

CPSC/OFFICE OF
THE SECRETARY

1999 MAR 22 P 4:15

March 22, 1999

Ms. Sadye Dunn
Office of the Secretary
Consumer Product Safety Commission
Washington, DC 20207-0001

Re: *Sleepwear Revocation – Comments of the National Cotton Council to CPSC’s Proposed Revocation of Amendments to the Children’s Sleepwear Flammability Standards, 16 CFR 1615 and 1616 (64 FR 2867; Jan. 19, 1999)*

Dear Ms. Dunn:

These comments are submitted by the National Cotton Council (NCC) in response to CPSC’s Jan. 19, 1999 (64 FR 2867) request for comments on “Proposed Revocation of Amendments; Standards for Flammability of Children’s Sleepwear.” NCC is the central trade association of the American cotton industry. NCC members include producers of over 75% of the US cotton and cotton processing industries. The US cotton industry has a long history of a deep commitment to the safety of consumers.

NCC has been actively involved with this issue since the CPSC first started the process to amend the Children’s Sleepwear Flammability Standards sizes 0-6x (16 CFR 1615) and sizes 7-14 (16 CFR 1616) in November 1991 (when it became a priority program and formal review began), which resulted in the September 1996 amendments. In addition, NCC was involved in the original rulemakings in the early 1970’s, which resulted in the standard for sizes 0-6x in 1971 (16 CFR 1615) and the standard for sizes 7-14 in 1974 (16 CFR 1616) and the rulemaking for the 1977-78 amendments, because of “Tris”, which lessened the standards by removing the melt-drip flammability requirements for garments. Since publication of the most recent amendments (61 FR 47634; September 9, 1996) to exclude garments sized for infants 9 months of age or younger and tight-fitting sleepwear garments for children older than 9 months, NCC has worked with other industry representatives on the development of a voluntary consumer information and education program.

NCC was also involved with CPSC in their enforcement activities from 1980 to Nov. 1991 during which time CPSC published at least eight enforcement guidances and issued a compliance briefing package (July 2, 1990). These enforcement activities were followed by the Jan. 13, 1993 (58 FR 4078) “Stay of Enforcement” of sleepwear requirements against garments currently being used as sleepwear that are labeled and marketed as “underwear”. Market data on sleepwear, underwear, and playwear from

1992 to 1998 that are attached and discussed later, show changes in the markets, attributed to underwear used as sleepwear, starting in 1993-94, as a result of the stay of enforcement. This gives CPSC additional data from 1994 which show that tight-fitting garments are not a risk and along with data from Canada and other countries strongly support and reinforce the CPSC finding that the amendments do not diminish the safety provided by the Children's Sleepwear Flammability Standards.

NCC supports the 1996 CPSC amendments, which exclude from the existing sleepwear standards (16 CFR 1615 and 16 CFR 1616) infant garments for 9 months or younger and tight-fitting garments for children older than 9 months. NCC supports these exemptions, because there is no indication from technical data (mannequin research, etc.), and from burn injury and fatality incidence data, from the US, Canada, and other foreign countries, that these garments present an unreasonable risk of fire leading to death, injury, or significant property damage or that these amendments diminish the protection provided by the children's flammability standards. These garments never should have been included in the original children's sleepwear flammability standards – there never has been data to support the coverage of these garments under the children's sleepwear flammability standards.

NCC agrees with CPSC (61 FR 47634; Sep. 9, 1996) that these exemptions afford a wider selection of sleepwear garments to the consumer without reducing the protection provided by the standards.

I. TIGHT-FITTING GARMENTS SHOULD BE EXEMPT FROM THE CHILDREN'S SLEEPWEAR FLAMMABILITY STANDARDS (16 CFR 1615 AND 1616).

All currently available data strongly demonstrate that loose and flowing nightwear garments are the kind of nightwear involved in burn injuries and fatalities (59 FR 53620; Oct. 25, 1994, ref. 8, 10, 11 and 61 FR 47634; Sep. 9, 1996); that tight-fitting garments are less likely to contact an ignition source and if ignited burn less rapidly than loose fitting garments; and that tight-fitting sleepwear does not present an unreasonable risk of fire leading to burn injury or death to children.

It should be remembered that only sleepwear is covered by these standards, which are meant to protect children wearing sleepwear when they are up and ambulatory. Contrary to the misleading information conveyed by some, these amendments did not affect loose pajamas, nightgowns, and robes, which are the kind of nightwear involved in burn injuries and fatalities. Those items still must meet the requirements of the Children's Sleepwear Flammability Standards and be fire resistant. In addition, tight-fitting garments must comply with the Standard for the Flammability of Clothing Textiles, 16 CFR 1610.

A. Close fitting garments are one of the safest types of garments (Attachment 1) because: (1) They are not easily ignited because the body acts to absorb heat from the ignition source and thus, helps to slow the heating of the fabric to the point at which

ignition can start; (2) They make the wearer immediately aware of an ignition source, since the heat of a match or lighter flame is transferred through the fabric directly to the skin; (3) If they are ignited, they tend to burn slowly, because only one side of the fabric receives sufficient oxygen to support combustion. Using mannequins and video-tape recordings, the safety of tight-fitting garments has been demonstrated and illustrates why those garments do not represent an unreasonable flammability hazard.

B. Canada originally adopted the US children's sleepwear flammability standards but modified them in 1987. The major reasons for amending their standard were results from mannequin testing of garments that were described in a Final Report to the Consumer and Corporate Affairs Canada by E.M. Crown, U. of Alberta, July 1985 and a Canadian Medical Association paper (J.R.S. Stanwick, CMAJ 132, 1143, 1985). (Attachment 1)

The medical study by Stanwick found that "style of clothing (loose and flowing as opposed to snug) was the most significant predictor of burn severity, length of hospital stay, the need for skin grafting and survival." The mannequin study by Crown found that garment design and construction parameters were the most important factors to fire hazard potential. Mannequin research conducted in the US in the 1970's also demonstrated the significant differences in flame propagation between snug fitting and loose fitting garments. Of all styles tested, the cuffed ski pajama/sleeper style knit fabric appeared to be the safest. Knit cuffed garments are the types of cotton and cotton/polyester garments that can meet the CPSC tight-fitting definition and most likely are the new products coming into the sleepwear market.

Since promulgation of the amended Canadian sleepwear standards in 1987, no burn deaths associated with children's sleepwear have been reported in Canada (61 FR 47634; Sep. 9, 1996). In fact, in Canada a five-year study to collect data concerning burns associated with children's sleepwear was undertaken to assess the effectiveness of the regulations but the five-year study was discontinued before the period was up due to a lack of burn cases (Attachment 2 and ref. 63, 61 FR 47638). Attachment 2 is a December 18, 1995, letter from Therese Gagnon, Acting Chief, Mechanical and Electrical Hazards Division, Health Canada, Health Protection Branch, Product Safety Bureau, to Patty Adair of NCC concerning the Children's Sleepwear Flammability Standards and the Canadian experience that states:

"Since the Regulations have come into effect, injuries due to the ignition of children's sleepwear are no longer an issue in Canada."

Since most of Canada's population lives near its southern border, the environmental conditions are not dramatically different from those northernmost USA states. Recent fire data indicated that the number of fires in Canada and the US are about the same once an adjustment is made for the difference in population and outdoor brush and trash fires and vehicle fires are excluded. Civilian fire death rates per million population in the USA and Canada have always been very close. The principal difference is that vehicle fires are higher in the USA. (J.R. Hall, Jr., Fire in the USA and Canada, International Fire Comparison Report #2, NFPA, November 1995.)

Canadians generally have more cotton/polyester blends in their children's sleepwear marketplace than 100% cotton. According to Vickers et al. and others [A. Vickers, J. Krasny and H. Tovey, 7th Annual Meeting ICF, 1973, pp. 205-226; J.M. Weaver, Textile Chemist and Colorist, 8, 176-181 (1976); C. Walker and H.L. Needles, Journal of Fire Science 3, 461-471 (1985)], 100% cotton and cotton blend fabrics perform similarly in the general apparel flammability test. In the vertical flame test, cotton/polyester blends may perform worse than 100% cotton. However, the important point is that there are still no incidents even though Canada has more smokers and heat sources, no cigarette lighter standard, and defines tight-fitting more liberally than CPSC. So 100% cotton and cotton/polyester blends are equally safe according to the available information.

C. Australia and New Zealand also have standards that include fit characteristics that exempt tight-fitting garments. The burn injury and fatality data in these countries show that these standards are working (59 FR 52620; Oct. 25, 1994 and 61 FR 47634; Sep. 9, 1996).

D. Other than the United Kingdom, no other European country has legislation or standards specifically to control the fire safety of children's sleepwear. The UK Nightwear (Safety) Regulations 1985 (finalized December 20, 1985) came into effect March 1, 1987. (These regulations replaced the Nightdresses (Safety) Regulations 1967c.) Certain garments do not have to comply with the flammability standard but must carry a permanent label showing whether or not they meet this flammability standard. These include: children's pajamas, cotton terry bath robes, and any garment for a baby under three months. Even though, since 1987 the UK has allowed children's nightwear that does not meet strict vertical flame test requirements in the marketplace (if it is labeled), burn injuries are a rare occurrence. When burn injuries do occur, they are when children are wearing loose flowing garments (a class that has to comply with a vertical flame test). (For more details, see data submitted with the comments of the NCC to CPSC, March 15, 1993.)

E. CPSC reviewed burn injury and fatality data from NEISS involving clothing for 1980 through 1993 and found loose fitting nightgowns or pajamas were the usual kind of nightwear involved in injuries (ref. 10, 59 FR 53625 and 61 FR 47634). Review of all data since 1993 to the present by CPSC has not found any burn death associated with tight-fitting sleepwear or for infants under 15 months. In addition, burn injuries associated with the general category of children's clothing have not increased since 1993 (61 FR 47639; Sep. 9, 1996).

F. On January 13, 1993 (58 FR 4078), the CPSC issued a "stay of enforcement" of the children's sleepwear requirements against garments currently being used as sleepwear that are labeled and marketed as underwear. The garments covered by the stay of enforcement have somewhat larger dimensions than "tight-fitting" garments defined in the amendments (61 FR 47638). During the stay (Jan. 13, 1993 to June 1, 1998) which exempted garments currently in the marketplace and labeled as "underwear," which was being used as sleepwear in a substantial number of cases, there was no increase in burn

injuries or deaths. Market data for sleepwear, underwear and playwear from 1992 to 1998 show sales of underwear increasing by 1994 and Earnshaw's attributes this gain to underwear used as sleepwear (Tab. E, Oct. 1995 CPSC Briefing Package, Memo by T. Karols). Please see the section on market data discussed later and Attachment 3. The fact that tight-fitting underwear was being used as sleepwear from 1993 on, gives CPSC a larger database to show that tight-fitting garments are not involved in burn injuries and fatalities.

G. Therefore, CPSC has very strong data indicating that the exemption of tight-fitting garments from the children's sleepwear flammability standards do not diminish the protection provided by the children's sleepwear standards. When the original children's sleepwear standards were promulgated in 1971 and 1974, there were no data to justify including tight-fitting garments. None of the garments in the database used to justify the standards were tight-fitting garments. However, the philosophy of the Agency at that time was to cover everything even those products that were not shown to be a risk. Mannequin studies and actual experience in the UK, Canada, Australia, New Zealand and the US (since 1993) continue to show that tight-fitting garments are not the types of garments that are involved in burn injuries and fatalities. CPSC, therefore, after almost 5 years of intense, thorough study was correct in excluding these garments from 16 CFR 1615 and 1616.

II. GARMENTS SIZED FOR INFANTS 9 MONTHS OF AGE OR YOUNGER SHOULD BE EXEMPT FROM THE CHILDREN'S SLEEPWEAR FLAMMABILITY STANDARD SIZES 0 THROUGH 6X (16 CFR 1615)

The accidents which children who are wearing sleepwear experience do not happen while the child is sleeping, but rather when he or she is up and around the house. That is the purpose of the Children's Sleepwear Flammability Standards – to protect the child when the child is up and ambulatory not when the child is in bed. In these activities a child can obtain matches, cigarette lighters, candles, or be exposed to other sources of flame, including stoves and space heaters. But these exposures are not encountered by infants and pre-ambulatory children. Infants and pre-ambulatory children are children younger than one year usually.

There are very few cases on record of fire accidents to pre-ambulatory children. In every instance, these accidents would have occurred no matter what type of clothing the child was wearing. For example, there was a house fire, or a crib fire, or some other general conflagration in which the garment was not the first to ignite, but instead became involved in a larger, external fire situation. The Canadian experience for burn fatalities for infant sleepwear sizes is similar to the US as reviewed by CPSC – there are no cases under 15 months.

When 16 CFR 1615 was adopted, some attempts were made to exempt infant's sleepwear (sizes 0-1) from the standard, because it was recognized that infant garments were not the ones toward which the safety standard was being directed. However, the general philosophy of the agencies at that time was to cover every conceivable eventuality.

Therefore, quite unnecessarily, infant sleepwear garments were included within the purview of the standard. It is significant that these infant items are not included in the Canadian, Australian, and New Zealand Children's Sleepwear Flammability Standards, all of which are effectively protective standards (59 FR 52620 and 61 FR 47634).

The rare or exceptional accidents for infants lying in their cribs, still occur. However, complying fire resistant garments also provide no protection from injury under these unusual circumstances. In fact, they provide less protection than untreated cotton garments. If the bedding or crib or the house burns, or if something burning is tossed on the bed and over the child, none of the products on the market, fire resistant or not under 16 CFR 1615 and 1616, will provide protection from injury.

