he does not give one scintilla of evidence of damage to a single solitary person in the United States from the ignition of a hat or a veil.

On everything except hats, gloves and shoes, the Commerce Department expects to give a hearing after notice and a chance to be heard.

"New standards for such items must be developed, with the proper procedural safeguards" (Emphasis added).

Not so with hats.

"The CHAIRMAN. That brings me to this question. The present Act, as you pointed out, and I did in my opening statement, does not cover hats, gloves, or inner linings, drapes, and things of that kind. Under the proposed amendment would there have to be a specific finding of need before you could issue a standard to those things that are not covered?

"Mr. HOLLOMON. There would *not* have to be a finding of need for the case of hats, gloves, or other related wearing apparel. I should like to make clear that it is our view that the Congress in a sense has already found that need, and that these items, left out of the original legislation, simply—my view because the legislation was not sufficiently inclusive. A need would not have to be found for gloves, hats, or related activities—shoes. *However, standards would have to be issued and those standards would have to be issued under due process, hearings and the like.*" (Emphasis added.)

It is obvious that a bureaucrat will immediately start after hats, gloves and footwear, notwithstanding the fact that Congress fourteen years ago very carefully studied this question, and so far as we know, there has not been a single incident involving the ignition of a hat since that time.

The Chairman apparently finally realized the intent of the Department because the following ensued:

"The CHAIRMAN. *Why do you keep mentioning hats? What have hats to do with it?*

"Mr. HOLLOMON. I don't keep mentioning hats. [Laughter.]

"The CHAIRMAN. I see in all the statements people want to extend it to hats and gloves.

"Mr. HOLLOMON. And shoes.

"The CHAIRMAN. And shoes?

"Mr. HOLLOMON. Yes. And also inner linings of clothing. The reason for hats, Mr. Chairman, is that the original intent of the legislation, the first bill, the 1953 Act, covered wearing apparel with those exceptions. We feel that feet and hands and things that are next to your body are just as important to us as general clothing and sweaters. Getting burned on the head is just as traumatic as getting burned on your body. We think it is our view—

"The CHAIRMAN. *I never heard of anybody being burned with their hat.*

"Mr. HOLLOMON. If it was unusually inflammable, Mr. Chairman, you would be in trouble.

"The CHAIRMAN. Monday was straw hat day. What do you do with a straw hat? Do you spray it with something?" (Emphasis added.)

From the above, it is apparent that the Department has its aim set on hats, notwithstanding all legislative history against the inclusion of hats and veils which have been worn for thousands of years without danger to women.

WEIL, GOTSHAL & MANGES,  
New York, N.Y., May 1, 1967.

Re S. 1003—Amendment to Flammable Fabrics Act.

CHAIRMAN,  
Consumer Subcommittee of the Senate Commerce Committee,  
U.S. Senate, Washington, D.C.

DEAR SIR: Our client, Textile Distributors Association, Inc., of this city, is comprised of 132 businesses engaged in the distribution of textile fabrics made of natural and man-made fibers and blends. The membership is comprised of the leading textile distributors in the country doing an annual gross business in excess of three billion dollars.

The membership of the TDA wholeheartedly supports the objectives of the Flammable Fabrics Act. As you know, the present Flammable Fabrics Act specifically sets forth in Section 4(a) the flammability standards which must be met to comply with the provisions of the Act and further provides that if the Secretary of Commerce finds that these standards are inadequate for the protection of the public interest, he is to submit to Congress a report setting forth his findings and his proposals for appropriate remedial legislation. The present flammability

standards described in the Act were developed by and under the jurisdiction of the National Bureau of Standards in cooperative and active participation with industry and consumer groups. This association was one of the groups which worked closely with the National Bureau of Standards in developing the present flammability standards.

The Bill now before you for consideration would change the present Act so as to provide that the Secretary of Commerce shall prescribe the flammability standards for articles of wearing apparel and fabrics and related materials used in the manufacture of such articles and further provides that if he determines that there are additional flammability standards required in order to protect the public, he is to prescribe the same. He has the same rights and obligations with respect to amendments of any flammability standards he previously prescribes. The Bill also provides for investigations on the subject of flammability to be conducted by the Secretary of Health, Education and Welfare, the reports to be submitted to the President and to the Congress with recommendations. Likewise, the Secretary of Commerce is authorized to conduct research, develop test methods, etc., and to report the results annually to the Congress.

The Textile Distributors Association, Inc., is concerned with the provision of the proposed legislation which removes from the law the specific tests of flammability and substitutes therefor the blanket provision that the Secretary of Commerce alone, and without consultation with Congress or any other governmental agency, is to prescribe flammability standards. It is submitted that various associations, including the Textile Distributors Association, Inc., are eminently well qualified to make recommendations as to flammability standards which are both practical and feasible for performance by industry and will provide adequate protection to consumers. This industry is well aware of its obligations to the public as well as to its customers and stockholders. We join with the recommendation previously made by other industry associations that if the present standards prescribed by the existing Flammable Fabrics Act are in need of revision, investigations and research should be undertaken forthwith with appropriate participation by industry groups and governmental agencies. The results of such investigation and research should, in the view of our client, be submitted to Congress for appropriate action.

In the first instance, we believe that industry should be given a reasonable period of time voluntarily to make any changes reasonably required in flammability standards and methods of testing for flammability. Only in the event that voluntary, appropriate remedial action is not forthcoming from industry should the Department of Commerce (Federal Trade Commission) report its findings to Congress and request specific changes. In this day of fast-changing scientific development, various flame-retardant processes are being developed for various types of fabrics. We respectfully submit that said flame-retardant processes, if commercially feasible, would voluntarily be adopted by industry but we submit that the American textile industry, which supplies the entire American public with innumerable items and which employs millions of persons, should not be subject to this mandatory direction of the Department of Commerce with respect to flammability tests and standards or, at least, without adequate protection to the industry and consumers in the form of rights of public hearings, resort to the Courts and ultimate resort to Congress. One substantial mistake by the Secretary of Commerce in the issuance and promulgation of a flammability test might result in complete disruption of production of a type of fabric with consequent loss of jobs, serious reduction in business and possible harm to consumers.

We respectfully call to the attention of this Committee that with respect to the initial prescription and issuance of flammability standards by the Secretary of Commerce under the proposed Act, no public hearings are required nor is there even the minimal protection that such standards should not be prescribed and issued by the Secretary of Commerce without giving notice and opportunity for presentation of the facts by all segments of the public concerned. We urge this Committee that appropriate changes be made in the subject Bill so as to provide that (1) no flammability standards or prescribed tests will be issued until a reasonable time after industry has had an opportunity voluntarily to adopt said standards after consultation with the Department of Commerce and (2) no mandatory standards or methods of testing should be prescribed or promulgated in the absence of public hearings thereon and appropriate protective methods of review as above described.

Respectfully submitted.

WEIL, GOTSHAL & MANGES.

ASSOCIATION OF JAPANESE TEXTILE IMPORTS, INC.,  
Washington, D.C., May 2, 1967.

HON. WARREN G. MAGNUSON,  
Chairman, Committee on Commerce,  
U.S. Senate, Washington, D.C.

DEAR SENATOR MAGNUSON: We understand that a Special Subcommittee of which you are Chairman is considering legislation to amend the Flammable Fabrics Act of 1953 "to increase the protection afforded consumers against injurious flammable fabrics".

Most assuredly Japanese manufacturers, exporters, and importers of the "article(s) of wearing apparel", "interior furnishing(s)", "fabric(s)", and "re-later material(s)", to be included in the expanded coverage of the statute, all are for the stated and worthy objectives of the proposed legislation.

May we, accordingly, on behalf of the Association of Japanese Textile Imports, Inc., a New York trade association whose members are responsible for approximately 75% of all textile and household goods imported from Japan, respectfully urge that favorable consideration be given to the following three general principles, which are of special concern not only to certain importers of Japanese merchandise but also to all American importers and consumers of those articles which are brought within the purview of the proposed revisions.

1. No distinction should be made between domestic and imported products in the application and operation of the proposed amendments, if enacted into law. Since the hazards of fire and burning apply equally to domestic and imported textiles and interior furnishings, and the citizen is entitled to full protection from both, any new provisions, rules, and/or regulations that may be promulgated, including testing and inspection, should be the same and identical for goods manufactured in the United States and articles produced abroad. International commerce should not be restricted or restrained in the name of fire safety, nor should the proposed legislation be used as a non-tariff impediment to world trade.

We note, for example, that proposed Section 9, of S. 1003, "Shipments from Foreign Countries", is amended to read that "Any person who imports or who has attempted to import from any foreign country into the United States any product, fabric, or related material which fails to conform with an applicable flammability standard issued or amended under the provisions of Section 4 of this Act, may thenceforth be prohibited by the (Federal Trade) Commission from participating in the importation from any foreign country into the United States of any product, fabric, or related material except upon filing bond with the Secretary of the Treasury in a sum double the value of said products, fabrics, or related materials and any duty thereon, conditioned upon compliance with the provisions of this Act."

The "double sum" formula is a part of existing law. But it certainly provides a far more burdensome penalty in the event of a violation than is provided for domestic manufacturers for the same offense. It could well force an importer, especially a small one, out of business through no fault or knowledge of his own, because the penalty is so drastic and punitive.

Inasmuch as this "double sum" provision has been rarely, if ever, invoked, to the best of our knowledge, and inasmuch as this unjustified and unwarranted threat does serve to restrict and restrain the textile trade, we recommend that this inappropriate discrimination and distinction between domestic manufacturers and importers be eliminated. It would seem that the penalty for violations should be equally applicable to the United States maker and to the American importer, since both reside in the country and both are subject to the "reach" of the law.

2. No unreasonable, unrealistic, and unjustifiable curbs should be imposed on the manufacturers, both domestic and foreign, of the proscribed items in the drafting, implementation, and enforcement of new criteria, standards, and deadlines for the new law. Meaningful requirements are understandable and welcome, but arbitrary and unnecessary burdens should not be forced upon the producers, thereby increasing production costs and difficulties immeasurably without advancing the cause of fire safety.

As emphasized by several industry witnesses before the House Interstate and Foreign Commerce Committee Subcommittee on Commerce and Finance that conducted similar hearings on identical bills, including the Chief Engineer of the Fire Protection Underwriters' Laboratories, Inc., for instance, it

would be unreasonable to apply the same general standards for flame resistance to such different items as clothing and draperies, for each has a different function and use.

Furthermore, as other witnesses stressed, much more research and study of the subject is essential before the facts can be ascertained regarding unreasonable risk to public safety of various flammability tests and standards as applied to various articles. Simply because one fabric or product burns faster than another may not necessarily mean that one is more dangerous to the safety and life of an individual than the other.

Moreover, as the witness for the National Cotton Council, who is also the Chairman of the Clothing Flammability Committee of the American Association of Textile Chemists and Colorists, the ad hoc Chairman of the Testing Committee of the Information Council on Fabric Flammability, and a member of the Department of Commerce Standing Committee on the current flammability standard for clothing fabric, and as the spokesman for the American Textile Manufacturers Institute, the major central trade association of the textile industry, testified to the counterpart House Subcommittee, there should be "at least 18 months delay in the implementation of any new or amended standards".

If 18 months are needed for adjustments of the domestic industry, overseas manufacturers with their special problems require at least an additional six months. We would, therefore, suggest that at least 24 months be provided for the necessary transition to the new or revised provisions.

3. A representative of the importers' interests should be included in any advisory or consultative group or committee, formal or otherwise, that may be established to aid the Secretary of Commerce, or any other agency, commission, or bureau, in drafting, implementing, and enforcing flammability rules and regulations. Along with representatives of the Government, consumers, and domestic manufacturers, an importer representative should be involved in all stages that may follow the enactment of these proposed amendments. Not only may such an importers' representative assure that the legitimate concerns of foreign manufacturers, exporters, and importers be expressed, but he may also be able to suggest helpful ways in which to improve fire safety that may be used in other countries.

We believe that the three general principles outlined in this letter are deserving of the Subcommittee's favorable consideration, for they are minimal in assuring equity and equality between American-made and foreign-made textiles and interior furnishings. They are also in the tradition of the public safety statutes and ordinances of the National and local governments.

Since we do not intend to testify at the hearings this week, may we request that this letter be incorporated as a part of the record of the proceedings on Flammable Fabrics legislation.

Sincerely,

MIKE M. MASAOKA,  
*Washington Representative.*

STATEMENT BY ROBERT D. McCABE, MANAGING DIRECTOR, UNDERWEAR INSTITUTE, NEW YORK, N.Y.

My name is Robert D. McCabe and I am the Managing Director of the Underwear Institute, the national association, founded in 1866, of manufacturers of underwear, nightwear and allied products. The latter are principally knit shirts commonly designated as polo, tennis, basque, tee, or sweat shirts. Shipments of our knit cotton/wool products in 1966 totaled 87,690,000 dozens and if data for items produced from man-made fibers were available, this figure would be considerably higher.

The Flammable Fabrics Act became effective July 1, 1954 and in the period 1954 to 1966 inclusive this industry's shipments of knit cotton/wool products alone have totaled 10,738,776,000 garments for an annual average of over 826,000,000 garments. While I do not know of any statistics on the subject of burns specifically involving our products, I am certain, from the paucity of such cases reported in either the trade press or elsewhere, that the total would be so small as to be relatively infinitesimal. In fact, such flammability cases of have come to my attention have generally involved sweaters, scarves, veils, blouses, and dresses and these have frequently been imported or made here of imported fabric.

My purpose in bringing this to your attention is to point up the fact that this industry's record has been an excellent one both before and after July 1, 1954 and that we are in sympathy with the President's desire, as stated in his Special Message on Consumer Protection, to protect consumers "against unsafe products, against misleading information, and against the deceitful practices of a few businessmen that can undermine confidence in the vast majority of diligent and reputable firms."

