

# Indiana Law Review

Volume 9

January 1976

Number 2

## The Flammable Fabrics Act and Strict Liability in Tort

DAVID C. CAMPBELL\*

JOHN F. VARGO\*\*

### I. INTRODUCTION

Each year in America approximately 3,000 to 5,000 persons die as a result of burns associated with flammable fabrics.<sup>1</sup> Another 150,000 to 200,000 persons are injured.<sup>2</sup> A disproportionate number of the deaths and injuries involve the very young and the very old.<sup>3</sup> The direct economic loss from these fires exceeds one-quarter of a billion dollars,<sup>4</sup> with over 1.5 million workdays lost.<sup>5</sup>

\*Member of the Indiana Bar. J.D., Indiana University Indianapolis Law School, 1974.

\*\*Member of the Indiana Bar. J.D., Indiana University Indianapolis Law School, 1974.

<sup>1</sup>SECRETARY OF HEALTH, EDUCATION AND WELFARE, FOURTH ANNUAL REPORT TO THE PRESIDENT AND THE CONGRESS ON THE STUDIES OF DEATHS, INJURIES, AND ECONOMIC LOSSES RESULTING FROM ACCIDENTAL BURNING OF PRODUCTS, FABRICS, OR RELATED MATERIALS vi (1972) [hereinafter cited as HEW FOURTH ANNUAL REPORT]. *Contra*, Daily News Record, Sept. 23, 1975, at 4, col. 4.

[R]ecently released information from NEISS (National Electronic Injury Surveillance System), . . . indicates that 15,600 persons annually receive medical treatment for textile-related burns; 9,700 involve articles of clothing, including 2,600 specifically in the night-wear area. And according to the National Center for Health Statistics, 517 deaths a year are caused by ignition of clothing.

Richard Simpson, Chairman of the Consumer Product Safety Commission, referred to this information when he said:

"I personally question whether there is a need for additional governmental regulation, because of the extensive voluntary efforts being made by the industry, and because of the new injury data which has just been presented to us."

*Id.*

<sup>2</sup>HEW FOURTH ANNUAL REPORT vi. *Contra*, Daily News Record, *supra* note 1.

<sup>3</sup>HEW FOURTH ANNUAL REPORT xi.

<sup>4</sup>*Id.* at vi.

<sup>5</sup>Hearings on H.R. 5698 Before the Subcomm. on Commerce and Finance of the House Comm. on Interstate and Foreign Commerce, 92d Cong., 1st Sess. 1 (1971).

The impact of fabric ignition upon the severity of a burn is well documented.<sup>6</sup> When a person comes in contact with fire and the fabric in his clothing ignites, his chances of dying are higher than if his clothing did not ignite. Also, not only is the mortality rate higher, but the average hospital stay is 56 days where ignition occurs compared with 35 days where it does not occur.<sup>7</sup>

Those who have suffered from fabric ignition have sought redress through the courts under theories of negligence, warranty, and strict liability. Congress, recognizing the severity of the danger of flammable fabrics, promulgated flammability standards under the Flammable Fabrics Act.<sup>8</sup> Defendants in strict liability actions recently have asserted the defense that compliance with federal fabric standards negates the "unreasonably dangerous" or "defects" requirement of section 402A of the *Restatement (Second) of Torts*.<sup>9</sup> This commentary explores the confrontation between the federal standards and plaintiffs' recoveries in strict liability under section 402A.

## II. THE FLAMMABLE FABRICS ACT

Congress passed the Flammable Fabrics Act<sup>10</sup> in 1953 in response to "a wave of catastrophes [that] swept across the country."<sup>11</sup> The Act was motivated specifically by the large number of burn cases involving "torch" sweaters and flammable children's

---

<sup>6</sup>*Hearings on Flammable Fabrics and Other Fire Hazards to Older Americans Before the Senate Special Comm. on Aging*, 92d Cong., 1st Sess. 11 (1972). The Secretary of Health, Education, and Welfare reported in 1971: The injury severity differences are shocking. *Clothing Ignition* victims were *four times more likely to die* than those spared clothing fire. Twenty-four percent of the *Clothing Ignition* patients died in the hospital. Their burns covered *nearly twice as much body surface*, and *six times more skin was burned full-thickness*. They spent an average of 21 more days from burn to *hospital discharge*, and their medical costs were \$5,000 higher than the average *No Clothing Ignition* patient.

SECRETARY OF HEALTH, EDUCATION AND WELFARE, THIRD ANNUAL REPORT TO THE PRESIDENT AND THE CONGRESS ON THE STUDIES OF DEATHS, INJURIES, AND ECONOMIC LOSSES RESULTING FROM ACCIDENTAL BURNING OF PRODUCTS, FABRICS, OR RELATED MATERIALS 37 (1971) (emphasis in original). See also "Thirty Flame Burn Accident Groups—Rank Order by Size," *infra* p. 417, from *Hearings, supra* at 62.

<sup>7</sup>HEW THIRD ANNUAL REPORT, *supra* note 6, at 73.

<sup>8</sup>15 U.S.C. §§ 1191-1204 (1970).

<sup>9</sup>See, e.g., *Raymond v. Riegel Textile Corp.*, 484 F.2d 1025 (1st Cir. 1973); *LaGorga v. Kroger Co.*, 275 F. Supp. 373 (W.D. Pa. 1967).

<sup>10</sup>Act of June 30, 1953, ch. 164, § 2, 67 Stat. 112 (codified as amended at 15 U.S.C. §§ 1191-1204 (1970)).

<sup>11</sup>*Hearings on H.R. 389, H.R. 2768, H.R. 3851, H.R. 1459, & H.R. 4500 Before the House Comm. on Interstate and Foreign Commerce*, 83d Cong., 1st Sess. 1 (1953).

playsuits.<sup>12</sup> In an effort to protect the consumer, Congress adopted a flammability standard<sup>13</sup> and provided procedures for the revision of the standard.<sup>14</sup> The Federal Trade Commission was given the responsibility for enforcing the Act.<sup>15</sup>

Even prior to its enactment, the Act was criticized for its narrow scope.<sup>16</sup> One significant shortcoming was that it applied

---

<sup>12</sup>H.R. REP. No. 425, 83d Cong., 1st Sess. (1953); S. REP. No. 400, 83d Cong., 1st Sess. (1953), reprinted in U.S. CODE CONG. & AD. NEWS 1722, 1723 (1953). See, e.g., *Blessington v. McCrory Stores Corp.*, 198 Misc. 291, 95 N.Y.S.2d 414 (Sup. Ct. 1950), appeal dismissed, 279 App. Div. 806, 109 N.Y.S.2d 719, aff'd mem., 110 N.Y.S.2d 456 (1952), aff'd, 305 N.Y. 140, 111 N.E.2d 421 (1953) (seven-year-old boy burned to death in a highly flammable cowboy suit); *Noone v. Fred Perlberg, Inc.*, 268 App. Div. 149, 49 N.Y.S.2d 460 (1944), aff'd, 294 N.Y. 680, 60 N.E.2d 839 (1945) (critical burn from "exploding" dress. Sizing of the dress was composed of a particular pyroxylin which also serves as the basis of gunpowder).