III. SLEEPWEAR AND UNDERWEAR MARKET DATA SHOW CHANGES IN THE MARKETS SINCE THE STAY OF ENFORCEMENT

The General Accounting Office (GAO) was required by 1998 legislation to review burn incidence data from the ignition of children's sleepwear from small open-flame sources for the period July 1, 1997, through Jan. 1, 1999, to help CPSC evaluate whether the amendments which exclude (1) garments sized for infants 9 months of age or younger and (2) tight-fitting garments for children older than 9 months diminish the protection to the public provided by the CPSC Children's Sleepwear Flammability Standards. It is suggested by some that this may be too short a period to obtain meaningful information on burn injury and fatality incidence data on the amended standards.

CPSC issued a stay of enforcement on Jan. 13, 1993 (58 FR 4078) of the children's sleepwear requirements against garments currently being used as sleepwear that are labeled and marketed as underwear, if those garments are skin-tight or nearly skin-tight. The garments covered by the stay have somewhat larger dimensions than "tight-fitting" garments defined by the amendments (61 FR 47638). Data on these markets for 1992 through 1998 give information on trends since the stay became effective (Attachment 3). These data can help show when tight-fitting non-fire resistant sleepwear started coming into the marketplace.

Data is included in Attachment 3 on consumption of materials and US retail sales of infants (0 to 3 years), girls (3 to 7 years and 8-13 years) and boys (3 to 7 years and 8 to 14 years) sleepwear, underwear, and playwear for 1992 through 1998 obtained from the National Purchase Diary (NPD) and Cotton Incorporated Analysis (Ann Keys, 919/510-6141) based on consumer data from NPD. The National Purchase Diary database is comprised of reports on the purchasing habits of 16,000 US families who represent the US demographic. NPD families record every purchase made or gift received in a diary and the information is then entered into the NPD database. This is considered the best database for products purchased in the US. It includes both domestic and imported garments purchased in the US. Cotton Incorporated further analyzes these data and makes determination of the total fiber and cotton fiber in these markets. The National Purchase Diary includes infants (ages 0-12 months) and toddlers (13-35 months) as one category. It is not possible to extract data on just the 0-12 month age range.

Market data on sleepwear and underwear from 1992 to 1998 indicate that sales of underwear and cotton's share of the sleepwear market started increasing in 1994 (also see Tab. E, Oct. 1995 CPSC Briefing Package) and Earnshaw's (trends publication) attributes this gain to underwear used as sleepwear. Even though all markets for sleepwear and underwear have increased since 1993, because the population has increased, the big increase in both of these markets is for cotton. This again is indicative that the stay of enforcement increased the amount of tight-fitting garments being used as sleepwear.

The US burn injury and fatality incidence data since the 1993 stay do not indicate that tight-fitting garments diminish the protection of the Children's Sleepwear Flammability Standards even though the tight-fitting garments covered by the stay have somewhat larger dimensions than the tight-fitting garments defined by the amendments. It should also be considered that Canada changed their standard in 1987, using somewhat larger dimensions for tight-fitting than CPSC and since these changes "injuries due to ignition of children's sleepwear are no longer an issue in Canada" (Attachment 2). Australia and New Zealand also have standards since the 1970's with larger dimensions than CPSC and their standards are effective.

III. OTHER

Some also argue that a more severe Children's Sleepwear Flammability Standard is required in the US because we have more residential fires than almost any other country. This argument is without merit since in the US the number of residential fires where "all wearing apparel worn" was the form of material first ignited was less than 0.2% (CPSC Report, 1993 Residential Fire Loss Estimates, Nov. 1995). So sleepwear is an insignificant source of residential fires.

IV. CONCLUSIONS

There is no basis to overturn the CPSC decision to amend the children's sleepwear flammability standards. All available burn injury and fatality incidence data from the US and all other countries, as well as technical studies with mannequins, support the CPSC conclusions that the amendments to the Standards for Flammability of Children's Sleepwear (sizes 0 through 6x and 7 through 14, 16 CFR 1615 and 1616) which exclude tight-fitting sleepwear garments and garments sized for infants 9 months of age or younger do not diminish the protection to the public from unreasonable risk of fire provided by these standards. The CPSC conclusions to amend the standards were arrived at after almost five years of intense and thorough study and notice and comment rulemaking, including an ANPR, an NPR and a final rule, each proceeded by extensive briefing packages outlining the rationale for the staff recommendations. Changes in lifestyle in the US, as in other countries, e.g., in smoking habits, elimination or reduction in use of space heaters and other socio-economic changes, also provide additional reasons that these amendments to the children's sleepwear flammability standard were the justifiably correct thing to do.

The 1971 (16 CFR 1615) and 1974 (16 CFR 1616) standards were overly severe in that they excluded things that were not a risk. None of the garments in the database used to justify the original standards were tight-fitting garments and infant garments. The philosophy of the Agency at that time was to cover everything, even products that were not shown to be a risk. All available data indicate that covering these garments under the standard was overly severe. CPSC, therefore, was correct in amending the standard to exclude tight-fitting sleepwear and garments for infants 9 months or younger. CPSC is correct in its determination that these amendments afford the consumer a wider selection of sleepwear garments without reducing the protection provided by the standards.

These changes make the US Children's Sleepwear Flammability Standards similar to the Canadian Children's Sleepwear Flammability Standard as well as more consistent with standards in other countries. This helps harmonization of standards for trade purposes.

NCC appreciates the opportunity to comment on this rulemaking and urges CPSC to maintain and not revoke these amendments that exclude infant garments sized 9 month of age or younger and tight-fitting garments. If you have questions regarding these comments, please contact me at 202/745-7805.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. J. Wakelyn', written in a cursive style.

Phillip J. Wakelyn, Ph.D.
Senior Scientist, Environmental Health & Safety

Attachment 1

Health Canada Letter
(T. Gagnon to P. Adair)



Health
Canada

Santé
Canada

Health Protection
Branch

Direction générale de la
protection de la santé

Product Safety Bureau
Place du Portage, Phase I
17th Floor, Zone 4
Hull, Québec
K1A 0C9

Ms. Patty Adaire
Special Assistant
Technical Services
National Cotton Council of
America
1521 New Hampshire Avenue, NW
Washington, D.C. 20036
U.S.

Dear Ms. Adaire:

Thank you for your facsimile of November 30, 1995,
regarding the flammability of children's sleepwear.

Children are considered more susceptible and vulnerable
to accidents involving flammable clothing. At the time
Children's Sleepwear Regulations were developed, several
fires involving children's sleepwear (one of which caused a
fatality) demonstrated the need for a higher level of
protection than for general wearing apparel. In addition, a
more stringent requirement was needed to remove highly
flammable fabrics from the manufacture of children's
sleepwear. As a result, a consensus was reached to impose 7
seconds with no base ignition, as a requirement for
children's sleepwear.

Since the promulgation of the Regulations in September
1987, no death has been reported due to ignition of
sleepwear. A study to collect data concerning burns
associated with children's sleepwear was undertaken to
assess the effectiveness of the Regulations. The study was
designed to take place over a five-year period; however, the
study was discontinued before the period was up due to a
lack of burn cases. Since the Regulations have come into
effect, injuries due to the ignition of children's sleepwear
are no longer an issue in Canada.

We do not have data with regard to weight, fibre type
and construction as it related to time of flame spread and
the general wearing apparel standard (particularly with
regard to raised surface fabrics).

.../2

Canada

Attachment 2

Stanwick, R.S. 1985. Clothing burns in canadian children.
Can. Med. Assoc. J. 132, 1143-1149.

Clothing burns in Canadian children

Richard S. Stanwick, MD, FRCPC

A Canadian survey of 11 tertiary care pediatric centres with specialized burn facilities revealed that an estimated 37 children up to 9 years of age are admitted annually to such hospitals because of clothing burns. Sleepwear accounts for an estimated 21 such burns per year. Girls were found to suffer the most severe burns and represented eight of the nine children in the series who died. Loose and flowing garments dominated the girls' styles. The results of multiple-regression analysis confirmed that style of clothing (loose and flowing as opposed to snug) was the most significant predictor of burn severity, length of hospital stay, the need for skin grafting and survival. The ignition situation (avoidance of parental supervision at the time of injury) was the only other important predictor. The success of regulatory actions in other countries in reducing the incidence of severe clothing burns is reviewed, and preventive strategies for Canada are explored.

Enquête auprès de 11 services canadiens de soins pédiatriques tertiaires pourvus de moyens spécialisés pour le traitement des brûlures. Quelque 37 enfants de moins de 10 ans y sont hospitalisés chaque année pour des brûlures par des vêtements; dans 21 cas il s'agit de vêtements de nuit. Les brûlures les plus graves, dont huit des neuf cas mortels, se voient chez les filles, dont les vêtements ont ordinairement une coupe dégagee et flottante. Les résultats de l'analyse de la régression multiple confirment qu'un tel style, par opposition à la coupe ajustée, est relié de manière significative à la gravité des brûlures, à la durée d'hospitalisation, au besoin de greffe cutanée et à la survie. Le seul autre facteur important est le fait pour l'enfant de s'être soustrait à la surveillance de ses parents au moment de l'accident. À la lumière des bons résultats obtenus en d'autres pays, par voie de règlements, dans la prévention des brûlures graves par des vêtements, on discute de ce qui pourrait être fait au Canada en ce domaine.

With the exception of vehicular mishaps, fires and burns are the leading causes of death in children 1 to 4 years of age and the second most common cause in those 5 to 14 years of age.¹ In addition, burn victims represent the most difficult problems medically, financially and emotionally.²⁻¹⁶

Reviews of childhood thermal injuries most often report a higher incidence among boys¹⁷⁻²⁰ than among

girls.^{11,22} Scalds (from hot liquids) are more frequently implicated as the cause^{14,23-25-11,22-23} than burns (from flames).^{17,19,22,26} Nevertheless, burn injuries have tended to be more severe than scald injuries.^{17-22,23-27,31-11,22,27}

Among the most severe burns are those resulting from the ignition of clothing, as reflected by the high mortality rates associated with this type of thermal injury.^{1-4,17-21,23-27,31-11,22-8} The garments responsible for the most severe burns are loose and flowing night-gowns.^{20,22,26} Despite this hazard's being documented elsewhere,^{20,22,26} an advisory committee to Consumer and Corporate Affairs Canada (CCAC) cited the lack of Canadian statistics on clothing burns in children as a major impedance to the introduction of corrective measures.⁴¹

In 1981-82 my colleagues and I performed a study to derive a national annual incidence rate of clothing burns in children admitted to tertiary care pediatric hospitals. In this paper I document the circumstances surrounding the burns, including the type and style of clothing involved, in order to identify potentially modifiable factors in the injurious process. In addition, I examine possible preventive strategies based on the results of our study.

Methods

Using the "Canadian Hospital Directory",⁴² we identified the university-affiliated pediatric training centres that treat childhood burns. We then sent a letter to each centre, requesting information for the last 5 years on the circumstances surrounding each such injury: the age and sex of the child, the time of day and the season, the type of clothing involved (daywear or sleepwear) and its style (snug or loose and flowing), and the "ignition situation" (whether an adult had been present or had been intentionally avoided by the child). We also requested information on the injury: the extent and severity of the burn, the length of initial and subsequent stays in hospital, the need for skin grafting and whether the child recovered.

As in other reviews of clothing burns,⁴³ cases involving major conflagrations, such as car or house fires, as well as those involving clothing that had been contaminated with a flammable substance were excluded.

Initial bivariate statistical analysis was performed with chi-square and *t*-tests.⁴⁴ To more precisely determine the relation between the circumstances surrounding the injury and the severity of the burn, the length of hospital stay and so forth, step-wise multiple-regression analysis was also used.⁴⁴ This technique allowed us to examine the effect of each of the circumstances on a selected outcome variable while we controlled for every other circumstance.⁴⁴ The findings were deemed statistically significant at $p < 0.05$.

Results

Of the 13 university-affiliated pediatric training cen-

From the Department of Social and Preventive Medicine and the Department of Pediatrics, University of Manitoba, and the Department of Pediatrics and Child Health, Winnipeg Children's Hospital

Reprint requests to: Dr. Richard S. Stanwick, Department of Social and Preventive Medicine, S112-750 Bannatyne Ave., Winnipeg, Man. R2E 0W3

tres we identified, 11 (Fig. 1) provided the information requested in the letter, for a response rate of 85%. According to the 1981 Census of Canada⁴⁵ these hospitals are the major referral centres for their respective regions and serve nearly 60% of Canada's children. The most severe burns were therefore likely to be represented in our series. This "selection bias"⁴⁶ was intentional, since our study focused on the most severe injuries, not on the entire spectrum of childhood clothing burns in Canada. However, not all of the children with the most severe clothing burns could be identified; those who died in regional medical centres before being transferred or even before reaching a hospital would not

be included in the medical records forwarded by the participating tertiary care centres.

The annual incidence rate of clothing burns in children up to 9 years of age admitted to tertiary care paediatric centres, derived from the local frequencies and based on the population of the respective catchment areas,⁴⁵ was 1.02/100 000. When this figure was applied to the Canadian population of children in this age group⁴⁵ the estimated annual number of children admitted to tertiary care paediatric centres for treatment of clothing burns is 37. Sleepwear accounts for an estimated 21 clothing burns per year (Fig. 2).

A total of 192 cases of clothing burns were reported by the 11 hospitals. Since some of the hospitals provided reviews that were done over longer periods than others or served larger catchment areas, their experiences with clothing burns are disproportionately depicted in the cumulative data in Fig. 3; the data should be interpreted in light of this bias.

