

LOG OF MEETING

DIRECTORATE FOR ENGINEERING SCIENCES

CPSA 6 (b)(1) Cleared
No Mfrs/PrvtLbrs or
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Comments Processed

SUBJECT: Current Textile-related Projects

DATE OF MEETING: July 25, 2000

DATE OF LOG ENTRY: July 25, 2000

SOURCE OF LOG ENTRY: Margaret Neily, ESME

LOCATION: National Press Club, 13th Floor, 14th and F Streets, NW, Washington, DC
(Zenger Room)

CPSC ATTENDEES: Margaret Neily and Allyson Tenney, ESME

NON-CPSC ATTENDEES: Members of the Textile Roundtable

SUMMARY OF MEETING: Margaret Neily described the status of CPSC's current fire hazard reduction efforts, especially those related to textiles. Slides are attached.

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**U.S. CONSUMER PRODUCT
SAFETY COMMISSION**



**Fire Hazard Reduction Activities:
from
Apparel to Smoke AlarmZ**

Margaret L. Neilly

July 25, 2000

CPSC HISTORY

- Established in 1973 under the Consumer Product Safety Act
- Independent Federal regulatory agency
- Three Commissioners (Brown, Gall, Moore)
- Jurisdiction over 15,000 products--most found in the home

SIZE OF CPSC

- FY 2000 budget of \$49 million
- About 480 staff
 - ┆ Headquarters 310 (Bethesda, MD)
 - ┆ Field 137
 - ┆ Laboratory 33 (Gaithersburg, MD)

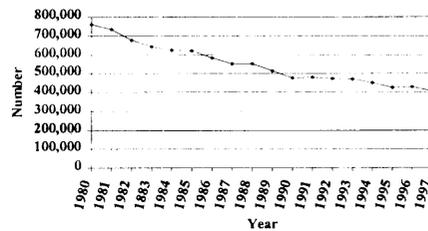
CPSC FUNCTIONS

- Collect & Analyze Data
- Perform Applied Research
- Encourage Voluntary Standards
- Require Performance Safety Standards
- Require Safety Labeling
- Require Special Packaging
- Enforce regulations
- Recall Defective Products
- Ban Hazardous Products
- Inform Consumers

**RESULTS ORIENTED
STRATEGIC GOAL**

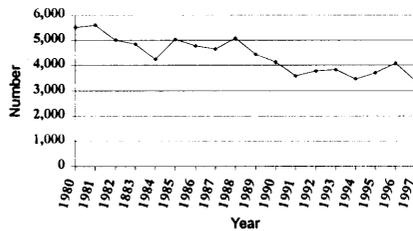
- Government Performance & Results Act
- The rate of death from fire-related causes will be reduced by 10% from 1995 to 2005.
 - ┆ Products ignited
 - ┆ Ignition sources

**Estimated Residential Structure Fires,
1980-1997**



Source: National Fire Protection Association

Estimated Residential Structure Fire Deaths, 1980-1997



Source: National Fire Protection Association

1997 RESIDENTIAL FIRE LOSS STATISTICS*

- 3,080 civilian deaths
 - 800 children <15 years old
 - 500 children <5 years old
- 16,860 injuries
- \$4.15 billion in property damage
- *These CPSC estimates exclude incendiary and suspicious fires.

RESIDENTIAL FIRE DEATHS

- Most occur at night
- Most deaths from smoke/gas inhalation, not burns
- About 50% of fire deaths involve:
 - Upholstered furniture
 - Mattresses/bedding
 - Heating equipment

CPSC Fire Hazard Reduction Activities

- Fire safety standards/codes
- Compliance programs
- Consumer information/education programs

FIRE SAFETY STANDARDS/CODES

- | | |
|-----------------------------------|---|
| ■ Clothing Flammability | ■ Residential Electrical Wiring |
| ■ Household Furnishings/Materials | ■ Household Heating and Electrical Appliances |
| ■ Devices for Fire/Gas Safety | ■ Ignition Sources |