<sup>13</sup>Act of June 30, 1953, ch. 164, §§ 3-4, 67 Stat. 111-12. The Act prohibited the sale of certain wearing apparel "so highly flammable as to be dangerous when worn by individuals." *Id.* § 3. Specifically, the Act incorporated Commercial Standard (CS) 191-53 promulgated by the Secretary of Commerce, effective January 30, 1953. *Id.* § 3(a). CS 191-53 classified fabric on the basis of burning time in seconds of a 2-inch by 6-inch specimen under specified procedures. Fabrics with a flame spread of more than 7 seconds were classed as having normal flammability, 4 to 7 seconds as having intermediate flammability, and less than 4 seconds as rapid and intense burning unsuitable for clothing. S. REP. No. 400, 83d Cong., 1st Sess. 6 (1953), reprinted in U.S. CODE CONG. & AD. NEWS 1722, 1728 (1953). In 1954, however, because of the apparent restrictiveness of a 4-second flame spread requirement, Congress modified the rapid and intense burning classification of CS 191-53 to fabrics with a flame spread of less than 3.5 seconds. Act of August 23, 1954, ch. 833, 68 Stat. 770. It must be noted that both the original standard of CS 191-53 and the subsequent modification of the flame spread standard were due to industry influence. CS 191-53 was developed by the American Association of Textile Chemists and Colorists and the National Retail Dry Goods Association, with advice from the National Bureau of Standards. NATIONAL COMM'N ON PRODUCT SAFETY, FEDERAL CONSUMER SAFETY LEGISLATION 110 (1970) [hereinafter cited as HEFFRON REPORT]. Further, the subsequent modification of the flame spread standard was directed at preventing 250 million yards of sheer material from being banned. *Id.* at 112. Thus, the standards were so narrowed that, in effect, only the infamous "torch" sweater was covered. The industry influence has been strongly criticized. See Comment, *Dressed To Kill—The Flammable Fabrics Act of 1953—Twenty Years in Retrospect*, 4 CUMBER.-SAM. L. REV. 358 (1973); Note, *Flammable Fabrics Act Protection: Fire Resistants v. Industry Resistance*, 39 GEO. WASH. L. REV. 608, 610-12 (1971).

<sup>14</sup>Act of June 30, 1953, ch. 164, § 4, 67 Stat. 112. If the Secretary of Commerce found the Act's standards inadequate, he was directed to report such findings and recommend remedying proposals to Congress.

<sup>15</sup>*Id.* § 5. If the Federal Trade Commission discovered a violation of the Act, it was empowered to enjoin such violation, or to seize and confiscate materials. Willful violations of the Act subjected the offender to criminal misdemeanor penalties. *Id.* § 7, 67 Stat. 114.

<sup>16</sup>See Letter from James M. Mead, Chairman of the Federal Trade Commission, to the Hon. Charles A. Wolverton, Chairman, House Committee on

only to wearing apparel.<sup>17</sup> Consequently, household items, such as rugs, blankets, and draperies, were excluded from the Act while clothing made from the same fabric was included. In fact, the same fiber utilized in the "torch" sweaters, brushed viscose rayon, was sold without restrictions in blankets and other necessary household products.<sup>18</sup> Furthermore, it was questioned whether the test procedures embodied in the Act accounted for normal garment use by the consumer and whether the procedures had been objectively validated.<sup>19</sup>

These limitations in the original Act were remedied by amendments in 1967<sup>20</sup> to "protect the public against undue risk of fire leading to death, injury, or property damage arising out of ignition of articles of wearing apparel and interior household furn-

Interstate and Foreign Commerce, March 19, 1953, in H. REP. NO. 425, 83d Cong., 1st Sess. (1953), *reprinted in* 2 U.S. CODE CONG. & AD. NEWS 1731-34 (1953).

In 1967, President Lyndon Johnson, addressing the problems of coverage and standards validity, 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 the 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.

*Hearings on H.R. 5654, H.R. 5474, H.R. 6142, H.R. 7471, H.R.J. Res. 280, H.R.J. Res. 340 & H.R.J. Res. 357 Before the Subcomm. on Commerce and Finance of the House Comm. on Interstate and Foreign Commerce, 90th Cong., 1st Sess. 27 (1967) [hereinafter cited at 1967 House Hearings].*

<sup>17</sup>15 U.S.C. § 1191 (1964), *as amended* 15 U.S.C. § 1191 (1970).

<sup>18</sup>113 CONG. REC. 2037-38 (Feb. 16, 1967) (remarks of Senator Magnuson during the Senate debate on the 1967 amendments to the Act); *1967 House Hearings, supra* note 16, at 15.

<sup>19</sup>Letter of James M. Mead, *supra* note 16, at 1733. Mr. Mead noted that CS 191-53 required the test specimen to be dry-cleaned and washed prior to testing. The experience of the FTC in the "torch" cases, however, was that the fires occurred prior to laundering. Further, Mr. Mead remarked that although CS 191-53 was promulgated by the Secretary of Commerce, that did not constitute a ruling or finding by the Secretary or the National Bureau of Standards that the standard was adequate from the standpoint of the public.

<sup>20</sup>Act of December 14, 1967, Pub. L. No. 90-189, §§ 1-10, 81 Stat. 568-74, *amending* 15 U.S.C. §§ 1191 *et seq.* (1964) (codified at 15 U.S.C. §§ 1191 *et seq.* (1970)). Although no substantive change occurred until 1967, the FTC attempted in 1963 to bring baby blankets within the purview of the Act. The Commission ultimately decided, however, that blankets were not wearing apparel and thus were not covered. HEFFRON REPORT 113. *See* Elman, *Administrative Reform of the Federal Trade Commission*, 59 GEO. L.J. 777, 790-91 (1971).

ishings."<sup>21</sup> The amendments broadened the Act's coverage to include articles not previously covered, such as hats, gloves, and interior furnishings.<sup>22</sup> Further, the section that gave Congress the exclusive power to enact standards was limited by giving the Secretary of Commerce the power to promulgate standards, thus avoiding the cumbersome congressional enactment requirement of the 1953 version.<sup>23</sup> The Secretary of Health, Education, and Welfare was given a statistical reporting function,<sup>24</sup> and a preemption clause was added.<sup>25</sup>

Despite these amendments, however, the Act continued to be of dubious value. Although the flexibility of the rule promulgation procedure was enhanced, built-in mechanisms of delay served to blunt the effectiveness of the new procedure.<sup>26</sup> Further, the continuing absence of pre-market testing procedures severely reduced

<sup>21</sup>H.R. REP. No. 972, 90th Cong., 1st Sess. 6 (1967).

<sup>22</sup>15 U.S.C. §§ 1191(d)-(e) (1970).

<sup>23</sup>*Id.* § 1193.

<sup>24</sup>*Id.* § 1201.

<sup>25</sup>*Id.* § 1203.

<sup>26</sup>Delay in rule promulgation was an inherent manifestation of the exhaustive procedural requirements. Prior to issuance of any new standard, the Department of Commerce was required to publish notice that a standard might be needed, followed by a 30-day investigatory period during which interested parties could comment. This was followed by a notice of the proposed standard with further invitation for comment. During either proceeding an interested party was guaranteed an oral hearing on request. Prior to publishing a decision on the proposed standard, the Secretary was required to consult with a National Advisory Commission for 15 days. Subsequent to final publication, any person adversely affected had 60 days to petition for judicial review. Finally, after all of these proceedings, the Act delayed the effective date of the standard for one year after final publication. NATIONAL COMM'N ON PRODUCT SAFETY, FINAL REPORT 93-94 (1970). The Department of Commerce argued that these steps were appropriate and that the delay resulted from development of an adequate technical basis and methods for testing. *Hearings on H.R. 5698 Before the Subcomm. on Commerce and Finance of the House Comm. on Interstate and Foreign Commerce*, 92d Cong., 1st Sess. 15-16 (1971). However, the National Commission on Product Safety found:

This procedure goes beyond the Administrative Procedure Act . . . beyond the Flammable Fabrics Act itself, and certainly beyond the need to assure procedural integrity. . . .

This lengthy process is at least in part responsible for the fact that the first partial flammable fabric standard was not issued by the Department of Commerce until April, 1970, even though the expanded authority was granted in December, 1967.

FINAL REPORT, *supra* at 94. See HEFFRON REPORT 133; Note, *Flammable Fabrics Act Protection: Fire Resistants v. Industry Resistance*, 39 GEO. WASH. L. REV. 608, 612-13 (1971).