However, we also feel that as far as these particular matters are concerned existing statutes such as the Federal Trade Commission Act and the Flammable Fabrics Act are sufficient. The National Fire Prevention Association, in the introduction to its Standard for Classification of the Flammability of Wearing Apparel No. 702-1963, says of wearing apparel fire accidents: "Most such accidents are caused by ignorance or carelessness on the part of the wearer . . ." This would seem to argue for an educational program designed to make the consumer more careful and safety conscious rather than for punitive action against the manufacturer.

The recent Apollo Space Craft and McCormick Place fire disasters are fresh in everyone's mind and serve to point out that just about anything will burn given the proper conditions. It should be remembered also that where a substance will not support combustion it can still have extremely harmful and possibly fatal consequences. Furthermore, I should like to call attention to the fact that "fireproof" underwear has been available for some time at \$17.50 a set but sales have not indicated that the consumer is interested in additional safety at that price. *Modern Textiles* magazine for February, 1964 stated that "Despite the many years of effort, flameproofing of textiles is still in its infancy". More recently, the July, 1966 issue of *Textile Industries* magazine reported that "Usage (of flame-resistant finishes) has been limited because of high application cost and undesirable results such as nonpermanency, changed appearance, feel, and performance of treated product."

It is our feeling that before the Congress enacts additional legislation in this area it should have before it those facts and figures which are either presently non-existent or not sufficiently complete. These should include a study and investigation of the deaths, injuries, and economic losses resulting from accidental burnings as mentioned in Section 14(a) of S. 1003 and H. R. 5654 as well as the research into flammability, the feasibility studies in reduction of flammability and the development of flammability test methods and testing devices referred to in Section 14(b) of these Bills. If these cannot be undertaken within the framework of the existing Federal agencies, then we would support H.J. Res. 280, to establish a National Commission on Product Safety.

Pending the findings of such investigations and research, we feel that the Flammable Fabrics Act should be retained as presently constituted except that we support the amendment proposed in H. R. 6142 and H. R. 7141 to clarify Section 4(a) of the present Act. Since the law applies only to uncovered or exposed parts of articles of wearing apparel we feel that it is desirable and necessary that the specific meaning of this language be spelled out.

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NATIONAL ASSOCIATION OF WOOL MANUFACTURERS,  
Washington, D.C., May 11, 1967.

HON. WARREN G. MAGNUSON,  
Chairman, Committee on Commerce,  
U.S. Senate,  
Washington, D.C.

DEAR MR. CHAIRMAN: The National Association of Wool Manufacturers wishes to record its support of S. 1003 which would strengthen the present Flammable Fabrics Act and extend its coverage. This position was taken unanimously at the last meeting of the Association's Board of Directors.

This Association is the national trade organization of the wool textile industry. Its members produce about 70% of the textiles made in the United States on the woolen and worsted systems, other than carpets and rugs.

Our position on S. 1003 stems from our belief that this legislation is in the interest of the consumer. It has been the policy of this Association, during its 102 years of existence, to support reasonable proposals for providing information and protection to the consumer.

It is our feeling that the purposes of this legislation could be achieved with the least possible burden on the industry if your Committee were to obtain assurance from the Secretary of Commerce that he would, in the development of standards of flammability, consult closely with representatives of industry.

We also recommend that the Committee obtain assurance from the Federal Trade Commission that, to the extent practicable, records kept by members of this industry pursuant to the Wool Products Labeling Act and Regulations be utilized to fulfill the record keeping requirements which will be established by the Commission pursuant to the terms of S. 1003.

We respectfully request that this letter be made a part of the hearings on S. 1003.

Very truly yours,

J. A. CROWDER.

UNITED BEDDING CORP.,  
Los Angeles, Calif., April 28, 1967.

Mr. NORMAN MALENG,  
New Senate Office Building,  
Senate Commerce Committee,  
Washington, D.C.

DEAR MR. MALENG: Thank you for your time and the audience on April 21, 1967 in Jerry Grinestain's office. As per your request, Fire Chief James M. Hammack of the Los Angeles City Fire Department is sending as much detailed information as possible regarding fire department breakdown on fires.

I thought you would also like to know that the executive secretary of the National Association of Bedding Manufacturers notified me that the industry is going to back your bill.

With your permission, I would be pleased to have you read the following statement into the record at the hearing conducted by the Senate Commerce Committee.

My company, United Bedding Corporation in Los Angeles fully realizes the highly flammable nature of the materials in use to make furniture and bedding. We are also keenly aware of the tremendous loss of life, disfigurement from burns, personal despair and expense and the untold economic loss that takes place in the end use of such products, when coupled with smoking and matches.

According to Fire Department statistics, smoking in bed is the number one killer in residential fires. Recognizing this fact and determined to do something about it, United Bedding Corporation and the Los Angeles City Fire Department cooperated in testing and successfully developing a fire-resistant mattress.

The fruitful efforts proved conclusively that the means of making mattresses safe for our citizens is not only available but economically feasible for both manufacturer and consumer.

It is quite evident that the consumer will not change his smoking habits and it is also quite evident that the bedding industry on its own cannot take the steps fast enough or large enough to prevent the annual "self slaughter" of our citizens.

The need for legislation is great, long in coming and must be done.

The committee must also be aware of the vast amount of "non-statistical" information. The thousands of small, but "potentially great" fires that are not reported in homes, hotels, motels and institutions. Fire departments can do nothing about these.

Keep in mind the despair of fire fighting units when they arrive at the scene of a fire and cannot reach or get equipment close enough to high rise buildings. Resort hotels and motels are being built where there is literally no fire fighting equipment for miles around and where only panic, destruction and death can take over.

The amendment S-1003 to the Flammable Act is the nation's only present ray of hope for protection of the consumer. It would also mean a reprieve for the fireman who daily risks his life and bears witness to the needless death, terror and destruction caused by materials which could have, should have been fire resistant.

If I can be of further assistance, please do not hesitate to notify me.

Very truly yours,

GEORGE SIMON, *Vice President.*

*Sacramento, Calif., April 18, 1967.*

HON. WARREN MAGNUSON,  
*Chairman, Commerce Committee,  
Senate Office Building,  
Washington, D.C.*

DEAR SENATOR MAGNUSON: As you may know, the California Legislature and State Fire Marshal have pioneered in the field of flammable wearing apparel. Minimum fire safety regulations for clothing were originally adopted in California some seven years prior to enactment of the Federal Flammable Fabrics Act.

In addition to our State program, we have worked actively in this field with the U.S. Department of Commerce, the Federal Trade Commission, the National Bureau of Standards, the U.S. Public Health Service, and the National Fire Protection Association. At present, our Mr. Louis Segal, Fire Prevention Engineer, is the Chairman of the Wearing Apparel Committee of the last-named organization, and is a member of the Standing Committee for CS191-53, "Flammability of Clothing Textiles."

All of this is mentioned only to indicate our credentials and deep interest in this field. As a supplement, we have enclosed a reprint<sup>1</sup> containing an article published recently in *Fire Journal* on the subject of clothing fires, in which we discuss all the many facets of this complex problem and its possible solutions.

Our purpose in writing to you now is to suggest a new approach which we feel could have immediate and far-reaching value in reducing the number of clothing fire casualties. We know of your great personal interest in this aspect of public safety, and we hope you will be interested in our proposals for new legislation, which we believe would fall within the scope of the Commerce Committee.

Our proposal is that virtually all articles of wearing apparel be required to bear on their labels the statement, "Caution: Keep Away From Heat or Flame." Only those few articles of clothing which are seldom, if ever, subject to accidental ignition would be exempt from this labeling requirement. These would include footwear, hats of conventional type, gloves, hosiery, bathing suits and undergarments worn directly against the skin.

We would be surprised if the initial reaction to such a proposal by the textile industry, including fiber and fabric producers and garment manufacturers, wholesalers and retailers, were anything but total and unanimous opposition. This is to be expected, but we are optimistic that much of the opposition might be dissipated with a fuller understanding of the proposal's benefits. With your indulgence, we should like to set forth our arguments in favor of the proposal; to try to anticipate and allay possible fears and objections on the part of industry; and to discuss the pros and cons of possible alternate, more discriminatory labeling.

Since the attached article probes the problems of clothing fire casualties in depth, we will not go into any detail here. Suffice it to say that we are faced with a serious and growing problem, which is not amenable to solution within the near future either by improved technology or by the imposition of more restrictive legal limits on fabric flammability. The public demands certain properties and qualities in clothing, the producer fulfills the demand, and the guiding philosophy as in all similar transactions is, "Let the buyer beware." There is nothing wrong with this philosophy, viewing it as a contest between the producer and the consumer, if the odds are reasonably even. However, an enlightened attitude decrees that where a product has some property or characteristic of a potentially harmful or hazardous nature, this information must be disclosed by the producer.

With respect to the clothing fire problem, we believe the prevailing attitudes of the industry can be summarized as follows: We are only furnishing what the public wants; we know that the fabrics of many articles of clothing will burn readily or melt or both, but the public shows little, if any, evidence of concern over this hazard; the public is interested only in factors such as cost, style, and comfort and is willing to accept the known calculated risk insofar as flammability is concerned; besides, it's not our fault that people are careless enough to catch their clothes on fire.

<sup>1</sup> Incorporated by reference and placed in subcommittee files.

We would agree entirely with all of these views, except for one vitally important point. The fire risk *is not known*. The great majority of the public is simply unaware of how readily most clothing can burn and how serious the consequences of a clothing fire can be. It is precisely for this reason that we are advocating mandatory cautionary labeling.

We are convinced that at this time neither more restrictive legislative enactments nor technological improvements offer any promise for significant reductions in clothing fire casualties. It is inevitable that for many years to come, the great majority of clothing in common use must remain readily ignitable and flammable, and capable of inflicting serious injuries or even fatalities. It is obvious then that the only effective means available for reducing clothing fire incidents is a greatly increased public awareness of the hazard, and we can think of no better way to achieve this increased awareness than a warning on the clothing itself.

Curiously enough, while this idea obviously is intended to provide consumer protection, it might very well offer a significant benefit to the clothing industry too. As matters stand now, it is not at all uncommon for plaintiffs in civil litigation involving clothing fire accidents to be awarded very substantial judgments, predicated apparently on violation of the laws of implied warranty. There is good reason to believe that cautionary labeling of the type recommended could provide valid and effective defense against such civil actions, and aside from legal considerations, one could make a solid argument that when products possess inherent properties which make them potentially hazardous, the producers and sellers have a moral or ethical obligation to disclose this information to the consumer.

Finally, there is the very important question of the exact label wording which should be required, and a possible alternate, different approach in this regard. There are appealing arguments in favor of a variety of warning labels depending upon the degree of flammability of the particular article. For example, required wording for relatively flammable fabrics might be, "Danger: Highly Flammable, Keep Away From Heat or Flame"; for fabrics of moderate or average flammability, "Warning: Flammable, Keep Away From Heat or Flame"; for slow-burning fabrics or those which do not burn readily but are subject to the hazardous melting property, "Caution: Keep Away From Heat or Flame." With this approach, it would then be feasible to exempt from any labeling requirement those few fabrics which can be considered almost entirely fire safe for clothing use, such as pure wool, and a very few synthetic fibers which neither burn nor melt. This almost certainly could be expected to receive wide support from the wool industry.

While there are advantages in this more elaborate labeling concept, we favor the simpler, original proposal for several reasons:

1. To require different label wording, and exemptions for non-flammable articles, it would be necessary to establish different classes of flammability. This, in turn, would first necessitate an accurate method for measuring rate of burning, and, secondly, the establishment of arbitrary classes. The accuracy and validity of present methods are very much in question. Further, there is as yet no method of test available for assessing the hazard potential of the melting property of many synthetic fibers. These and other technical problems would serve to greatly complicate the legislation, and more than likely would be so controversial as to kill any hope of its passage.

2. With the simple, same-label-for-all-clothing approach, all segments of the clothing industry would be equally affected and this should result in considerably less opposition.

3. The simple wording, "Caution: Keep Away From Heat or Flame," is excellent advice in any case, even if the particular article of clothing happens to be relatively non-flammable.

4. With everything required to be labeled, the maximum impact for public education would be realized. While the warning might be unnecessary and possibly even inappropriate on the label on a man's wool suit, it wouldn't hurt him at all to notice it because a few hours later he might be wearing a flammable cotton robe.

The ultimate benefit we envision in this proposal would be its continuing impact. This important message of fire safety would inevitably reach every member of the population, and not just on an occasional or intermittent basis.

There could not possibly be any more effective means of educating the public regarding this hazard.

Yours very truly,

GLENN B. VANCE,  
*State Fire Marshal.*

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STATEMENT PRESENTED BY E. FONTAINE BROUN, PRESIDENT OF MAN-MADE FIBER PRODUCERS ASSOCIATION, INC.

This statement is submitted by E. Fontaine Broun, President of Man-Made Fiber Producers Association, Inc., the address of which is 350 Fifth Avenue, New York City. That organization is a trade association composed of United States producers of man-made fibers, representing in the aggregate more than 90% of the total United States production of man-made fibers.

This statement sets forth the view of that Association as to S. 1003 now being considered by the Subcommittee.

The production of man-made fibers in the United States is an integral segment of the over-all United States textile industry and provides a great deal of the basic material, in the form of staple fiber, filaments and filament yarn, which is manufactured into the articles of wearing apparel, household furnishings and other textile products of interest to this Subcommittee in this Hearing on S. 1003.