COMPLIANCE PROGRAMS

- 600 violations, recalls, corrective actions
 - flammable clothing, futons, fireworks, appliances
- Work with U.S. Customs
 - fireworks--prevented 50,000 injuries, \$1 billion societal costs
- Litigation
 - Recalled 8.4 million fire sprinklers--fail to operate
 - Recalled 1.8 million in-wall heaters--fire hazard
 - Recalled 47,000 futons--civil penalty

CONSUMER INFORMATION EDUCATION PROGRAMS

- Consumer alerts; how to reduce fire hazards
 - ┆ Press releases
 - ┆ Video news releases
 - ┆ Regular television interviews
- Follow-up information
 - ┆ CPSC toll-free Hotline (1-800-638-CPSC)
 - ┆ **Web site (www.cpsc.gov)**
 - ┆ Publications; 150,000 requests per year

TEXTILE-RELATED PROJECTS

- Upholstered Furniture
- Mattresses/Bedding
- Sleepwear
- Laundering Procedures
- Clothing Textiles

PROJECTS continued

- Ignition Sources
 - ┆ Cigarette & multi-purpose lighters
 - ┆ Candles
- Fire Protection
 - ┆ Arc fault circuit interrupters
 - ┆ Fire sprinklers
 - ┆ Smoke alarms

UPHOLSTERED FURNITURE

- 1978 UFAC Voluntary Program established addressing cigarette ignition
- Cigarette-ignited fire deaths reduced 60 percent 1980-1997
- **11,500 fires, 650 deaths in 1997***
 - ┆ Societal cost almost \$3.75 billion
 - ┆ Leading cause of residential fire deaths among products under Commission jurisdiction
- ┆ *new methodology per GAO 11/99 recommendations

UPHOLSTERED FURNITURE continued (2)

- **1993 NASFM petition for flammability standards granted in part--small open flame**
- **2,600 fires, 80 deaths in 1997 with open flame ignition**
 - ┆ most from small open flame ignition
 - ┆ little change since early 1980s

UPHOLSTERED FURNITURE continued (3)

- **Initiated development of small open flame rule with June 1994 ANPR**
 - ┆ FR fabrics likely approach to meet small open flame test
 - ┆ Net benefits, considering effect on cigarette ignitions
- **Congress directed toxicity study in 1999**
 - ┆ NAS report completed in April 2000
 - ┆ Of 16 chemicals reviewed, 8 could be used without presenting health hazards to consumers.
 - ┆ Further exposure study recommended for 8 other chemicals.

UPHOLSTERED FURNITURE

continued (4)

■ Refinements of possible rule continue

- Recent interlaboratory study (results being analyzed)
- Ongoing technical work on lab testing, economic analysis and FR chemical risk assessment

■ Next steps

- Options briefing package for Commission consideration--Fall '00
- Will also cover 3/99 NASFM polyurethane foam labeling petition

MATTRESSES/BEDDING

- Mandatory cigarette ignition standard since 1974
- Cigarette-ignited fire deaths reduced 42 percent 1980-1996
- 8,200 open flame fires, 120 deaths in 1997*
- CPSC study found
 - significant number of bedclothes are first item ignited
 - child play major factor
 - children frequent victims

■ *Excludes incendiary and suspicious fires

MATTRESSES/BEDDING

continued (2)

■ Chairman's Roundtable February 1998 to discuss future strategy

■ Public Education

- Continuing effort--informative product labeling
- Research focus groups to help develop messages

■ Possible basis for future standard

- Industry funding research at NIST
- Phase 1 complete; Phase 2 in planning

MATTRESSES/BEDDING

continued (3)

■ Test development--Phase 1

- Characterize mattress behavior when ignited with typical bedding
- Design gas burners to replicate exposure to burning bedding
- Test various mattress designs (potentially less flammable) to evaluate burner

MATTRESSES/BEDDING

continued (4)

■ Development Phase 2--planned

- Evaluate size effects (king, queen, mini-mat)
- Consider various performance levels
- Study feasibility of smaller scale test practical for manufacturers/laboratories

■ Davis (CCFSM) petitions

- TB 129, BS 5852, warning labels, ID tags
- Public comment period ends 8/11/00

CHILDRENS' SLEEPWEAR

■ 1996 amendments, exclusions

- Infant sleepwear size 9 mos. and smaller
- "Tight-fitting" sleepwear in larger sizes