The rulemaking procedure established by the Consumer Product Safety Commission does not differ significantly from the Department of Commerce procedure. See 16 C.F.R. §§ 1607.1 to .14 (1975).

the FTC's ability to limit distribution of offending materials.<sup>27</sup> These inadequacies prompted Casper Weinberger, then Chairman of the FTC, to remark:

In sum, nowhere in the existing machinery is there an effective means of accomplishing the primary objectives of the act—detecting flammable fabrics before they are placed on the market and effectively deterring the future sales of flammable fabrics by the threat of meaningful criminal and civil sanctions.<sup>28</sup>

In support of Mr. Weinberger's conclusions, the FTC statistical reports required by the Act revealed that no significant reduction in death and injuries due to flammable fabrics had been achieved.<sup>29</sup>

Although the Department of Commerce was slow to initiate new standards between 1967 and 1970, it began to take a more forceful role in 1970. Between 1970 and 1973, the Department's actions included proposing flammability standards for blankets<sup>30</sup> and promulgating standards for carpets,<sup>31</sup> mattresses,<sup>32</sup> and children's sleepwear.<sup>33</sup> The Department had only three years to rectify its seventeen years of relative inactivity. In 1973, the Department's role under the Act was transferred to the Consumer Product Safety Commission.<sup>34</sup> Since assuming its role under the

<sup>27</sup>Hearings on H.R. 5698 Before the Subcomm. on Commerce and Finance of the House Comm. on Interstate and Foreign Commerce, 92d Cong., 1st Sess. 15 (1971).

<sup>28</sup>*Id.* The Department of Commerce proposed self-regulation by the manufacturer, with a certification of compliance made to the FTC. *Id.*

<sup>29</sup>HEW FOURTH ANNUAL REPORT, *supra* note 1, at vi.

Data accumulated during the present reporting period—May 1971 through June 1972—do not indicate any significant change in estimates of the flammable fabrics problem contained in the three previous reports. These estimates are that there are annually 3,000 to 5,000 deaths and 150,000 to 250,000 injuries from burns associated with flammable fabrics and that the directly related financial loss exceeds a quarter billion dollars.

*Id.*

<sup>30</sup>35 Fed. Reg. 8943 (1970).

<sup>31</sup>35 Fed. Reg. 6211 (1970) (carpets and rugs); 35 Fed. Reg. 19,702 (1970) (small carpets and rugs).

<sup>32</sup>37 Fed. Reg. 11,362 (1972), *as amended* 38 Fed. Reg. 15,095 (1973). This standard is designated DOC FF 4-72.

<sup>33</sup>36 Fed. Reg. 14,062 (1971), *as amended* 37 Fed. Reg. 14,624 (1972). This standard is designated DOC FF 3-71.

<sup>34</sup>15 U.S.C. § 2079(b) (Supp. II, 1972).

The Flammable Fabrics Act is a strong and useful regulatory statute, whose implementation has been virtually nullified because it is split among three federal agencies (the Department of Commerce, the Federal Trade Commission, and the Food and Drug Administration).

Act, the Commission has lost little time in recommending and implementing new standards.<sup>35</sup> However, significant problems remain.<sup>36</sup>

### III. STANDARDS UNDER THE ACT

Regardless of which definition of "defect" is utilized in a strict liability case, if compliance with a federal flammability standard is allowed by courts to negate the existence of a defect, then careful consideration must be given to the adequacy of the federal standards.

---

Combining these functions in one strong regulatory agency is necessary if the law is to be effectively implemented.

S. REP. NO. 92-835, 92d Cong., 2d Sess. 19 (1972).

<sup>35</sup>In assuming duties under the Flammable Fabrics Act, the Commission stated its intention to "discharge its responsibilities . . . vigorously, expeditiously, and without compromise in order to protect the public from the hazards to life, health, and property caused by dangerously flammable fabrics." 38 Fed. Reg. 24,923 (1973). One of the first actions of the Commission was to amend the flammability standards for mattresses, with an immediate effective date instead of the usual 1-year delay. The Commission found the immediate effective date to be in the public interest. 38 Fed. Reg. 15,095 (1973). Labelling and record keeping requirements were instituted. 16 C.F.R. § 302.20 (1975). The Commission has moved into the area of children's sleepwear by promulgating labelling and advertising requirements under standard DOC FF 3-71, effective March 11, 1974. 16 C.F.R. § 302.19 (1975). Record-keeping and sample test requirements have been promulgated under standard DOC FF 3-71. 16 C.F.R. § 302.19 (1975). The Commission has also used its authority for cease and desist orders and mandatory recall. *See, e.g.*, 2 CCH CONS. PROD. SAFETY GUIDE ¶¶ 42,016, 42,154 (1973-75).

<sup>36</sup>

While the promulgation of the Children's Sleepwear Standard is warranted by the disproportionately high occurrence of clothing ignition accidents among young children (ages 0-5), it can be regarded only as a partial solution to the total problem, since it offers no protection to other high risk groups in the population. Notable among the other groups which appear to have such accidents frequently are the nearly 60% of young children (ages 0-5) who, at the time of their accidents, are wearing clothing other than sleepwear; older children (ages 6-14) who represent approximately 20% of the total cases; and persons over 65 (especially females) among whom both the occurrence and severity of fabric ignition accidents is disproportionately high.

HEW THIRD ANNUAL REPORT, *supra* note 6, at 15.

In one instance, the Commission has moved to close some of the gaps in the DOC FF 3-71 standard. Acting on the findings of the Secretary of Commerce that a standard was needed to cover children's sleepwear in sizes 7 to 14, 38 Fed. Reg. 6700 (1973), the Commission issued such a standard on May 1, 1974, 39 Fed. Reg. 15,210 (1974), to be effective May 1, 1975. The size 7 to 14 standard, FF 5-74, is substantively the same as DOC FF 3-71. The only difference is that FF 5-74 does not include a test criterion of DOC FF 3-71 regarding the test time of flaming molten materials.

The policy behind section 402A dictates that a manufacturer who places defective merchandise in the stream of commerce and thereby causes injury to a user cannot explain away the defect by showing compliance with an inadequate standard.<sup>37</sup> Thus, it remains to examine the standards promulgated pursuant to the Flammable Fabrics Act and the efficacy of those standards.

The role of industry must be considered in examining standards formulated under the Act. Industry has a legitimate role in providing fabrics free of undue governmental control and at a reasonable cost to the consumer. This role must be reconciled, however, with industry's continuing duty to produce fabrics that are reasonably safe for consumer use. The government as a consumer advocate or other consumer oriented groups may define "reasonably safe" differently than industry would define the phrase. The process of arriving at a federal standard thus must balance the seemingly competing interests of safety and profitability. The result, as past experience under the Act demonstrates, is that the federal standard, in other than the extremely sensitive area of children's sleepwear, may not be the most technically sophisticated or the most difficult standard to satisfy. Thus, the legislative and administrative process must be considered whenever an attempt is made to define "defect" or "unreasonably dangerous" by use of a federal standard.

The 1953 version of the Act was aimed at fabrics classed as "rapid and intense burning" under Commercial Standard (CS) 191-53.<sup>38</sup> The flammability test procedure was explained as follows:

The flammability test provided in the Commercial Standard 191-53 makes use of strips of fabric 2 by 6 inches in dimensions. The test consists of measuring the burning time in seconds when the test piece is mounted in a specially designed apparatus and a flame is applied in a prescribed manner. Fabrics with a flame spread of more than 7 seconds are classed as having normal flammability. Those with a flame spread of less than 4 seconds are classed as rapid and intense burning, while those burning

---

<sup>37</sup>See *Raymond v. Riegel Textile Corp.*, 484 F.2d 1025 (1st Cir. 1973); *accord*, *Hubbard-Hall Chemical Co. v. Silverman*, 340 F.2d 402 (1st Cir. 1965) (insecticide's compliance with requirements of U.S. Department of Agriculture). See also W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* § 36, at 204 (4th ed. 1971); *Aviation Law—Recent Important Cases*, 26-27 *NACCA L.J.* 408, 410-11 (1960-61).