We excluded from our analysis of the type of clothing involved 13 cases for which this information was not in the medical records and 5 cases that had involved blankets. Of the remaining 174 children, more girls than boys (100 v. 74) had suffered clothing burns, and of the 9 children who died were girls. A total of 105 (60%) of the burns involved sleepwear (Fig. 3). Whereas the number of clothing burns involving daywear and sleepwear were evenly distributed among the boys (38 and 38 respectively), there were more than twice as many burns involving sleepwear among the girls (69 v. 31), a statistically significant difference ($\chi^2 = 6.54$, 1 degree of freedom, $p < 0.01$).

When the style of clothing was examined none of the 38 boys had suffered burns associated with loose and flowing daywear, but 4 of the 36 boys whose burns were associated with sleepwear had been wearing loose and flowing nightshirts. Among the girls, snug daywear (slacks, shorts, blouses and T-shirts) was involved in 11 cases, and loose and flowing daywear (dresses) was

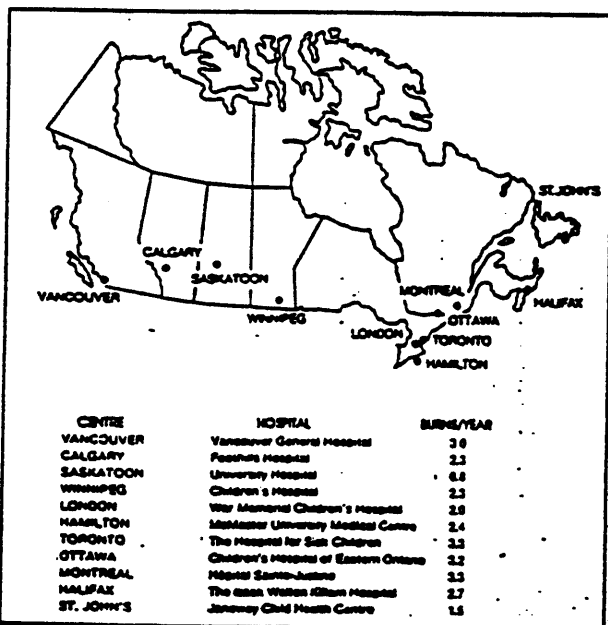


Fig. 1—Participating hospitals and the annual frequency of clothing burns in children up to 9 years of age admitted to each.



Fig. 2—Burn from nightgown ignition on 2-year-old girl. She had been helped by her 4-year-old sister onto a gas stove to reach a box of cookies. Her nightie trailed in the flame of the lit back element and ignited. Her father, who had been in the next room, immediately tore the garment off the child and immersed her in cool water. She suffered a 75% third-degree burn despite her father's efforts and died 6 weeks later. A garment identical to the one she had been wearing passed the current Canadian regulatory standard for children's clothing.

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involved in only 13. On the other hand, 47 burns involved loose and flowing sleepwear (nightgowns, bath robes and dressing gowns), whereas only 22 involved snug sleepwear (pyjamas) ($\chi^2 = 5.06$, 1 degree of freedom, $p < 0.05$).

The number of burns was evenly distributed between the children aged up to 4 years (83) and those aged 5 to 9 years (91) (Fig. 3). As well, the proportions of burns involving daywear and sleepwear were similar in the two age groups.

We divided the "ignition situations" for all 192

children into two general groups: (a) those in which the child had likely been supervised by an adult (e.g., at campfires or barbecues or around open fireplaces), and (b) those in which the child had intentionally avoided a parent in order to pursue a perilous activity (e.g., climbing on a stove or playing with matches). There was no significant difference in ignition situation between the boys and the girls: 77% of the boys and 80% of the girls had intentionally avoided parental supervision.

Of the 192 children only 22 did not have a third-degree burn that required skin grafting. Most of the burns covered less than 10% of the total body surface area (TBSA), and full-thickness damage involved less than 5% of the TBSA. However, 10% of the children had third-degree burns involving more than 25% of their TBSA. As expected, these children required the greatest number of grafting procedures and had the longest hospital stays. More than 50% of the 192 children were in hospital for more than 40 days and 20% for more than 100 (extremes, 1 and 273; mean, 55.3) days.

With respect to outcome, bivariate analysis showed that both the style of clothing involved (loose and flowing) and the ignition situation (avoidance of adult supervision) were statistically significantly associated with more severe burns, longer stays in hospital, a larger number of skin grafts and less likelihood of survival. While age was not a predictive factor for any of the measures we used to quantify the magnitude of the injury, the sex of the child (female) and the type of clothing involved (sleepwear) were significantly associated with more extensive and severe burns, as in Fig. 2. However, when we used step-wise multiple-regression analysis, which allowed other influences to be controlled for, the style of clothing involved (loose and flowing) was the most powerful predictor of burn severity ($p < 0.001$) (Table I). The only other significant factor was ignition situation (avoidance of adult supervision) ($p < 0.01$). Similarly, the style of clothing involved (loose and flowing) and the ignition situation (avoidance of adult supervision) were the only signifi-

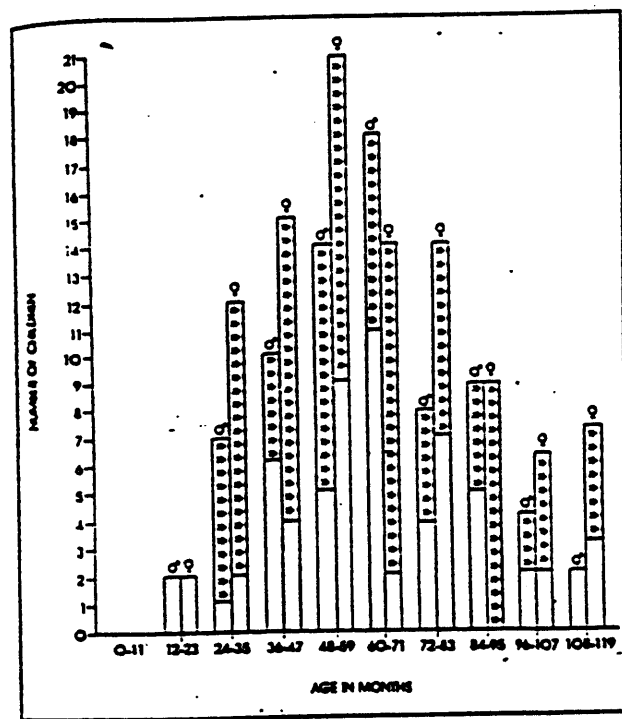


Fig. 3—Frequency distribution of age and sex of 174 children with clothing burns. Blank areas represent those in daywear, stars those in sleepwear at the time of injury.

Table I—Results of step-wise multiple-regression analysis to determine influence of independent variables on factors related to clothing burns

Factor; variable*	Standard β [†]	r ²	F	p level
Extent and severity of burn				
Style of garment	0.40	0.15	20.31	< 0.001
Ignition situation	0.23	0.06	7.05	< 0.01
Length of hospital stay				
Style of garment	0.53	0.28	41.72	< 0.001
Ignition situation	0.23	0.05	7.99	< 0.01
Need for skin grafting				
Style of garment	0.43	0.17	23.43	< 0.01
Ignition situation	0.22	0.05	6.08	< 0.05
Outcome (death)				
Style of garment	0.24	0.06	6.57	< 0.01
Ignition situation	0.20	0.04	4.67	< 0.05

*Ignition situation was interpreted as whether the child was likely to have been supervised or had intentionally avoided adult supervision at the time of injury.
[†]Predictors with a standardized β of less than 0.10 — the child's age and sex, the time of day and the season in which the injury occurred, and the type of garment — have been excluded.

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cant predictors of length of hospital stay, the need for skin grafting and outcome (Table I).

Discussion

At least 37 Canadian children every year require admission to a tertiary care centre for treatment of clothing burns, sleepwear being involved in more than half the cases. As has been demonstrated with hot water scalds,⁴⁷ another serious public health hazard in Canada, the lack of a comprehensive and representative system of reporting childhood injuries has allowed the current high frequency and severity of clothing ignitions and other serious problems to go unchecked. In fact, the establishment of a national reporting system for childhood injuries was the first recommendation in the section on accidents in the 1979 report of the Canadian Commission for the International Year of the Child.⁴⁸

As has been shown in this and other studies (and as suspected by CCAC from its compilation of isolated public complaints about clothing ignitions to regional offices⁴⁹), clothing ignition is more frequent among girls than boys,^{17-21,25-27,31-33,36-40,50} and the increased severity of such burns is underscored by the significantly greater number of fatal clothing burns among girls.^{17-21,25,26,31,32,36-40,50} Furthermore, previous studies have suggested that girls are at a greater risk of such injuries because of the loose and flowing style of their clothing.^{17-19,31,32,36,39,50} While our results of multiple-regression analysis confirmed the observation that a loose and flowing style is the most important predictor of burn severity, we also found that boys were just as likely as girls to suffer more significant thermal injuries when wearing such clothing.

Although girls wear loose and flowing garments more often than boys (60 v. 4 did in our study) and therefore have a correspondingly higher proportion of severe burns, regulatory action on apparel style should apply to both girls and boys. Such garments are associated with more severe burns because they are much more likely than snug garments to swing away from the wearer and come in contact with an ignition source, such as an open fireplace or a stove element.^{39,51,52} Their larger surface area also increases the probability of fabric ignition when a child is playing with matches or a lighter. Moreover, once a loose and flowing garment ignites, the ensuing conflagration is much more intense and extensive since flame propagation is enhanced by oxygen on both sides of the fabric.^{39,51,53} Snug garments, however, limit the oxygen supply^{39,53} and, as demonstrated in our study, are thus associated with less severe burns.

As has been observed in girls in other studies,^{20,22,26} we found that loose and flowing sleepwear accounted for more burns than this type of daywear (47 v. 13). That this is more apparent in girls than boys may be related to prevailing fashions and trends.⁴⁰

Although we did not address type of fabric in our study, other authors have found that loose and flowing cotton garments are the most lethal.^{33,51,53-55} Cotton and cotton/synthetic blends are the fabrics most often used in Canada for children's sleepwear.⁴¹ On the basis of this information and anecdotal CCAC reports of burns for which fabric testing was performed,⁴⁰ it appears that

cotton is the fibre most frequently involved in severe clothing burns.

Given the age distribution of the children in our study and that the current Canadian standards for children's clothing apply only up to size 6X,⁴¹ it is apparent that new, more rigorous standards should be established and that they should apply up to size 14X.^{41,56}

In our study and others^{40,53} situations in which children of either sex avoided adult supervision in order to pursue perilous activities were associated with more severe burns. This observation underscores the difficulties of active prevention.⁵⁷ While consumer education of parents as to clothing flammability and childhood risk-taking does have a role,⁵⁸ education alone is not enough.^{40,59,60} In our study the worst burns occurred in the children who succeeded in avoiding their parents. Since the results of experimentation and actions by inexperienced children cannot always be foreseen, some form of passive prevention⁵⁷ needs to be built into children's garments. A number of countries have passed legislation requiring that fabrics used for children's apparel have low flammability potential. The enactment of such a measure, especially for girls,⁶¹ has reduced the number of severe burns in both the United States⁶² and Great Britain.^{61,63}

Unfortunately, in the process of meeting the original revised standard in the United States,⁴³ flame-retardant chemicals were added to fabrics used in the manufacture of children's clothing.¹ Although questions were raised as to the carcinogenicity of the chemicals,^{64,65} serious methodologic flaws were identified in the preliminary studies,⁶⁶ so the definitive research on carcinogenicity was never completed.⁶⁶ The use of existing fabrics that have intrinsic flame-resistance properties has meant that rigorous standards are now being met in the United States without the use of chemical flame retardants.⁴⁹ Natural animal fibres (wool and silk) and certain synthetics (pure nylon and polyester) are difficult to ignite.⁵³ Nylon and polyester do not propagate the spread of flames because their melting temperature is above most ignition temperatures in domestic settings.^{52,67} Moreover, when nylon or polyester does melt, it tends to pull away from the ignition source.^{52,53,67} When molten material drips on a victim and causes a burn the TBSA involved is small. In addressing the depth of burns associated with clothing ignition, Pakkala⁵³ developed a composite scale that considered not only the depth but also the extent of thermal injuries. Fabric testing was performed on a manikin from which detailed sensor readings of burn severity could be obtained. Pure nylon and polyester and, to a slightly lesser extent, wool and silk were associated with very low scores (i.e., only minor burns) when ignited. However, when cotton and cotton/synthetic blends were ignited they were associated with extremely high scores and in a real situation would have resulted in severe, life-threatening burns.^{33,51,53-55}

Australia and New Zealand have recently produced upgraded clothing standards but have not yet evaluated their impact on the frequency and severity of burns.⁵² In addition to establishing more rigorous flammability standards, these countries have implemented the use of labels with large capital letters as to potential flamma-

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bility on sleepwear for children aged up to 14 years, as follows:

- "Low fire danger" (on garments made from domestic fabrics with flame-resistant properties).
- "Designed to reduce fire danger. Flammable fabric" (on garments designed to reduce flammability).
- "Warning. High fire danger. Keep away from fire" (also shows flame within a triangle) (on garments that do not comply with the above points).

Australia has also instituted modifications in the design of children's sleepwear that is still made from flammable fabrics. Because style can significantly influence flammability,⁵⁰ the standard disallows loose and flowing garments and mandates closer-fitting, and therefore safer, garments⁵² (Fig. 4).

Canada's current standard disallows the most dangerous fabrics; however, these highly flammable fabrics are not generally used in the manufacture of clothing.⁴⁷ Therefore, the present standards cannot be expected to have an impact on the frequency and severity of most clothing burns.