■ Technical amendments

- Effective February 18, 1999
- Clarified garment measurements for tight-fitting sleepwear

CHILDRENS' SLEEPWEAR continued

- **1999 revocation proposal** withdrawn
- **New labels** for tight-fitting sleepwear
 - ┆ Effective June 28, 2000
 - ┆ Hang tag or package information label
 - ┆ Permanent identifying neck label
- **I&E efforts**
- **Products are selling**

Flammable Fabrics Act LAUNDERING METHODS

- **Changes** in laundering practices, detergents, & equipment
- **March 1999 proposals** to update methods
 - ┆ Children's sleepwear
 - ┆ Mattresses/mattress pads
 - ┆ Carpets & rugs (including flokati method)

LAUNDERING, continued

- **Final rule effective April 10, 2000**
- **References portions of AATCC 124-96**
 - ┆ Current, energy-efficient equipment*
 - ┆ Standard Reference Detergent 1993*
 - ┆ Hot wash water (60°C)
 - ┆ Cold rinse water (<29°C)*
 - ┆ Durable press dry cycle*

┆ *Major changes in conditions

CLOTHING FLAMMABILITY STANDARD UPDATE

- **Preparing briefing package w/ ANPR**
 - ┆ Outdated laundering method
 - ┆ Open system dry cleaning method
 - ┆ Equipment specifications obsolete
 - ┆ Test procedure/result interpretation clarifications
- **No plans to change test criteria**
- **PLEASE contribute your comments**

CHILD RESISTANT CIGARETTE LIGHTERS

- **1985** petition to require child-resistant disposable butane lighters
- **1993** mandatory standard for disposable and novelty lighters
 - ┆ **Effective July 12, 1994**
 - ┆ **Addresses 5,000 fires, 150 deaths, >1,000 injuries**
 - ┆ **Must resist operation by at least 85% of children in test protocol**
 - ┆ **Report on effectiveness study this fall**

MULTI-PURPOSE LIGHTERS

- **Lighters used to light gas or charcoal grills, fireplaces, etc.** Includes micro-torches
- **Granted 1996 petition to require child-resistance**
- **At least 45 fire deaths since January 1988 caused by children under age 5**
- **Standard published December 1999**
- **Effective date December 22, 2000**

CANDLE PRODUCTS

- 13,300 fires, 210 deaths, 1,350 injuries in 1997*
- Expanding market
- ASTM Subcommittee F 15.45 for candles and candle products
- Terminology standard, F 1972-99
- Labeling standard in Committee ballot
- Standards being developed for
 - Glass Containers, Sooting/smoking, Lead
- CPSC candle fire special study to begin soon

■ *Excluding incendiary and suspicious fires

ARC FAULT CIRCUIT INTERRUPTERS

- **New technology** to address arcing faults
 - Line-to-line, broken wire
- Added to the **National Electrical Code** this year for 2002 edition--bedroom circuits
- **Circuit breaker type** currently available from 4 manufacturers
- **Receptacle types** available soon

Residential Fire Sprinklers

- **Recalls** (Omega 10/98; Star 8/99)
- **Two year project started in 1998**
- **Objective** - improve reliability of sprinklers through improvement of design and installation standards
- **Major Tasks**
 - Collect field samples; conduct tests
 - Review and participate in voluntary standards process
 - Evaluate product design process
 - Develop technical support for voluntary standards changes
- **Industry Consortium** - conducting research to improve long-term sprinkler performance

RESIDENTIAL SMOKE ALARMS

- **Reasons for inoperability** defined through investigations of general population and fires
- **Concerns** about warning effectiveness and resistance to nuisance alarms
- **Full scale tests** beginning at NIST to evaluate current and emerging technologies
- CPSC, USFA, CDC, HUD, and UL are sponsors
- **Define potential improvements;** standard/codes
- **Update consumer information/education**

CONCLUSION

- Further reductions in fire losses are possible and necessary
- Welcome opportunity of working with others
 - Share your comments on notices and proposed rules
 - Check out our web site: www.cpsc.gov
 - Report product safety problems

■ Disclaimer: The views expressed in this presentation are my own, and do not necessarily represent those of the Commission