<sup>38</sup>"This bill is directed to those fabrics which are classed as rapid and intense burning fabrics." H.R. REP. NO. 425, 83d Cong., 1st Sess. 6 (1953).

in 4 to 7 seconds are rated as having intermediate flammability.<sup>39</sup>

The CS 191-53 rapid and intense classification was amended by Congress in 1954 to reduce burning time from 4.0 to 3.5 seconds.<sup>40</sup> This standard, however, has proven inadequate. The Department of Commerce noted in 1968:

[T]he testing procedures established by the existing standard of flammability are considered to be technically inadequate to protect the public against unreasonable risk of the occurrence of fire leading to death or personal injury, or significant property damage.<sup>41</sup>

The Department based its statement upon case studies conducted by the Department of Health, Education, and Welfare which revealed that of 117 garments recovered from 83 burn cases, nine of which resulted in death, all the garments passed the CS 191-53 test for rapid and intense burning.<sup>42</sup> The 1968 studies were confirmed in 1970 when all of 230 garments recovered from 159 burn cases, seventeen of which resulted in death, passed the CS 191-53 test for rapid and intense burning.<sup>43</sup> Other reports revealed that, after twelve years of case studies, in only one incident did the fabric involved fail to satisfy the CS 191-53 standard.<sup>44</sup> The situation is so bizarre that some plaintiff's experts have demonstrated that ordinary toilet tissue will pass the CS 191-53 test.<sup>45</sup> The sad result of the inadequate standard is that virtually no reduction has been made in the number of deaths and injuries associated with flammable fabrics.<sup>46</sup>

The most serious problem with the CS 191-53 test is that the testing procedures do not reflect actual garment use or the actual injury producing elements of a flammable fabric. For example, while the standard measures flame spread, it does not measure such hazardous characteristics as "melting, dripping [or] disintegrating into flaming brands."<sup>47</sup> The melting and dripping characteristics of synthetic fabrics have "been cited by medical authori-

---

<sup>39</sup>S. REP. No. 400, 83d Cong., 1st Sess. (1953), reprinted in 2 U.S. CODE CONG. & AD. NEWS 1722, 1728 (1953).

<sup>40</sup>Act of August 23, 1954, ch. 833, 68 Stat. 770, amending 15 U.S.C. § 1193(a) (1964).

<sup>41</sup>33 Fed. Reg. 15,662 (1968).

<sup>42</sup>*Id.*

<sup>43</sup>35 Fed. Reg. 1019 (1970).

<sup>44</sup>HEFFRON REPORT 117 n.255.

<sup>45</sup>15 ATL NEWS LETTER, Apr. 1972, at 105.

<sup>46</sup>See note 29 *supra*.

<sup>47</sup>33 Fed. Reg. 15,662 (1968); HEFFRON REPORT 138.

ties as a hazard more serious than flaming."<sup>46</sup> Further, the CS 191-53 test standard lacks a "quantitative measure of flame intensity, heat generation or heat transfer."<sup>49</sup> As the National Bureau of Standards reported in 1970:

It is tacitly assumed in the present mandatory standard (CS 191-53) that those materials that burn more rapidly are more dangerous. It is known, however, that the total amount of heat given off as well as the rate of burning are important in determining the hazard from a burning fabric . . . .<sup>50</sup>

The failure of the standard to measure flame intensity has had the untoward effect of banning burning fabrics with small, non-intense flames igniting in less than 3.5 seconds, while passing a burning fabric with a voluminous, intense flame igniting in slightly more than 3.5 seconds.<sup>51</sup> Other problems in the CS 191-53 procedures are the failure to include adequate sampling techniques, to evaluate independently the ease of ignition and flame-spread time, to insure that all hazardous materials are ignited, and to exclude materials that are slow to ignite but otherwise are rapid and intense burning fabrics.<sup>52</sup>

Although many problems inherent in the CS 191-53 test procedures have been recognized, their correction has been quite slow. CS 191-53 continues to be the prevalent test, and only in extra-sensitive areas are stricter standards utilized. One sensitive area is children's sleepwear, where new standards have been promulgated. The new procedure, DOC FF 3-71, is more sophisticated than CS 191-53 and recognizes dangerous elements such as dripping and melting, and residual flame time.<sup>53</sup> However, DOC FF 3-71 is still subject to technical criticism,<sup>54</sup> and, as one study notes, it may

---

<sup>46</sup>1967 House Hearings, *supra* note 16, at 158. As one commentator pointed out:

The Act only deals with rate of burning and does not cover such serious hazards as fabrics which become molten masses when exposed to burning. The extremely hot and adhesive melted substance is more of a problem than the fire itself.

Swartz, *Product Liability: The Torch Cases*, 76 CASE & COMMENT, Jan.-Feb. 1971, at 6.

<sup>49</sup>33 Fed. Reg. 15,662 (1968).

<sup>50</sup>NATIONAL BUREAU OF STANDARDS, TECHNICAL NOTE 525, THE FLAMMABLE FABRICS PROGRAM, 1968-1969, at 3 (1970).

<sup>51</sup>1967 House Hearings, *supra* note 16, at 157.

<sup>52</sup>33 Fed. Reg. 15,662 (1968); HEFFRON REPORT 138.

<sup>53</sup>See generally 36 Fed. Reg. 14,062 (1971), as amended 37 Fed. Reg. 14,624 (1972).

<sup>54</sup>Some problems inherent in CS 191-53, such as the 45-degree test and testing of combinations of garments, may still apply to the new procedures. See HEFFRON REPORT 156. For a discussion of standards on carpets, see *Hearings*

apply in only 3 percent of flammable fabrics cases.<sup>55</sup> Thus, even where CS 191-53 has been replaced, the new standards may be questioned both as to technical sophistication and adequacy of coverage.

The problems associated with flammable fabric standards continue to be discussed. In February 1975, Commissioner Kushner of the Consumer Product Safety Commission noted that mortality resulting from burn injuries is ten times greater than mortality resulting from nonburn injuries. The Commission has directed its staff to study for other clothing items the feasibility of adopting, with due regard for technological limitations and the economics of the industry,<sup>56</sup> a flammability standard similar to that utilized to test children's sleepwear. Ultimately, when fire retardant fabrics become available at competitive prices, informed consumer choice could be substituted for mandatory flame retardant standards. Until that time, however, the problems of flammable fabric standards and the attendant litigation will persist.

A threshold issue in a flammable fabric's case is the "supremacy clause" contained in the Act, which provides that the Act is "intended to supersede any law of any State . . . inconsistent with [the Act's] provisions."<sup>57</sup> In *Raymond v. Riegel Textile Corp.*,<sup>58</sup> the defendant manufacturer contended that its compliance with federal flammability standards shielded it from tort liability under state law. In rejecting the defendant's contention, the First Circuit reasoned that the 1967 amendments to the Act,<sup>59</sup> which included the "supremacy clause,"<sup>60</sup> were intended to increase protection to consumers and provide continual updating of flammability standards to keep pace with the advancing technology of the fabric industry. The court, however, noted that no new standards had been promulgated before or after the amendment. Commenting on the "evident solicitude of Congress for the plight of burn victims,"<sup>61</sup> the court held that the application of section 402A standards was not inconsistent with the Act. However, the court's

---

on *Flammable Fabrics and Other Fire Hazards to Older Americans*, *supra* note 6, at 9; HEFFRON REPORT 144.

<sup>55</sup>

Distribution of fabric items by age of victims for 3553 cases studied by NBIE [National Burn Information Exchange] . . . indicates that less than 3% of the more than 3,500 cases would have come under the protection of the new Children's Sleepwear Standard.

HEW THIRD ANNUAL REPORT, *supra* note 6, at 53.

<sup>56</sup>2 CCH CONS. PROD. SAFETY GUIDE ¶ 42,230 (1975).

<sup>57</sup>15 U.S.C. § 1203 (1970).

<sup>58</sup>484 F.2d 1025 (1st Cir. 1973).

<sup>59</sup>15 U.S.C. §§ 1191 *et seq.* (1970).

<sup>60</sup>*Id.* § 1203.

<sup>61</sup>484 F.2d at 1027.

rationale applies equally to any theory of recovery. The *Raymond* court thus established that the supremacy clause of the Flammable Fabrics Act will not prevent an action based upon section 402A or upon any other theory of recovery.