The member companies of this Association, individually and collectively, are concerned with, and desire to foster to the greatest extent practical, consumer safety which is the aim of the proposed legislation being considered by this Subcommittee.

E. 1003, proposing amendment of the Flammable Fabrics Act, is of great importance to man-made fiber producers. We believe it is intended to provide machinery for a thorough study of the problems involved, and for informed action by the Secretary of Commerce in the initiation of new or revised flammability standards for fabrics, related material and products. These standards, to be effective, must rest on a sound technical and scientific base. To that end we assure the Congress that the technical and scientific resources of the members of this Association will be made available to the Secretary of Commerce.

We believe, further, that it is important to assure that the technical and scientific resources not only of the members of this Association, but also of other industry and consumer groups and interested persons, will be made available at the right time for use, and will be used in the best manner in the light of all the considerations that may be involved.

We do not believe anyone can reasonably disagree with the aim of the legislation here under consideration. Certainly the man-made fiber producers represented by this Association are for the fulfillment of that aim, which is to reduce to the extent practical, and as soon as practical, any unreasonable risk to the public of harm from flammable fabrics. The question presented is how to deal with that complex problem where the extent of hazards and the limits of practical reduction of risk are largely unknown. The one thing we all must strive for in this situation is to make certain that any legislation enacted will assure *fully* informed action by the Secretary of Commerce.

S. 1003 offers one approach to this complex problem. It is incomplete, however, in that it fails to provide notice and opportunity for expression of views prior to action by the Secretary of Commerce under proposed Section 4(a) of the Flammable Fabrics Act. We believe it is desirable that the Secretary have the benefit of the technical and scientific resources, not only of the members of this Association, but also of other industry and consumer groups and interested persons from the outset of his consideration of the standards contemplated by such Section 4(a).

In addition we suggest that there may be an unintended conflict between proposed Section 4(d) of said Act and what such Section 4(a) seems to require on its face—namely, that despite the requirements of such Section 4(d) as to what the standards contemplated must comply with, such Section 4(a) seems to say that the Secretary of Commerce shall prescribe and publish flammability standards for articles of wearing apparel, fabrics and related materials, with the phraseology being such as to support the result that the Secretary, regardless of need, would have to prescribe a standard for every article of

wearing apparel, every fabric and every related material. Accordingly, we suggest, to make explicit the opportunity for interested persons to furnish information to the Secretary of Commerce at the outset of his consideration of the standards contemplated by such Section 4(a) and also to eliminate the above mentioned seeming deficiency in the phraseology of such Section 4(a), that consideration be given to changing that Section to read as follows (lines 11 through 15 of page 4 of S. 1003):

"Sec. 4. (a) The Secretary of Commerce, if he determines after notice and opportunity for presentation of views, that a flammability standard (including conditions and manner of testing) for any article of wearing apparel, fabric, or related material used in the manufacture of articles of wearing apparel is needed to protect the public against unreasonable risk of the occurrence of fire leading to death, injury, or significant property damage, shall, after notice and opportunity for presentation of views, prescribe and publish in the Federal Register a flammability standard for such article of wearing apparel, fabric or related article."

It will be noted that the phrase "after notice and opportunity for presentation of views," appears in proposed Section 4 (b) and proposed Section 4 (c) of the Flammable Fabrics Act dealing with additional and revised standards. In addition to clarifying the language of proposed Section 4(a), we think it highly important that such phrase be included in such Section 4 (a).

We do not purport to be able to anticipate or specify all the problems which may merit consideration in deciding upon the provisions of the legislation. With the incorporation in S. 1003 of a provision such as I have just suggested for notice and opportunity for presentation of views as to the standards which the Secretary of Commerce is required by such proposed Section 4 (a) to establish for articles of wearing apparel, fabrics and related materials, and with further changes in such Section 4 (a) such as I have suggested to avoid a requirement for the establishment of mandatory standards in cases where there is no need for them, we think that the legislation will afford a basis for accomplishing its aim.

We do not suggest, however, that the approach of S. 1003 is necessarily the only approach that could be adopted to reduce to the extent practical, and as soon as practical, unreasonable risk to the public of harm from flammable fabrics. Other suggestions in that regard will undoubtedly be made to the Subcommittee and will receive its careful attention. Whatever approach is adopted in any legislation enacted, the members of this Association desire to cooperate with the Secretary of Commerce in forwarding the aim of the legislation, and the technical facilities and resources of the members of this Association will be made fully available to the Secretary of Commerce.

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UNDERWRITERS' LABORATORIES, INC.,  
*Chicago, Ill., May 8, 1967.*

Senator WARREN MAGNUSON,  
*Senate Commerce Committee,*  
*New Senate Office Building, Washington, D.C.*

DEAR SENATOR MAGNUSON: It is my understanding that a proposal to amend the Flammable Fabrics Act to increase the protection afforded consumers against injurious flammable fabrics has been referred to a subcommittee of the Committee on Commerce of the Senate under your chairmanship. Accordingly, I am pleased to file with you a copy of the Statement which our Vice President and Chief Engineer of Fire Protection, Mr. E. N. Davis, made before the subcommittee of the House Interstate and Foreign Commerce Committee on April 27, considering this same legislation.

It is my understanding that the record of additional questions and answers generated in connection with Mr. Davis' appearance will be published by the House Interstate and Foreign Commerce Committee very soon. If you feel that a personal appearance of Mr. Davis before your committee will be helpful in considering this proposed legislation we would be pleased to have him appear.

Very truly yours,

BARON WHITTAKER.

## STATEMENT OF E. N. DAVIS, VICE PRESIDENT AND CHIEF ENGINEER, FIRE PROTECTION UNDERWRITERS' LABORATORIES, INC.

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to comment to you on the several bills pending before you to amend the existing Flammable Fabrics Act.

It appears that one of the important changes being proposed is that whereas the existing law specifies the type of test to be applied and the level of performance required, it is now proposed that authority to prescribe standards of flammability be transferred to the Secretary of Commerce. While this produces a desirable capability to react to changing circumstances, it practically prevents estimation of the impact of the act upon the economy and upon consumer acceptance. The required level of fire-resistance, the degree of permanence required, and the flexibility or "hand" of the fabric required by the contemplated application, all have an important bearing upon the cost and consumer acceptance of the finished product.

As a basis for explanation of the above, I present the following discussion of the levels of flame-resistance now established by recognized existing Standards. The test method prescribed under the present Flammability Act uses a very small igniting flame applied for one second, and defines a fabric as acceptable or unacceptable depending upon how quickly the fabric burns. The unacceptable level may be illustrated by the brushed rayon sweaters or children's cowboy chaps which produced several tragic incidents. The acceptable level may well be characterized by the cotton shirts which most of us wear to work, although a fabric somewhat more flammable than this will pass the test. Standard No. 702 of the National Fire Protection Association, prepared by the Committee on Wearing Apparel, employs a slightly more severe test, but the line of acceptability is approximately the same as established by the existing Flammable Fabrics Act. This method defines three classes in the acceptable range, but the nature of the test is such that a high degree of fire resistance cannot be proven.

Requirements for truly fire retardant performance appear in NFPA No. 701—Standard Methods of Fire Tests for Flame-Resistant Textiles and Films, prepared by the NFPA Committee on Fire Tests. The Chairman of this committee is Mr. J. A. Bono, Managing Engineer of the Fire Protection Department of Underwriters' Laboratories, Inc. The Standard describes large and small-scale fire tests for determining suitable fire resistance of theater scenery, curtains, furnishings, and other fabrics or films used in places of public assembly, schools, hotels, hospitals, and similar occupancies, particularly where the level of fire-resistance is set by law. Fabrics meeting these requirements are sometimes used for specialized industrial clothing, but the treatments employed make the fabrics too stiff and heavy for ordinary clothing.

It is at this level that the work of Underwriters' Laboratories, Inc., enters. UL214 Standard for Flame Tests of Flame-Resistant Fabrics sets forth the procedures under which fabrics intended for the uses contemplated by NFPA No. 701 are tested by us and subjected to our periodic factory inspection. Many local ordinances and orders require that fabrics used in places of public assembly be listed by us as flame-retarded, and bear the listed marking on the fabric. Flame-retarded fabrics under this classification include Impregnated Fabrics, Plastic-Coated Fabrics, and Synthetic Fabrics. Non-combustible fabrics such as glass or asbestos are also listed. In general, fabrics complying with these specifications are too heavy, too stiff, or have some other characteristics which makes them unsuitable for clothing.

Underwriters' Laboratories has issued an "Outline of Proposed Investigation of Factory-Treated Flame-Resistant Clothing, Bedding, and Drapery Fabrics" under which we would list fabrics for these purposes. At the present time no fabric has complied with these requirements, and thus we have no listings for clothing or bedding fabrics. We stand ready to classify fabrics under the test prescribed by the present Flammability Act or the NFPA Standard for Clothing, and to publish the classification for the particular fabric tested, but these tests do not require performance which justifies listing a fabric as having its fire hazard significantly reduced.

It is comparatively easy and inexpensive to treat fabrics so as to impart temporary flame-retardancy. Treatments using common chemicals have been known for more than 100 years. The "New England Economical Housekeeper and Family Receipt Book" published in 1845 says—"If females and children must wear cot-

ton and linen dresses and aprons in the winter, use the following precaution: The dresses, after being washed, should be dipped in strong alum water, which will prevent them from blazing if they should take fire." The is still a perfectly good method, but the treatment must be renewed each time the garment is washed. Other chemicals in this same category are borax and boric acid. More recently mono- and di-ammonium phosphate have been used.

Until every recently no treatment existed which would retain true fire-retardant properties after the fabric treated had been laundered or dry-cleaned repeatedly, except those treatments which rendered fabrics unsuitable for ordinary clothing. Quite recently treatments which appear promising have been developed. One of these came from the Southern Regional Research Laboratory of the United States Department of Agriculture. At present the chemicals used in these treatments are expensive, and are not produced in sufficient quantity to treat a major fraction of the cotton and other cellulosic fabrics used in clothing. It can be hoped that as demand for volume production increases, the cost of the chemicals will decrease.

From this discussion it can be seen that laws calling for increased flame retardant treatment must be applied with caution. A sudden requirement for flame-retardant treatment of all clothing fabrics would produce an economic crisis, since cost of clothing would be markedly increased and there would not be enough chemical material to treat anyway near the total production of cotton and other cellulosic fabrics. For some of the popular synthetic fabrics, no suitable treatment has appeared, so they would be barred from the market.

On the other hand, if requirements for drapery fabrics were to be established, and these were kept at a low level of fire-retardance in order to permit fabrics acceptable in the home, the effect might well be to undermine the local ordinances which require a high degree of fire-resistance for draperies used in places of public assembly. It seems likely that the listings established by Underwriters' Laboratories, Inc. would become totally ineffective, and the public would have less, instead of better, protection.

All this means that the requirements issued by the Secretary of Commerce must be very carefully reviewed with regard to practicability, and the Congress must have a means for maintaining supervision. Perhaps this can be done through the proposed National Commission on Product Safety, but in such a critical area it appears more suitable to establish a special committee for the purpose. The Flammability Act should be worded so as to require very close supervision by the Congress to be sure that any proposed action does not damage the public interest, either through reluctance to progress or through overenthusiastic adoption of theories which have not been reduced to practice.

Another aspect of the proposed Act which may place a heavy burden on industry is the requirement of Section 4C, concerning the maintenance of records. Processing of fabric from the weaving to the finished article is highly fragmented, often among several small operators, each of which performs one part of the process. For example, a manufacturer submitting a mattress cover to us stated that they purchase the fabric from a mill, send it to a treater who applies a treatment patented by another company which furnishes the treating chemicals. The treater then returns the fabric to the manufacturer who produces the mattress covers and sells them to distributors. It was difficult for us to determine at what point our factory inspection should occur, and it was finally decided that it would have to be done at two places.

The production of an article of clothing is much more complicated, since it involves weaving, fire-retardant treating, coloring, shrinkproofing, and combination with other fabrics into the finished article which must then be distributed. Tracing articles through the records of all these processes will be a tremendous task, and will require volumes of records kept by thousands of small processors, many of whom do not know the intended use of the fabric they are processing. It seems more practical to require edge-marking of a fabric to be applied at the point of final treatment, with the level of flammability determined by test, preferably by an independent laboratory.

Underwriters' Laboratories, Inc. is keenly aware of the necessity for maintaining a continuing effort against the hazard of flammable fabrics. We strongly support the intention of the Federal Government to assist in this effort. We believe that laws or regulations issued in furtherance of this intention must be closely supervised to see that they do not inadvertently produce a major impact on the orderly furnishing of goods acceptable to the consuming public, nor upset

or impede the progress already accomplished by a great many knowledgeable persons working in various societies, laboratories, industries, and local governments.

OWENS-CORNING FIBERGLAS CORP.,  
Washington, D.C., May 19, 1967.

HON. WARREN G. MAGNUSON,  
Chairman, Consumer Subcommittee, Senate Commerce Committee, Washington, D.C.

DEAR SENATOR MAGNUSON: Owens-Corning Fiberglas Corporation is pleased to submit this statement to the Consumer Subcommittee of the Senate Commerce Committee, as part of the testimony being taken on the proposed amendments to the Flammable Fabrics Act. We believe this information to be pertinent, as glass fiber textile materials represent a prime source of inherently nonflammable fabrics, already in wide use in the American home.

Our credentials to speak on this subject are as follows: Owens-Corning's predecessor companies developed the first glass fiber materials for commercial use, in 1932. Since that time, Owens-Corning has been the leading producer of glass fiber materials and, we believe, the leading innovator in glass fiber research and development. Our products are sold under the registered trademark, FIBERGLAS.

