



**Asia-Pacific  
Economic Cooperation**

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**2011/SCSC/JRAC1/017**

Agenda Item: 9d

## **Electrical and Electronic Consumer Product Safety**

Purpose: Information  
Submitted by: United States



**Joint Regulatory Advisory Committee on  
Electrical and Electronic Equipment Meeting  
Chicago, United States  
24 May 2011**



# Electrical and Electronic Consumer Product Safety

U.S. Consumer Product Safety Commission

Asia-Pacific Economic Cooperation  
16th Joint Regulatory Advisory Committee on  
Electrical and Electronic Equipment  
Northwestern University

24 May 2011

This presentation was prepared by CPSC staff.  
It has not been reviewed or approved by, and may not necessarily reflect the views of,  
the Commission.

# Agenda

- Agency background
- Electrocution data
  - Product category
  - Specific consumer product
- Product safety assessments
- Electrical and electronic product recall activity
  - Hazard category

# CPSC Mission

- Protecting the public against unreasonable risks of injury from consumer products through
  - Education
  - Safety standards activities
  - Regulation
  - Enforcement

# Jurisdiction

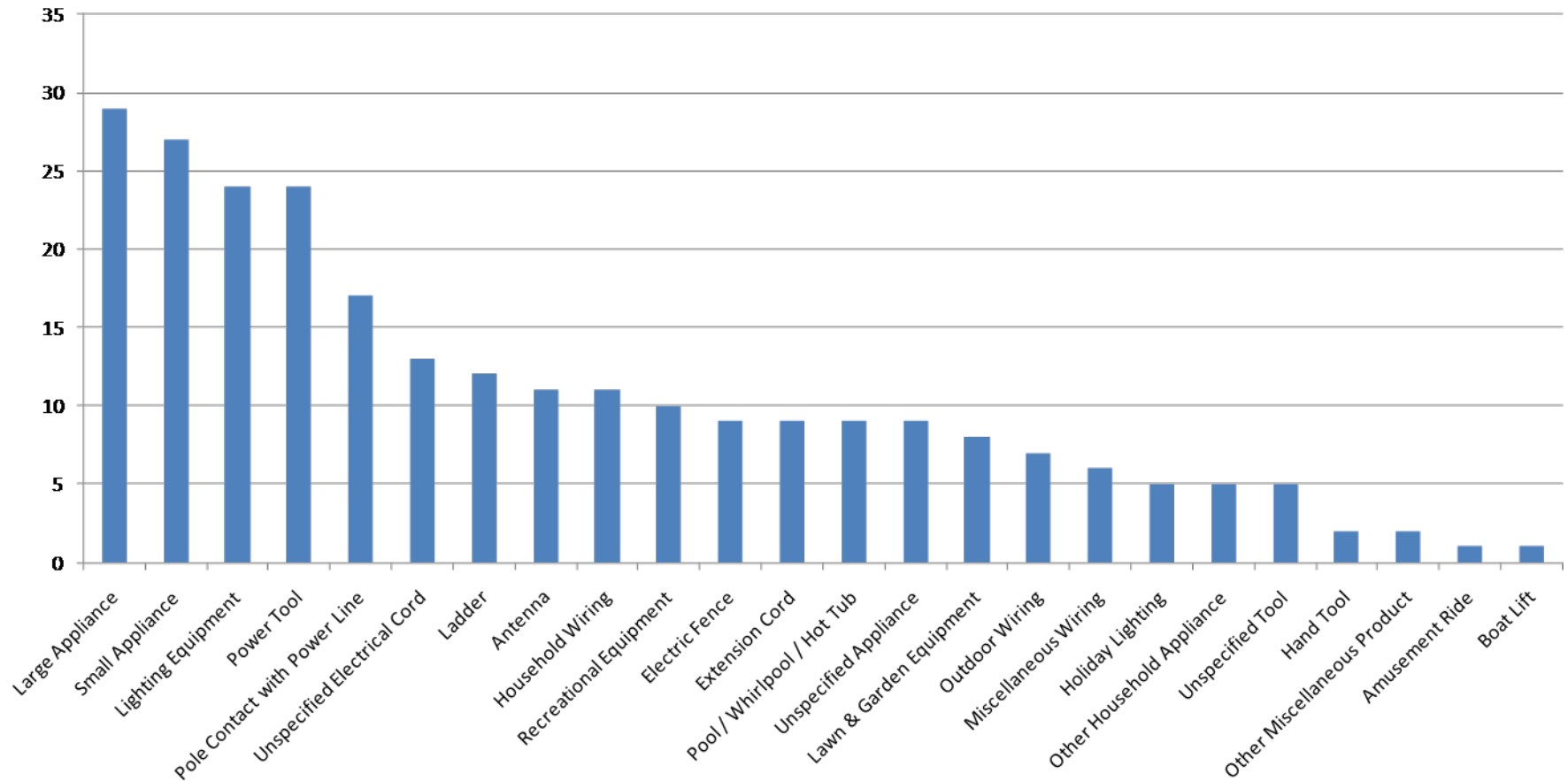
- Jurisdiction over thousands of types of consumer products
- Excludes some types of products covered by other federal agencies
  - Automobiles and related equipment (NHTSA)
  - Food, drugs, medical devices, and cosmetics (FDA)
  - Firearms (BATF)
  - Airplanes (FAA)
  - Boats and related equipment (Coast Guard)
  - Pesticides (EPA)

# Executing on CPSC's Responsibilities

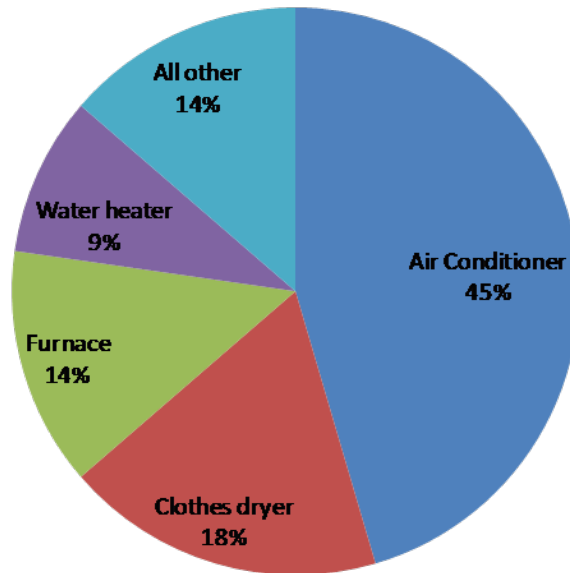
CPSC has broad authority to:

- Work with industry to develop voluntary standards
- Educate consumers on the safe use of products
- Educate industry on our rules and regulations
- Issue mandatory safety standards
- Ban products where a standard is not feasible
- Recall dangerous or violative products
- Seize products that violate mandatory standards
- Seek civil and criminal penalties

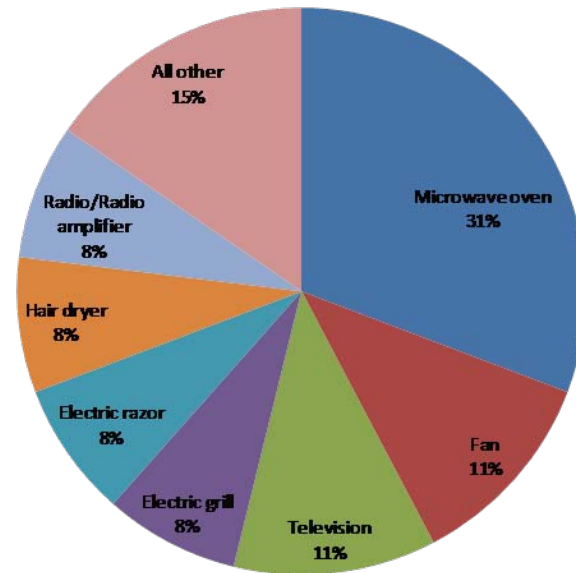
## Number of Electrocutions Reported to CPSC by Consumer Product Category 2002 - 2007