#### IV. THEORIES OF RECOVERY

Private actions for injuries resulting from fabric ignition, especially clothing, have been based upon three theories of recovery: negligence, warranty, and strict liability. Although fabric ignition actions predicated on negligence have proven to be a viable concept for recovery in certain circumstances,<sup>62</sup> the negligence theory presents inherent substantive and procedural problems, such as contributory negligence,<sup>63</sup> assumption of risk,<sup>64</sup> identification of the cause of a defect,<sup>65</sup> and overcoming a defendant's "experts parade" concerning a product's failure or defect.<sup>66</sup> Warranty theory, as originally applied, provided an inadequate remedy because of the contract requirements of notice, representation, reliance, privity, sale, and disclaimer.<sup>67</sup> Many of these contract rules, however, are no longer applicable to warranty actions.<sup>68</sup> Privity, the most significant vestige of contract law in implied warranty actions, finally has been discarded in many circumstances.<sup>69</sup> The theory of implied warranty now finds frequent application in flammable fabrics litigation.<sup>70</sup>

<sup>62</sup>Ross v. Johns Bargain Stores Corp., 464 F.2d 111 (5th Cir. 1972); Sherman v. M. Lowenstein & Sons, 28 App. Div. 2d 922, 282 N.Y.S.2d 142 (1967); Beckerman v. Walter J. Munro, Inc., 25 App. Div. 2d 448, 266 N.Y.S.2d 996 (1966); Timberlake v. M.A. Henry Co., 104 N.Y.S.2d 284 (Sup. Ct., N.Y. County), *aff'd*, 278 App. Div. 686, 103 N.Y.S.2d 452 (1951).

<sup>63</sup>See W. PROSSER, HANDBOOK OF THE LAW OF TORTS § 65, at 416-27 (4th ed. 1971). See generally Prosser, *Contributory Negligence as Defense to Violation of Statute*, 32 MINN. L. REV. 105 (1948).

<sup>64</sup>See generally Keeton, *Assumption of Risk in Products Liability Cases*, 22 LA. L. REV. 122 (1961).

<sup>65</sup>Escola v. Coca-Cola Bottling Co., 24 Cal. 2d 453, 463, 150 P.2d 436, 441 (1944) (Traynor, J., concurring).

<sup>66</sup>Ashe, *So You're Going To Try a Products Liability Case*, 13 HASTINGS L.J. 66, 74 (1961).

<sup>67</sup>Note, *Products Liability and Section 402A of the Restatement of Torts*, 55 GEO. L.J. 286, 291-92 (1966).

<sup>68</sup>Prosser, *Strict Liability to the Consumer in California*, 18 HASTINGS L.J. 9, 11 (1966); Prosser, *The Assault Upon the Citadel (Strict Liability to the Consumer)*, 69 YALE L.J. 1099, 1124 (1960).

<sup>69</sup>Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 161 A.2d 69 (1960).

<sup>70</sup>Frank R. Jelleff, Inc. v. Braden, 233 F.2d 671 (D.C. Cir. 1956); Deffebach v. Lansburgh & Bros., 150 F.2d 591 (D.C. Cir.), *cert. denied*, 326 U.S. 772 (1945); Chapman v. Brown, 198 F. Supp. 78 (D. Hawaii 1961), *aff'd*, 304 F.2d 149 (9th Cir. 1962); Knab v. Alden's Irving Park, Inc., 49 Ill. App. 2d 371, 199 N.E.2d 815 (1964); Martin v. J.C. Penney Co., 50 Wash. 2d 560, 313 P.2d 689 (1957); Ringstad v. I. Magnin & Co., 39 Wash. 2d 923, 239 P.2d 848 (1952).

The comparatively recent doctrine of strict liability represents the most effective means of recovery in fabric ignition cases.<sup>71</sup> Strict liability has been defined as nothing more than what exists under implied warranty law when stripped of contract theories.<sup>72</sup> Strict liability in tort found its origin in *Greenman v. Yuba Power Products, Inc.*<sup>73</sup> The *Greenman* theory was later codified in section 402A of the *Restatement (Second) of Torts*.<sup>74</sup> Section 402A operates to reduce the difficulty of proving vendor negligence, and it shifts the burden of loss from the consumer to those putting defective products on the market.<sup>75</sup> The section presents three elements

---

<sup>71</sup>The term "strict liability" refers to actions based upon section 402A of the *Restatement (Second) of Torts* and is not to be confused with strict liability based upon inherently dangerous articles. For examples of actions where clothing was considered an inherently dangerous article because of flammability, see *Dayton v. Harlene Frocks*, 274 App. Div. 1015, 86 N.Y.S.2d 614 (1948), *aff'd*, 299 N.Y. 609, 86 N.E.2d 176 (1949); *Noone v. Fred Perlberg, Inc.*, 268 App. Div. 149, 49 N.Y.S.2d 460 (1944), *aff'd*, 294 N.Y. 680, 60 N.E.2d 839 (1945).

<sup>72</sup>*Greeno v. Clark Equipment Co.*, 237 F. Supp. 427, 429 (N.D. Ind. 1965); *Mitchell v. Miller*, 26 Conn. Supp. 142, 214 A.2d 694 (Super. Ct. 1965); *MacDougall v. Ford Motor Co.*, 214 Pa. Super. 384, 257 A.2d 676 (1969); *Wade, Strict Tort Liability of Manufacturers*, 19 Sw. L.J. 5 (1965).

<sup>73</sup>59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962).

<sup>74</sup>RESTATEMENT (SECOND) OF TORTS § 402A (1965) [hereinafter cited as § 402A].

- (1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
  - (a) the seller is engaged in the business of selling such a product, and
  - (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.
- (2) The rule stated in Subsection (1) applies although
  - (a) the seller has exercised all possible care in the preparation and sale of his product, and
  - (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

Although section 402A is the generally accepted definition of strict tort liability, there has been comment that *Greenman* presents a somewhat different approach. See *Clary v. Fifth Avenue Chrysler Center, Inc.*, 454 P.2d 244 (Alas. 1969); *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

<sup>75</sup>The rationale of section 402A is described in comment c.

On whatever theory, the justification for the strict liability has been said to be that the seller, by marketing his product for use and consumption, has undertaken and assumed a special responsibility toward any member of the consuming public who may be injured by it; that the public has the right to and does expect, in the case of products which it needs and for which it is forced to rely upon the seller, that reputable sellers will stand behind their goods; that public policy demands that the burden of accidental injuries caused

necessary for recovery: (1) A defect must exist at the time the product leaves the seller's hands, (2) the plaintiff must suffer injury, and (3) the injury must have been caused by the defective or unreasonably unsafe condition of the product.<sup>76</sup>

The term "seller" as specified in the first element of section 402A has taken on a broad meaning in fabric ignition cases. For example, in *Carter v. Joseph Bancroft & Sons*,<sup>77</sup> the defendants contended that they were not sellers within the meaning of section 402A but were only licensors, who permitted articles made according to their specifications and standards to be identified by their trademark. The *Carter* court rejected this argument, holding that a party advancing as his own product a chattel manufactured by another is subject to the same liability as the manufacturer.<sup>78</sup>

---

by products intended for consumption be placed upon those who market them, and be treated as a cost of production against which liability insurance can be obtained; and that the consumer of such products is entitled to the maximum of protection at the hands of someone, and the proper persons to afford it are those who market the products.

Comment *c*'s viewpoint appears to be the same as that which Justice Traynor took in his concurring opinion in *Escola v. Coca-Cola Bottling Co.*, 24 Cal. 2d 453, 461, 150 P.2d 436, 440 (1944), and which was later adopted by *Greenman v. Yuba Power Prods., Inc.*, 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962). Professor Prosser argued that strict liability would provide a highly desirable incentive for producers to make their products safe. Prosser, *The Assault Upon the Citadel (Strict Liability to the Consumer)*, 69 YALE L.J. 1099, 1119-22 (1960). In addition to Justice Traynor's "risk spreading" and Professor Prosser's "safety incentive," there are two other policy considerations favoring strict liability—frustration of consumer expectations and proof problems. See Fischer, *Products Liability—The Meaning of Defect*, 39 MO. L. REV. 339, 339-40 (1974).