Were Canadian standards to change, consumer resistance would not likely be significant.⁵⁹ Wall,⁶⁰ in a report to the Minister of CCAC, showed that Canadian consumers would not be averse to sleepwear styles such as those adopted by Australia and New Zealand.⁵² However, an education program would be needed before labelling as to flammability on children's clothing could be introduced.^{59,60}

When given the choice consumers have indicated a preference for flame retardance over other fabric attributes, such as low cost and machine washability.⁶¹ The Consumers' Association of Canada has formally endorsed a move toward more rigorous flammability standards for children's clothing.⁵⁶ One concern, however, is that flame-resistant garments may be more expensive.⁶⁷ While an increase in cost would be a strain on less advantaged Canadians, epidemiologic research on burns shows that this segment of the population would benefit most from more rigorous standards since they are the ones who are most likely to have fire-related mishaps.^{31,69-73}

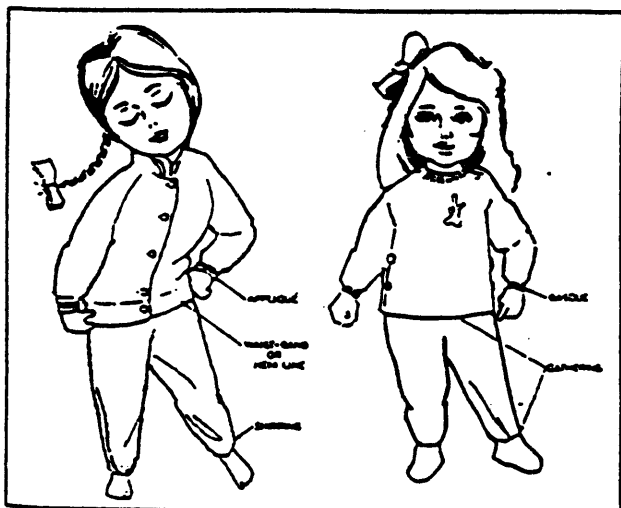


Fig. 4—Snug styles mandated in Australia for sleepwear made from potentially flammable fabrics.⁵²

The introduction of new, more rigorous standards may not be associated with a dramatic decrease in the total number of cases of clothing burns in children in Canada. However, as has been demonstrated in countries with higher clothing standards,^{41,43,61,62} there could be a significant reduction in the number of children with severe, often life-threatening, clothing burns who require referral to tertiary care centres, such as those in our study.

It is the public's perception that the provision of safe clothing for Canadian children is the responsibility of government and industry.⁵⁹ CCAC has accepted this responsibility, as shown by the current clothing standards, which eliminate the most dangerous fabrics from the marketplace and thus provide a small element of "passive" prevention for the public. Also, in 1974 a committee with broad representation was formed by CCAC and charged with recommending more rigorous standards.⁴¹ The main reason cited by the committee for being unable to fulfil its mandate was the lack of nationwide data on clothing burns in children.⁴¹ (The only Canadian information available to the committee was from studies from one centre^{55,56,74} and was therefore not considered representative. Moreover, the studies did not address all the epidemiologic issues under consideration by the committee.) With the information from our study and its own field reports from the last 10 years⁵⁹ CCAC now has the required data and has reactivated the committee, inviting participation from all the organizations that were represented in 1974. This advisory body should now be able to ultimately bring about the necessary strengthening of the current clothing standards. It is also hoped that Canadian industries will follow the lead of their American counterparts⁷⁵ in accepting a new, more rigorous standard of safety.⁶⁵

Thus, now that the means to reduce the severity of thermal injuries associated with clothing ignition is available, the current epidemiologic trends must be curtailed. Children deserve the best of health care, be it preventive or curative.

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Attachment 3

Market Data 1992-98

Summary - Children's Sleepwear Project (Includes Infants)

Cotton 480-lb. Bales	92	93	94	95	96	97	98
Boys Pajamas	6,780	6,291	12,623	18,180	22,833	28,441	31,097
Girls Sleepwear	13,939	21,735	27,002	28,510	36,945	43,381	41,897
Infants Sleepwear	1,716	1,921	2,003	2,160	4,079	6,295	8,480
Totals	22,435	29,947	41,628	46,830	63,657	76,117	81,474

% Increase in Cotton	Bales
74%	34,644
28%	17,817
293%	6,320
108%	4,401

Cotton's Increase in Children's Sleepwear Market

Cotton increase in total children's sleepwear (infants, girls & boys) from 95 -- 98:
 Cotton's increase in total children's sleepwear (infants, girls & boys) from 96 -- 98:
 Cotton's increase in infant sleepwear from 95 -- 98
 Cotton's increase in infant sleepwear from 96 -- 98

Year over year increase 97 vs. 98--Infants 35%
 Year over year increase 97 vs. 98--Childrens 7%

Total Fiber 480-lb. Bales

	92	93	94	95	96	97	98
Boys Pajamas	96,588	87,085	99,338	103,079	106,811	107,251	111,407
Girls Sleepwear	111,186	122,205	132,978	132,385	135,412	148,814	146,163
Infants Sleepwear	23,869	23,060	22,185	23,082	26,019	32,533	35,651
Totals	231,641	232,350	254,502	258,546	268,242	288,598	293,221

% Increase in Total Fiber	Bales
13%	34,875
9%	24,979
54%	12,588
37%	9,632

Total Fiber's Increase in Children's Sleepwear Market

Tft. Fiber's increase in total children's sleepwear (infants, girls & boys) from 95 -- 98:
 Tft. Fiber's increase in total children's sleepwear (infants, girls & boys) from 96 -- 98:
 Total Fiber's increase in infant sleepwear from 95 -- 98
 Total Fiber's increase in infant sleepwear from 96 -- 98

Source: Cotton Incorporated Analysis based on consumer data from NPD

The following are included in girls' playwear: Blouses, shirts,

sweaters, vests, slacks/pants, overalls/coveralls,

jeans, shorts, sweat apparel, skirts, and dresses.

Underwear includes panties, thermalwear, and daywear.

Sleepwear includes pajamas, gowns, sets, and other nightwear.

SLEEPWEAR

<u>COTTON (Bales)</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Infants	1,716	1,921	2,003	2,160	4,079	6,295	8,480
Girls to Age 7	2,261	4,321	8,172	10,590	13,649	20,936	19,960
Girls 8 - 13	11,678	17,414	19,830	15,920	23,298	22,445	21,937
Boys to Age 7	4,315	3,711	8,592	14,605	18,115	21,902	24,377
Boys 8 - 14	2,465	2,580	4,031	3,555	4,518	4,539	6,720
TOTAL SLEEPWEAR	22,435	29,947	41,628	46,830	63,657	76,117	81,474

<u>TTL FIBER (Bales)</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Infants	23,868	23,080	22,185	23,082	26,019	32,533	35,551
Girls to Age 7	74,452	80,349	92,439	98,854	92,744	105,600	101,866
Girls 8 - 13	36,734	41,856	40,539	35,531	42,668	43,214	44,307
Boys to Age 7	79,797	70,473	79,678	88,040	87,373	90,828	98,835
Boys 8 - 14	16,789	16,612	19,661	17,039	19,438	18,623	17,572
TOTAL SLEEPWEAR	231,641	232,350	254,502	258,546	268,242	286,598	293,221

<u>% COTTON</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Infants	7.2%	8.3%	9.0%	9.4%	15.7%	19.3%	23.6%
Girls to Age 7	3.0%	5.4%	8.8%	10.8%	14.7%	19.8%	19.6%
Girls 8 - 13	31.8%	41.6%	46.4%	44.8%	54.6%	51.9%	49.5%
Boys to Age 7	5.4%	5.3%	10.8%	17.0%	20.7%	24.2%	26.0%
Boys 8 - 14	14.7%	15.5%	20.5%	20.9%	23.2%	27.3%	38.2%
TOTAL SLEEPWEAR	9.7%	12.9%	16.4%	18.1%	23.7%	26.4%	27.8%

Source: Cotton Incorporated Analysis based on consumer data from NPD
 The following are included in girls' playwear: Blouses, shirts, sweaters, vests, slacks/pants, overalls/coveralls, jeans, shorts, sweat apparel, skirts, and dresses.
 Underwear includes panties, thermalwear, and daywear.
 Sleepwear includes pajamas, gowns, sets, and other nightwear.

UNDERWEAR

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
<u>COTTON (Bales)</u>							
Infants	15,854	15,044	16,887	17,799	20,141	20,575	23,688
Girls to Age 7	25,395	24,567	29,519	29,785	32,555	34,680	32,688
Girls 8 - 13	18,245	18,626	20,085	21,018	23,243	26,479	25,489
Boys to Age 7	36,307	36,444	37,673	39,109	42,642	46,610	42,714
Boys 8 - 14	31,941	33,199	37,713	36,814	39,928	42,383	45,500
TOTAL	125,542	125,880	141,878	144,506	158,508	170,727	170,089

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
<u>TTL FIBER (Bales)</u>							
Infants	17,088	16,183	17,879	18,974	21,391	21,665	24,921
Girls to Age 7	29,102	28,130	32,818	32,596	34,881	36,537	34,276
Girls 8 - 13	19,805	20,008	23,205	24,040	25,824	29,076	27,788
Boys to Age 7	40,418	40,485	41,675	42,792	46,772	51,442	48,833
Boys 8 - 14	34,803	35,721	41,576	41,423	45,263	47,084	50,888
TOTAL	141,016	141,527	157,253	159,825	174,121	185,814	184,706

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
<u>% COTTON</u>							
Infants	91.6%	93.0%	94.5%	93.8%	94.2%	95.0%	95.1%
Girls to Age 7	87.3%	87.3%	89.9%	91.3%	93.3%	94.9%	95.4%
Girls 8 - 13	82.9%	83.1%	86.6%	87.4%	90.0%	91.1%	91.8%
Boys to Age 7	89.8%	90.0%	90.4%	91.4%	91.2%	90.6%	91.2%
Boys 8 - 14	91.8%	90.4%	90.5%	88.9%	88.2%	90.0%	89.4%
TOTAL	89.0%	88.9%	90.2%	90.4%	91.0%	91.9%	92.1%

Source: Cotton Incorporated Analysis based on consumer data from NPD
 The following are included in girls' playwear: Blouses, shirts, sweaters, vests, slacks/pants, overalls/coveralls, jeans, shorts, sweat apparel, skirts, and dresses.
 Underwear includes panties, thermalwear, and daywear.
 Sleepwear includes pajamas, gowns, sets, and other nightwear.

INFANT SLEEPWEAR, UNDERWEAR, PLAYWEAR

	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998							
	TOTAL								TOTAL FIBER								COTTON								COTTON SHARE (%)								100% COTTON																
	(000) UNITS								BALES								BALES								%								UNITS								BALES								
	DOLLARS																																																
<u>Sleepwear</u>	28,930	28,416	27,942	29,233	33,219	40,869	43,788	\$180,797	\$185,328	\$163,709	\$163,322	\$196,955	\$221,476	\$260,850	23,869	23,060	22,185	23,082	26,019	32,533	35,651	1,716	1,921	2,003	2,180	4,079	6,295	8,480	7.2%	8.3%	9.0%	9.4%	15.7%	19.3%	23.8%	1,578	1,849	1,612	1,964	3,959	6,308	8,517	1,344	1,446	1,383	1,699	3,631	5,470	7,465
<u>Underwear</u>	57,067	54,104	56,716	63,270	71,415	72,466	83,142	\$139,255	\$142,425	\$147,950	\$162,373	\$200,901	\$215,129	\$248,897	17,088	16,183	17,879	18,974	21,391	21,665	24,921	15,654	15,044	16,867	17,799	20,141	20,675	23,688	91.6%	93.0%	94.5%	93.8%	94.2%	95.0%	95.1%	46,145	44,336	51,420	62,808	61,613	64,619	72,725	13,828	13,271	15,410	15,771	18,469	19,335	21,805
<u>Playwear</u>	118,903	132,205	149,190	150,784	172,385	203,394	208,471	\$1,047,589	\$1,115,794	\$1,219,864	\$1,216,254	\$1,422,443	\$1,858,512	\$1,695,908	103,538	115,941	131,629	133,027	149,712	177,732	183,405	63,979	73,716	86,213	89,903	107,589	123,685	139,643	61.8%	63.6%	64.7%	67.6%	71.9%	69.6%	72.9%	38,584	45,088	53,765	61,369	83,290	97,552	109,308	35,579	42,786	49,049	57,195	74,026	87,076	98,810

*Sunsuits, shortsuits, dresses, pants, coveralls, rompers
Source: Cotton Incorporated Analysis based on consumer data from NPD

GIRLS SLEEPWEAR, UNDERWEAR, PLAYWEAR—AGES 8-13

100% COTTON MARKET

(000) UNITS	SLEEPWEAR	UNDERWEAR	PLAYWEAR
ANNUAL 92	5,658	148,703	241,486
ANNUAL 93	8,789	147,291	268,477
ANNUAL 94	11,196	178,308	289,838
ANNUAL 95	10,987	188,174	332,804
ANNUAL 96	16,873	210,443	362,828
ANNUAL 97	20,049	232,994	361,360
ANNUAL 98	19,161	220,886	391,315

(000) DOLLARS SPENT ON 100% COTTON

ANNUAL 92	67,726	186,245	2,521,588
ANNUAL 93	83,438	183,070	2,765,205
ANNUAL 94	107,262	217,710	2,847,488
ANNUAL 95	94,182	228,138	3,478,719
ANNUAL 96	142,018	250,781	3,448,282
ANNUAL 97	184,306	281,111	3,465,385
ANNUAL 98	148,510	281,180	3,738,872

COTTON FIBER—BALES—USED IN 100% COTTON

ANNUAL 92	10,543	36,986	321,175
ANNUAL 93	17,558	37,239	348,968
ANNUAL 94	22,473	46,322	377,529
ANNUAL 95	22,445	47,489	437,886
ANNUAL 96	32,806	62,769	483,632
ANNUAL 97	36,664	68,608	493,187
ANNUAL 98	35,878	65,610	643,271

Source: Cotton Incorporated Analysis based on consumer data from NPD
 The following are included in girls' playwear: Blouses, shirts, sweaters, vests, slacks/pants, overalls/coveralls, jeans, shorts, sweat apparel, skirts, and dresses.
 Underwear includes panties, thermalwear, and daywear.
 Sleepwear includes pajamas, gowns, sets, and other nightwear.