We were instrumental in developing glass fiber yarns for decorative and industrial fabrics, and we have played a major role in turning these fabrics into end use applications such as curtains, draperies, bedspreads and tablecloths.

Owens-Corning holds more than 750 patents in glass fiber and related developments, and has 300 others now pending. We devoted approximately \$10 million to research, development and process and product engineering in 1966. We maintain major research and technical facilities in Granville, Ohio and Ashton, Rhode Island. We have 11 manufacturing facilities in eight states and Battice, Belgium. In 1966 our sales totalled \$373 million, almost completely in glass fiber products. We employ approximately 14,000 people.

Glass fiber products take many forms. The first commercial development was an air filter. One of the most well-known applications is thermal insulation. Another major use is in textile fabrics, which have been received with enthusiasm by the American public. Production of glass fiber yarn for decorative and industrial fabrics has become a major part of our business and is continuing to grow.

In calendar 1966, approximately 180 million yards of glass fiber fabrics were woven and sold in the United States. This compares with approximately 74 million yards in 1960. We believe this rapid growth is testimony to the unique properties of the material.

Glass fibers are pure glass—the product of silica, soda and lime—batch melted and drawn through tiny platinum holes, or bushings, into strands. Tremendous amounts of thermal energy are used in this process. As a result, glass comes close to a complete state of equilibrium with our varied atmospheric conditions. It achieves a state of stability that organic materials—and, consequently, natural and other man-made fibers—cannot achieve.

This accounts for the basic properties of glass fibers: the highest tensile strength of any textile fiber and dimensional stability under load or moisture. Heat, cold, moisture and dryness—all environmental conditions—have little or no effect on glass. To the consumer, this means glass fiber textile materials won't rot, fade or shrink, are easily washable and never need ironing. Glass fiber fabrics are the original permanent press fabrics.

Of immediate concern here is the complete nonflammability of glass fibers. They withstand temperatures up to 1350° F before melting. They never support combustion, nor do they produce the toxic fumes associated with many organic fibers.

The major use of these fabrics in the home today is in curtains and draperies. Glass fiber ready-made draperies now represent a very significant percentage of all ready-made draperies sold in the United States today. The reason for this success is in the material's no-iron, easy-care attributes. Nonflammability has not been an important factor in consumer acceptance. The consumer apparently is not conscious of fire safety when purchasing home furnishings materials. This is borne out in a recent consumer survey conducted for Owens-Corning by Opinion Research Corporation, Princeton, New Jersey. The poll indicated that flammable or nonflammable characteristics of draperies and curtains played little part in their selection by consumers.

The housewife's attitude differs markedly from commercial customers who buy decorative fabrics for public meeting places and the like. The flammability of these fabrics are specified in various building and fire codes and regulations. The nonflammability of glass fiber curtains and draperies is an important factor in their widespread acceptance in this market.

While we cannot document this, it appears that the consumer indifference to the flammability factor is a combination of unawareness of the dangers of flammable materials and a measure of apathy.

Until several years ago, glass fiber fabrics were restricted primarily to drapery and curtain applications due to fiber-to-fiber abrasion problems. However, this situation changed radically with the development by Owens-Corning of Beta fiber, an ultrafine glass fiber. Beta is the finest diameter filament known to man; at one-quarter denier per filament, Beta fiber is six times finer than silk, one-third the diameter of vicuna and one-sixth the denier of the finest acrylics, nylon or viscose. Because of this fineness, Beta fiber fabrics offer the long-desired softness, pliability and flexibility needed for other fabric applications.

With Beta yarns, we are now able to extend nonflammable applications of glass fiber fabrics from the window to other areas of the home. Tablecloths, bedspreads and mattress ticking are the most notable examples of new applications. However, it should be pointed out that the consumer is not buying these products for their nonflammability, but for their ease of care features.

Another new product now being introduced is Beta cubicle curtains. These are the curtains drawn around hospital beds to give privacy, and also can serve as a fire blanket in case of oxygen-based flash fires.

We believe Beta textile materials represent a significant breakthrough for the American consumer, and development work currently under way promises to make them even more significant. Products now in the laboratory include blankets, slipcovers and upholstery fabrics. In the long term, we also see a potential place for Beta fabrics in the apparel market. However, there is considerable research and development work to do in this area.

However, Fiberglas Beta fabrics are already being used as fire protective clothing, by firemen and other rescue workers. They are standard equipment, for example, at many U.S. and Canadian airports. Race car drivers have used Fiberglas Beta protective suits for several years. By far the most dramatic realization of these nonflammable characteristics is the current application of glass fibers in the Apollo Program. Fiberglas Beta textile materials are scheduled to replace flammable materials in astronaut garments and other textile materials that will not burn or support combustion in the all-oxygen atmosphere used in the Apollo Crew Capsule. Owens-Corning is under contract to NASA to develop these Beta fiber applications for the Apollo Program.

In conclusion, I would like to summarize the following points:

1. There is available to the consumer today completely nonflammable fabrics made of glass fiber yarns.
2. These fabrics are presently used principally as draperies and curtains, but with the recent development of Beta fiber are moving into such uses as bedspreads, tablecloths and mattress ticking.
3. Research under way indicates potential future use as slipcovers, upholstery, blankets and even apparel.
4. These fabrics are inherently nonflammable and never need retreating.
5. With few exceptions, the consumer has not purchased glass fiber fabrics for their inherent fire-safety, but for their unique ease-of-care features.
6. The consumer may be unaware of the dangers of flammable fabrics or apathetic toward the problem. He has probably not been well educated on the subject.

Sincerely yours,

JOHN MARSHALL BRILEY, *Senior Vice President.*

STATEMENT ON BEHALF OF THE FLAMMABLE TEXTILE PRODUCTS GROUP OF THE NATIONAL COUNCIL OF AMERICAN IMPORTERS, INC., NEW YORK, N.Y., BY: PEYTON FORD, WASHINGTON, D.C., WASHINGTON COUNSEL ALVIN L. KASSEL, NEW YORK, N.Y., COUNSEL TO THE FLAMMABLE TEXTILE PRODUCTS GROUP

The National Council of American Importers, Inc. was organized in 1921 as a nonprofit, nonpartisan association to represent the import trade. The Council has over 560 members, all of whom are required to be United States Corporations, Partnerships or U.S. citizens and therefore subject to the laws of the United States.

The members of the Council import into the United States the widest range of products and bring to the people and industry of this country goods, wares, and materials produced abroad. The value of these imports and their importance to the domestic economy is immense and is impossible to calculate their worth in dollars and cents. The members of the Council also play an important role in the development of the economies of many foreign nations of the Free World. Indeed, the bedrock of many foreign economies is the trade conducted with members of the Council. Attached herewith is a membership directory, setting forth the names and addresses of members of the Council and a commodity index.

Since 1921 the Council has been a major voice for this important segment of our economy. It is the purpose of the Council to protect and foster the import trade and to keep its members abreast of any changes or proposed changes in the law and more importantly to make known to the public and the Congress the views of its members.

The Flammable Textile Products Group of the Council submits this statement for the record as its position on S. 1003, the proposed amendment to the Flammable Fabrics Act. Our group has studied the bill very carefully and has read the testimony and statements of the witnesses who have appeared before the Senate Committee and the House Committee on the companion bill H.R. 5654. As a general comment, we believe that the action of Congress in proposing such legislation which would minimize or attempt to minimize the risk of injury to life and limb and damage to property as a consequence of burning articles of wearing apparel, fabric, related materials or interior furnishings, while well-intentioned, is not supported by sufficient facts. As was stated by Dr. Hollmon, Acting Under Secretary of Commerce, "Standard setting involves both fact and judgment . . . Although some data exists on this problem, as I will mention later, these data do not identify the specific materials involved and thus do not yet permit us to make a judgment about how much improvement is possible." (tr. 9). Chairman Dixon of the Federal Trade Commission reinforced the idea of how little is really known about the involvement of fabrics and wearing apparel in fires. (tr. 122). Poorly kept records and lack of standardization among those who do keep records mark this entire area and make it almost impossible to render a judgment founded upon fact. For these reasons we of the Council are very much in favor of the proposed Section 14 which would establish a procedure whereby the Department of Health, Education and Welfare would gather and evaluate information and data bearing on fire, injuries caused by fire, the involvement of specific fabrics, articles of wearing apparel, etc., and which would authorize the Secretary to report back to Congress. Like Dr. Crickelair, who testified before this Committee, we believe that further study is essential in order to enact meaningful and effective legislation (tr. 150-153).

The purpose of the proposed amendment should be to protect the purchasing public from *unreasonable* risk of harm. No one likes to hear or think about the terrible tragedies which are the consequence of burning articles of clothing or interior furnishings, especially to children or old people. (See testimony of Peter Hackes, Drs. Winslow and Bergman). Yet, as has been pointed out by nearly every witness before this Committee, everything *can* and will burn. (See for example the testimony of Dr. Holloman (tr. 9), Miss Furness, Mr. Frederick B. Dent.)

Certainly, in determining unreasonable risk, the human factor must be considered, as well as the extent to which carelessness or negligence contribute to the problem. Mr. Chester I. Babcock of the National Fire Protection Association, in hearings before the House Subcommittee on H.R. 5654, stated that "the only practical method of getting a noticeable reduction in the number of wearing apparel casualties is to educate the public to the fact that all clothing *can* burn and the prevention of such fires depends primarily on the degree of care the wearer exercises." Again speaking about bedding, Mr. Babcock noted that the enactment of a flammability standard would not reduce the number of fire experiences involving this particular interior furnishing. When Congress considers protecting the public from injury it must put the problem in perspective—does a certain article, fabric, related material present an "unreasonable" risk?

We cannot but agree that the present testing equipment, test methods and test procedures as spelled out in Commercial Standard 191-52 and 192-52 is wholly unsatisfactory. The methodology is haphazard and the results are wholly unscientific. What is more important, the test may not be an accurate indication of danger to the public. However, Congress must be extremely careful in delegating the responsibility for fixing standards (including test methods and equip-

ment) to an executive department to assure that the proper procedural and substantive safeguards are imposed. Delegation of authority without proper controls is always dangerous. *U.S. v. Royal Rock Co-op.*, 307 U.S. 533. For when Congress authorizes the Secretary to fix standards of flammability it may be, in effect, excluding from the market products which are safe and determining that such products can no longer be manufactured. The Secretary when he sets or amends a standard by so much as a tenth of a second excludes many thousand of yards of fabric from the market. See statement of Chairman Paul Rand Dixon of the Federal Trade Commission before the House Subcommittee (tr. 117-118). Accordingly in striving to achieve the elusive goal of "safety", Congress must weigh carefully the competing considerations and draft a bill founded upon sufficient facts and containing proper safeguards.

Obviously, the only real answer to the entire problem is absolute flame retardancy, either by means of chemical additives or fibers which will not support combustion. However, the state of the art is such that no satisfactory solution to the problem has been found by either the government or industry. Mr. White of the Department of Health, Education and Welfare conducted certain tests before this Committee and pointed out the safety of fiberglass fabrics and some type of nylon; but, as was noted by Mr. Frederick Dent of ATMI, these suggestions are not realistic because of the added cost and the possibility of irritation to the body. See statement of Frederick B. Dent, p. 7-9. When calculating risk of harm and protection of the public, careful consideration must be given to the state of technology, the burden upon the manufacturer, and increased cost to the consumer. As has been stated, safety is not a saleable commodity. Certainly rapid strides are being made in the development of effective and economical retardants. However, a satisfactory solution has not yet been found which will not affect the desirable qualities of the fabric, its wearability and life, and the body of the consumer. Congress must strike a balance between these interests. While fire protection is desirable, its cost cannot be prohibitive to the manufacturer and consumer. Congress should, before acting upon this amendment, make sure that it has all the available and relevant information. We are hopeful, that when this Committee closes the record, there will be sufficient information upon which Congress can act.

As the proposed amendment is presently drafted, aside from the general comments made above, we have several grave reservations. We should like to direct the main portion of this statement to three major points and then discuss briefly some technical, procedural and language difficulties.

#### I. CONSULTATION BY THE SECRETARY WITH REPRESENTATIVES OF THE PUBLIC AND INDUSTRY

As the proposed Section 4(a) is drafted, it makes no provision for the Secretary to consult with members of the public and industry. Section 4(b), (c), (d) provide for rule-making procedures but there is nothing in the amendment which directs the Secretary to consult with interested parties prior to prescribing flammability standards. We believe that such a provision is *essential*. Acting Under Secretary of Commerce, Dr. Holloman, testified that, in developing standards, test methods and equipment, the National Bureau of Standards "usually takes advantage of the expertise of an involved industry and consults with appropriate representatives during such an evaluation." (tr. 15). Similarly, Chairman Dixon inferred that under the proposed amendment industry would still be consulted. (tr. 133). However, there is no assurance that this will be the procedure. Dr. Holloman indicated that representatives are "usually" consulted and Chairman Dixon thought that the practice would continue. However, the practice could be discontinued and the Secretary could resort exclusively to the formal rule-making procedures. Certainly this would be a mistake. Consultation prior to a hearing with regard to the need for a standard or the prescribing of a standard itself would give the Secretary the benefit of the knowledge and expertise of the people in the industry. The Secretary could be kept abreast of changes in technology, the development of new flame retardants and fibers, the new and changing problems which confront the industry and the public. Only by such consultation with private groups from the various segments of the industry would the Secretary be prepared, when requested, to change an existing standard or issue a new one.

There is an underlying fear in the industry that the Secretary will rely solely on the formal rule-making procedures and not consult those who have the knowl-

edge, technology and expertise. Inclusion of proper language would allay this fear and assure that the Secretary would have the benefit of this knowledge. At the conclusion to this statement we shall set forth specific language changes in the proposed amendment to the Act to include this concept.