<sup>76</sup>§ 402A. See W. PROSSER, HANDBOOK OF THE LAW OF TORTS § 103, at 671 (4th ed. 1971). See also Rheingold, *Proof of Defect in Product Liability Cases*, 38 TENN. L. REV. 325, 326 (1971).

<sup>77</sup>360 F. Supp. 1103 (E.D. Pa. 1973).

<sup>78</sup>*Id.* at 1106-07. The court relied on *Restatement (Second) of Torts*, section 400, comment *d*, which states:

The rule stated in this Section applies only where the actor puts out the chattel as his own product. The actor puts out a chattel as his own product in two types of cases. The first is where the actor appears to be the manufacturer of the chattel. The second is where the chattel appears to have been made particularly for the actor. In the first type of case the actor frequently causes the chattel to be used in reliance upon his care in making it; in the second, he frequently causes the chattel to be used in reliance upon a belief that he has required it to be made properly for him and that the actor's reputation is an assurance to the user of the quality of the product. On the other hand, where it is clear that the actor's only connection with the chattel is that of a distributor of it (for example, as a wholesale or retail seller), he does not put it out as his own product and the rule stated in this section is inapplicable. Thus, one puts out a chattel as his own product when he puts it out under his name or af-

Significantly, the term seller is not dependent upon an actual commercial sale, but merely requires the injection of the product into the "stream of commerce."<sup>79</sup> The definition can include a gratuitous transferor.<sup>80</sup> To be a seller under section 402A, however, does require more than an isolated or occasional sale of a product by one whose business does not include the sale of that product. In this respect, the term is analagous to the "merchant" requirement of Article 2 of the Uniform Commercial Code.<sup>81</sup>

The requirement that a "defect" exist is the most important element of section 402A since it distinguishes strict liability from absolute liability.<sup>82</sup> It is generally agreed that there are three types of product defects: (1) Those resulting from product design, (2) malfunctions in the manufacturing process, or (3) a manufacturer's failure to supply complete information concerning the risks and dangers involved in the use of the product.<sup>83</sup>

Section 402A literally applies to products "in a defective condition *unreasonably dangerous*."<sup>84</sup> Because of the lack of clarity of this wording, it is important to determine whether a defect must

---

fixes to it his trade name or trademark. When such identification is referred to on the label as an indication of the quality or wholesomeness of the chattel, there is an added emphasis that the user can rely upon the reputation of the person so identified. The mere fact that the goods are marked with such additional words as "made for" the seller, or describe him as a distributor, particularly in the absence of a clear and distinctive designation of the real manufacturer or packer, is not sufficient to make inapplicable the rule stated in this Section. The casual reader of a label is likely to rely upon the featured name, trade name, or trademark, and overlook the qualification of the description of source. So too, the fact that the seller is known to carry on only a retail business does not prevent him from putting out as his own product a chattel which is marked in such a way as to indicate clearly it is put out as his product. However, where the real manufacturer or packer is clearly and accurately identified on the label or other markings on the goods, and it is also clearly stated that another who is also named has nothing to do with the goods except to distribute or sell them, the latter does not put out such goods as his own. That the goods are not the product of him who puts them out may also be indicated clearly in other ways.

<sup>79</sup>Price v. Shell Oil Co., 2 Cal. 3d 245, 466 P.2d 722, 85 Cal. Rptr. 178 (1970).

<sup>80</sup>See, e.g., Perfection Paint & Color Co. v. Konduris, 147 Ind. App. 106, 112-17, 258 N.E.2d 681, 685-88 (1970).

<sup>81</sup>§ 402A, comment f.

<sup>82</sup>See Note, *Products Liability and Section 402A of the Restatement of Torts*, 55 GEO. L.J. 286, 294 (1966).

<sup>83</sup>See Keeton, *Products Liability*, 50 F.R.D. 338 (1971); Comment, *Misuse as a Bar to Bystander Recovery Under Strict Products Liability*, 10 HOUSTON L. REV. 1106, 1107 (1973).

<sup>84</sup>§ 402A (emphasis added).

also be unreasonably dangerous. In *LaGorga v. Kroger Co.*,<sup>85</sup> a fabric ignition case, the court equated the phrase "unreasonably dangerous" with the phrase "or not reasonably safe."<sup>86</sup> The court disposed of the unreasonably dangerous requirement by stating that "the basic design of a product, perfectly manufactured, is defective if it results in an unreasonably dangerous product for then an unreasonably dangerous product is synonymous with a defective condition."<sup>87</sup>

#### V. PROBLEMS IN RECOVERING UNDER A FLAMMABLE FABRICS TORT ACTION

Whether or not "unreasonably dangerous" is considered an element of section 402A, it is essential to determine what effect compliance or noncompliance with the Flammable Fabrics Act's standard, CS 191-53, has on the establishment of a defect. An examination of the case law indicates that noncompliance with CS 191-53 should be sufficient for a showing of a defect.<sup>88</sup> Either as a result of the rejection of CS 191-53 as a viable tort standard or because of the lack of sufficient material to test, the courts have allowed proof of a defect based upon lay testimony as to the burning qualities of the fabric at the time of injury or expert testimony without strict adherence to the test procedures contained in CS

---

<sup>85</sup>275 F. Supp. 373 (W.D. Pa. 1967), *aff'd*, 407 F.2d 671 (3d Cir. 1969).

<sup>86</sup>*Id.* at 380. The *LaGorga* court, apparently critical of the words "unreasonably dangerous," chose to add the words "or reasonably safe." The term "unreasonably dangerous" has been criticized as having overtones of the ultra-hazardous requirement found in the other type of strict tort liability. Wade, *Strict Tort Liability of Manufacturers*, 19 Sw. L.J. 5, 15 (1965). See generally Noel, *Manufacturer's Negligence of Design or Directions for Use of a Product*, 71 YALE L.J. 816 (1962).

<sup>87</sup>275 F. Supp. at 380. A similar analysis of a "defective condition unreasonably dangerous" has been made where it is stated that when a product is perfectly manufactured, liability will be imposed upon proof that the article as designed and marketed is unreasonably dangerous. Thus, in cases involving defectively manufactured goods, both requirements must be met; however, where the alleged defect is one of design, the phrase may be read as imposing only a single requirement. See Note, *Products Liability and Section 402A of the Restatement of Torts*, 55 GEO. L.J. 286, 297 (1966).

The terms "defective condition" and "unreasonably dangerous" have been used interchangeably, *Jakubowski v. Minnesota Mining & Mfg.*, 42 N.J. 177, 199 A.2d 826 (1964), and it has been argued that the two terms have the same meaning. Wade, *Strict Tort Liability of Manufacturers*, 19 Sw. L.J. 5, 14-15 (1965). At least two jurisdictions have entirely eliminated the words "unreasonably dangerous" from § 402A. See *Cronin v. J.B.E. Olson Corp.*, 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972); *Glass v. Ford Motor Co.*, 123 N.J. Super. 599, 304 A.2d 562 (Law. Div. 1973).

<sup>88</sup>*Chapman v. Brown*, 198 F. Supp. 78 (D. Hawaii 1961), *aff'd*, 304 F.2d 149 (9th Cir. 1962) (dictum).

191-53.<sup>89</sup> Thus, circumstantial evidence<sup>90</sup> is sufficient to prove a defect in fabric ignition cases.