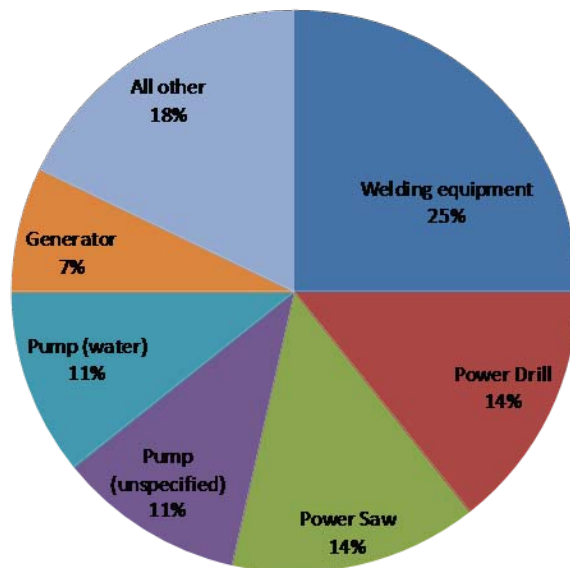
**Large Appliances**



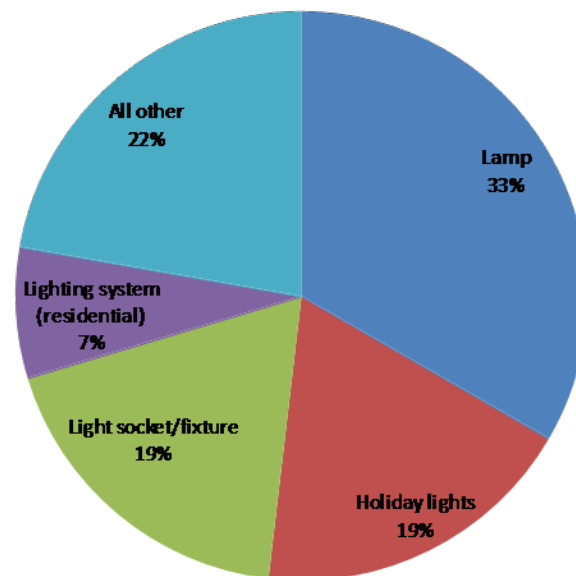
**Small Appliances**



**Power Tools**



**Lighting**



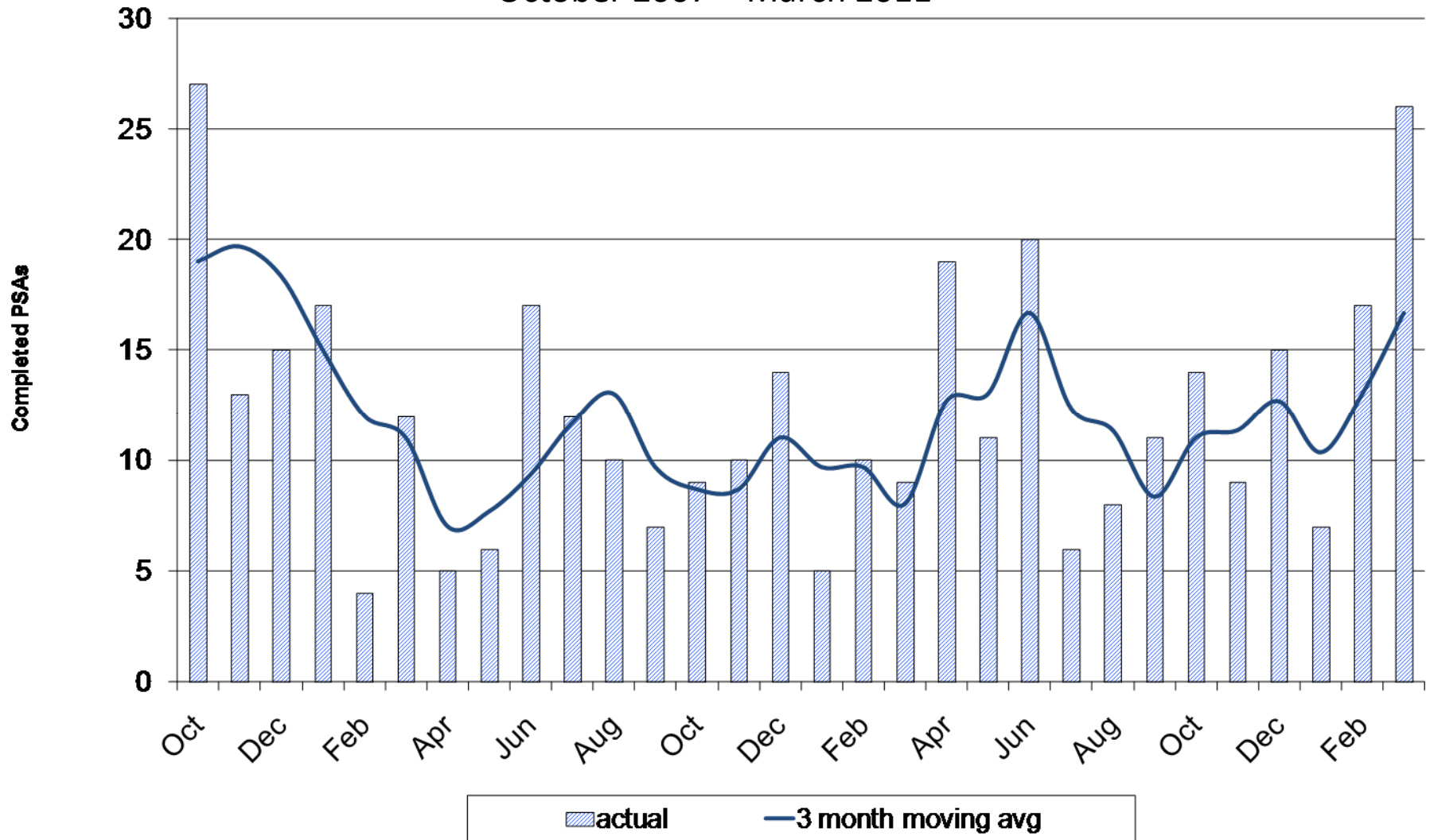


# Product Safety Assessments

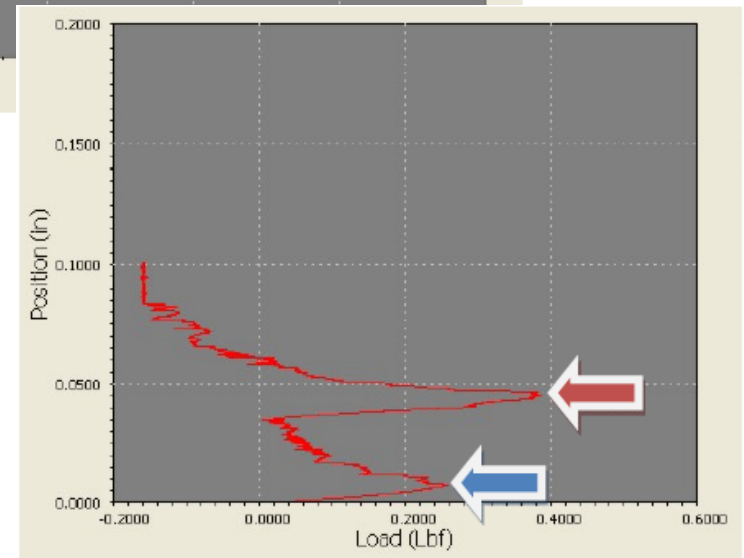
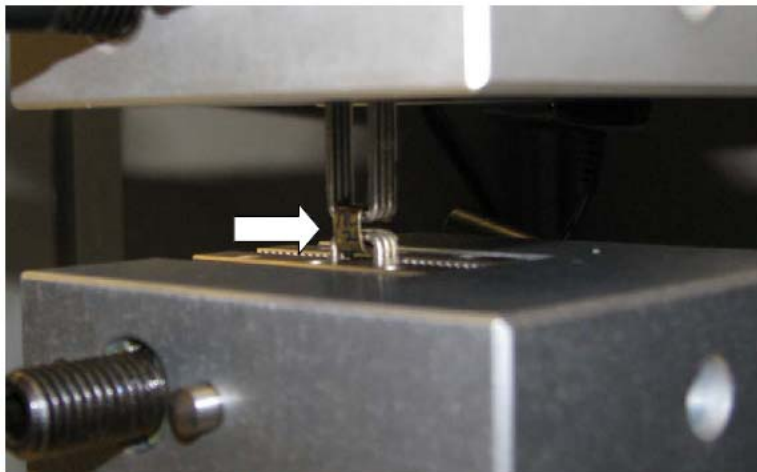
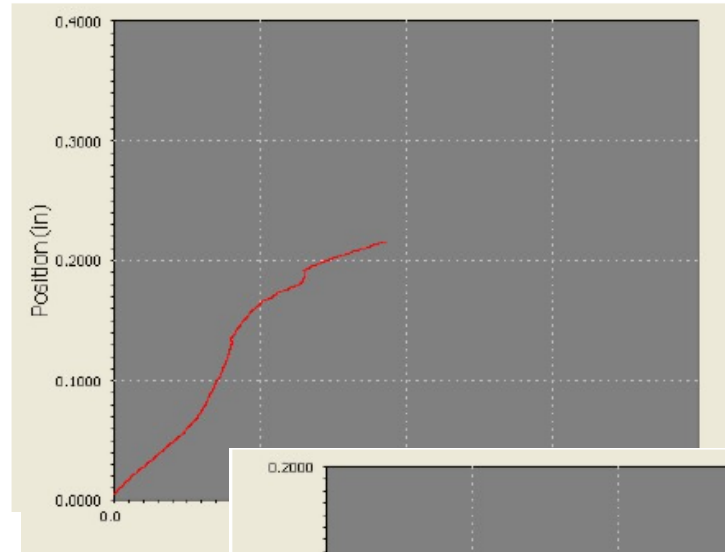
- Product description and sample identification
- Description of potential hazard
- Characteristics for evaluation
- Incident data search and review
  - In-depth investigations
  - National Electronic Injury Surveillance System (NEISS) data
  - Consumer reports and reports from other sources
- Detailed exemplar description with photos
- Background information
- Analysis and assessment
  - Normal use and foreseeable use