## II. COURT REVIEW

In Section 4(a) of the proposed amendment the Secretary is authorized to prescribe standards of flammability for articles of wearing apparel, fabrics, and related materials. The following sections 4 (b), (c), and (d) spell out, with regard to the issuance or amendment of any standard, rule-making procedures. It is critical to note that the provision for rule-making is expressly omitted from Section 4(a).

Further, the Act is completely silent with regard to the availability of court review and the standards of review which will be observed. All interested parties who testified on behalf of the Government indicated that the rules of due process would be observed and that court review is implicit in the Act. See testimony of Dr. Hollomon and Betty Furness (tr. 43; p. 5 of Miss Furness' statement). We believe, however, that in finding a need for a standard or in setting or amending standards, court review must be made available to assure that the action is proper. See testimony of Paul Rand Dixon before the House subcommittee (tr. 117-118); Dr. Hollomon (tr. 25).

Under the proposed amendment the Secretary must, after notice and hearing, make two separate determinations—first, the need for a standard, and second, the kind of standard. Certainly court review should be available for both decisions. It is not clear, as the Act is now written, whether court review would be available under 4(a) and whether review, if available, would be review only of the prescribed standard or the determination of need. Review must be available for any determination or decision made by the Secretary.<sup>1</sup>

In this regard, we believe that the inclusion of hats, gloves and footwear in the proposed amendment must be evaluated in the context of the standards provisions. Dr. Hollomon has stated that the removal by Congress of the exclusion constitutes a sufficient showing of need (tr. 21). We have difficulty with this concept. Indeed, there is nothing in the record which would indicate any increased danger to the public. We believe that with regard to hats, gloves and footwear there must be the same showing of need as would be required for an interior furnishing or related material used in an article of wearing apparel. If and when need is demonstrated, after a hearing at which interested parties can present their views, the Secretary can then set about fixing a standard to meet the need. Under the present posture of the amendment, the Secretary can, under Section 4(a), fix any standard he desires. The safeguards of Section 4 (b), (c) and (d) would not be available (since an article of wearing apparel, as now defined, would contain no exclusions).

The importance of court review cannot be emphasized too strongly. Indeed this Committee in preparing the Traffic Safety Act of 1966 was careful to guarantee the safeguards of review. (See Section 105, Motor Vehicle Safety Act of 1966, 15 USCA § 1394.) Certainly the testimony given before this Committee indicates that as many, if not more, people will be affected by this Act. The Food, Drug, and Cosmetic Act, involving as it does a complex and wide variety of products, is also written with the procedural safeguard of court review. Certainly, the proposed amendment extends coverage of the Act to as wide a variety of products. Court review in an Act such as this is vital, for it protects interested parties from possible abuse of discretion and arbitrary and capricious action, which could result in a violation of individuals' rights.

The proposed amendment should accord the same procedural safeguards. With regard to articles of wearing apparel and fabric used in the manufacture of wearing apparel, the subject matter of the present law, the flammability standard will remain unchanged. With regard to those items not previously covered by the Act (including hats, shoes and gloves) which will require new standards, all the procedural safeguards must be observed.

<sup>1</sup> In a recent case under the Food, Drug and Cosmetics Act the Federal District Court for the Northern District of California denied review of the decision to exclude certain imported food. The Court determined that in excluding this food the Secretary was acting in accord with the mandate of Congress and review under normal FDA procedures did not apply.

## III. PROPOSED SECTION 9

We of the Council believe that proposed Section 9 (import provisions) is totally unacceptable. It is our considered opinion that the proposed amendment is unnecessary and if enacted would be unconstitutional. Another group, besides the Council, has also noted the inequity of this proposed change. See statement of Mr. William Burston of the National Retail Merchants Association, p. 4. We believe that the proposed amendment is objectionable for the following reasons:

1. The proposed amendment of Section 9, in addition to the language change enlarging its coverage, makes one significant change to which we of the Council are opposed. It shifts the onus of a double bond from the exporter, who sends flammable fabrics into this country, to the domestic importer. In testimony before both the House and Senate Committees, Dr. Hollomon and Chairman Dixon stated that such change is necessary because the exporter is without the jurisdiction, and cannot in fact be subjected to the double bond. The domestic importer is the only person against whom the Commission can act to protect the public. (tr. 34, 118). From these statements it would appear that, at the present time, there are no remedies against the importer to protect the public and that the domestic importer is not subject to any sanctions. This is an entirely erroneous concept and directly contrary to the present law.

Under the present statute the domestic importer is subject to a formidable arsenal of weapons and procedures in the hands of the Federal Trade Commission (and we might add the Bureau of Customs) and is treated in the same manner as the domestic manufacturer, jobber, and retailer:

(a) When goods are imported, Customs as a matter of practice makes random withdrawals of samples for testing. These samples are then submitted to the Federal Trade Commission for testing. If found flammable within the meaning of the Act and the goods are in commerce they are commanded to be redelivered. If the request cannot be complied with the importer is subject to a forfeiture of bond.

(b) If the imported fabric poses an immediate threat to the public safety, the importer can be enjoined from selling or otherwise disposing of the goods in commerce, pursuant to the provisions of Section 6 of the present Act.

(c) The Commission under Section 6 can also have the goods condemned and destroyed. Only recently the Commission invoked this power to seize and destroy a quantity of domestically manufactured "torch" sweaters. In less than 72 hours after the Commission was aware of the danger, the public had been alerted, the responsible party enjoined and the goods seized and destroyed. See testimony of Chairman Dixon (tr. 132).

(d) If an importer willfully brings in goods which are flammable, he can be subjected to criminal penalties under Section 7 of the present Act.

(e) Having imported flammable fabrics, the importer can, under Section 3 of the present Act, be subjected to a cease and desist order for an unfair method of competition.

(f) If the Commission cease and desist order is subsequently violated, the importer can be subjected to severe civil penalties.

Further, as was pointed out by Congressman Blanton of the House Committee "it doesn't make any difference under the present or future acts of the origin of the material. They still have to pass the present test" (tr. 140). Consequently, whatever *in personam* remedies are available are reinforced by *in rem* proceedings against the goods. With tools such as these, we believe that the Commission has more than adequate means to protect the public interest.

2. The present amendment completely eliminates the exporter from the coverage of the Act. Under the present statute, the exporter, if he violates the Act, is thereafter required to put up a double bond. It has been urged by the Federal Trade Commission that the present section is meaningless because there is no way to compel the exporter to put up the bond as he is outside our jurisdiction. In testimony by the Chairman of the Commission it was stated that the use of the word exporter was a Congressional oversight, and that insertion of the word "importer" brings the Flammable Fabrics Act in conformity with other labeling acts. (tr. 125). We cannot agree with the Chairman's statement. To the contrary, what the Commission is suggesting is a radical departure from the Wool, Fur, and Textile Acts, as will be discussed in the following section.

Careful scrutiny of the language of the statutes shows that only under the Flammable Fabrics Act is the word "importing" or "importation" specifically

used in the prohibitions of Section 3, and the word "exporter" is specifically used in Section 9. We are convinced that Congress fully intended what it said. The legislative history is silent on the intent of Congress and we can only surmise that by inserting the word "importation" in Section 3 of the Act, Congress intended coverage of the importer the minute he received the goods (obviating any legal argument with regard to jurisdiction, as might ensue under the Wool<sup>2</sup> and Fur Acts). *When Congress used the word exporter it intended to cover a different class of person who could, if possible, be made responsible for its actions. In other words, Congress fully intended dual protection of the public for any violation of the Act—bond the exporter and proceed against the importer.*

If the proposed amendment is enacted into law, the entire burden will be shifted to the importer, and the exporter will have no burden at all. We cannot believe that the public interest is served by excluding from this Act this class of person.

3. In his testimony before the Senate Committee Chairman Dixon, in referring to the import section, is quoted as saying, "I say to you this is *identical* to what is in the other three Acts." (tr. 126). We cannot agree.

The Wool Act in Section 8 states:

SEC. 8. All wool products imported into the United States, except those made more than twenty years prior to such importation, shall be stamped, tagged, labeled, or otherwise identified in accordance with the provisions of this Act, *and all invoices of such wool products required under the Act of June 17, 1930 (c. 497, title IV, 46 Stat. 719), shall set forth, in addition to the matter therein specified, the information with respect to said wool products required under the provisions of this Act, which information shall be in the invoices prior to their certification under said Act of June 17, 1930.*

*The falsification of, or failure to set forth, said information in said invoices, or the falsification or perjury of the consignee's declaration provided for in said Act of June 17, 1930, insofar as it relates to said information, shall be an unfair method of competition, and an unfair and deceptive act or practice, in commerce under the Federal Trade Commission Act; and any person who falsifies, or fails to set forth, said information in said invoices, or who falsifies or perjures said consignee's declaration insofar as it relates to said information, may thenceforth be prohibited by the Commission from importing, or participating in the importation of, any wool products into the United States except upon filing bond with the Secretary of the Treasury in a sum double the value of said wool products and any duty thereon, conditioned upon compliance with the provisions of this Act.*

A verified statement from the manufacturer or producer of such wool products showing their fiber content as required under the provisions of this Act may be required under regulations prescribed by the Secretary of the Treasury. [Italics added.]

The Fur Act in Section 6 states:

SEC. 6. (a) Fur products imported into the United States shall be labeled so as not to be misbranded within the meaning of section 4 of this Act; and *all invoices of fur products and furs required under title IV of the Tariff Act of 1930, as amended, shall set forth, in addition to the matters therein specified, information conforming with the requirements of section 5(b) of this Act, which information shall be included in the invoices prior to their certification under the Tariff Act of 1930, as amended.*

*(b) The falsification of, or failure to set forth, said information in said invoices, or the falsification or perjury of the consignee's declaration provided for in the Tariff Act of 1930, as amended, insofar as it relates to said information, shall be an unfair method of competition, and an unfair and deceptive act or practice, in commerce under the Federal Trade Commission Act; and any person who falsifies, or fails to set forth, said information in said invoices, or who falsifies or perjures said consignee's declaration insofar as it relates to said information, may thenceforth be prohibited by the Commission from importing, or participating in the importation of, any fur products or furs into the United States except upon filing bond with the Secretary of the Treasury in a sum double the value of said fur products and furs, and any duty thereon, conditioned upon compliance with the provisions of this section.*

<sup>2</sup> Only recently in *R. H. Macy Co. D. 8650*, before the FTC, a case involving imported wool sweaters, a motion to dismiss was made on the ground that the Commission lacked jurisdiction because the Act does not specifically state "importation."

(c) A verified statement from the manufacturer, producer of, or dealer in, imported fur products and furs showing information required under the provisions of this Act may be required under regulations prescribed by the Secretary of the Treasury. [*Italic added.*]

The Textile Act in Section 9 states :

Sec. 9 All textile fiber products imported into the United States shall be stamped, tagged, labeled, or otherwise identified in accordance with the provisions of section 4 of this Act, *and all invoices of such products required pursuant to Section 484 of the Tariff Act of 1930, shall set forth, in addition to the matter therein specified, the information with respect to said products required under the provisions of section 4(b) of this Act, which information shall be in the invoices prior to their certification, if such certification is required pursuant to section 484 of the Tariff Act of 1930. The falsification of, or failure to set forth the required information in such invoices, or the falsification or perjury of the consignee's declaration provided for in section 485 of the Tariff Act of 1930, insofar as it relates to such information, is 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; and any person who falsifies, or perjures the consignee's declaration insofar as it relates to such information, may thenceforth be prohibited by the Commission from importing, or participating in the importation of, any textile fiber product into the United States 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. A verified statement from the manufacturer or producer of such products showing their fiber content as required under the provisions of this Act may be required under regulation prescribed by the Secretary of the Treasury. [*Italic added.*]*

It is to be noted in each Act there is a definite reference to the Tariff Act of 1930. Before an importer will be required to post a double bond he must violate not the labeling Act but the Tariff Act, by filing a false document with Customs. The double bond provision does not apply to a violation of the Wool, Fur or Textile Fiber Identification Acts except as it relates to false documentation submitted to Customs. If an importer were to misstate the wool content on a custom's consignment memo he would not violate the Wool Act and thereafter be subject to Federal Trade Commission complaint and order. *Conversely if an importer, having filed a true and correct custom's invoice, later misbranded or falsely invoiced a wool, fur, or textile product, he would not violate the Tariff Act and be required to file a double bond.* Under the proposed amendment if an article of wearing apparel, fabric, or related material were found to be flammable, after entry, in a transaction subsequent to importation, the importer would thereafter be required to post a double bond. None of the labeling Acts referred to by Chairman Dixon have this type of sanction. The other Acts require a willful act *violative of the customs laws*, whereas the proposed amendment requires an act *violative of the Flammable Fabrics Act.*

4. The proposed amendment, we believe, raises a constitutional question under the Fifth Amendment of the Constitution. As was stated by the Supreme Court in *Bolling v. Sharpe*, 347 U.S. 497, "the concepts of equal protection and due process both stem from the American ideal of fairness, and are not mutually exclusive, nor are the concepts always interchangeable, in that equal protection of the laws is a more explicit safeguard of prohibited unfairness, but a discrimination may nevertheless be so unjustifiable as to be violative of due process." Under the present statute the Federal Trade Commission has the same remedies against all domestic importers, manufacturers, jobbers, and retailers who violate the law (as was pointed out in paragraph one). The proposed amendment would impose upon *one* segment of the industry a burden not borne by anyone else in the industry. While it has been decided that the "equal protection" clause of the Fourteenth Amendment is not applicable to the federal government, it has also been decided that the concepts of equal protection are embodied in the due process clause of the Fifth Amendment. *Taylor v. U.S.*, 320 F. 2d 843 (10th Cir. 1963). "At most the guaranty of equal protection whether embodied in Fourteenth or Fifth Amendment means no person shall be denied the same protection of the law which is enjoyed by other persons or other classes in like

circumstances." *Carleton Screw Co. v. Fleming*, 126 F. 2d 537 (7th Cir. 1942), cert. den'd 317 U.S. 643. The concept of due process as it is embodied in the Fifth Amendment demands that a law shall not be unreasonable, arbitrary or capricious and that the means selected shall have a reasonable and substantial relation to the object sought. *U.S. v. Smith*, 249 F. Supp. 515 (D.C. Iowa 1966).