Compliance with CS 191-53 should have no effect except in negligence cases. In *Sherman v. Lowenstein*,<sup>91</sup> the court stated that compliance with CS 191-53 *might* be some evidence of due care in a negligence case but, standing alone, was not sufficient to be an absolute defense. The *Sherman* case, however, is a significant precedent only in actions based upon negligence because "due care" is immaterial in strict liability actions.<sup>92</sup>

---

<sup>89</sup>*LaGorga v. Kroger Co.*, 275 F. Supp. 373 (W.D. Pa. 1967), *aff'd*, 407 F.2d 671 (3d Cir. 1969), is authority for the proposition that lay testimony is a sufficient ground for a finding of a defect in a product. However, the plaintiff in *LaGorga* did use "expert" testimony. Nevertheless, defects in a product may be shown by circumstantial evidence. See *Cravens, Dargan & Co. v. Pacific Indem. Co.*, 29 Cal. App. 3d 594, 105 Cal. Rptr. 607 (1972). Furthermore, it has been stated that:

"Except for malpractice cases (against a doctor, dentist, etc.) there is no general rule or policy requiring expert testimony as to the standard of care, and this is true even in the increasingly broad area wherein expert opinion will be received. . . . Courts could very easily expand the area in which expert testimony is required to establish the standard of conduct, but the tendency has been instead to resolve doubtful questions in favor of allowing the jury to decide the issue of negligence without its aid. . . ."

*Thompson v. Ohio Fuel Gas Co.*, 9 Ohio St. 2d 116, 119, 224 N.E.2d 131, 134 (1967), *quoting from* 2 F. HARPER & F. JAMES, *THE LAW OF TORTS* § 17.1, at 966 (1956). See also *Carter v. Joseph Bancroft & Sons*, 360 F. Supp. 1103 (E.D. Pa. 1973) (where plaintiff's Ban-lon dress was engulfed in fire while she and other guests were being served crepe suzettes at a dinner party, the plaintiff's dress was the only clothing that ignited and burned); *Knab v. Alden's Irving Park, Inc.*, 49 Ill. App. 2d 371, 199 N.E.2d 815 (1964) (witnesses stated that the plaintiff's trousers flamed like a burning torch, and a doctor testified that the plaintiff's injuries were a result of a "flash-type burn").

<sup>90</sup>For a discussion of the use of circumstantial evidence as a viable means of proof in a products liability case, see Note, *Products Liability: Methods of Pleading and Proof for the Plaintiff*, 49 N.D.L. REV. 105 (1972); Note, *Circumstantial Evidence in Strict Products Liability Actions*, 1974 WASH. U.L.Q. 804. Circumstantial evidence also is admissible to identify the manufacturer of flammable fabrics. See, e.g., *Smith v. J.C. Penney Co.*, 525 P.2d 1299 (Ore. 1974).

<sup>91</sup>28 App. Div. 2d 922, 282 N.Y.S.2d 142 (1967).

<sup>92</sup>Due care in the preparation and sale of the product is specifically excluded by subsection (2) (a) of section 402A which states:

The rule stated in Subsection (1) applies although (a) the seller has exercised all possible care in the preparation and sale of his product.

Comment *a* to section 402A states in part:

This Section states a special rule applicable to sellers of products. The rule is one of strict liability, making the seller subject to liability to the user or consumer even though he has exercised all possible care in the preparation and sale of the product. The Section is in-

The problem with the use of CS 191-53 in tort actions is that since the Act is essentially criminal in character, it does not provide for tort remedies.<sup>93</sup> The question is whether the standard of a criminal statute should control the standard of case in negligence actions or the establishment of a defect in section 402A actions. In *Raymond v. Riegel Textile Corp.*,<sup>94</sup> the court held that compliance with a legislative enactment does not preclude a finding of negligence. Thus, a defendant's compliance with CS 191-53, or compliance with the usual custom and practice of the industry<sup>95</sup> in the manufacture of clothing, has been held to be no bar to plaintiff's recovery under section 402A.

---

serted in the Chapter dealing with the negligence liability of suppliers of chattels, for convenience of reference and comparison with other Sections dealing with negligence.

<sup>93</sup>15 U.S.C. § 1196 (1970). See *Raymond v. Riegel Textile Corp.*, 484 F.2d 1025 (1st Cir. 1973).

<sup>94</sup>484 F.2d 1025 (1st Cir. 1973). The court relied on *Restatement (Second) of Torts* section 288C, and 286, comment *d*. Section 288C states:

Compliance with a legislative enactment or an administrative regulation does not prevent a finding of negligence where a reasonable man would take additional precautions.

Section 286, comment *d*, states in part:

*Where no provision for civil liability.* The enactment or regulation may, however, provide only for criminal liability, and not for civil liability; or in rare instances it may merely prohibit certain conduct, and contain no provision for any liability at all. In such cases the initial question is whether the legislation or regulation is to be given any effect in a civil suit. Since the legislation has not so provided, the court is under no compulsion to accept it as defining any standard of conduct for purposes of a tort action.

On the other hand, the court is free, in making its own judicial rules, to adopt and apply to the negligence action the standard of conduct provided by such a criminal enactment or regulation. This it may do even though the provision is for some reason entirely ineffective for its initial purposes, as where a traffic signal is set up under an ordinance which never has been properly published and so for the purposes of a criminal prosecution is entirely void. The decision to adopt the standard is purely a judicial one, for the court to make. When the court does adopt the legislative standard, it is acting to further the general purpose which it finds in the legislation, and not because it is in any way required to do so.

See also *Hubbard-Hall Chemical Co. v. Silverman*, 340 F.2d 402 (1st Cir. 1965); *Stevens v. Parke, Davis & Co.*, 9 Cal. 3d 51, 507 P.2d 653, 107 Cal. Rptr. 45 (1973); W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* § 36, at 204 (4th ed. 1971); *Aviation Law—Recent Important Cases*, 26-27 NACCA L.J. 408, 410-14 (1960-61).

<sup>95</sup>Although an entire industry may comply with certain customs or practices, there may still be liability if those practices are considered unreasonable. See *The T.J. Hooper*, 60 F.2d 737 (2d Cir.), *cert. denied*, 287 U.S. 662 (1932).

Regardless of the standards concerning the burning qualities of clothing, a defendant could contend that the "intended use" of clothing does not include exposure to flame. Thus, any claim based upon section 402A for burns from flammable clothing would be barred because the clothing was put to an "abnormal use." The *Raymond* court observed that "unreasonable danger" must be measured in light of such normal conditions as accidental exposure of a garment to heat or flame,<sup>96</sup> and that "normal use" of clothing encompasses an environment which contemplates such exposure. This "environmental approach" suggests that the "intended use"<sup>97</sup> or "abnormal use"<sup>98</sup> defenses to section 402A, for all practical purposes, have little significance in cases involving flammable fabrics.<sup>99</sup>

---

<sup>96</sup>484 F.2d at 1027. Section 402A, comment *h*, states in part:

A product is not in a defective condition when it is safe for normal handling and consumption. If the injury results from abnormal handling, as where a bottled beverage is knocked against a radiator to remove the cap, or from abnormal preparation for use, as where too much salt is added to food, or from abnormal consumption, as where a child eats too much candy and is made ill, the seller is not liable. Where, however, he has reason to anticipate that danger may result from a particular use, as where a drug is sold which is safe only in limited doses, he may be required to give adequate warning of the danger (see Comment *j*), and a product sold without such warning is in a defective condition.

It has been argued that comment *h* is one of the principal circumscribing factors of section 402A and could represent a significant limiting factor on the seller's liability since normal handling and consumption could be equated with intended use. See Note, *Products Liability and Section 402A of the Restatement of Torts*, 55 GEO. L.J. 286, 308-10 (1966). However, the *Raymond* court expressly rejected this approach and took an expansive view of what constitutes normal handling. Consequently it appears that, at least in fabric cases, a very broad foreseeability standard may apply to the manufacturer concerning use of a product.

<sup>97</sup>For the origin of the "intended use doctrine," see Note, *Abnormal Use in the Strict Products Liability Case—The Plaintiff's Burden of Proof?*, 6 SW. U.L. REV. 661, 667 n.32 (1974).

<sup>98</sup>For an explanation of what constitutes abnormal use, see Comment, *Misuse as a Bar to Bystander Recovery Under Strict Products Liability*, 10 HOUSTON L. REV. 1106, 1107-12 (1973). See also Dale & Hilton, *Use of the Product—When Is It Abnormal?*, 4 WILLAMETTE L.J. 350 (1967); Noel, *Products Liability: Bystanders, Contributory Fault and Unusual Uses*, 50 F.R.D. 321, 332-33 (1971).