# Electrical and Electronic Consumer Product Safety Assessments

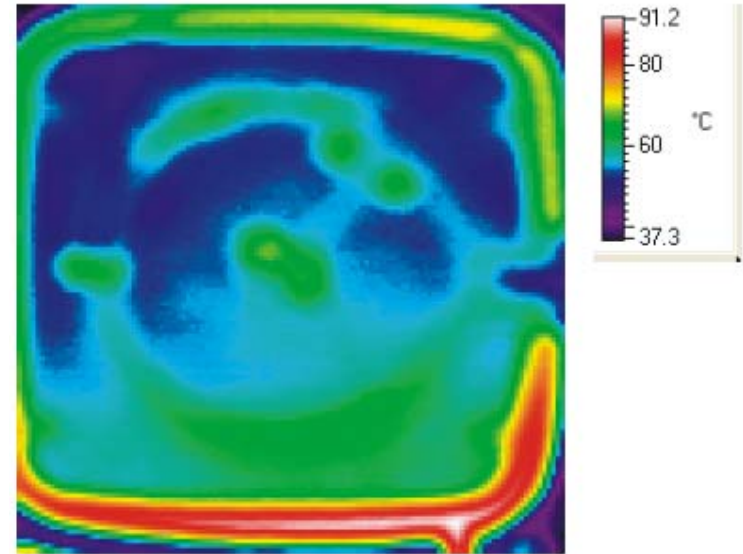
October 2007 – March 2011



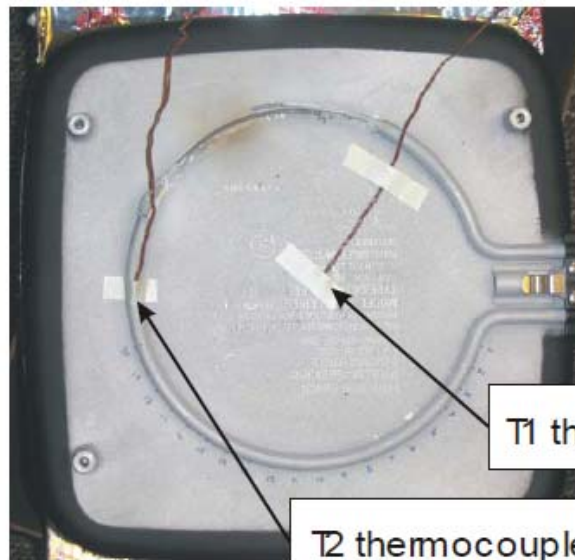
# Tensile Test Measurement



# Infrared Thermography



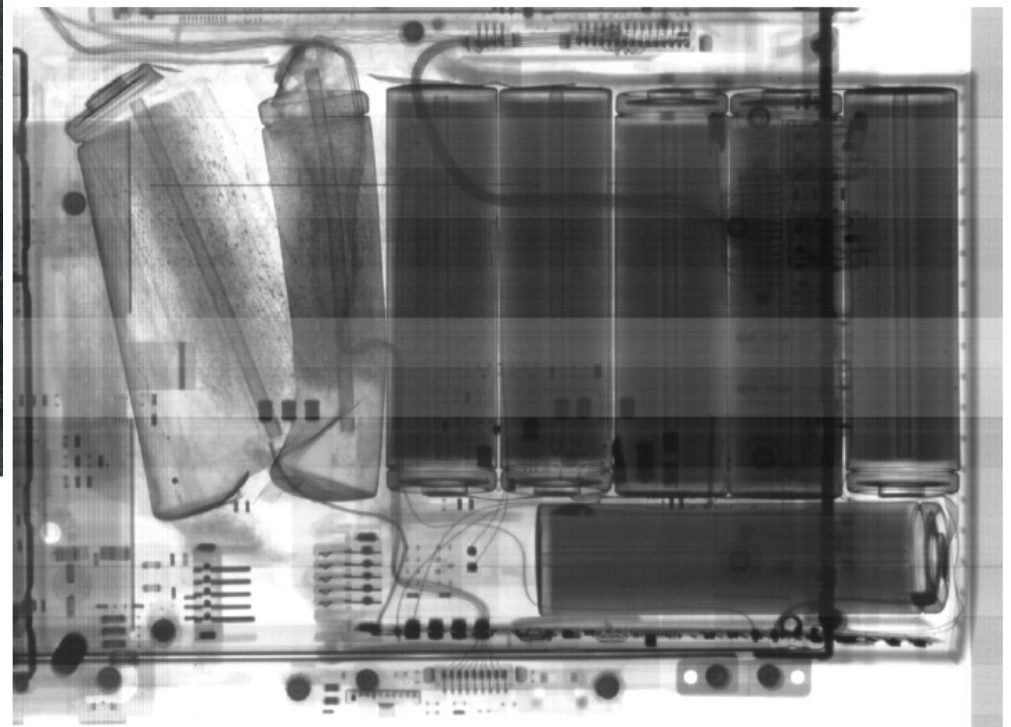
IR76



T1 thermocouple

T2 thermocouple

# X-Ray Imaging





# Ultrasonic Knife

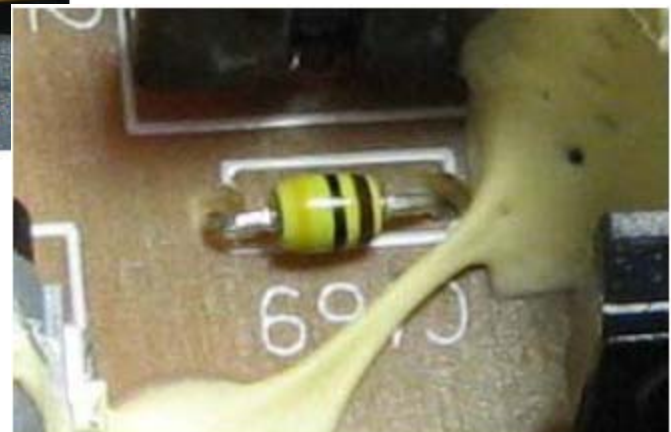
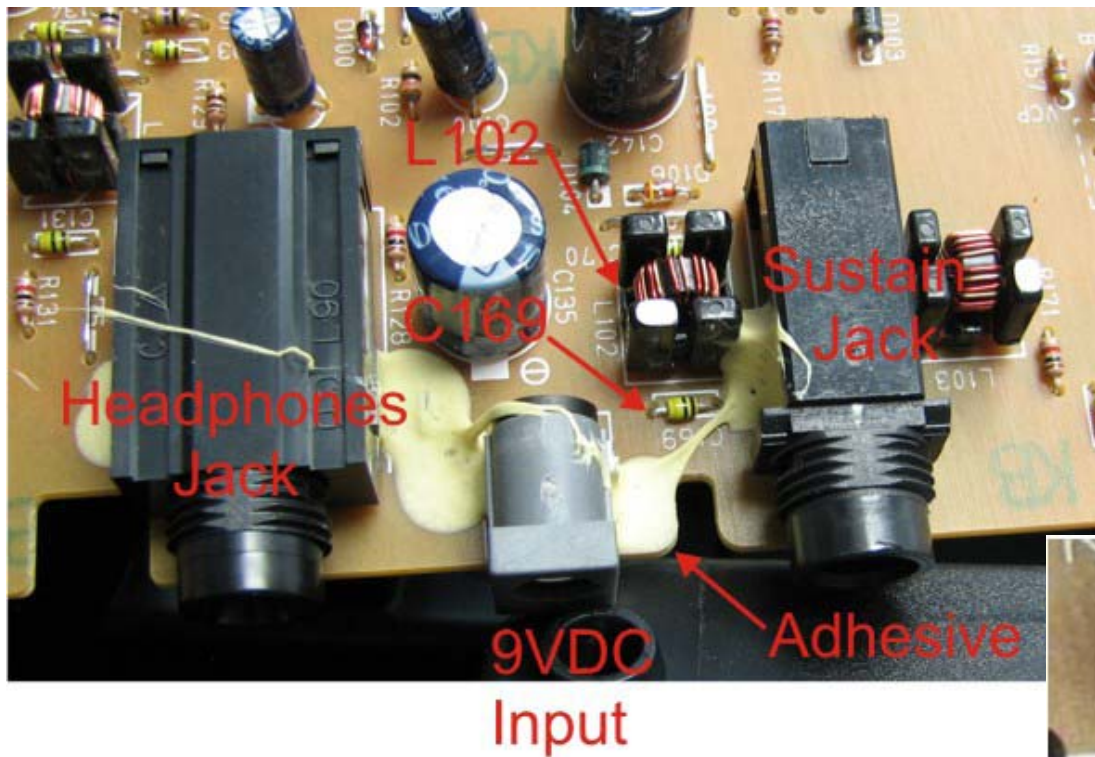
- Excise samples with minimal damage