Congress, by this proposed amendment, would impose upon the importer a punitive bond for no other reason, at least none other has been given, than the importer is within the jurisdiction of the Commission.<sup>3</sup> It has not been shown that imported fabrics and materials create a more hazardous situation which requires any additional sanctions. In his statement before this Committee, the Chairman of the Commission stated that since 1962, with the exception of napped fleece fabrics, the majority of 46 cease and desist orders related to imported fabric. However, the Chairman did not disclose that only imported fabrics are the subject of continuous and systematic testing procedure. Customs, as a routine matter, withdraws samples and submits them to the Federal Trade Commission for flammability testing. If a failure is found, the Commission is able to follow up the matter and take the necessary precautions. There is no similar systematic sampling and testing procedure for domestic manufacturers. The Commission waits until there is a complaint.<sup>4</sup> As a practical matter, imported fabrics and articles of wearing apparel constitute only a small percentage of the material used in this country. It would be safe to estimate that at least 90% of the articles of wearing apparel used are produced domestically. Under the circumstances it appears to be an unfair burden on one segment of the industry. As was stated in several early Federal Trade Commission cases, "equal protection" means that rights of persons must rest upon the same rule under similar circumstances. *National Candy Co., et al., v. FTC*, 104 F. 2d 999 (7th Cir. 1939). *Cf. Pfeiffer Brewing Co. v. Bowles*, 146 F. 2d 1006 (U.S. Em. C.A. 1945).

For these reasons we of the Council believe that the double bond proposed by the amendment is an unreasonable and unfair penalty imposed upon a particular class contrary to the provisions of the Fifth Amendment.

In addition to these principal objections to the proposed amendment of Section 9, we believe that there are certain technical and procedural defects which debilitate the amendment.

1. The proposed amendment requiring a double bond covering "any product, fabric or related material" is much too broad and vague in its language. Chairman Dixon himself acknowledged the broadness of the section and suggested that the word "products" be stricken. This change does not go far enough. If a punitive bond such as contemplated is to be required, the bond must relate to products, fabrics, or related material of the same type, construction and description. For example, it would be unfair to require a double bond on all future imports of wool, cotton and rayon, when the product found to violate the Act was light weight silk. Clearly, the bonding provision, to be meaningful and reasonable must be related to the incidence of the offense. (*Cf. F & A Ice Cream Co v. Arden Farms Co.*, 98 F. Supp. 180.)

2. Further, any bonding provision must contain a period of limitation during which the bond can be required. There must be a limit on the period for which the bond must be posted. Otherwise, the penalty is too severe for the offense. Must a bond be posted for the next twenty years once a violation has been discovered? Further, if a violation is discovered can the Commission delay enforcing the requirement to post a bond for five years long after all records and witnesses to dispute the matter may be long gone? These criticisms are so elemental as to perhaps be overlooked. However they pose a real threat to the importer and his business. Thus far in the hearing no one has come forward to point out these technical defects. Even more curious is the fact that the double bond section of the other three acts has never been challenged and thereby subjected to judicial review.

3. Lastly, the proposed amendment is technically deficient because in no way does it spell out the procedures whereby the double bond will be imposed and how it will be forfeited. Who will determine the initial violation of the Act and

<sup>3</sup> This is not a clear-cut situation but depends on the facts of each case. In at least one case under the Wool Act, *Nederlansche Weavery Dkt. 6953*, the Commission was able to act against a foreign party. In *Nederlansche* a foreign manufacturer was put under a cease and desist order by virtue of the fact that the manufacturer had a domestic distributor.

<sup>4</sup> The Commission does maintain a staff of inspectors who check all domestic manufacturers, jobbers and retailers to make sure the labeling laws are being observed.

under what procedures? Will the Commission determine the forfeiture or will a Court and a jury? See *Lambert v. California*, 355 U.S. 225.

In addition to the above discussed matters of court review, consultation with private parties as to setting of Standards by the Secretary of Commerce and revision of the import section, we note other problems which this Committee should consider.

1. *Federal pre-emption.*—Several states presently have their individual Flammable Fabric Act. For example, New York State has an Act comparable to the present Federal Flammable Fabrics Act. It may be that in the future many additional states will enact similar legislation. If the various States subsequently enact legislation which differs from the Federal Act or differs from those of other states, it would make it extremely difficult for the conduct of business as the business man would not know, without a detailed analysis of each state's Acts, whether he was conforming to the various states' requirements. We believe, therefore, that it is of urgent necessity that a provision be included in the amendment to the Federal Act to prevent such confusion.

Part of the problem was recognized by Chairman Magnuson when, in his colloquy with Dr. Hollomon (tr. 24), he observed that many states and political sub-divisions have safety codes which include standards of flammability. In most of these situations, especially related to places of public assembly, municipal and state laws establish their own standards. This point has not been raised by the majority of witnesses who testified before this Committee but was included in the statement of Mr. Dent of ATMI. Before the House Subcommittee, the matter was raised by Mr. Dent, the Underwriters Laboratories, Inc., and the National Fire Protection Association. The point is well taken as endless conflict could result from varying standards throughout the country. Undoubtedly if the matter were tested before the courts the federal statute would control; otherwise it would be possible to envision fifty different standards which certainly would be burdensome to commerce. See *Southern Pacific Co. v. Arizona*, 325 U.S. 767. Consequently to obviate such a problem, Congress should insert language which would make the federal standard the overriding statute.

2. *Goods Imported or Manufactured for Export.*—Should the Flammable Fabrics Act have extra territorial effect? Under the present law even if goods are manufactured for foreign consumption they must meet the domestic standard. Conversely, an importer who has brought in goods found to be flammable cannot re-export them to a foreign country nor can he even send them back to the foreign manufacturer or exporter for treatment without first obtaining FTC clearance (which may or may not be forthcoming). This problem was recognized and provided for in the recent Motor and Traffic Safety Act of 1966 and should be considered in this legislation.

3. *Record Keeping.*—The proposed amendment requires inordinately detailed record keeping so that the Commission can trace the item. The Commission wants such detailed records as to nature of the transaction and the acquisition, disposition and intended use of the item. We believe that this is an impractical and onerous requirement. For each transaction the purchaser must be queried as to the end use—to what purpose? The purchaser can at any time change his mind; nonetheless, the seller must keep records. Further, while we have used the seller in the simple transaction, who will keep records when a number of people handle the product?

4. *Inventories and Time After Which Standards Promulgated Will Become Effective.*—The proposed amendment makes no provision for goods on hand, in transit or in production at the time the Act is passed. Although a six-month period is provided, this may well be too short a time within which to dispose of such material. We believe that further consideration should be given to extending the effective period or changing the language with regard to goods manufactured or on hand prior to the effective date of any new standard or the amendment of any present standard.

#### CONCLUSION

The foregoing statement is by no means a complete exposition on the proposed amendment. We of the Council, like many others, believe that the time is ripe for change—all interested parties are aware of the problem and seem willing to act. However, the action to be taken, as manifested in the legislation to be enacted, must be one precisely drawn and founded upon complete data. We have in our statement discussed three portions of the amendment which we believe

must be changed and have also indicated other areas of change, all of which can produce a better and a more effective bill. We would, at Committee's request, be happy to supplement this statement with any additional information and commentary.

Appended hereto are suggested language changes with regard to Section 4 and Section 9 of the Act. With regard to Section 9, let us repeat, we do not believe that any change in the present statute is necessary. The Commission already has sufficient tools to protect the public interest.

#### STANDARDS OF FLAMMABILITY

"4(a) The Secretary of Commerce shall prescribe and publish in the Federal Register flammability standards (including conditions and manner of testing) for articles of wearing apparel, fabrics, related materials used in the manufacture of such articles and interior furnishings. The Secretary shall prescribe such flammability standards only after (1) there has been a hearing upon notice and a presentation of views, and he has determined that a flammability standard is needed to protect the public against unreasonable risk of the occurrence of fire leading to death, injury, or significant property damage; and (2) after there has been a hearing upon notice and a presentation of views with regard to the type of flammability standard to be prescribed (including the conditions and manner of testing).

"4(b) same as proposed 4(c).

"4(c) same as proposed 4(d), except change six months to eighteen months.

"4(d) Prior to making any determination under this Section 4 as to need for a standard or as to the promulgation of an original standard or amendment of an existing standard, the Secretary shall consult with members of the industry involved, including manufacturers, importers, retailers, and commercial test laboratories.

"4(e) The Administrative Procedure Act shall apply to all determinations, decisions and orders of the Secretary relating to the need for a flammability standard or establishing, amending or revoking a flammability standard prescribed under the Act.

"4(f) (1) In a case of actual controversy as to the validity of any determination, decision or order of the Secretary under section 4 of this Act, any person, who will be adversely affected by such determination, decision or order when it is effective, may, at any time prior to the sixtieth day after such determination, decision or order is issued, file a petition with the United States Court of Appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review thereof. A copy of the petition shall be forthwith transmitted by the clerk of the court to the Secretary or other officer designated by him for that purpose. The Secretary thereupon shall file in the court the record of the proceedings on which the Secretary based his determination, decision or order, as provided in section 2112 of title 28.

"(2) If the petitioner applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Secretary, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Secretary, and to be adduced upon the hearing in such manner and upon such terms and conditions as to the court may seem proper. The Secretary may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file such modified or new findings, and his recommendation, if any, for the modification of setting aside of his original decision, determination or order, with the return of such additional evidence.

"(3) Upon the filing of the petition referred to in paragraph (1) of this subsection, the court shall have jurisdiction to review the order in accordance with section 1009 of title 5 and to grant appropriate relief as provided in such section.

We are convinced that the onus of double bonding should remain on the exporter as was intended by Congress. We believe, however, that the section as it applies to the exporter could be better drafted to make the section more effective.

#### SHIPMENTS FROM FOREIGN COUNTRIES

Section 9. Any person who has exported or who has attempted to export from any foreign country into the United States any wearing apparel, fabric, or related material, which, *fails to conform with an applicable flammability standard*

issued or amended under the provisions of Section 4 of this Act, may thenceforth be prohibited by the joint agreement of the Secretary of the Treasury and the Commission from participating in the exportation from any foreign country into the United States of the same wearing apparel, fabric, or related material, which previously failed to pass the prescribed flammability standard, except upon filing a bond with the Secretary of the Treasury in a sum double the value of said fabric or related material and any duty thereon, conditioned upon compliance with the provisions of this Act. The exporter will be subject to the provisions of Section 9 for a period not in excess of one year from the date such failing article of wearing apparel, fabric or related material was received in the United States. No penalty under said bond shall be assessed by the Secretary of the Treasury except after consultation with the Commission with regard to the amount of such penalty.

If, however, it is the sense of Congress that the burden must be placed upon the importer, which we vigorously oppose, it is suggested that existing legislation, namely the Tariff Act of 1930, be utilized. Under the Section 499 of the Tariff Act of 1930, as amended, the importer is required to post a bond or other security for delivery of merchandise from Customs' custody prior to inspection and investigation. After inspection and investigation, if the goods are found violative of the Flammable Fabrics Act, the goods, upon Customs' demand, must be redelivered or the bond forfeited or penalty assessed. This section could be referenced in the Flammable Fabrics Act. Such a suggestion has three distinct advantages.

1. The bond or security is one with which most importers already are familiar.
2. The bond or security does not represent an increased burden. The bond is not a double bond and it is not prospective in nature. It is a bond related to specific products.
3. The Commission would, by statute, be consulted in the determination reached by Customs with regard to any forfeiture as liquidated damages.

We offer the following proposal only as a compromise position. We in no way intend by this action to give up any objective which we might have or waive any of our rights with regard to this section.

#### SHIPMENTS FROM FOREIGN COUNTRIES

Section 9. An imported product, fabric, or related material shall not be delivered from Customs custody except as provided in Section 499 of the Tariff Act of 1930, as amended. In the event such product, fabric, or related material which is delivered from Customs custody under bond or other security as provided in said Section fails to conform with an applicable flammability standard issued or amended under the provisions of Section 4 of this Act, the Secretary of the Treasury shall, in connection with assessing any penalty for breach of a condition of the bond or other security arising out of such failure to conform, consult with the Commission with regard to the amount of such penalty.

FEDERAL TRADE COMMISSION,  
Washington, D.C., May 31, 1967.

MICHAEL PERTSCHUK, Esq.,  
Counsel for the Consumer Subcommittee of the Senate Commerce Committee,  
Senate Office Building, Washington, D.C.

DEAR MR. PERTSCHUK: Enclosed herewith for your information is a Commission report on the feasibility of flameproofing children's clothing. Also enclosed is a memorandum from the Commission's Bureau of Textiles and Furs concerning the use of paper in wearing apparel and the results of the Bureau's tests of this material under the Flammable Fabrics Act.

With kindest regards, I remain  
Sincerely yours,

PAUL RAND DIXON,  
Chairman.

#### MEMORANDUM

To: Commission.

From: Charles F. Canavan, Acting Director, Bureau of Textiles and Furs.