GIRLS SLEEPWEAR, UNDERWEAR, PLAYWEAR—THRU AGE 13

TOTALS

(000) UNITS	SLEEPWEAR	UNDERWEAR	PLAYWEAR
ANNUAL 92	64,600	191,925	731,081
ANNUAL 93	96,665	168,621	736,394
ANNUAL 94	83,963	219,615	765,261
ANNUAL 95	64,286	222,559	836,651
ANNUAL 96	67,141	240,087	849,100
ANNUAL 97	75,182	259,089	878,868
ANNUAL 98	72,212	244,990	896,604

(000) DOLLARS

ANNUAL 92	421,330	280,536	6,511,253
ANNUAL 93	455,507	276,123	6,065,068
ANNUAL 94	482,114	316,734	6,678,158
ANNUAL 95	474,114	321,228	7,166,808
ANNUAL 96	533,788	386,933	7,489,488
ANNUAL 97	586,303	386,045	7,838,583
ANNUAL 98	532,102	334,069	8,263,662

TOTAL FIBER—BALES

ANNUAL 92	111,186	48,767	916,180
ANNUAL 93	122,205	48,138	914,516
ANNUAL 94	132,978	59,023	944,513
ANNUAL 95	132,385	59,036	1,044,971
ANNUAL 96	135,412	60,705	1,071,963
ANNUAL 97	148,814	65,813	1,119,313
ANNUAL 98	146,163	62,064	1,188,120

COTTON FIBER—BALES

ANNUAL 92	13,989	41,640	679,839
ANNUAL 93	21,735	41,183	685,043
ANNUAL 94	27,002	49,606	614,319
ANNUAL 95	26,610	50,794	684,817
ANNUAL 96	36,945	65,798	729,288
ANNUAL 97	43,381	61,199	742,679
ANNUAL 98	41,867	68,167	787,924

COTTS SHARE PERCENT

ANNUAL 92	12.5%	65.5%	63.3%
ANNUAL 93	17.6%	65.6%	64.3%
ANNUAL 94	20.3%	68.9%	65.0%
ANNUAL 95	20.0%	68.7%	66.5%
ANNUAL 96	27.3%	91.9%	68.0%
ANNUAL 97	29.2%	93.2%	68.3%
ANNUAL 98	28.7%	93.6%	67.4%

GIRLS SLEEPWEAR, UNDERWEAR, PLAYWEAR—Up to & Including Age 7

TOTALS	SLEEPWEAR	UNDERWEAR	PLAYWEAR
(000) UNITS			
ANNUAL 92	38,373	113,835	433,849
ANNUAL 93	38,152	109,821	426,280
ANNUAL 94	43,635	127,912	438,984
ANNUAL 95	46,592	127,203	500,566
ANNUAL 96	45,836	138,961	504,348
ANNUAL 97	50,675	143,063	510,807
ANNUAL 98	48,372	134,856	515,470

(000) DOLLARS

ANNUAL 92	\$250,276	\$182,984	\$3,294,106
ANNUAL 93	\$270,691	\$156,012	\$3,290,727
ANNUAL 94	\$296,344	\$186,744	\$3,295,044
ANNUAL 95	\$321,970	\$182,940	\$3,672,692
ANNUAL 96	\$334,212	\$187,282	\$3,799,341
ANNUAL 97	\$365,043	\$197,101	\$3,833,629
ANNUAL 98	\$328,479	\$181,674	\$3,899,626

TOTAL FIBER—BALES

ANNUAL 92	74,462	29,102	680,267
ANNUAL 93	80,349	28,130	634,638
ANNUAL 94	82,439	32,818	644,566
ANNUAL 95	98,854	32,896	621,346
ANNUAL 96	92,744	34,881	628,327
ANNUAL 97	105,600	39,637	637,782
ANNUAL 98	101,866	34,276	606,064

COTTON FIBER—BALES

ANNUAL 92	2,261	25,395	327,369
ANNUAL 93	4,321	24,567	320,589
ANNUAL 94	6,172	29,619	333,315
ANNUAL 95	10,690	29,788	399,000
ANNUAL 96	13,849	32,555	414,460
ANNUAL 97	20,926	34,680	422,127
ANNUAL 98	19,960	32,688	442,062

COTTSHARE PERCENT

ANNUAL 92	3.0%	67.3%	69.5%
ANNUAL 93	5.4%	67.3%	69.0%
ANNUAL 94	6.6%	69.9%	61.2%
ANNUAL 95	10.6%	91.3%	63.7%
ANNUAL 96	14.7%	93.3%	66.0%
ANNUAL 97	19.6%	94.9%	66.2%
ANNUAL 98	19.6%	95.4%	67.4%

**GIRLS SLEEPWEAR, UNDERWEAR, PLAYWEAR—AGES 0-7
100% COTTON MARKET**

(000) UNITS	SLEEPWEAR	UNDERWEAR	PLAYWEAR
ANNUAL 92	823	89,567	117,928
ANNUAL 93	1,614	87,004	124,759
ANNUAL 94	3,126	109,774	139,091
ANNUAL 95	4,232	108,128	172,707
ANNUAL 96	5,970	121,325	182,735
ANNUAL 97	6,297	131,956	195,286
ANNUAL 98	6,502	123,376	204,172

(000) DOLLARS SPENT ON 100% COTTON

ANNUAL 92	\$9,768	\$146,488	\$1,040,283
ANNUAL 93	\$13,820	\$108,288	\$1,107,557
ANNUAL 94	\$25,390	\$139,895	\$1,202,996
ANNUAL 95	\$33,856	\$132,346	\$1,453,491
ANNUAL 96	\$41,253	\$142,350	\$1,823,820
ANNUAL 97	\$58,958	\$161,458	\$1,805,400
ANNUAL 98	\$60,719	\$145,982	\$1,843,090

COTTON FIBER—BALES—USED IN 100% COTTON

ANNUAL 92	1,691	22,490	168,732
ANNUAL 93	3,672	22,169	163,922
ANNUAL 94	7,173	27,121	179,993
ANNUAL 95	9,418	27,428	224,111
ANNUAL 96	12,161	30,822	250,159
ANNUAL 97	17,796	33,423	256,371
ANNUAL 98	17,545	31,160	277,737

Source: Cotton Incorporated Analysis based on consumer data from NPD
The following are included in girls' playwear: Blouses, shirts, sweaters, vests, slacks/pants, overalls/coveralls, jeans, shorts, sweat apparel, skirts, and dresses.
Underwear includes panties, thermalwear, and daywear.
Sleepwear includes pajamas, gowns, sets, and other nightwear.

GIRLS SLEEPWEAR, UNDERWEAR, PLAYWEAR—AGES 8-13

TOTALS	SLEEPWEAR	UNDERWEAR	PLAYWEAR
(000) UNITS			
ANNUAL 92	16,217	77,880	297,432
ANNUAL 93	20,433	79,200	310,104
ANNUAL 94	20,348	81,703	326,297
ANNUAL 95	17,894	93,356	336,095
ANNUAL 96	21,305	103,136	343,752
ANNUAL 97	24,517	116,006	368,261
ANNUAL 98	23,640	110,334	391,224

(000) DOLLARS

ANNUAL 92	\$171,064	\$117,552	\$3,227,146
ANNUAL 93	\$184,516	\$121,111	\$3,374,941
ANNUAL 94	\$193,770	\$130,900	\$3,413,114
ANNUAL 95	\$192,144	\$138,368	\$3,463,946
ANNUAL 96	\$199,676	\$148,551	\$3,657,148
ANNUAL 97	\$220,200	\$168,944	\$4,006,054
ANNUAL 98	\$208,623	\$152,395	\$4,374,136

TOTAL FIBER—BALES

ANNUAL 92	36,734	19,006	366,923
ANNUAL 93	41,858	20,008	378,977
ANNUAL 94	40,539	23,205	399,957
ANNUAL 95	35,531	24,040	423,425
ANNUAL 96	42,668	26,824	443,636
ANNUAL 97	43,214	29,078	491,531
ANNUAL 98	44,307	27,789	513,436

COTTON FIBER—BALES

ANNUAL 92	11,678	16,245	252,170
ANNUAL 93	17,414	16,636	265,364
ANNUAL 94	16,630	20,088	281,004
ANNUAL 95	15,820	21,018	298,817
ANNUAL 96	23,296	23,243	314,908
ANNUAL 97	22,445	26,479	320,452
ANNUAL 98	21,937	25,489	346,602

COTSHARE PERCENT

ANNUAL 92	31.6%	82.9%	66.9%
ANNUAL 93	41.6%	83.1%	70.4%
ANNUAL 94	46.4%	86.6%	70.5%
ANNUAL 95	44.6%	87.4%	70.6%
ANNUAL 96	54.6%	90.6%	71.0%
ANNUAL 97	51.9%	91.1%	66.5%
ANNUAL 98	49.5%	91.6%	67.4%

GIRLS SLEEPWEAR, UNDERWEAR, PLAYWEAR—AGES 8-13

100% COTTON MARKET	SLEEPWEAR	UNDERWEAR	PLAYWEAR
(000) UNITS			
ANNUAL 92	4,835	58,116	123,537
ANNUAL 93	7,155	60,267	143,718
ANNUAL 94	6,070	72,534	160,547
ANNUAL 95	6,765	80,046	189,907
ANNUAL 96	10,703	89,118	169,291
ANNUAL 97	11,732	101,138	168,104
ANNUAL 98	10,679	87,610	177,143

(000) DOLLARS

ANNUAL 92	\$60,957	\$77,757	\$1,481,285
ANNUAL 93	\$89,618	\$77,404	\$1,657,948
ANNUAL 94	\$81,862	\$88,715	\$1,644,823
ANNUAL 95	\$90,636	\$98,793	\$1,723,238
ANNUAL 96	\$100,705	\$108,431	\$1,825,862
ANNUAL 97	\$106,248	\$119,653	\$1,848,886
ANNUAL 98	\$88,791	\$113,196	\$2,095,312

COTTON FIBER—BALES—USED IN 100% COTTON

ANNUAL 92	8,662	14,506	162,443
ANNUAL 93	19,984	15,090	186,046
ANNUAL 94	15,300	16,201	197,836
ANNUAL 95	13,027	20,061	213,776
ANNUAL 96	20,455	22,147	233,473
ANNUAL 97	16,878	25,165	236,816
ANNUAL 98	16,334	24,430	263,534

Source: Cotton Incorporated Analysis based on consumer data from NPD
 The following are included in girls' playwear: Blouses, shirts, sweaters, vests, slacks/pants, overalls/coveralls, jeans, shorts, sweat apparel, skirts, and dresses.
 Underwear includes panties, thermalwear, and daywear.
 Sleepwear includes pajamas, gowns, sets, and other nightwear.

Sleepwear
BOYS PLAYWEAR, UNDERWEAR, Pajamas - THRU AGE 14

TOTALS

(009) UNITS	PLAYWEAR	UNDERWEAR	PAJAMAS
ANNUAL 92	899,049	192,822	33,487
ANNUAL 93	911,911	195,345	29,989
ANNUAL 94	944,758	204,511	34,248
ANNUAL 95	954,405	210,808	36,319
ANNUAL 96	983,792	229,378	38,250
ANNUAL 97	1,018,758	242,538	38,002
ANNUAL 98	1,058,568	254,282	39,169

(009) DOLLARS

ANNUAL 92	7,244,881	284,346	213,491
ANNUAL 93	7,488,765	309,178	198,844
ANNUAL 94	7,952,307	331,903	218,990
ANNUAL 95	7,496,951	378,028	219,276
ANNUAL 96	8,133,463	417,786	254,769
ANNUAL 97	8,797,330	454,340	290,504
ANNUAL 98	9,397,410	473,980	257,832

TOTAL FIBER-BALES

ANNUAL 92	1,198,061	75,221	98,698
ANNUAL 93	1,216,938	77,208	87,085
ANNUAL 94	1,281,801	83,351	99,338
ANNUAL 95	1,248,841	84,215	103,079
ANNUAL 96	1,271,113	82,025	105,811
ANNUAL 97	1,337,577	98,536	107,251
ANNUAL 98	1,416,567	97,721	111,407

COTTON FIBER-BALES

ANNUAL 92	775,684	68,248	6,780
ANNUAL 93	793,142	69,643	6,201
ANNUAL 94	837,872	76,386	12,823
ANNUAL 95	853,044	75,923	18,160
ANNUAL 96	899,988	82,570	22,833
ANNUAL 97	938,354	88,993	28,441
ANNUAL 98	1,005,822	88,214	31,097

COTTSARE PERCENT

ANNUAL 92	64.7%	90.7%	7.0%
ANNUAL 93	65.2%	90.2%	7.2%
ANNUAL 94	68.4%	90.4%	12.7%
ANNUAL 95	68.3%	90.2%	17.6%
ANNUAL 96	70.6%	89.7%	21.2%
ANNUAL 97	70.2%	89.3%	24.7%
ANNUAL 98	71.0%	89.3%	27.9%

Sleepwear
BOYS PLAYWEAR, UNDERWEAR, Pajamas

(009) UNITS

(009) UNITS	PLAYWEAR	UNDERWEAR	PAJAMAS
ANNUAL 92	378,336	292,626	85,492
ANNUAL 93	400,286	307,821	86,765
ANNUAL 94	480,070	334,849	87,025
ANNUAL 95	479,391	341,024	87,338
ANNUAL 96	520,828	362,128	104,885
ANNUAL 97	639,038	373,368	110,254
ANNUAL 98	676,180	397,932	118,970

(009) DOLLARS SPENT ON 100% COTTON

ANNUAL 92	3,417,299	2,289,988	123,343
ANNUAL 93	3,724,608	2,539,578	133,254
ANNUAL 94	4,054,314	2,719,102	151,341
ANNUAL 95	4,274,658	2,747,871	178,785
ANNUAL 96	4,883,854	2,897,580	206,987
ANNUAL 97	5,051,865	3,169,181	223,589
ANNUAL 98	5,489,549	3,458,937	245,846

COTTON FIBER-BALES-USED IN 100% COTTON

ANNUAL 92	489,594	293,968	32,219
ANNUAL 93	625,511	318,189	31,886
ANNUAL 94	674,949	346,368	39,878
ANNUAL 95	612,019	349,395	44,025
ANNUAL 96	659,855	375,042	50,931
ANNUAL 97	690,593	380,970	55,010
ANNUAL 98	745,388	415,867	59,427

Source: Cotton Incorporated Analysis based on consumer data from NPD
 The following are included in boys' playwear: casual shirts, workshirts,
 sweaters, other tops, slacks/pants, workpants, overalls/coveralls,
 and jeans.