# Smoke Alarm Calibration

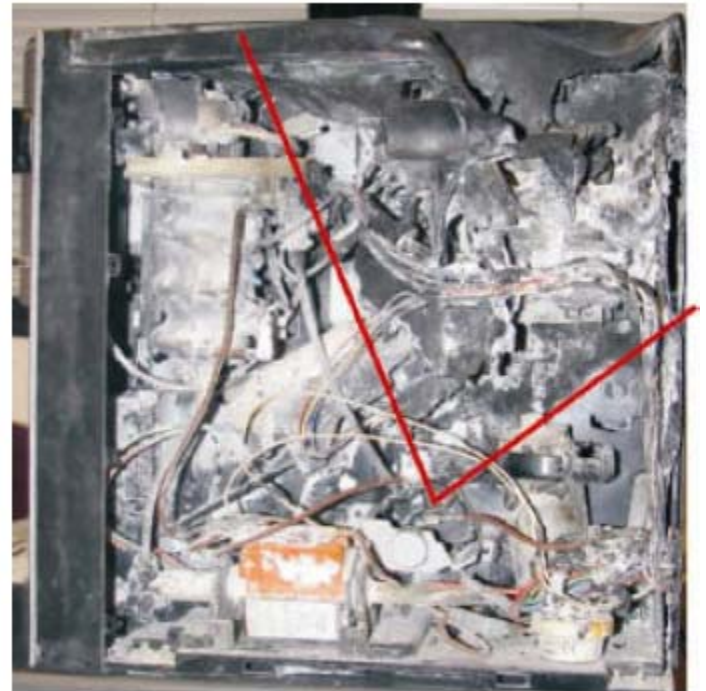
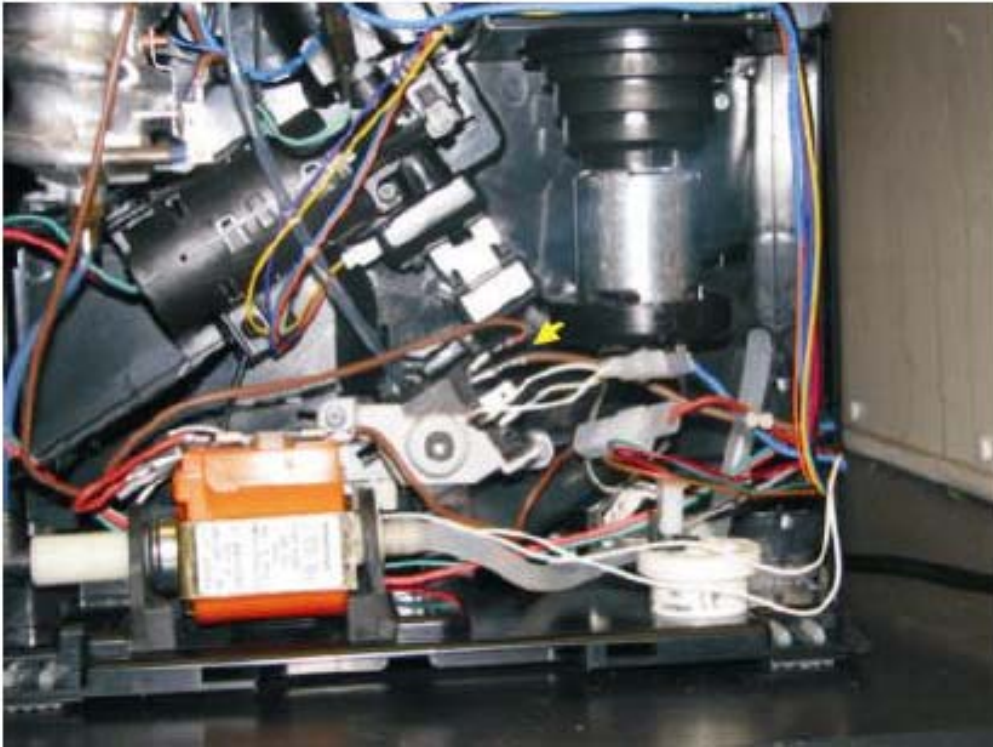


# Optical Microscopy





# Comparative Analysis of Exemplars



# Product Recalls



# Import Surveillance

- CPSC's Import Surveillance Division works closely with Customs and Border Protection (CBP)
  - CPSC staff are co-located with CBP port personnel at major ports of entry throughout the United States.
  - CPSC participates in the Interagency Import Safety Working Group.
- Data Sharing with CBP
  - CPSC staff are located at CTAC (Commercial Targeting & Analysis Center) and have access to TECS (Treasury Enforcement Communication Systems).
  - Improves CPSC's ability to interdict violative products by providing information on violators, seizures, and other enforcement activities.
- Importer Self-Assessment Program
  - CPSC staff are working with CBP to implement a program that allows companies to apply for a "low-risk" status.

# CPSC ITDS/RAM Project Overview

## What is the ITDS/RAM Project?

- The ITDS/RAM project is an initiative to allow CPSC to improve its targeting decisions and build its risk-analysis capability around import compliance
- The project kicked off in late August 2010 and will:
  - Define a Risk Assessment Methodology (RAM) to target violative products being imported into the U.S.
  - Provide for the use of the International Trade Data System (ITDS) to evaluate and assess information about shipments of consumer products intended for import into the United States.
  - Execute proof of concept validations; evaluate implementation alternatives; identify benefits, costs, and resources required; and document this in a comprehensive report to Congress.
  - Develop an effective business case and supporting materials to provide to OMB and Congress that will enable the agency to meet its ongoing budgetary needs for this initiative.

## How did the ITDS/RAM Project come about?

- Section 222 Consumer Product Safety Improvement Act of 2008 (CPSIA) requires CPSC to develop a Risk Assessment Methodology(RAM) and submit a report to Congress detailing the RAM and plan for implementation.
- Section 222 also codifies import safety management and interagency cooperation requirements of the CPSC both separately and in conjunction with CBP.
- The Commission is required to provide a report to Congress, which includes the RAM, the implementation plan, and identifies associated costs.