Subject: Flammable Fabrics Act in re paper wearing apparel.

By a memorandum dated April 5, 1967 the Commission directed the Bureau of Textiles and Furs to submit to it within thirty (30) days a report on (1) the extent to which paper is being used for wearing apparel, (2) the Bureau's views

with regard to the applicability of the Flammable Fabrics Act to paper clothing, (3) the results of tests the Bureau has conducted on paper clothing and fabrics and (4) any other information which would assist the Commission in the evaluation of this matter. The staff was further instructed to contact the Public Health Service of the Department of Health, Education and Welfare to obtain any information that office might have pertaining to this subject.

In carrying out the Commission's directions twenty-two (22) letters were written to garment manufacturing associations. A number of replies to our letters have been received but none of the associations have been able to supply any figures as to the amount of the production of paper garments. The Bureau, however, from information gleaned from trade papers and other publications feels that the volume of paper wearing apparel is significant. Time Magazine on March 17, 1967 reported that the Scott Paper Company, which is one of several producers of paper apparel, had sold 500,000 dresses in eight months. The Atlantic News published by the Atlantic Chemical Corporation of Nutley, New Jersey quotes the New York Times as stating three and one-half million dollars was spent on paper dresses in 1966. The Women's Wear Daily of April 26, 1967 ran an article describing the shop in Georgetown, District of Columbia that handles paper garments exclusively. Further the local department stores are advertising paper dresses and giving prominent displays to these articles in their stores.

The Bureau of Textiles and Furs considers all paper wearing apparel along with paper fabric intended for use in such wearing apparel to be subject to the Flammable Fabrics Act and has been watching this matter closely since May of 1966. During the past year the Bureau of Textiles and Furs has tested twenty-four (24) sample items of wearing apparel and paper fabrics intended for use in such apparel. All of these fabrics were found *not* to be dangerously flammable under the Flammable Fabrics Act in their original state. The paper garments which have come to the attention of this office have been made of material which would ordinarily be discarded after becoming soiled, and would not be the type to be washed or dry cleaned. However, for our own information and to be prepared for questions pertaining to washing and dry cleaning of such garments, the Bureau laboratory has washed and dry cleaned several of the sample garments. The tested material after washing and dry cleaning is faded, crumpled, unattractive and in such a state that it is unlikely that the garments would be used after being subjected to either washing or dry cleaning. The samples of paper fabric that have been washed and dry cleaned have still passed the requirements of the Flammable Fabrics Act in all but one case. In the case that failed the wearing apparel was a paper dress imported into the United States. This dress had a stamp prominently set forth on it warning the purchaser of the garment that it was not guaranteed inflammable (non-flammable) after washing or dry cleaning. The other paper fabrics which were washed and dry cleaned passed the flammable fabrics test but burned faster after being washed than they did in their original state.

Imports of paper wearing apparel appear to be increasing according to reports in the trade papers. In order to prevent dangerously flammable paper fabrics and paper wearing apparel from being imported into the United States from abroad the Bureau of Textiles and Furs has requested the Bureau of Customs to circularize their offices with instructions to sample such goods for test purposes in the Commission's laboratory.

In accordance with the Commission's directions a letter was written to the Public Health Service of the United States Department of Health, Education and Welfare asking for any information this department might have pertaining to the subject question. To date no reply has been received to our inquiry.

#### INVESTIGATION INTO THE FEASIBILITY OF FLAMEPROOFING CHILDREN'S CLOTHING

The Flammable Fabrics Act was passed by Congress and was approved by the President on June 30, 1953 and became effective July 1, 1954. The Act prohibits the introduction or movement in interstate commerce of wearing apparel or fabric intended for use in wearing apparel which is so highly flammable as to be dangerous when worn by individuals.

Wearing apparel is defined in the Act as any costume or article of clothing worn or intended to be worn by individuals except hats, gloves and footwear. Hats excepted from the Act must not constitute or form part of a covering for the neck, face or shoulders. Gloves must be 14'' or less in length and footwear

must not consist of hosiery in whole or in part, and must not be an integral part of another garment.<sup>1</sup>

Articles of wearing apparel and fabric intended for use in wearing apparel are determined to be so highly flammable as to be dangerous when tested in a flammability tester described in "Flammability of Clothing Textiles, Commercial Standard 191-53", and according to the specifications set forth therein. In the said test five specimens of the fabric 2" x 6" are burned in the testing apparatus.

If the fabric is a plain surface material, that is without a nap or pile, and the average burning time of the five specimens is less than 3.5 seconds in the original state it is considered dangerously flammable. If the specimens burn in less than 3.5 seconds or fail to burn, five additional specimens are tested and the average time of the ten specimens or as many of them as do burn, are calculated. If the average burning time is less than 3.5 seconds the fabric is dangerously flammable under the Act and unsuitable for wearing apparel.

If the fabric is a raised surface material, that is one with a nap or pile, it is tested in a manner similar to the plain surface fabric described above. However in testing raised surface fabrics, a brushing process is prescribed, the combustion of the fabric samples must include the back or base of the cloth. If the average burning time of the specimens is less than 4.0 seconds it is deemed a dangerously flammable fabric under the Act.

When the average burning time of the plain surface fabric specimens is 3.5 seconds or over and the average burning time of the raised surface fabrics is 4.0 seconds or over or if the specimens do not ignite or have a fire retarding finish, five additional specimens are washed and dry-cleaned in the manner set forth in Commercial Standard 191-53. The washed and dry-cleaned samples are then dried and tested in the same manner and held to the same burning time limits as the original specimens tested. The purpose of this second step is to remove any water soluble or dry-cleaning soluble fire retardants that might have been applied to the fabrics.

In the case of raised surface fabrics it is a requirement of the test that the base or back of the fabric burn or fuse. Often a raised surface fabric will have a fuzz that is highly volatile and the flame will race across the fabric sample surface and record a burning time which is less than the minimum time. However such a flame usually is not intensive and does not penetrate the fabric sufficient to burn or fuse the base of the cloth. In such instances the fabric is considered not to be so highly flammable as to be dangerous for use in wearing apparel.

The fabric specimens under Commercial Standard 191-53 are tested on a rack which causes the fabric to lie at a forty-five degree angle while a tongue of flame of burning butane gas of a specified length touches the fabric for a period of one second.<sup>2</sup>

The experience of the Bureau of Textiles and Furs which enforces the Flammable Fabrics Act for the Federal Trade Commission is that the only plain surface fabrics that will fail the Flammable Fabrics Act as it is now written, are light, sheer fabrics made of rayon or silk. There are several types of rayon produced however cuproammonium rayon seems to be the most flammable, with viscose rayon a close second. The rayon fabrics which the Bureau has found to be dangerously flammable have been approximately one ounce or less in weight per square yard, used in scarves and head squares, and in dress material for cocktail and party dresses. All of the fabrics of this type which have been found by the Bureau to be dangerously flammable have been imported from Asia.

Silk usually will not burn readily; however, when it is made into very sheer fabrics of approximately 1/2 ounce or less per square yard, it will burn under the 3 1/2 second time limit set forth in the Flammable Fabrics Act. Such fabrics have been found in scarves and head squares and in illusion used in bridal veiling. The silk scarves which have failed to meet the flammable requirements have been imported into the United States from Asia, while the silk illusion has been imported from Europe.

In the plain fabric category the Bureau has also come across several instances of wood chip wafers used in making artificial floral leis that have been dangerously flammable. These chips also have been imported from Asia.

The raised surface fabrics that have been found to fail the Flammable Fabrics test are cotton and rayon brushed fabrics, and pile fabrics of the same composi-

<sup>1</sup> Flammable Fabrics Act and the Rules and Regulations thereunder. See Exhibit 1.

<sup>2</sup> Commercial Standard 191-53, Flammability of Clothing Textiles. See Exhibit 2.

tion. The Bureau found in one instance brushed cotton blanket material that tested dangerously flammable under the Act, which had been unsuspectingly made into bath robes for use in a veterans hospital. Also certain tufted cotton fabrics used in making beach jackets and brushed rayon fabrics used in manufacturing sweaters have been found to be dangerously flammable. Certain babies' cotton receiving blankets with a high brushed surface have been found to be dangerously flammable under the test set forth in the Flammable Fabrics Act; however, these items were ruled by the Commission not to be articles of wearing apparel and therefore not subject to the Flammable Fabrics Act. All of the raised surface fabrics that have failed the flammable fabrics test have been of domestic origin.

The experience of the Bureau indicates that in the raised surface fabrics of cotton and rayon the depth of the brushed surface is the determining factor as to whether the fabric fails or passes the required test. The deeper the brushed surface, the more likely the fabric will fail the test.

Film or textile fabrics with a nitro-cellulose fiber finish or coating used in wearing apparel or intended for use in wearing apparel are subject to the Flammable Fabrics Act but are tested in the equipment and by the specifications set forth in "General Purpose Vinyl Plastic Film, Commercial Standard 192-53."<sup>3</sup> Only a minuscule amount of wearing apparel is made from this type of material.

Fabrics made of wool or animal hair will singe or char but will not support a flame, except for silk under the circumstances described above. Cotton, rayon, acetate, linen, hemp and other vegetable fibers will ignite, burn and support a fire if a flame of sufficient intensity is applied to them for a sufficient period of time. Some of the man-made fibers will burn and support combustion but others will melt when a flame of sufficient intensity is applied to them. The experience of the Bureau has been that most of the man-made fibers other than rayon and acetate have a relatively high ignition point but when once ignited some will burn with a very intense flame. Some of the man-made fibers leave a tar like residue as an ash which is extremely hot before it cools into a solid lump. Residues of this type can themselves inflict very severe burns.<sup>4</sup>

In checking stores handling children's wear it has been observed that the everyday wearing apparel including, skirts, dresses, jumpers, blouses, trousers and so forth together with most all underclothing for babies and young boys and girls are for the most part made of cotton and rayon. In nightwear pajamas are usually cotton together with nightgowns which are also made from rayon and acetate. Robes are usually cotton, rayon or acetate with a relatively small amount of wool used. Children's heavy outerwear consisting of coats, jackets, sweaters and so forth are made principally of wool however cotton, rayon, acetate and a smaller amount of man-made fibers are used in these items.<sup>5</sup>

As pointed out above certain fibers are more combustible than others. Together with this fact the weave and finish of the fabric in the wearing apparel is a factor in the flammability of the item. Experience has shown that every tightly knitted or woven fabric with a plain surface is more difficult to ignite and will burn slower than a light loosely knitted or woven fabric. Brushed fabrics and pile fabrics made of cellulosic fibers will ignite and burn much more readily than the plain surface fabrics.

In addition to the degree of the combustibility of the fibers and the type or weave or finish of the fabric, the make and type of garment is a factor in the rapidity in which wearing apparel will burn. Loose fitting clothing together with dresses and skirts will ignite and burn much more rapidly than tight fitting garments, such as trousers, slacks, etc. This is so because in a loose fitting garment there is much more air and oxygen in and around the fabric to aid the burning in contrast with garments that fit close to the body where there is much less air and oxygen. As the oxygen and air in and around a garment increases the greater potential of the flame consuming the garment in a shorter period of time.

In making the instant survey letters were sent to government agencies, insurance companies, hospitals, doctors, fire marshals, chemical companies making fire retardants, consumer associations and trade associations asking for statistics and information that might be of value in determining the feasibility

<sup>3</sup> Commercial Standard 192-53. General Purpose Vinyl Plastic Film. See Exhibit 3.

<sup>4</sup> See Exhibit 4 for a list of the manufactured fibers, how they ignite, whether or not they are self-extinguishing, and their burn characteristics.

<sup>5</sup> See Exhibit 5. Cotton Counts Its Customers—National Cotton Council of America.

of applying flame retardants or flameproofing finishes to children's clothing. Replies were received to most of these letters and much pertinent information was supplied.

Statistics in relation to burns resulting from clothing fires appear to be sketchy at this time, particularly statistics in relation to children alone.

The United States Department of Health, Education, and Welfare within the past couple of years has started a program for compiling figures on this subject. Statistics that are available cover limited areas and for periods of time that are much too brief to form definite conclusions. In addition many of the figures cover burns, injuries and fatalities that result from other than clothing burns, such as explosions, house fires, spilling of highly flammable liquids on clothes, chemical burns, scaldings and so forth.

The United States Department of Health, Education, and Welfare states the death rates from fire and explosion are highest for children from 1 to 14 years old and for persons 65 years and older, and injury rates are lower for these age groups. The Department estimates 2 million persons are burned in the United States from all causes each year, and about 100,000 of these victims require hospitalization. The same source states a major problem involves clothing catching on fire, a particular problem of girls especially in conjunction with open fires or open flames.<sup>6</sup>

The National Fire Protection Association began a survey in February 1966, concerning the circumstances in certain fatalities due to fire with special interest in clothing fires. The survey covering 650 such fires which their report states is a small portion of the more than 2 million burn injuries that occur in the United States each year. The survey showed that in the fires studied, clothing was the cause in a little more than  $\frac{1}{2}$  of the cases. From this sample the National Fire Protection Association estimates from 2100 to 2200 deaths are caused by clothing fires each year in the United States. The study further disclosed that clothing fires strike most frequently the very young and the very old. Deaths in the age bracket 0 to 5 years was three times any other 5 year age group up to 60. From age 60 up fatal fire accidents increased sharply. The 70 year age group the number of clothing fires exceeded those in the 0 to 5 year group. The source of ignition from the fires involving children's clothing which were studied was first, playing with matches followed by heating stoves and cooking stoves. The large majority of all of the persons burned in this survey were wearing ordinary street clothing followed by nightwear. Although all of the reports did not specify the type of fabric in the clothing worn by the victims 78% of those reporting listed the fabric as cotton, the balance was fairly evenly divided among the other natural and man-made fibers and mixtures of these fibers.<sup>7</sup>

Statistics gathered by the British appear to be more complete than any available statistics in this country. Figures have been tabulated as to fatal burns by clothing in the home and residential institutions in England and Wales. These figures are broken down by sex and age groups from 1959 through 1964. Living conditions in England and Wales are not in all respects similar to living conditions in the United States as there are probably more open fires and stove fires used for heating, and less central heating in England and Wales than in the United States, but the figures do appear to be interesting. Probably more of the English cooking is done on coal cooking stoves than on gas and electric stoves and this factor also would have an affect on the statistics. Further overall British clothing is probably heavier than that worn in the United States due to the fact there is less central heating. In addition English clothing probably has a higher amount of woolen fibers used in it than the clothing used in this country, which would make the fabrics less flammable than the fabrics used here.