Sleepwear
PAJAMAS

Sleepwear
BOYS PLAYWEAR, UNDERWEAR, PAJAMAS
 100% COTTON MARKET

(000) UNITS	PLAYWEAR	UNDERWEAR
ANNUAL 92	173,429	89,719
ANNUAL 93	179,893	87,516
ANNUAL 94	204,063	88,942
ANNUAL 95	230,651	92,314
ANNUAL 96	255,820	97,322
ANNUAL 97	272,223	108,491
ANNUAL 98	285,363	108,125

(000) DOLLARS SPENT ON 100% COTTON		
ANNUAL 92	\$1,259,184	\$122,793
ANNUAL 93	\$1,308,140	\$124,110
ANNUAL 94	\$1,464,879	\$129,467
ANNUAL 95	\$1,672,112	\$146,127
ANNUAL 96	\$1,845,574	\$149,390
ANNUAL 97	\$2,062,470	\$189,739
ANNUAL 98	\$2,167,340	\$185,728

COTTON FIBER-SALES-USED IN 100% COTTON		
ANNUAL 92	236,467	31,899
ANNUAL 93	242,093	31,781
ANNUAL 94	283,160	33,879
ANNUAL 95	297,516	34,982
ANNUAL 96	321,996	36,775
ANNUAL 97	349,488	38,865
ANNUAL 98	366,494	39,983

Source: Cotton Incorporated Analysis based on consumer data from NPD
 The following are included in boys' playwear: casual shirts, workshirts,
 sweaters, other tops, shorts/pants, workpants, overalls/coveralls,
 and jeans.

Sleepwear
BOYS PLAYWEAR, UNDERWEAR, PAJAMAS, UP TO & INCLUDING AGE 7
 TOTALS

(000) UNITS	PLAYWEAR	UNDERWEAR
ANNUAL 92	308,601	98,716
ANNUAL 93	322,606	98,939
ANNUAL 94	331,643	98,157
ANNUAL 95	331,655	100,556
ANNUAL 96	345,638	109,049
ANNUAL 97	380,248	117,741
ANNUAL 98	391,478	117,616

(000) DOLLARS		
ANNUAL 92	\$3,369,900	\$144,639
ANNUAL 93	\$3,396,999	\$147,427
ANNUAL 94	\$3,407,813	\$151,294
ANNUAL 95	\$3,398,193	\$171,391
ANNUAL 96	\$3,655,462	\$183,295
ANNUAL 97	\$3,999,823	\$205,816
ANNUAL 98	\$4,072,097	\$190,940

TOTAL FIBER-SALES		
ANNUAL 92	702,056	40,418
ANNUAL 93	716,708	40,485
ANNUAL 94	785,719	41,875
ANNUAL 95	736,302	42,792
ANNUAL 96	738,118	46,772
ANNUAL 97	780,548	51,442
ANNUAL 98	803,241	46,883

COTTON FIBER-SALES		
ANNUAL 92	416,972	4,315
ANNUAL 93	420,069	3,711
ANNUAL 94	436,957	8,582
ANNUAL 95	466,363	14,605
ANNUAL 96	477,468	15,115
ANNUAL 97	509,146	21,902
ANNUAL 98	534,137	24,377

COTTSARE PERCENT		
ANNUAL 92	59.4%	69.6%
ANNUAL 93	58.6%	90.0%
ANNUAL 94	59.4%	90.4%
ANNUAL 95	62.0%	91.4%
ANNUAL 96	64.9%	91.2%
ANNUAL 97	65.2%	90.6%
ANNUAL 98	66.6%	91.2%

(000) DOLLARS SPENT ON 100% COTTON		
ANNUAL 92	\$1,259,184	\$169,110
ANNUAL 93	\$1,308,140	\$146,876
ANNUAL 94	\$1,464,879	\$162,134
ANNUAL 95	\$1,672,112	\$189,507
ANNUAL 96	\$1,845,574	\$199,902
ANNUAL 97	\$2,062,470	\$209,358
ANNUAL 98	\$2,167,340	\$202,781

COTTON FIBER-SALES-USED IN 100% COTTON		
ANNUAL 92	236,467	78,797
ANNUAL 93	242,093	70,473
ANNUAL 94	283,160	78,678
ANNUAL 95	297,516	96,040
ANNUAL 96	321,996	87,373
ANNUAL 97	349,488	90,929
ANNUAL 98	366,494	93,535

COTTSARE PERCENT		
ANNUAL 92	59.4%	6.4%
ANNUAL 93	58.6%	6.3%
ANNUAL 94	59.4%	10.6%
ANNUAL 95	62.0%	17.0%
ANNUAL 96	64.9%	20.7%
ANNUAL 97	65.2%	24.2%
ANNUAL 98	66.6%	26.0%

Sleepwear
-PALMARES

BOYS PLAYWEAR, UNDERWEAR, PANTS-AGES 2-14

TOTALS	PLAYWEAR	UNDERWEAR
(000) UNITS		
ANNUAL 92	300,448	93,906
ANNUAL 93	369,303	98,406
ANNUAL 94	413,115	108,354
ANNUAL 95	402,751	110,252
ANNUAL 96	418,154	120,330
ANNUAL 97	438,509	125,097
ANNUAL 98	477,090	136,666

Sleepwear
-PALMARES

BOYS PLAYWEAR, UNDERWEAR, PANTS

(000) UNITS	PLAYWEAR	UNDERWEAR
ANNUAL 92	202,906	84,326
ANNUAL 93	220,403	85,911
ANNUAL 94	240,007	94,735
ANNUAL 95	246,710	93,337
ANNUAL 96	264,808	98,130
ANNUAL 97	269,875	104,190
ANNUAL 98	282,807	112,162

(000) DOLLARS

ANNUAL 92	\$3,874,981	\$136,707
ANNUAL 93	\$4,081,866	\$161,751
ANNUAL 94	\$4,164,494	\$180,399
ANNUAL 95	\$4,087,798	\$200,635
ANNUAL 96	\$4,478,001	\$234,481
ANNUAL 97	\$4,827,507	\$243,324
ANNUAL 98	\$5,325,313	\$283,140

(000) DOLLARS SPENT ON 100% COTTON

ANNUAL 92	\$2,161,105	\$113,829
ANNUAL 93	\$2,415,466	\$125,738
ANNUAL 94	\$2,599,835	\$133,985
ANNUAL 95	\$2,601,544	\$149,463
ANNUAL 96	\$2,848,280	\$167,171
ANNUAL 97	\$2,998,425	\$176,546
ANNUAL 98	\$3,301,209	\$200,298

TOTAL FIBER-SALES

ANNUAL 92	498,025	34,803
ANNUAL 93	600,230	36,721
ANNUAL 94	598,082	41,676
ANNUAL 95	512,539	41,423
ANNUAL 96	534,965	45,253
ANNUAL 97	557,031	47,094
ANNUAL 98	613,628	50,888

COTTON FIBER-SALES-USED IN 100% COTTON

ANNUAL 92	262,067	28,598
ANNUAL 93	284,418	29,276
ANNUAL 94	311,489	32,796
ANNUAL 95	314,503	32,163
ANNUAL 96	338,267	34,360
ANNUAL 97	341,105	36,049
ANNUAL 98	378,864	38,438

COTTON FIBER-SALES

ANNUAL 92	358,712	31,941
ANNUAL 93	373,073	33,199
ANNUAL 94	401,015	37,713
ANNUAL 95	396,681	36,814
ANNUAL 96	419,632	39,928
ANNUAL 97	429,208	42,383
ANNUAL 98	471,665	45,500

COTTON FIBER-SALES-USED IN 100% COTTON

ANNUAL 92	262,067	28,598
ANNUAL 93	284,418	29,276
ANNUAL 94	311,489	32,796
ANNUAL 95	314,503	32,163
ANNUAL 96	338,267	34,360
ANNUAL 97	341,105	36,049
ANNUAL 98	378,864	38,438

COTTSARE PERCENT

ANNUAL 92	72.5%	91.8%
ANNUAL 93	74.6%	90.4%
ANNUAL 94	76.2%	90.5%
ANNUAL 95	77.4%	88.9%
ANNUAL 96	78.4%	88.2%
ANNUAL 97	77.1%	90.0%
ANNUAL 98	76.9%	88.4%

COTTON FIBER-SALES-USED IN 100% COTTON

ANNUAL 92	262,067	28,598
ANNUAL 93	284,418	29,276
ANNUAL 94	311,489	32,796
ANNUAL 95	314,503	32,163
ANNUAL 96	338,267	34,360
ANNUAL 97	341,105	36,049
ANNUAL 98	378,864	38,438

Source: Cotton Incorporated Analysis based on consumer data from NPD
The following are included in boys' playwear: casual shirts, workshirts, sweaters, other tops, slacks/pants, workpants, overalls/coveralls, and jeans.

Sleepwear
-PALMARES

Sleepwear
-PALMARES

BOYS PLAYWEAR, UNDERWEAR, PANTS

(000) UNITS	PLAYWEAR	UNDERWEAR
ANNUAL 92	202,906	84,326
ANNUAL 93	220,403	85,911
ANNUAL 94	240,007	94,735
ANNUAL 95	246,710	93,337
ANNUAL 96	264,808	98,130
ANNUAL 97	269,875	104,190
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(000) DOLLARS SPENT ON 100% COTTON

ANNUAL 92	\$2,161,105	\$113,829
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ANNUAL 95	\$2,601,544	\$149,463
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ANNUAL 97	\$2,998,425	\$176,546
ANNUAL 98	\$3,301,209	\$200,298

COTTON FIBER-SALES-USED IN 100% COTTON

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COTTON FIBER-SALES

ANNUAL 92	358,712	31,941
ANNUAL 93	373,073	33,199
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ANNUAL 96	419,632	39,928
ANNUAL 97	429,208	42,383
ANNUAL 98	471,665	45,500

COTTSARE PERCENT

ANNUAL 92	72.5%	91.8%
ANNUAL 93	74.6%	90.4%
ANNUAL 94	76.2%	90.5%
ANNUAL 95	77.4%	88.9%
ANNUAL 96	78.4%	88.2%
ANNUAL 97	77.1%	90.0%
ANNUAL 98	76.9%	88.4%

Source: Cotton Incorporated Analysis based on consumer data from NPD
The following are included in boys' playwear: casual shirts, workshirts, sweaters, other tops, slacks/pants, workpants, overalls/coveralls, and jeans.

Author: <rhenni@fire.co.fairfax.va.us> at INTERNET-MAIL
Date: 3/22/99 4:35 PM
Priority: Normal
TO: cpsc-os@cpsc.gov. at internet-mail
BCC: Todd A. Stevenson at CPSC-HQ1
Subject: (Fwd) Re: consumer Product Safety Commission

Sleepwear Comment
+ Reported Incident CF99-1-131
C9930023

----- Forwarded Message Follows -----

From: Albert350@aol.com
Date sent: Mon, 22 Mar 1999 16:04:29 EST
To: rhenni@s92fsnl.co.fairfax.va.us
Subject: ~~Re: consumer Product Safety Commission~~

Dear Sadye E. Dunn,

I know that you have received many letter regarding reinstating the sleepwear standard but if you only chose to pay attention to one, choose this letter. My name is Maria Leightley. I am a burn victim and a mother of a young daughter. ~~These two identities~~ continually shape my life and influence why I am imploring that you reinstate the sleepwear standard!

On June 24th, 1972, at three years of age, my life changed forever in one brief moment. I was wearing a nightgown that was made while there was not a sleepwear standard in effect. I was being a curious little kid and picked up a box of matches and lit one. My nightgown caught on fire and because it was not flame retardant, the fire instantly melted the fabric to my skin. By the time my mother was able to rescue me, over 35% of my body suffered second and third degree burns, including my face. So here I was at three years old, already marked for life as someone different.