# CPSC Risk Assessment Methodology

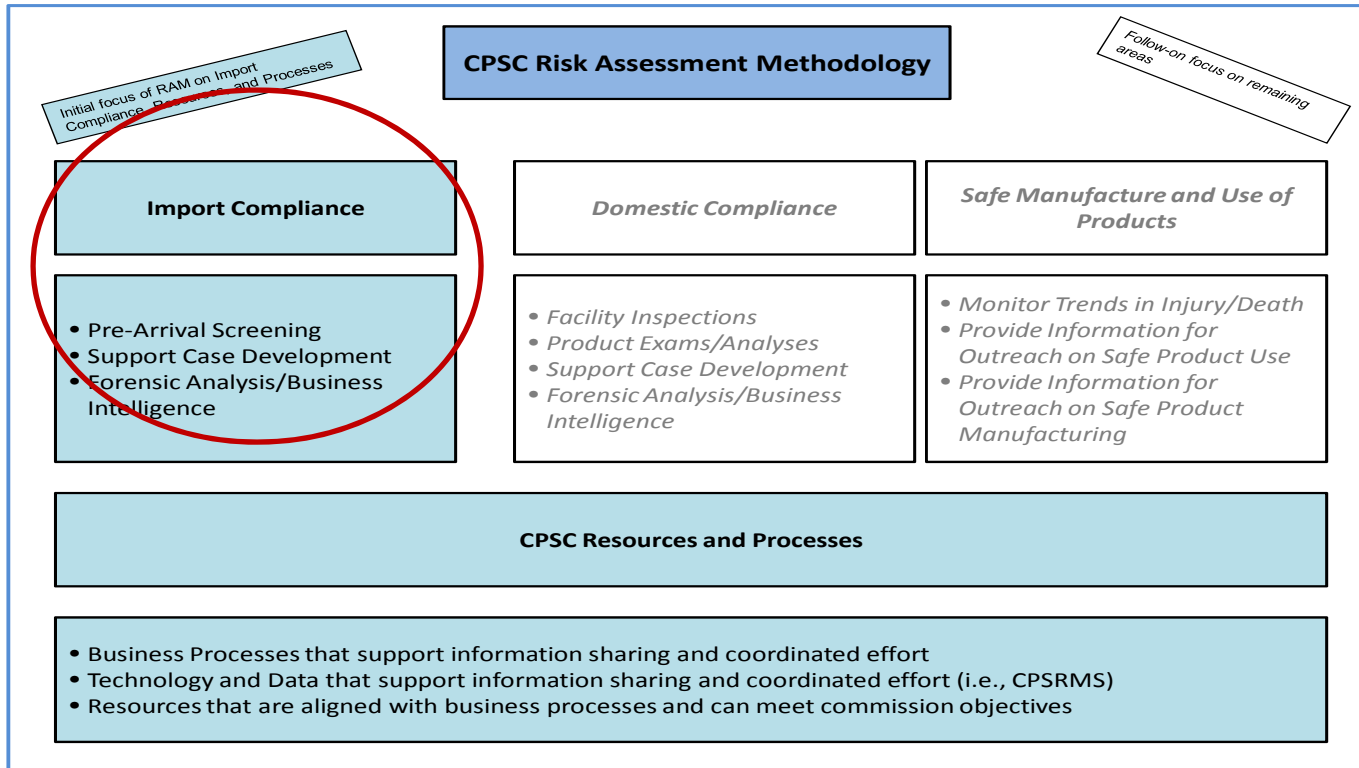
What is a Risk Assessment Methodology (RAM)?

- A set of rules which will identify, evaluate, target, and provide for the examination and enforcement of imported consumer products at high risk for violation of the standards and regulations enforced by the CPSC.

How will the Risk Assessment Methodology benefit CPSC?

- The RAM will infuse automated, risk-based decision making into core CPSC activities, and ensure that the people working on those activities have the information and capabilities necessary to perform their mission.

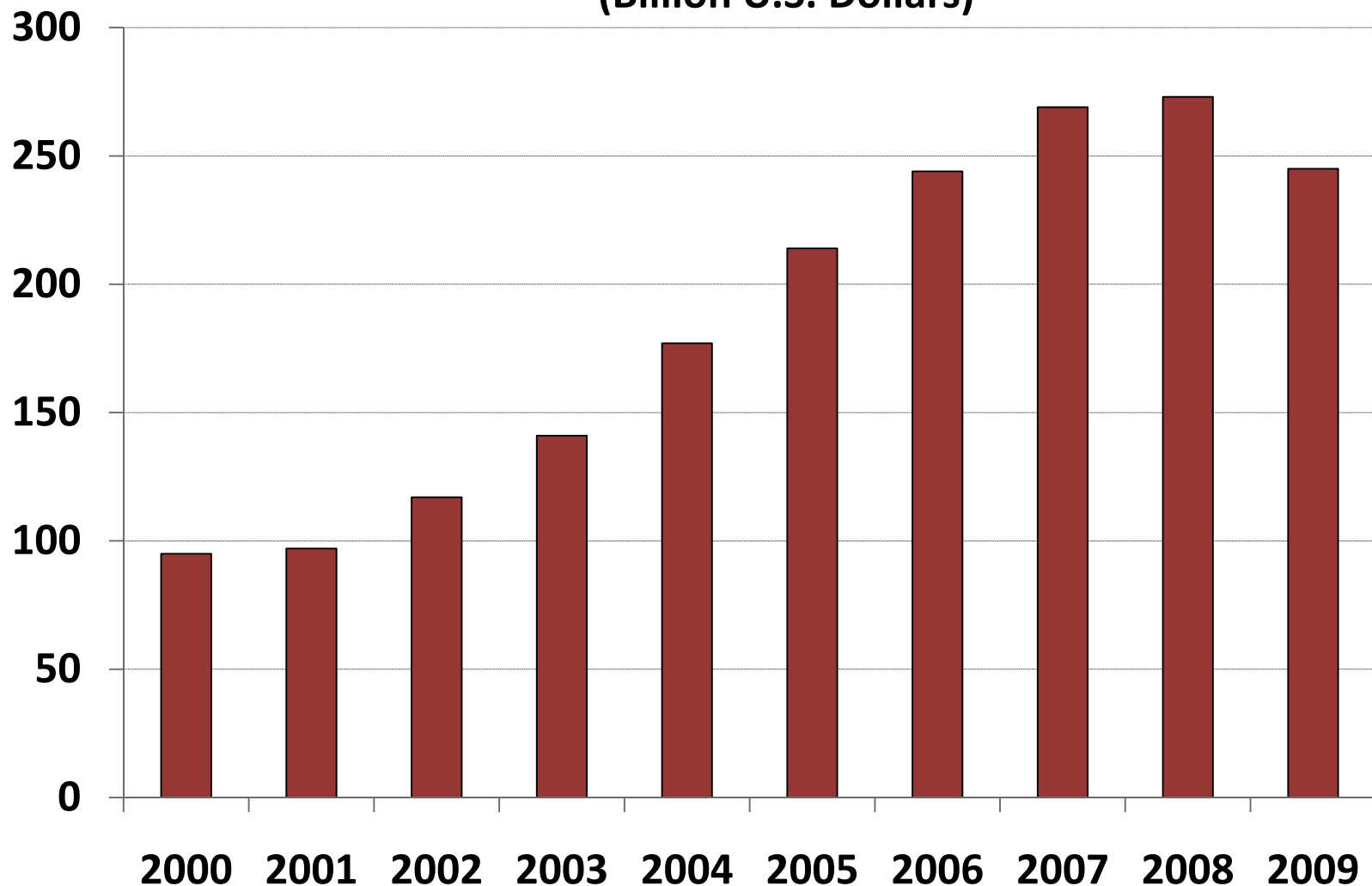
# Risk Assessment Areas of Focus – Import Compliance



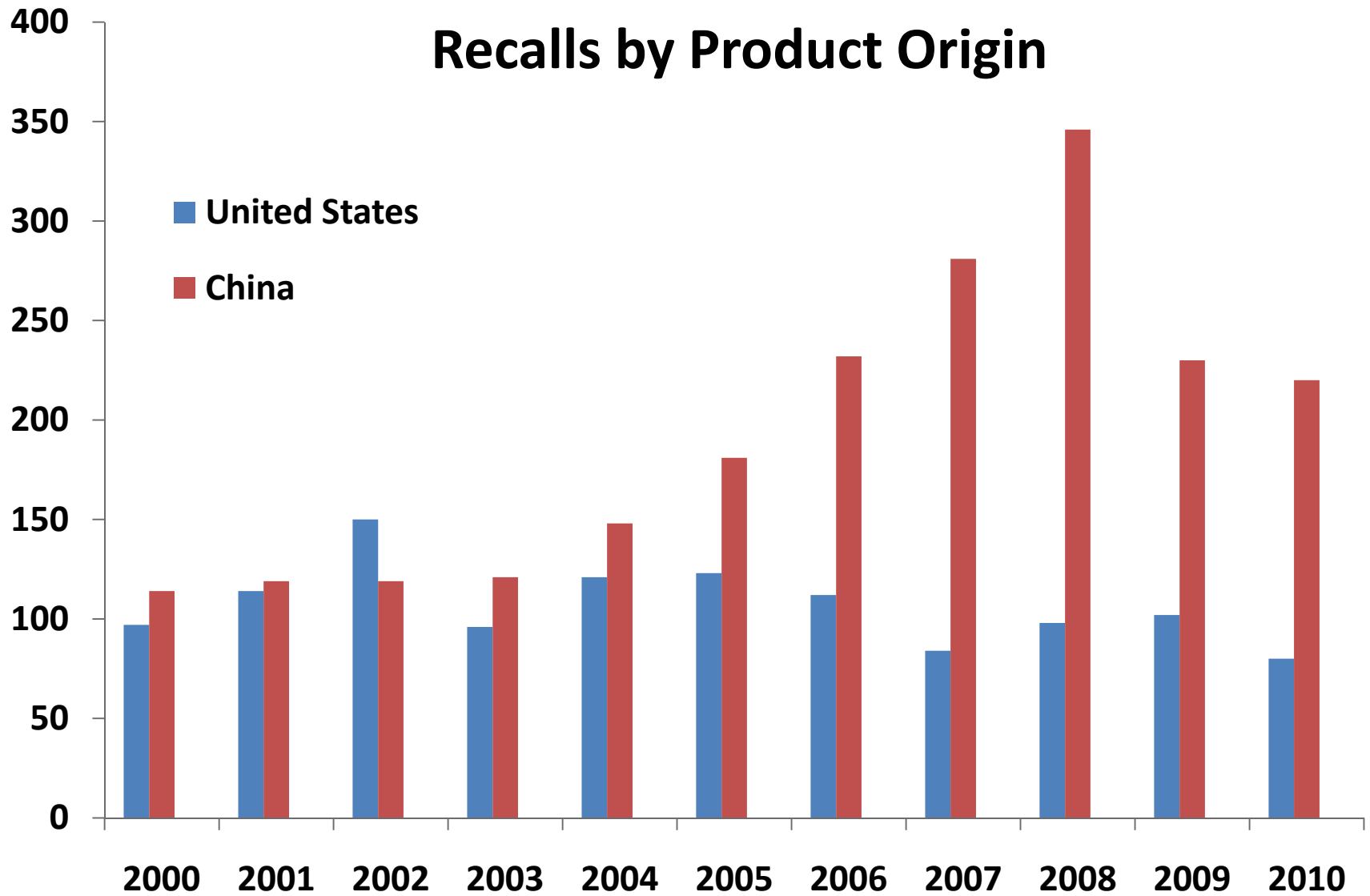
- Pre-arrival screening of imported products to determine if they are potentially in violation of CPSC-enforced laws or standards or if products have been determined to present an imminent or severe hazard is the first focus of the RAM, as this is the Commission's first line of defense.
- Risk-based screening will include a series of rules that help to determine if a product should be examined or analyzed to see if it is in violation of CPSC laws or standards.
- This will allow the Targeter to select higher-risk lines for examination or sampling, while bypassing lines that have lower risk scores.