Under the circumstances mentioned above there were some 1791 fatal clothing fires in England and Wales during this period. Broken down into sex, females accounted for 82.8% of the fatalities while the males accounted for only 17.2%. The proportion of roughly 4 to 1 of female deaths as against male follows

<sup>6</sup> Albert P. Iskrant, Chief Epidemiology and Surveillance Branch, Division of Accident Prevention, Public Health Service, United States Department of Health, Education and Welfare in a paper presented at the Conference of Burns and Flame Retardant Fabrics, New York Academy of Medicine, New York City, New York, December 2 and 3, 1966. See Exhibit 6.

<sup>7</sup> Report of Ernest E. Juillerat, Manager, Fire Record Department, National Fire Protection Association dated November 29, 1966, presented at the Conference of Burns and Flame Retardant Fabrics, New York Academy of Medicine, New York City, New York, December 2 and 3, 1966. See Exhibit 7.

through all of the age groups. This fact may be accounted for in part as the statistics are for fatal accidents in the home and residential institutions. Women and girls are more likely to spend a greater amount of time in the home than men and boys. Also their duties require them to have more occasion to be around fire. Further female clothing is generally lighter in weight and more likely to be made of cotton and rayon than the clothing worn by men and boys. Also the clothing worn by women and girls generally is of a looser fitting nature and is much more susceptible to ignition.

Broken down into age groups these statistics indicate that the 0 through 4 years group accounted for 9.1% of the fatalities, the 5 through 14 year group 9.1%, the 15 through 44 year group 7.6%, the 45 through 64 year group 14.0%, the 65 through 74 year group 17.9% and the group 75 and over 42.3%. These figures indicate fatal clothing fires are most likely to strike children under 15 years of age and elderly persons 65 years old and over with the hazard increasing with age.

A second table of statistics prepared by the British detail deaths from clothing burns between October 1963 and September 1964 and between October 1964 and September 1965 covering England and Wales. In addition to being broken down by sex and age this table breaks the figures down as to nightdresses and nightwear or night clothes.<sup>8</sup> The purpose of these statistics is to measure the effectiveness of a British regulation which went into effect on October 1, 1964<sup>9</sup> requiring all children's nightdresses to conform to the low flammability requirements of British Standard 1321:1959. The figures covering fatal burns for girls under 15 years of age wearing nightdresses in the 1963-64 period was 15, and for the 1964-65 period 8. For males in the same age group for the same period the total is 1 for both years. Similar statistics for the same age group covering nightwear or night clothes, as differentiated from nightdresses, is females 2 in the 1963-64 period, and 1 in the 1964-65 period, and for the males 1 in the 1963-64 period and 3 in the 1964-65 period. Little credence can be put in these figures as they are for such a short period of time however the indication is that nightdresses that are usually loose fitting are much more likely to catch fire than other types of night clothes. Further it is significant that the fatalities for burns due to the burning of nightdresses the first year after the flame retarding regulation went into effect were approximately  $\frac{1}{2}$  what they were the previous year.

Although the foregoing figures are fragmentary there is no question that clothing burns are a serious problem for persons of all ages, and are particularly serious in relation to children and elderly persons. In the case of children the reason for the problem appears to be lack of experience with fire, curiosity in the use of fire, panic once clothing becomes ignited and in small children an inability to remove or cast off ignited clothing. In elderly people the problem appears to be the result of slow movement in extinguishing burning clothing and difficulty because of age in removing or casting off ignited clothing.

To overcome this problem as it concerns children, particularly younger children, there appears to be two solutions to the problem (1) to apply a flame retardant or a flame proofing material to children's clothing made of fabrics that are flammable or (2) to make children's clothing of non-flammable materials. The advantages and disadvantages of both of these possibilities will be discussed in detail below.

Cotton is the fiber that has been used most extensively from time immemorial for clothing, and today it is still the most widely used fiber in children's clothing. There are several reasons for this popularity. It makes attractive clothing fabrics, it dyes readily, it wears well, it launders easily, it is absorbent, it has a soft, pleasant feel next to the skin and last but by no means the least it is within the price range of the middle economic and poorer classes. Rayon like cotton to a lesser extent is popular in the manufacture of children's clothing. Both of these fibers have a cellulosic base and therefore will ignite and burn readily.

Cellulosic base fibers and fabrics made of these fibers can be treated with flame retardant materials in order to slow down the burning time, or to make the goods

<sup>8</sup> Tables of Statistics submitted to the Federal Trade Commission by the British Home Office, London, England. See Exhibits 8 and 9.

<sup>9</sup> Correspondence from F. W. Stacey, British Home Office dated October 18, 1966; Consumer Protection Act 1961; Children's Nightdresses Regulation 1964; Home Office Circular No. 180/1964, dated July 29, 1964; The Nightdresses (Safety) Regulations (Draft), Background Note. See Exhibit 10. Controlling The Clothing Fire Problem—An Observation on the British Experience, by Eugene L. Lehr, Deputy Chief, Division of Accident Prevention, Public Health Service, Department of Health, Education and Welfare. See Exhibit 11.

to all intent and purposes flameproof. Flame retardants fall into two categories, those that are soluble in water and dry cleaning solutions and those that are non-soluble in water and dry cleaning solutions.

The first type are cheap and are easily applied by the manufacturer or in the home by dipping, sprinkling or spraying the chemicals. The United States Department of Agriculture has published leaflets describing the chemicals and the processes to be used in the home.<sup>10</sup>

The big objection to these such retardants is that the items to which they are applied have to be retreated after every washing, and therefore such retardants are not very practical for wearing apparel. These retardants in addition add considerably to the weight of the fabric and cause a stiffening of the material which effects the hand or feel of the fabrics in garments particularly lightweight fabrics. Further drape and appearance is sometimes adversely effected. Also the tensile strength of the clothing may be weakened if it is stored for long periods of time with the flame retardant in the material.

The more permanent flame retardants are non-soluble in water and in dry cleaning solutions and are applied to the fabrics in the fabric mills or in the finishing mills before the fabric is made into garments. The Department of Agriculture, Southern Regional Research Laboratory has been a pioneer in permanent flame retardant study. In the 1950's the flame retardant known as APO-THPC was perfected by this laboratory,<sup>11</sup> today this flame retardant and variations of it are used by a number of private firms in this country and abroad in flameproofing rugs, carpeting, industrial clothing and military clothing.<sup>12</sup>

The advantages of this second type of flame retardant is that it is durable through many washings or dry cleaning operations and in most cases lasts for the life of the fabric. Generally it does not effect most color dyes, and tests of clothing and bedding treated with the retardant have failed to reveal any allergic, toxic or irritating results to persons using the treated items.

There are however several disadvantages to the use of the non-soluble type retardants. It is estimated that at present the cost of applying such a finish is approximately \$.20 to \$.25 per pound of fabric. Further the chemicals deposited in the fabric increase the weight of the fabric from 10% to 20%. In addition on lightweight fabrics the feel or hand of the goods is destroyed and the drape and appearance of the garments made of the tested fabric is unfavorably effected. Further the strength of the cloth to a certain extent is lessened.

In addition to the combustible fibers in fabrics which can be treated with flame retardant chemicals there are a number of fibers and fabrics on the market that are in themselves flame resistant. Nature has supplied man with some of the best, namely the animal fibers, including wool, cashmere, mohair, camel hair and so forth which will singe and char but will not support combustion. Wool garments are probably the cheapest and the best flame resistant type of clothing in this category on the market today. Wool, of course, is popular for use in heavy outer clothing, suits, sweaters, skirts, shirts and so forth. Before the days of central heating it was also popular for underwear but such use is now a rarity in this type of clothing in the United States. Because of its thermal qualities it is used for the most part in winter clothing, and to a far less extent in summer garments.

Silk also is flame resistant except when it is manufactured into very sheer fabric.

In addition there are a number of man made fibers that are flame retardant or flameproof.<sup>13</sup> Some of these fibers are unsuitable at present for clothing and others are suitable for only certain types of clothing.

Glass fibers are non-combustible and are used in large quantities for curtains and drapes and to a far less extent for certain items of bedding and other household use. At this time glass fibers have not been perfected to the extent that they

<sup>10</sup> United States Department of Agriculture Leaflet No. 4454. See Exhibit 12.

<sup>11</sup> Estimated Costs and In-service Evaluations of Chemically Modified Cotton Fabrics, K. M. Decassas, H. L. E. Vix, and E. L. Patton, reprint from American Dyestuff Reporter, April 30, 1962. See Exhibit 13. United States Department of Agriculture, Agricultural Research Service, Report of Results of Laboratory Tests on Material Used in the Arkansas State Board of Health Feasibility Study for Flame Retardant Fabrics, May 1966, see Exhibit 14.

<sup>12</sup> Roxel ®, fire retardant chemical of Hooker Chemical Corporation. See Exhibit 15. Proban (Regd.), fire retardant of Proban Limited. See Exhibit 16. Arzet ®, fire retardant of The Dow Chemical Company. See Exhibit 17.

<sup>13</sup> See Exhibit 4, supra.

may be used in clothing. Similarly, asbestos is flameproof but it is unsuitable for ordinary clothing.

Among the man made fibers that are presently used in clothing and which are flame resistant are modacrylic fibers. These fibers are self-extinguishing, that is combustion ceases when the flame is removed. When blended with cotton, rayon or other combustible fibers and made into fabric the modacrylic fibers or yarns tend to extinguish or cut down the flammability of the fabric in proportion to their presence in the cloth. The modacrylic fibers when subjected to fire tend to shrink and do not produce an ash or residue.

Modacrylics are manufactured by several of the large companies in the man made fiber field.<sup>14</sup>

These fibers have been used alone in rugs, carpets, curtains, draperies, certain bedding items and pile apparel fabrics. Such fabrics are used as coat linings, as outside shell fabric in jackets and coats, and also in imitation fur products. They have been blended with wool for use in dresses, skirts, suits and trousers, and have been blended with cotton for men's, women's and children's underwear and sleep wear and blended with rayon for use in jackets and rain wear.

The main disadvantage to the use of modacrylics alone or blended with rayon and cotton is the cost. At present modacrylic fiber, yarn or fabric is approximately  $1\frac{1}{2}$  to 2 times the cost of cotton.

Polyester is used at present rather extensively by itself and blended with other fibers. This fiber is moderately difficult to ignite and is self-extinguishing. Mixed with cotton or rayon, polyester would tend to slow down the burning time of the fabric.

Polyester fibers are used in fabrics for men's, women's and children's clothing. For the most part these garments are outerwear. The absorbent qualities of polyester like other man made fibers is poor making fabric of this fiber less desirable for underwear. The cost of clothing made of polyester fibers is considerably more than the cost of similar garments made of cotton and rayon.

Nylon while it has a much higher ignition point than cotton or rayon nevertheless will burn. Further as it burns it leaves a residue that can produce severe burns to the body. Recently, however, a new type of nylon has been developed by one of the large man made fiber producers, which has all of the attributes of the commonly known nylon, but in addition has a high ignition point and does not have a residue when it is subjected to fire. This new type nylon fiber thus far has been used only in making certain military garments and special civilian clothing. At present there is insufficient information available as to whether the use of this fiber in children's clothing is probable. Further at the present time and in the near future the cost of this fiber would preclude it from wide use as it is several times more expensive than cotton and rayon.

In addition to the fibers discussed above there are a number of other man made fibers that should be mentioned. Acetate is a fiber with the same basic ingredients as rayon, that is wool pulp and cotton linters. This fiber is used extensively in clothing but it is not as widely used as rayon and cotton. Acetate ignites readily but somewhat slower than rayon and the flame spread is not quite as rapid as rayon.

Another man made fiber which has been growing more popular for use in wearing apparel the past few years is acrylic. Acrylic fibers or fabric made of acrylic are rather slow to ignite but once they are ignited they are not self-extinguishing. These fibers melt as they burn and leave a beady residue. Acrylic fibers are used alone rather extensively in sweaters, pile fabric garments and blended with other fibers particularly where crease retention is desired.

Other of the man made fibers such as saran, vinyon, olefin and nitril have not to date been used to any great extent in the clothing fabrics. All of these fibers except nitril are slow to ignite but their future potential in clothing fabrics is not known.

It is the opinion of the Commission that, so far as feasible, all children's clothing be made flameproof by applying a chemical finish to all combustible fabrics or by having such clothing made of non-flammable material.

<sup>14</sup>The use of Synthetic Modacrylic Fibers, R. S. Brissette Marketing Manager, Fibers, Fibers and Fabrics Division, Union Carbide Corporation. See Exhibit 18, The Story of Dynel, Union Carbide Chemicals Company's trade name for its Modacrylic fiber. See Exhibit 19, Evaluation of Flame Resistant Products Made With Verel ©, Eastman Kodak Company's trade name for its Modacrylic fiber. See Exhibit 20.