Now think back to your childhood and teen-age years. Remember how difficult it could be to make friends; how difficult it could be to fit in with the popular crowd. Remember how much you wanted your peers to like and accept you. Remember how you wanted that someone special to fall in love with you. Remember teasing that one person who was different from you and your friends. Remembering thinking that someone was always watching you.

For most of us, those thoughts and difficulties were centered more in our imaginations than in reality. But not for me, someone whose body was covered in scars. My reality was that I did have a difficult time making friends and being accepted. I was that child that others singled out and ridiculed. I was not just imagining that everyone was looking at me; they really were.

Growing up is hard enough without the added hardship of having over one-third of your body scared. I can recall being ashamed to go to the beach because of having to wear a bathing suit. Thus winter being my favorite time of year; I could wear plenty of clothes to cover my body and wouldn't be questioned. I remember the agony of not wanting to go out for team sports because of the attire usually required that we wear. I remember gym class was a dreaded hour because we often had to change in front of each other. I had to expose my scars to other students, where I would be unprotected from the stares and whispers.

Twenty-seven years have passed since I was burned. I am no longer the child who often thought that I would have been better off dead. I've healed, but my scars are still there, including the scars that you can't see--the ones on my sole. Every aspect of my life has been touched by those flames that burned me when I was three. I had a difficult time with intimate relationships. Exposing yourself, physically and emotionally to any other person is difficult enough without the scars. I was able to overcome this and married a wonderful man who loves even the parts of me that aren't perfect. Later, when we found out that I was pregnant, even then my scars came back to haunt me. I could not experience all the joys of motherhood for which I had hoped. I had to worry the entire nine months if my stomach would be able to stretch enough for the baby to grow. To continue, breast feeding was out of the question.

My daughter, Ashley, is about the same age as I was when I was burned. I look at her and see a beautiful child. She has no scars externally, nor internally. I want to protect my child and other children from pain, whether

it is emotional or physical. I know that I will not be able to save my daughter pain in her life; it's a given. But, I will do my best to ensure her from NEEDLESS pain.

Reinstating the sleepwear standard is a way to protect Ashley and other children from unnecessary suffering. I thought I had succeeded in this when I shared my story last year with many national and local news stations. I hoped that someone would listen and change a law that would save someone's child from ever having to undergo the physical and mental agony that I suffered, but I was wrong.

I read a recent news article stating that "only eighty" children have been burned since the sleepwear standard has been taken out of effect???? To some, eighty may not seem like enough of a statistically significant number to change a law. So I ask you, what IS the magical number? When do you say, "Fine, enough children have been burned now, let's reinstate the law?"

To me, to my mother and father, and to my husband, the fact that one person was burned, Maria Leightley, is significant enough.

I told you that I speak from two view points, a mother and a burn victim, in imploring you to reinstate the sleepwear standard. However, the mother in me pleads the loudest. If the only way I could save my Ashley from being burned would be to go through June 24, 1972, and the following years again, I would not hesitate a moment longer than it took for the flames to melt my nightgown to my skin that fateful night. However, you have the power to protect her and all the other children. Please reinstate the sleepwear standard!

Sincerely,
y,

Maria
Leightley
y

Renee Henningsen
Fairfax County Fire and Rescue Department
703-246-3801

BILL LOCKYER
Attorney General

CF99-1-132
State of California
DEPARTMENT OF JUSTICE



Consumer Law Section

300 South Spring Street
5th Floor North Tower
Los Angeles, CA 90013-1232

Facsimile: (213) 897-4951
Phone: (213) 897-2630

March 22, 1999

Secretary,
Consumer Product Safety Commission
Washington, D.C. 20207
Fax: 301-504-0127

RE: Sleepwear Revocation

Dear Sirs,

The California Attorney General supports the letter sent on Friday March 19, 1999, to the Commission by the Connecticut Attorney General and the attorneys general of a number of other states. Although we were unable to join in that letter on Friday, we have read it and join in each of the positions stated therein.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Elkins", written over a horizontal line.

HERSCHEL T. ELKINS
Senior Assistant Attorney General

For **BILL LOCKYER**
Attorney General

cc: Connecticut Attorney General

Mar. 14, 1999

To: Office of The Secretary
Consumer Product Safety Commission

From: Polly Clark, 120 Bradford Place, Kennett, Mo 63857

Re: Sleepwear Revocation

I support the AAMA in recommending that the CPSC maintain the amendment allowing sale of snug-fitting untreated cotton products complying as sleepwear. The amendment does not relax safety considerations. Snug-fitting products still have to pass the general wearing apparel standard. Loose-fitting sleepwear is still required to pass a severe flame test.

Apparel manufacturers and retailers have developed point-of-purchase education materials to inform parents about sleepwear products and the education and training programs will be continued and also improved.

The amendment allowing snug-fitting, untreated cotton products as children's sleepwear helps reduce confusion between what is considered sleepwear, underwear and playwear. It gives the consumer an informed choice to purchase cotton garments with their children's safety protected.

The amendment also allows consumers to choose

safer, snug-fitting garments rather than loose-fitting
daywear, such as t-shirts and sweats.

I whole heartedly support the CPSC's decision
to amend the children's sleepwear flammability
standards. This amendment gives the consumer
safer sleepwear alternatives and the amendment
should not be revoked!

PRESIDENT
Michael H. Vincent
734 E. Ivy Drive
Seaford, DE 19973
302-629-2396 (H)
302-629-2396 (W)
302-629-4381 (Fax)
302-855-6101 (Pager)

1st VICE PRESIDENT
Stephen P. Austin
22 Aronimink Drive
Newark, DE 19711
302-454-7377 (H)
302-995-0300 (W)
302-995-6330 (Fax)
800-823-7069 (Pager)

2nd VICE PRESIDENT
James L. Cabbage, Jr.
P.O. Box 361
Clayton, DE 19938-0361
302-653-9726 (H)
302-739-5665 (W)
302-739-3696 (Fax)
302-247-9002 (Pager)

SECRETARY
James E. Turner, III,
212 Washington Avenue
P.O. Box 232
Clayton, DE 19938-0232
302-653-8030 (H)
302-739-4773 ext. 212W)
302-739-6246 (Fax)
302-247-4773 (Pager)

TREASURER
J. Allen Metheny
2484 Arthursville Road
Hartly, DE 19953-9611
302-492-3755 (H)
302-739-4241 (W)
302-739-2723 (Fax)
302-247-5516 (Pager)

Past President, Director

Donald W. Knight, Sr.
35 Meadow Glen
Dover, DE 19901
302-697-2385 (H)
302-736-2218 (W)
302-736-2244 (FAX)
302-625-2374 (Pager)

Elected Directors:

Dale A. Callaway
Sussex County Director
302-684-8011 (H)
302-734-4811 (W)

Walter M. Lahey
New Castle County Director
302-834-7958 (H)
302-834-6223 (W)

Clarence R. O'Neal, Jr.
402-492-8599 (H)
302-577-4712 (W)
302-888-7213 (Pager)



County Presidents

Tillo A. Suppe
New Castle County
302-738-5050 (H)
302-631-7143 (W)
302-247-3187 (Pager)

Marvin C. Sharp
Kent County
302-422-5421 (H)
302-422-9249 (W)
302-735-2854 (Pager)

Ronald H. Marvel
Sussex County
302-629-8595 (W)
302-854-3263 (Pager)

Chaplains
Rev. Robert Hudson
302-934-9874
Rev. David G. Paul
302-335-4148

March 19, 1999

Ms. Sadye E. Dunn
Secretary
Consumer Product Safety Commission
Washington DC 20207

Re: Sleepwear Revocation

Dear Ms. Dunn:

At the direction of President Michael H. Vincent, this Association submits this letter to support the revocation of the 1996 relaxed standards that placed children at a higher risk of burn injury. The reduction of infant burn injuries throughout the period that the standard was in place is more than enough evidence that the Commission's decision was misguided.

We join with the medical community, national fire service organizations and fire prevention experts in urging CPSC to revoke the 1996 sleepwear amendments to the Flammable Fabrics Act.

Sincerely,
James E. Turner, III
James E. Turner, III
Secretary

cc: Honorable William V. Roth Jr.
Honorable Joseph R. Biden
Honorable Michael N. Castle

CF99-1-136

March 8, 1999

Sadye E. Dunn
Secretary
Consumer Product Safety Commission
Washington, D.C. 20207

Re: Sleepwear Revocation

Dear Ms. Dunn:

We are writing to urge the Consumer Product Safety Commission to revoke its 1996 amendments to the Flammable Fabrics Act and return to the stronger fire safety standards which kept children safe for more than twenty-five years.

As you know, after passage of the strict fire safety standard, the number of children suffering from burns dropped dramatically. In fact, the National Fire Protection Association estimates that without this standard, there would have been ten times as many deaths and substantially more injuries, associated with children's sleepwear. Clearly it is a protection that worked.

Some argue that there has been no increase in the number of burn injuries and deaths since the standard changed. This is partially due to problems in the reporting of burn injuries. Furthermore, we do not believe that we should wait for children to be injured before we return to a standard which worked for decades. There are several problems with the new standards which we believe will put children in danger in the future.

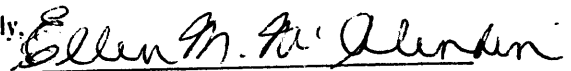
The revised standard which exempts "tight fitting" sleepwear in children's sizes up to 14 is based on the assumption that parents will dress their children in tight fitting clothes. Anyone who has bought clothes for a child knows that you do not buy something that fits tightly—you buy something big enough for the child to grow into. Many parents dress their children in hand-me-downs which may be far too big for the child. The combination of clothing made of materials which are not resistant to fire and sleepwear that is not tight fitting, may be lethal.

The revised standard which exempts sleepwear for infants nine months or younger from any fire safety regulations is even more dangerous. Many infants at this age are crawling, and should they somehow become exposed to a flame would be completely vulnerable. Infants deserve more protection, not less.

The Consumer Product Safety Commission's decision to relax the fire safety standard was made with the understanding that the manufacturer would fund a substantial public awareness campaign so that consumers would understand the importance of dressing their children in tight fitting clothes. This campaign has not materialized. Additionally, the tags that were supposed to inform consumers that a garment is not flame resistant are difficult to understand. As you are probably aware, most are in English—making it difficult for non-English reading consumers to understand that a garment is not flame resistant.

We have the utmost respect for the Consumer Product Safety Commission. The CPSC is the premier agency for protecting our children's safety. Parents look to you to help them ensure their children grow up happy and healthy. We urge you not to send parents the wrong message. Please return to the strict fire safety standard which was in place until 1996. Please do not wait until the number of children burned begins to rise before you act to protect them.

Sincerely,



Signature
Ellen M. McAlinden

Printed name

CF99-1-137
b6
etc 2/1/99
R



NATIONAL RETAIL FEDERATION

March 23, 1999

The Honorable Ann Brown
Office of the Secretary
Consumer Product Safety Commission
Washington, D.C. 20207

Re: Sleepwear Revocation

Dear Secretary Brown:

The Consumer Product Safety Commission is seeking comments on the Commission's proposal to revoke certain amendment standards for the flammability of children's sleepwear, sizes through 6X and sizes 7 through 14. The National Retail Federation (NRF) appreciates the opportunity to provide comments on this issue.

As background, The National Retail Federation is the world's largest retail trade association with membership that comprises all retail formats and channels of distribution including department, specialty, discount, catalogue, Internet, and independent stores. NRF members represent an industry that encompasses more than 1.4 million U.S. retail establishments, employs more than 21 million people – about 1 in 5 American workers – and registered 1998 sales of \$2.7 trillion. NRF's international members operate stores in more than 50 nations. In its role as the retail industry's umbrella group, NRF also represents 32 national and 50 state associations in the U.S. as well as 36 national associations representing retailers abroad.

In September 1996, CPSC changed the flammability standards for children's sleepwear. The standards exempt all sleepwear for infants nine months or younger, and tight-fitting sleepwear in children's sizes up to fourteen, so they may be made from untreated cotton and cotton blends. At the same time, the Commission amended the policy statements so that infant garments and tight fitting garments could be marketed and promoted with other sleepwear. NRF lauded these changes in flammability standards and we continue to advocate the amendments in children's sleepwear standards. NRF recommends the CPSC not revoke the amendments it implemented only two years ago.

The World's Largest Retail Trade Association

Liberty Place, 325 7th Street NW, Suite 1000
Washington, DC 20004
202.783.7971 Fax: 202.737.2849
www.nrf.com

Fire safety standards for children's sleepwear garments and retailer's role in informing the public about safety is an issue of great importance to the retail industry. NRF members continually work with fellow retailers, employees, manufacturers and the public to ensure maximum safety for all consumers, not just children. The retail industry is on the front line when it comes to informing the public about possible risks associated with certain products as determined by the Consumer Product Safety Commission. While retailers generally don't manufacture products that are sold in stores, they are held accountable for the strictest safety standards, even if they are but one entity out of several who are responsible for the safety of products.

Since implementation of the new flammability standards, retailers have invested significant amounts of time and financial resources to educating consumers on types of children's sleepwear available. JCPenney is one example of a retailer who has undertaken substantial efforts to educate its customers about flammability of children's sleepwear while providing safe choices at the same time. JCPenney developed signage for store fixtures, as well as two separate sleepwear hangtags in different colors to distinguish between fabric and fit standards of the CPSC on children's sleepwear (see attachment). The retailer also developed a third hangtag to distinguish underwear that is not intended for sleepwear. Moreover, JCPenney created a video for store employees explaining to their sales associates the importance of proper merchandising of clothing in the sleepwear program. This program has proven to be successful at JCPenney, and programs among other retailers have had similar successes.