**Imports of Consumer Products  
from China and Hong Kong: 2000 - 2009  
(Billion U.S. Dollars)**



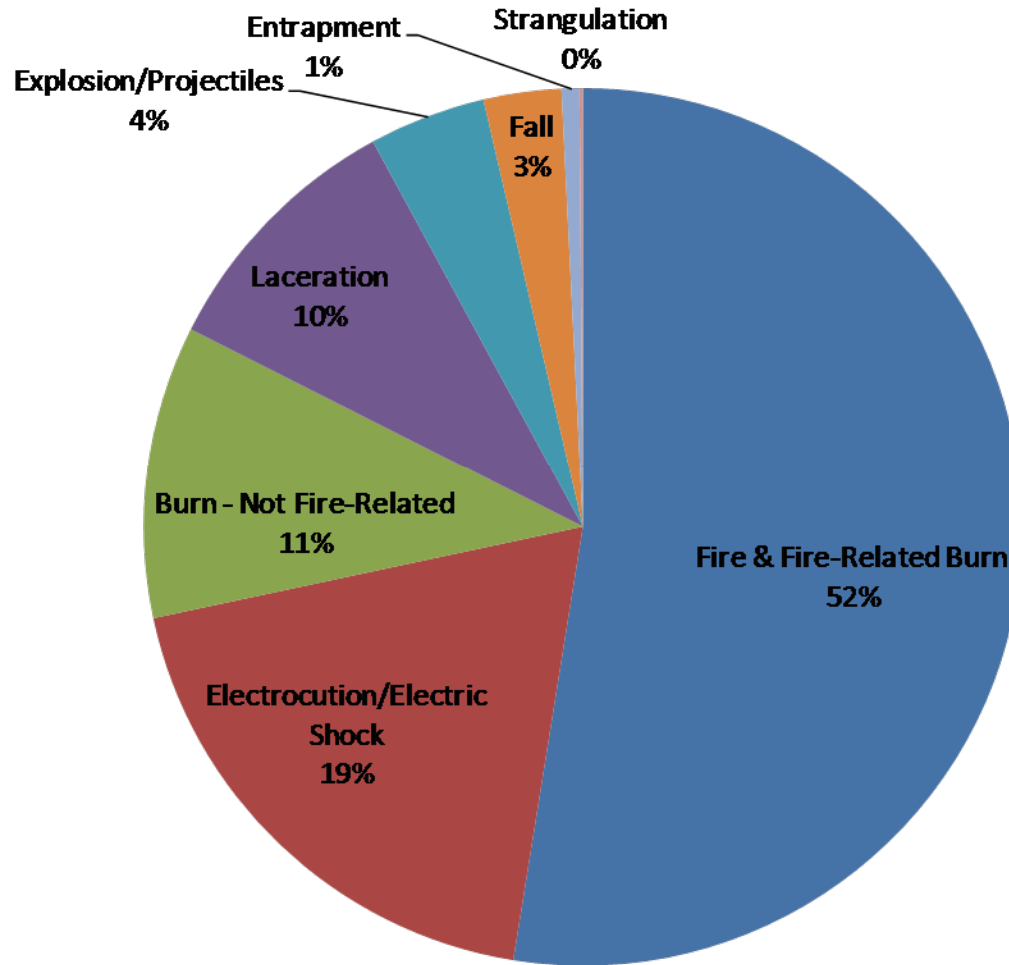
# Recalls by Product Origin





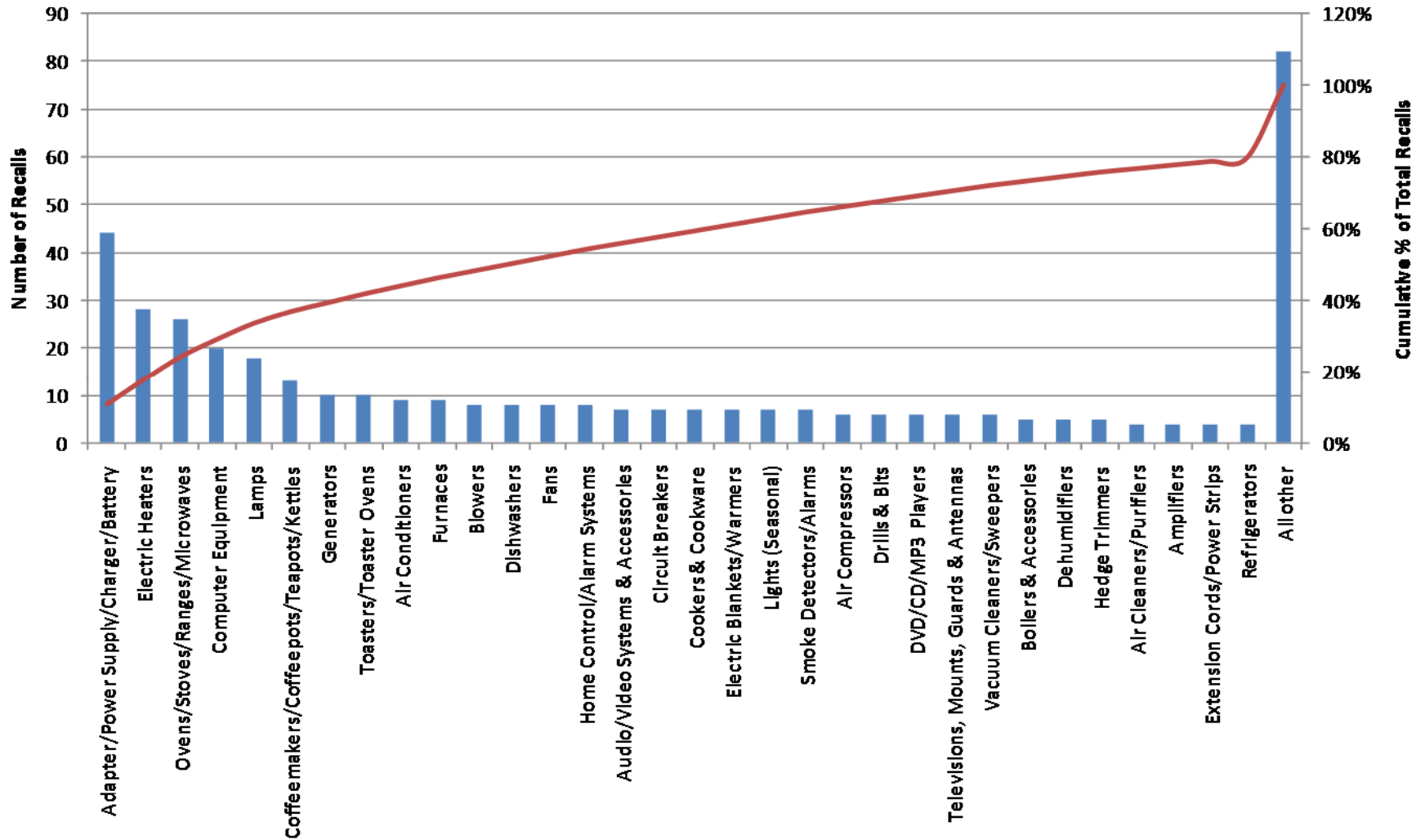
# Electrical Product Recalls by Hazard

2000 - YTD 2011



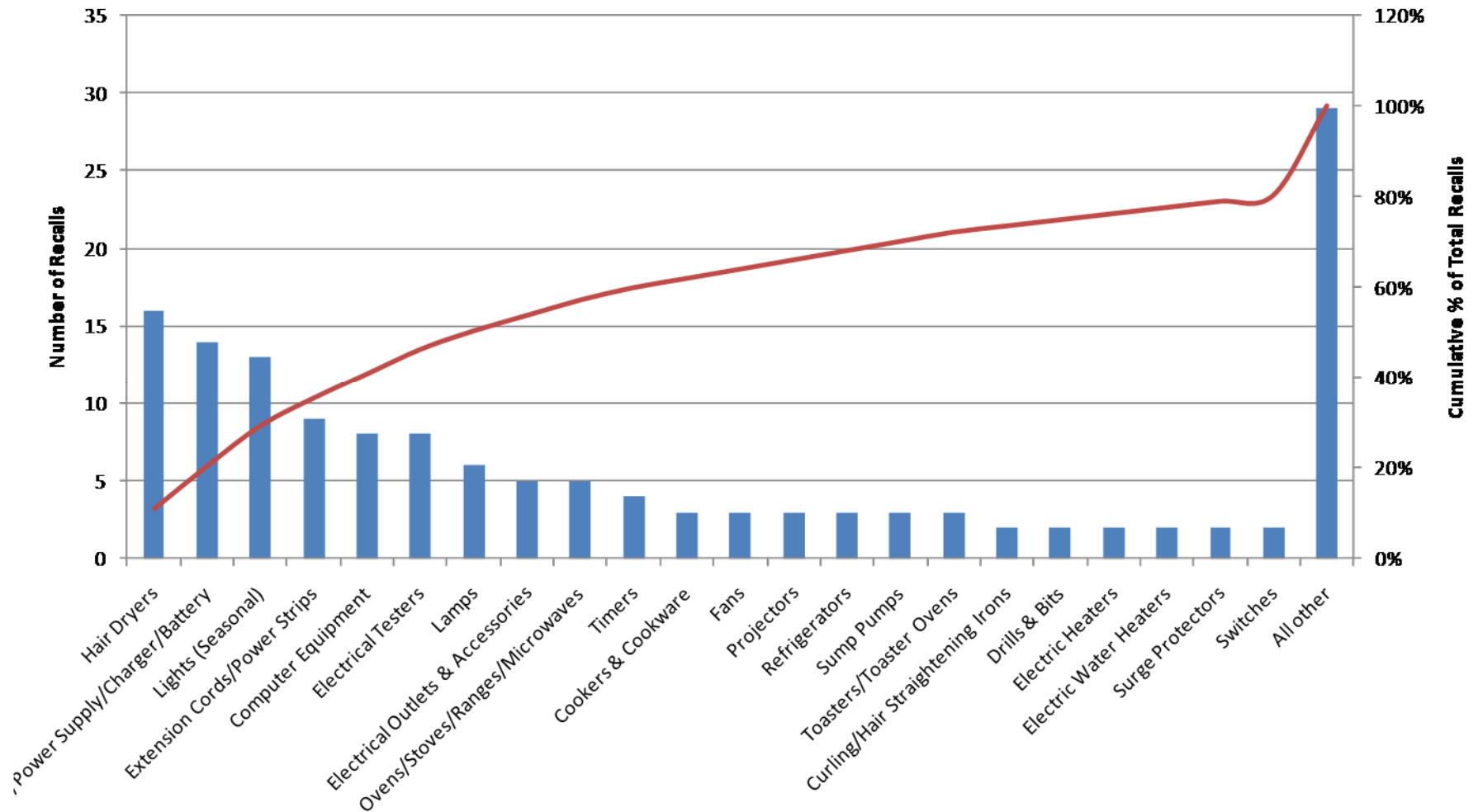
# Electrical Product Recalls for Fire and Fire-Related Burns

## 2000 - YTD 2011



404 category recalls

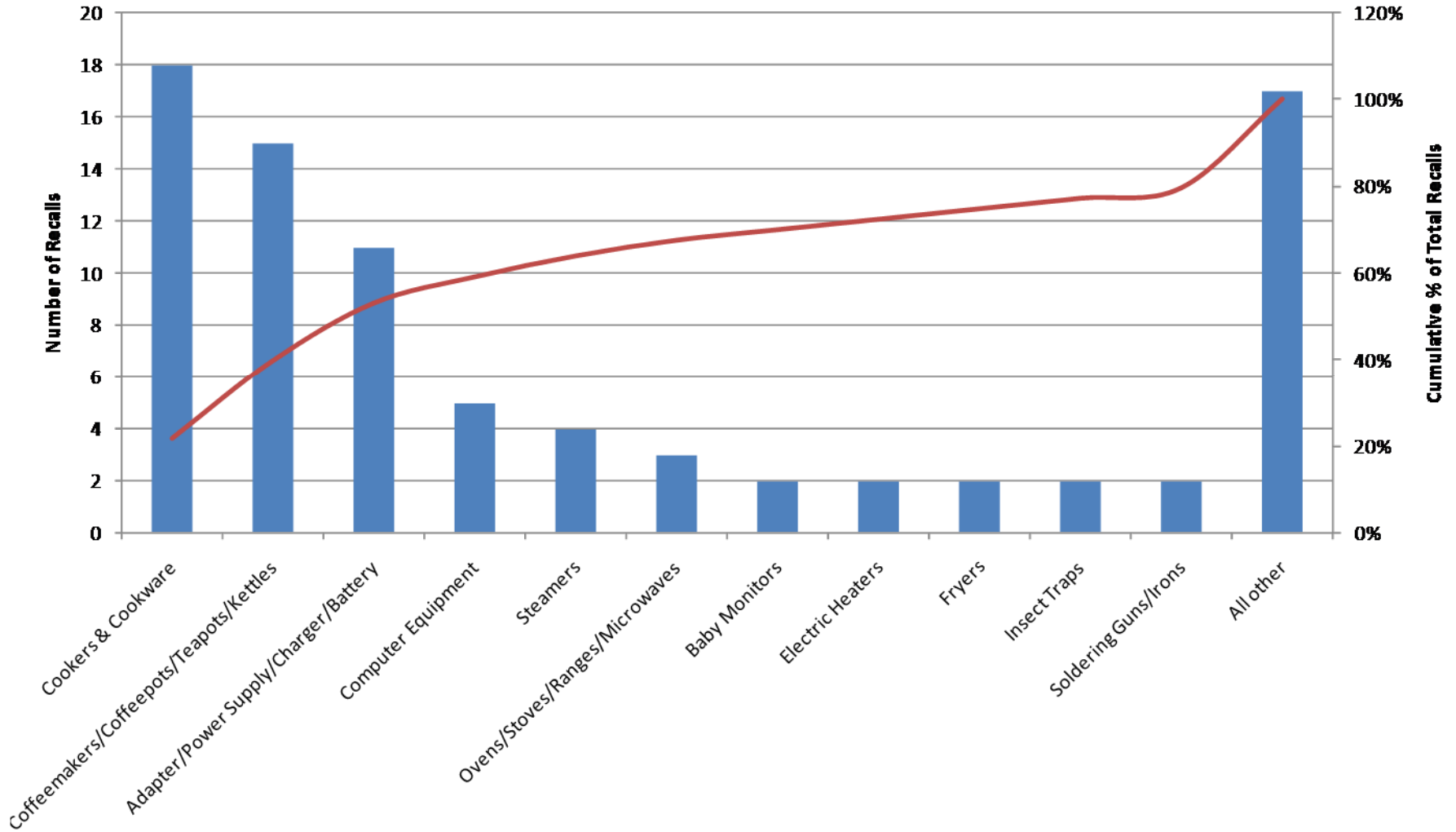
# Electrical Product Recalls for Electrocution/Electric Shock 2000 - YTD 2011



147 category recalls

# Electrical Product Recalls for Burns, Not Fire-Related

2000 - YTD 2011



83 category recalls

## **Lithium-Ion Batteries Used with Bicycle Lights Recalled by GeoManGear Due to Fire Hazard**

*The following product safety recall was voluntarily conducted by the firm in cooperation with the CPSC and Health Canada. Consumers should stop using the product immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.*

**Name of Product:** Lithium-Ion batteries used with Magicshine bicycle lights

**Units:** About 16,600 in the United States and 1,500 in Canada

**Distributor:** Datseplots Inc., dba GeoManGear, of Denver, Colo.

**Manufacturer:** Shenzhen Minjun Electronic Co. Ltd., dba Magicshine, of Guangdong, China

**Hazard:** The lithium-ion **batteries can overheat**, posing a **fire hazard** to consumers.

**Incidents/Injuries:** The company has received three reports of batteries overheating and causing minor fires and property damage. No injuries have been reported.