<sup>99</sup>The manufacturer or seller of clothing could offer the defense that the intended use of clothing does not include exposure to flames, despite the foreseeability of this event. Such a defense would be analogous to the "intended use" defense in *Evans v. General Motors Corp.*, 359 F.2d 822 (7th Cir. 1966), *cert. denied*, 385 U.S. 836 (1967), and *Schemel v. General Motors Corp.*, 261 F. Supp. 134 (S.D. Ind. 1966), *aff'd*, 384 F.2d 802 (7th Cir. 1967), *cert. denied*, 390 U.S. 945 (1968), in which the courts stated that the intended purpose of an automobile does not include participation in collisions with other objects, despite the manufacturer's ability to foresee the possibility that such collisions might occur.

## VI. PHANTOM DEFENDANTS

Once it is established that compliance with CS 191-53 does not bar a plaintiff's action, there still remains the problem of proving that the injuries were caused by a defect in the fabric or clothing. However, it may be extremely difficult to prove that the clothing was defective because of its burning qualities. The fabric may be so highly flammable that nothing remains, or what does remain may be insufficient for an expert to test properly.<sup>100</sup> In certain instances where the article and its label are completely consumed by flames, the user of the article may be unable to identify the manufacturer or distributor. These unidentifiable manufacturers and distributors are in effect "phantom defendants." In these "phantom defendant" situations, the manufacturer or distributor will be immune from liability unless the user can recall the place where he purchased the article or the brand name of the article.<sup>101</sup>

---

However, *Evans* and *Schemel* seem to represent a minority view. Other jurisdictions and commentators have construed the "intended use" of an automobile as not one of merely providing a means of transportation, but of providing a means of *safe* transportation. Both the courts and commentators recognize that a manufacturer may be held liable for failure to exercise reasonable care in a design that does not consider a collision-prone environment. *Passwaters v. General Motors Corp.*, 454 F.2d 1270 (8th Cir. 1972); *Larsen v. General Motors Corp.*, 391 F.2d 495 (8th Cir. 1968); *Grundmanis v. British Motor Corp.*, 308 F. Supp. 303 (E.D. Wis. 1970); *Dyson v. General Motors Corp.*, 298 F. Supp. 1064 (E.D. Pa. 1969); *Badorek v. General Motors Corp.*, 11 Cal. App. 3d 902, 90 Cal. Rptr. 305 (1970); *Mieher v. Brown*, 3 Ill. App. 3d 802, 278 N.E.2d 869 (1972); *Mickle v. Blackmon*, 252 S.C. 202, 166 S.E.2d 173 (1969); *Ellithorpe v. Ford Motor Co.*, 503 S.W.2d 516 (Tenn. 1973); W. PROSSER, *HANDBOOK OF THE LAW OF TORTS* § 96, at 646 (4th ed. 1971); Noel, *Manufacturer's Liability for Negligence*, 33 TENN. L. REV. 444, 450-51 (1966); Saalfeld, *The Liability of an Automobile Manufacturer for Failure To Design a Crashworthy Vehicle*, 10 WILLAMETTE L.J. 38 (1970); Note, *Ellithorpe—Adoption of Crashworthiness via Strict Products Liability*, 4 MEMPHIS ST. U.L. REV. 497 (1974); Note, *The Automobile Manufacturer's Liability to Pedestrians for Exterior Design: New Dimensions in "Crashworthiness"*, 71 MICH. L. REV. 1654 (1973); Note, *Automobile Design Liability: Larsen v. General Motors and Its Aftermath*, 118 U. PA. L. REV. 299 (1969); 42 NOTRE DAME LAW. 111 (1966).

The court in *Raymond* agreed with the view that a manufacturer must "anticipate the environment which is normal for use of his product and . . . must anticipate the reasonably foreseeable risks of the use of his product in such an environment." *Spruill v. Boyle-Midway, Inc.*, 308 F.2d 79, 83-84 (4th Cir. 1962).

<sup>100</sup>See, e.g., *Knab v. Alden's Irving Park, Inc.*, 49 Ill. App. 2d 371, 199 N.E.2d 815 (1964).

<sup>101</sup>If the user can identify the place where he purchased the article, then the seller could be named as a defendant since anyone in the "stream of commerce" can be a party defendant in strict tort liability actions. See § 402A, comment *f*. See also *Price v. Shell Oil Co.*, 2 Cal. 3d 245, 466 P.2d 722, 85 Cal. Rptr. 178 (1970) (excellent discussion of the stream of commerce rationale).

The "phantom defendant" cases are most objectionable because these unidentifiable manufacturers and distributors are inadvertently afforded greater protection than identifiable manufacturers of less flammable articles.

Cases involving "phantom defendants" could be resolved by revising CS 191-53 so as to impose a requirement that the highly dangerous flammable qualities of the fabric are removed. However, if the Consumer Product Safety Commission fails to revise the standard, or if the standard is revised so that fabrics still retain unreasonably dangerous qualities, then it would appear that only two viable remedies remain. First, the Commission should require that all clothing have labels which (1) identify the manufacturer of the fabric, and (2) are impervious to flame.<sup>102</sup> Second, if the Commission fails to adequately revise CS 191-53 and fails to provide "stop-gap" measures such as identifying labels which are insensitive to flame, then the courts should seriously consider holding the entire fabrics industry liable for injuries to the consumer in the "phantom defendant" cases.<sup>103</sup>

## VII. CONCLUSION

From a review of actions available for injuries resulting from flammable fabrics, at least two conclusions are warranted. First, only in negligence cases does the seller's compliance with the standards of the Act have any effect. Secondly, the Act does not bar actions in strict liability<sup>104</sup> nor does it set the standard for what constitutes a defect.

Other considerations emerge from an examination of the Act. It is apparent that the test procedures of CS 191-53 are not technically sophisticated and do not insure the safety of the consumer. The Act has failed to accomplish its goal of eliminating fabrics with unreasonable risks. Until changes are made in the standard-setting procedures of CS 191-53, the Act should at least require

---

If the user can identify the brand name of the article, then the party who affixes his mark or label to the article may be named as a defendant. See note 77 *supra* and accompanying text.

<sup>102</sup>The Consumer Product Safety Commission appears to have the power to authorize such labelling. See 15 U.S.C. § 2063 (Supp. III, 1973).

<sup>103</sup>For authority that an entire industry may be held liable under the theory of strict tort liability, see Note, *Strict Liability in Tort Imposed Upon an Entire Industry*, 7 VALP. U.L. REV. 417 (1973). See also *Hall v. E.I. Du Pont De Nemours & Co.*, 345 F. Supp. 353 (E.D.N.Y. 1972), noted in 42 U. CIN. L. REV. 341 (1973); 19 WAYNE L. REV. 1299 (1973).

<sup>104</sup>In addition to developing civil remedies, the states appear to be free to develop stricter standards through legislative action without violating the commerce clause. *American Apparel Mfrs. Ass'n v. Sargent*, 384 F. Supp. 289 (D. Mass. 1974).

labeling sufficiently flame resistant to allow the plaintiff to identify the proper defendant in order to recover for his injuries.

Since CS 191-53 has been replaced in sensitive areas such as children's clothing by a seemingly stricter standard, inventive attorneys may again raise compliance as a defense. However, before this defense is accepted, the new standards must be subjected to serious inquiry. Compliance should present a significant defense only if the test procedures are technically sophisticated, measuring all injury producing elements of the fabric in a situation of actual garment use, and designed to eliminate those injury producing elements. The promulgation of such a standard and the development of flame retardant fabrics is within the grasp of industry. Until industry takes these steps, however, the consumer should not be deprived of the effective private remedy afforded by strict liability actions.

THIRTY FLAME BURN ACCIDENT GROUPS---RANK ORDER BY SIZE  
(4,596 SAMPLE CASES)