It is also important to note that there has not been sufficient data to prove that certain types of children's sleepwear pose increased risk for burn injury. While the General Accounting Office (GAO) is currently reviewing burn incident data from the ignition of children's sleepwear from small open-flame sources, it is the opinion of the retail industry that a year and a half is not a sufficient period of time to make conclusive findings.

Retailers would like to continue to market and sell children's sleepwear in their stores. More importantly, children's sleepwear is merchandise that consumers want to wear. America is a society of convenience and comfort. They enjoy comfortable cotton, and want it when it's most important- at bedtime. It is important for the CPSC to recognize that if the amendments are revoked and children's sleepwear is no longer allowed to be marketed in its current form, parents will go back to putting children of all ages in loose-fitting t-shirts at bedtime.

Having children in loose fitting sleepwear is an objective the CPSC has long avoided.

In conclusion, the National Retail Federation recommends that the Consumer Product Safety Commission maintain the 1996 amendments to the children's sleepwear flammability standards excluding garments sized for infants nine months or younger and tight-fitting garments for children older than nine months. The retail industry has actively pursued educating its consumers on safe choices of children's sleepwear, and consumers demand comfortable sleepwear. If CPSC revokes the amendments, the Commission will find the alternative, children sleeping in loose-fitting t-shirts, even less palatable.

If you have any questions or comments concerning NRF's position on sleepwear revocation, please do not hesitate to contact me. Again, thank you for the opportunity to comment on this important subject.

Sincerely,



Sarah P. Whitaker
Director, Government Relations

attachment

MAR. 22. 1999 4:52PM

REP. BONILLA - DC

NO. 0469 P. 2/CP99-1-138
COMMITTEE ON APPROPRIATIONS

HENRY BONILLA
23D DISTRICT, TEXAS

1427 LONGWORTH OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-4611

Congress of the United States
House of Representatives
Washington, DC 20515-4323

SUBCOMMITTEE ON LABOR, HEALTH AND
HUMAN SERVICES, AND EDUCATION
SUBCOMMITTEE ON NATIONAL SECURITY
SUBCOMMITTEE ON AGRICULTURE

March 22, 1999

Ms. Ann Brown
Chairwoman
Consumer Product Safety Commission
East West Towers
4330 East West Highway
Bethesda, Maryland 20814

Dear Chairwoman Brown:

I am writing regarding to the Consumer Products Safety Commission's pending decision on the 1996 amendments to the Flammable Fabric Act. These amendments allow the manufacturing and sale of certain snug-fitting untreated cotton products for children's sleepwear.

I understand the CPSC made these changes in 1996 based on extensive research and hearings. The research concluded these changes provided parents with a safe alternative without presenting a risk to children.

In compliance with the provisions in the FY 99 VA-HUD appropriations bill, the Commission has published, for public comment, a proposal to revoke the amendment. The General Accounting Office (GAO) will soon complete a mandated study reviewing data collected since the amendment became effective in January 1997. The CPSC has also agreed to conduct a public hearing in April. Therefore, the CPSC will have received public comment, a GAO review and testimony from public hearing prior to making a final decision by July 1, 1999.

If this exhaustive review, coming on the heels of nearly 5 years of research leading up to the decision to amend the Children's Sleepwear Flammability Standards, concludes that the data supports the Commission's decision of 1996, I urge you not to revoke the amendments. Thank you for your consideration of my comments.

Sincerely,



Henry Bonilla
Member of Congress

HB:tdd

PLEASE REPLY TO:

11120 WURZBACH, SUITE 300
SAN ANTONIO, TX 78230
(210) 697-8055

1300 MATAMOROS ST., SUITE 1138
LAREDO, TX 78040
(956) 726-4882

111 E. BROADWAY, SUITE 101
DEL RIO, TX 78840
(830) 774-8547

4400 N. BRN SPRING, SUITE 211
MCKINNEY, TX 75065
(972) 686-8833

<http://www.house.gov/bonilla>

**Office of the Secretary
Consumer Product Safety Commission
Washington, DC 20207**

RE: SLEEPWEAR REVOOCATION

Dear Madam/Sir:

I take this opportunity to urge Consumer Product Safety Commission not to approve the proposed regulation to revoke the Sleepwear Amendment.

The sale of untreated cotton sleepwear does not relax safety standards and these garments will still have to pass flame testing.

The amendments allowing sale of snug-fitting, untreated cotton products for children's sleepwear will reduce confusion to the consumer and provide an informed choice to purchase cotton garments with their children's safety protected.

Respectfully,



**Merle C. Morrison
SW Regional Director
Grown & Made in the USA
P.O. Box 14
Lorenzo, Texas 79343**

3-13-99

CF99-1-140

- Sleepwear Revocation -

Subject: Children's Sleepwear Standards

Please be advised - - - -

- (1) Support the ammendment to allow safer sleepwear alternatives which would include cotton
- (2) Support the ammendment because it meets (safety guidelines) and (structure requirements)
- (3) Do Not revoke the ammendment!!

→ We need more ways to use our USA grown farm products.

- Sharon L. Newell -
Newell Forms, Inc.
5339 Papaya Circle
Harlingen, Texas 78552
956-423-3202

CF99-1-191

7460 St. Pauls Rd.
Lumber Bridge, N. C. 28357

March 15, 1999

Re: Sleepwear Revocation

Office of the Secretary
Consumer Product Safety Commission
Washington, D. C. 20207

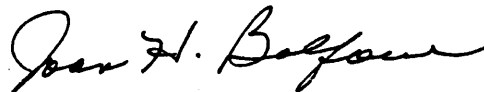
Dear Sirs:

As a mother and also a grandmother, I urge the CPSC to maintain the amendment allowing the sale of snug-fitting untreated cotton products as complying sleepwear. The amendments do not relax safety considerations. Most of the mothers I know, prefer to put their children to bed in cotton garments and it is much safer to put children to bed in snug-fitting cotton garments, than using the alternative loose-fitting daywear, such as t-shirts. Many mothers will choose the alternative loose-fitting cotton daywear if they cannot continue to get the snug-fitting untreated cotton products for children's sleepwear.

Over a year ago, it was announced over TV that the airlines recommended when you fly to wear natural products. This, of course, was in case of a crash and resulting fire. Evidently their experience had shown that passengers were better off in a natural product such as cotton in case of a fire. Would this not hold true in a home as well? If no injuries have been associated with snug-fitting cotton products used as sleepwear, then what could possibly be a reason to prevent the use of these garments? For the children up and running about, the snug-fitting cotton garments are much safer than loose flowing garments.

I support CPSC's decision to amend the children's sleepwear flammability standards and agree with CPSC that this amendment offers the consumer safer sleepwear alternatives and that CPSC should not revoke the amendment.

Sincerely,



Joan H. Balfour
A concerned grandmother

LOUISIANA COTTON PRODUCERS ASSOCIATION

An Organization Dedicated to the Interests of the Cotton Grower

3000 Kilpatrick Boulevard, Suite 100

Monroe, LA 71201

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Newellton

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Wayne McDonald, Jr.
Oak Ridge

Kenneth Methvin
Natchitoches

John Shackelford
Bonita

W.A. "Billy" Guthrie
Newellton

John L. "Jack" Dailey
Extension

Donna B. Winters
Lake Providence

March 17, 1999

Office of the Secretary
Consumer Product Safety Commission
Washington, DC 20207

Dear Secretary:

I am writing in strong support of maintaining the amendments, which authorizes the manufacture and sale of complying untreated cotton products as children's sleepwear.

The CPSC already has in place stringent safety requirements and tests that go above and beyond that what is needed to ensure the general public that cotton garments do not pose an unreasonable health risk. Apparel manufactures and retailers have voluntarily gone the extra mile in making educational materials readily available to inform parents about sleepwear products.

If given a choice, the vast majority of citizens, young and old alike, would choose to sleep in a cotton garment. We concur with the CPSC that the decision to amend the children's sleepwear flammability standards provides the consumer with safer sleepwear alternatives.

Thank you for your attention to these comments.

Sincerely,



Jon W. "Jay" Hardwick

CF94-1-143

EVA LETHA LUCAS
Route 1, Box 70
Elmer, Oklahoma 73539

March 15, 1999

Office of the Secretary
Consumer Product Safety Commission
Washington, DC 20207

SUBJECT: Sleepwear Revocation

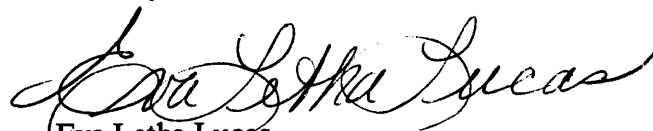
To Whom It May Concern:

I support the Consumer Product Safety Commission's decision to amend the children's sleepwear flammability standards.

After 5 years of exhaustive research and extensive hearings, the CPSC concluded that snug-fitting cotton products do not present a flammability risk to children. I believe, therefore, that parents should be able to purchase cotton sleepwear for their children, should they so desire.

I concur with the commission's findings that the amendment offers safer sleepwear alternatives and should not be revoked.

Sincerely,



Eva Letha Lucas
Oklahoma-Kansas Chairwoman
National Cotton Women's Committee

3/14/99

CF99-1-144

"Sleepwear Revocation"

- A. Support - amendment
- B. Support - safer sleepwear alternatives
- C. (Do Not) - revoke this amendment

We raise cotton and this is an important way for us to use our "American" grown crop.

Sherry Weisman / Weisman Farms
114 North Quince Park
Harlingen, Texas 78552

David M. Borowski
8624 Janet Lane
Vienna, Virginia 22180

CF99-1-145

703-903-3868

March 20, 1999

Ms. Sadye E. Dunn
Secretary
Consumer Product Safety Commission
4330 East-West Highway, Room #502
Bethesda, MD 20814

Dear Ms. Dunn:

As a burn survivor, I was greatly alarmed to learn of the CPSC's decision to relax the flame resistant standard for children's sleepwear. To tell you the truth, I was stunned.

We know that since the standard was enacted in 1972, deaths and injuries from sleepwear-related fires dropped ninety percent. There is no way to interpret this statistic as other than that the standard worked.

The revised standard assumes that children under the age of nine months are not sufficiently mobile to expose themselves to fire. Whoever wrote this clearly has no experience with children and has no business being involved in this issue. I was burned at the age of six weeks, and I certainly wasn't playing with matches. The house fire that almost took my life caused me to sustain second and third degree burns over almost eighty percent of my body. I was wearing a cotton sleeper. Had flame resistant material been the standard in 1954, my injuries would have been less severe. Certainly, my parents would not have carried such a tremendous burden every day from that day on.

Already this year in one Houston hospital, seven children have been treated for severe burns while wearing untreated cotton sleepwear. I have seen their pictures. One child died. Another lost three limbs. At one time, severe injuries were commonly sustained by children in automobile accidents, injuries that could have been prevented by safetyseats. You enacted a standard for their protection. Please, please use the same judgment when dealing with the cotton industry as you use when dealing with car manufacturers. If children are dying preventable godawful deaths, and families are being devastated by the injuries and disfigurements of those who manage to survive, do what you have been commissioned to do, HELP THEM!

Of all the regrets one experiences in a lifetime, the sharpest stem not from things we have done, but from things we realize, too late, we should have done. Not restoring the flame resistant standard for children's sleepwear is something you and I, children who are being burned and who will be burned, and everyone who loves them, will regret again and again, for years to come.

Sincerely,



CF 99-1-146



Columbus Fire Department

FIRE PREVENTION DIVISION
510 10th Street • P. O. Box 1340
Columbus, Georgia 31902-1340
(706) 653-3520
FAX (706) 653-3504



February 22, 1999

Office of the Secretary
Consumer Product Safety Commission
Washington, DC 20207

RE: SLEEPWEAR REVOCATION

I strongly support the proposed revocation by the Consumer Product Safety Commission of the relaxed flammability standards for children's sleepwear. This action would reinstate the previous, stricter CPSC standards for children's sleepwear flammability - standards that are needed to help prevent death and disfigurement for hundreds of our nations infants and young children.

The protection of young children against burn injuries and death is a leading priority among all fire departments and those divisions dedicated to these causes. Young children, in particular those under the age of 9 months are dependant upon others to provide the care necessary to keep them from harm. At such young ages, children are incapable of recognizing and removing themselves from danger. Furthermore, it is inconceivable that very children could perform any act that would diminish the extent of injury caused by fire (i.e., stop, drop and roll). As children become mobile and more independent by nature, they are exposed to greater hazards and possible exposure to heat and flame sources.

To ensure the safety of our children, the revocation of the relaxed flammability standard for snug-fitting sleepwear is of utmost importance. Ideally, children should be fitted in snug-fitted sleepwear at all times. However, the reality of the situation is that many caregivers buy ill-fitting sleepwear that is too large for the child. The reasons given for the purchase of ill-fitting garments are numerous, however it is common practice to purchase second hand garments at reduced prices, wear hand me downs from older siblings, or purchase garment that may be too large and allow for "growing room". For any of these reasons, an ill-fitting garment defeats the purpose of tight-fitting garments and therefore exposes the child to an increased risk of burn injuries and death.

Statistics clearly show that burn injuries and deaths have been reduced over the last twenty-five years, since the flammability standards were in effect and prior to the relaxation of the standards in September 1996. It is due to these relaxed standards that injuries are again on the rise.

As a member of the fire service, I see first hand the pain and suffering children, as well as their families, must face during these tragic occurrences. I strongly support the proposed revocation of the relaxed flammability standards for children's sleepwear. This standard will make a difference in the prevention of death and the permanent disfigurement for our nations children.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jeff Meyer".

Jeff Meyer, Fire Marshal
Columbus Fire Department