## **Portable Space Heaters Recalled by PD Sixty Distributor Due to Fire Hazard**

*The following product safety recall was voluntarily conducted by the firm in cooperation with the CPSC. Consumers should stop using the product immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.*

**Name of Product:** Portable space heaters

**Units:** About 3,000

**Importer:** PD Sixty Distributor Inc., of Norcross, Ga.

**Hazard:** The space heater can overheat due to **loose electrical connections**, posing a **fire hazard** to consumers.

**Incidents/Injuries:** The firm has received one report of the heater overheating, resulting in the unit catching fire and causing minor property damage. No injuries have been reported.

## **Pelican Power Brick Battery Charger Recalled for Fire and Burn Hazards**

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission, in cooperation with the firm named below, today announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of Product:** Pelican Power Brick Battery Charger

**Units:** About 231,000

**Distributor/Importer:** Electro Source LLC, of Vernon, Calif.

**Hazard:** The battery charger's **circuit board can overheat** and cause its plastic cover to melt which poses a **fire and burn hazard** to consumers.

**Incidents/Injuries:** Electro Source LLC has received 143 reports of the recalled battery charger overheating including one report of fire damage. No injuries have been reported.





## QVC Recalls Space Heaters Due to Fire Hazard

The following product safety recall was voluntarily conducted by the firm in cooperation with the CPSC. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of Product:** SoleusAir Space Heaters

**Units:** About 28,000

**Retailer:** QVC, of West Chester, Pa.

**Importer:** Soleus International, of El Monte, Calif.

**Hazard:** The unit can overheat, posing a fire hazard to consumers.

**Incidents/Injuries:** The firm has received nine reports of flames inside or coming out of the heaters, and 70 additional reports of smoking, overheating, sparking, melting, and/or emitting burning odors. No injuries have been reported.





## CPSC, Wal-Mart Stores, Inc. Announce Recall of Slow Cookers

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission announces the following recall in voluntary cooperation with the firm below. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of product:** GE Oval and Double Dish Slow Cookers

**Units:** 600,000

**Importer:** Hamilton Beach/Proctor-Silex Inc., of Glen Allen, Va.

**Distributor:** Wal-Mart Stores Inc., of Bentonville, Ark.

**Hazard:** The **handles on the base of the slow cookers can break**, posing a **risk of burns** from hot food spilling onto consumers.

**Incidents/Injuries:** Hamilton Beach and Wal-Mart have received 531 reports of handles breaking, including four reports of consumers who were burned by hot food.



## CPSC, Hamilton Beach and Proctor-Silex Announce Recall of Slow Cookers

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission announces the following recall in voluntary cooperation with the firm below. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of product:** Slow Cookers

**Units:** 2.7 million

**Manufacturer:** Hamilton Beach/Proctor-Silex, of Glen Allen, Va.

**Hazard:** The **handles on the base of the slow cookers can break**, posing a **risk of burns** from hot food spilling onto consumers.

**Incidents/Injuries:** The company has received approximately 4,700 reports of handles breaking, including two reports of consumers who required medical attention for burns.





WASHINGTON, D.C. - In cooperation with the U.S. Consumer Product Safety Commission (CPSC), Atico International USA Inc., of Ft. Lauderdale, Fla., is voluntarily recalling about 37,000 electrical hot pots. The **bottom of the hot pot can separate from the top**, which could pose a serious **burn hazard** to consumers.

Atico International has received five reports of the hot pots separating, though no injuries have been reported.

The recalled Kitchen Gourmet® Hot Pots, which are used to heat beverages, are made of white plastic and have a date code of 0702 on the bottom of the pot and box. The hot pots, which are shaped like a pitcher, also have the words, "Kitchen Gourmet," "Do Not Immerse in Water," and "Made in China" printed on the bottom.

Walgreens stores nationwide sold the hot pots from September 2002 through January 2003 for about \$10.

## **Senseo One-Cup Coffeemakers Recalled by Philips Consumer Lifestyle Due to Burn Hazard**

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission, in cooperation with the firm named below, today announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of Product:** Philips Senseo One-Cup Coffeemakers

**Units:** About 155,000

**Distributor:** Philips Consumer Lifestyle, of Stamford, Conn.

**Hazard:** An electrical fault and the build-up of calcium from hard or medium water can cause an **obstruction** in the coffeemaker. If this happens, the **boiler can burst**, posing a **burn hazard** to consumers.

**Incidents/Injuries:** None reported in the United States. The firm has received 17 reports of incidents in Europe, including six reports of minor personal injury involving first degree burns to the hands, arms and abdomen.





## **Gevalia Recalls Kaffe Combo Coffeemakers Due to Burn Hazard**

The following product safety recall was voluntarily conducted by the firm in cooperation with the CPSC. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of Product:** Gevalia Kaffe Combo Coffeemaker

**Units:** About 21,000

**Importer:** Global Marketing Corp., of Parsippany, N.J.

**Hazard:** The heating element can **melt the plastic outer shell**, posing a **burn hazard** to consumers.

**Incidents/Injuries:** Gevalia has received 28 reports of overheated coffeemakers, including 12 reports of damaged counter tops, and one report of a minor burn from spilled coffee.





## **Frigidaire and Electrolux ICON Electric Smoothtop Cooktops and Slide-in Ranges Recalled Due to Fire Hazard**

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission, in cooperation with the firm named below, today announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of Product:** Frigidaire and Electrolux ICON Smoothtop Electric Cooktops and Frigidaire Slide-in Ranges with rotary knobs and digital displays

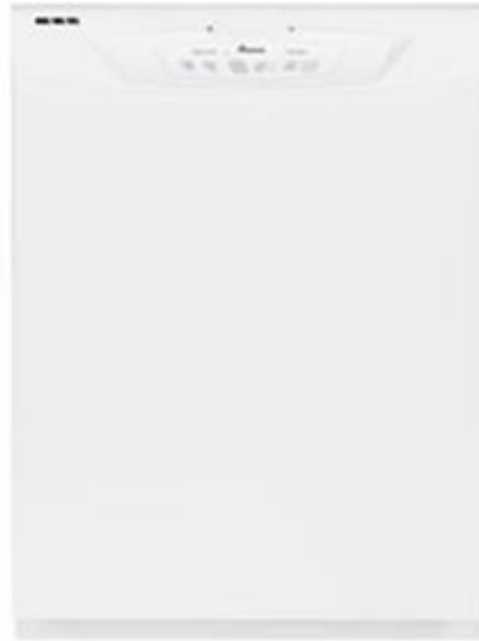
**Units:** About 122,000

**Manufacturer:** Electrolux Home Products Inc., of Charlotte, N.C.

**Hazard:** Liquids can pool under the control knob and cause the surface **heating element to turn on unexpectedly, heat to temperatures other than expected, and then not turn off**, posing a **risk of fire and burn hazards** to consumers.

**Incidents/Injuries:** Electrolux has received 70 reports of incidents, including three reports of fires that resulted in property damage. Three minor burn injuries were reported.





### **Maytag Recalls Dishwashers Due to Fire Hazard**

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission, in cooperation with the firm named below, today announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately, unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

**Name of Product:** Dishwashers

**Units:** About 1.7 million in the United States

**Manufacturer:** Maytag Corp. of Newton, Iowa, or Maytag Corp. of Benton Harbor, Mich.

**Hazard:** An **electrical failure in the dishwasher's heating element** can pose a serious **fire hazard**.

**Incidents/Injuries:** Maytag has received 12 reports of dishwasher heating element failures that resulted in fires and dishwasher damage, including one report of extensive kitchen damage from a fire. No injuries have been reported.



Robert Howell

Director, Office of Hazard Identification and Reduction

U.S. Consumer Product Safety Commission

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