



U.S. Consumer Product Safety Commission



The views expressed in this presentation are those of the CPSC staff and have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.



Who is CPSC and what does it do?

- Independent Federal agency that regulates over 15,000 types of consumer products.
- Enforces 5 statutes including the Consumer Product Safety Act (15 U.S.C. §§ 2051-2084) and the Federal Hazardous Substances Act (15 U.S.C. §§ 1261-1278).
- The CPSC regulates most consumer and household products but NOT:
 - automobiles
 - drugs
 - Food, including alcohol and tobacco
 - maritime vessels
 - firearms and ammunition
 - airplanes and trains



CPSC's Basic Jurisdiction: Fireworks Sold to Consumers

- A. Intended for the consumer marketplace: typical 4th of July stand
- sparklers, roman candles, firecrackers, bottle rockets, etc.
 - colorful consumer packaging
- B. Diverted to the consumer marketplace: intended for commercial sectors
- Legal in other sectors; illegal in the consumer marketplace
 - Professional display fireworks and "agricultural" pyrotechnics
 - Plain, brown-wrap packaging



CPSC's Basic Jurisdiction: Fireworks Sold to Consumers (cont.)

- C. NOT Intended for any marketplace: Illegal flashpowder devices
- M-80s, quarter sticks, etc.
 - "homemade" – vary tremendously in size, shape, appearance
- D. Components of any of the above
- bulk, precursor chemicals



Basic Elements of CPSC's Fireworks Program

- Import surveillance
- Injury and accident investigations
- Domestic surveillance
 - Inspections of manufacturers
 - Retail surveillance
 - Investigations
 - undercover "Sweeps" (4th of July and New Year's)
 - Internet and mail order



CPSC's Basic Division of Labor

- Headquarters – Bethesda, Maryland
Coordination of compliance programs, including fireworks
- Field Investigators – Approximately 100 investigators around the country who collect samples, conduct incident follow-ups, make undercover buys, etc.
- Laboratory - Gaithersburg, Maryland
Conducts bench and field tests on fireworks samples collected



Why do we care?

Unsafe/Illegal Fireworks Can Kill Consumers/ Destroy Lives



Fireworks Injury Data – 2006

- Estimated 9,200 injuries treated in U.S. hospital emergency rooms during calendar year 2006.
- 6,400 of these injuries occurred during the Fourth of July season.
- About three times as many males were injured as females.
- Injuries to children under 15 accounted for about 36% of the estimated injuries.
- Among the different types of fireworks, firecrackers were associated with the greatest number of injuries at 1,300. There were 1,000 injuries associated with sparklers and 800 associated with rockets.



CPSC's Legal Basis for Regulating Fireworks

- Federal Hazardous Substances Act and related regulations
 - 15 U.S.C. sec. 1261-1278
 - 16 C.F.R. sec. 1500 and 1507
 - Civil penalties, seizure, and limited criminal penalties
- Construction and Performance: "banned hazardous substance"
 - Report weight
 - Fuse burn time
 - Tip over
 - Burn-out and Blow-out
- Labeling: "misbranded hazardous substance"
 - How and where consumers are warned of dangers



A. Fireworks Intended for the Consumer Marketplace

- ATF license required only for MANUFACTURE
- BUT must meet CPSC requirements to be a legal consumer item

Sparklers
Firecrackers
Rockets
Mines and Shells
Reloadable Mortar Aerial Shells
Roman Candles
Missiles
Smoke Devices
Novelty Items
Handles and Spikes
Wheels and Axles
Fountains



CPSC's Requirements for Legal Consumer Items: 16 CFR § § 1500 & 1507

- Report Limit of 130mg (Air), 50mg (Ground)
- No Pyrotechnic Leakage
- Straight/Rigid Rocket Sticks
- 3-9 Second Fuse Burn Time
- >3 Second Fuse Side Ignition
- No Burnout or Blowout

What Do the Different Report Limits Look Like?

- Varying amounts of flash powder

Consumer Firecracker **Display 1.3G 5" Aerial**

50 mg 130 mg 1000 mg 5000 mg 25000 mg

Legal < 50mg / Illegal > 130mg

Legal Firecrackers

Comparison to illegal/banned fireworks devices, such as M-80s

Consumer Product Safety Commission Injury Investigation Task No.

Stick Rockets & Bottle Rockets

Violative Rockets (Stick Straightness)

Reloadable Mortar Aerial Shells (Tube Failure/Blowout)



CPSC Requirements (cont.)

- Large Multiple Tube Devices Must Not Tip Over < 60 Degrees
- Fuse Must be Securely Attached
- Proper Warning Labeling
- Reloadable tube aerial shells cannot be larger than 1.75" in outer diameter

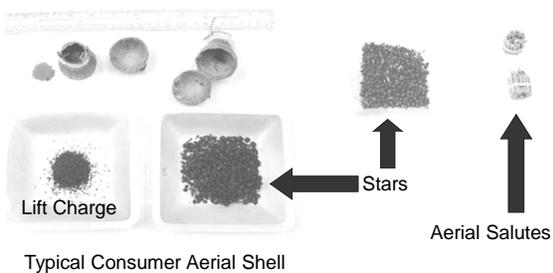


Reloadable Mortar Aerial Shells



Aerial Shell Manufacturing Process

The star composition is formed into small pellets and allowed to dry.



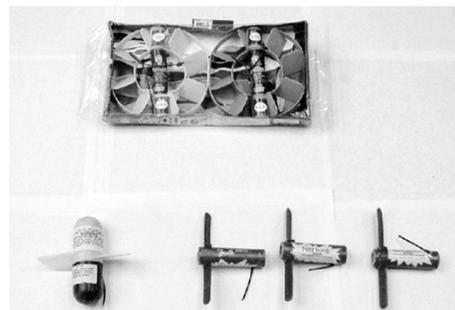
Roman Candles



Smoke



Novelty Items (Helicopters)





- Industry Liaison: American Fireworks Standards Laboratory
- Bears “AFSL” and trademark; unique serial number with year.
- Industry route (hopefully) to compliance with CPSC requirements



CPSC Basic Approach

A. 1st Priority: Keep or Get unsafe fireworks out of the consumer marketplace:

Imports and Recalls:

- Questionable fireworks sampled and tested (by CPSC lab) when they come into country
- Negotiate “fix” – often there is none –, destruction, or re-exportation
- Occasionally have to sue for recall



CPSC Basic Approach (cont.)

B. Thereafter: Figuring penalties for past actions and preventing violative future conduct

- CPSC: negotiated civil penalties
- U.S. DOJ: enforcement options, including: seizure, civil injunction, and criminal enforcement actions

NEWS from CPSC

U.S. Consumer Product Safety Commission

Office of Information and Public Affairs

Washington, DC 20207

FOR IMMEDIATE RELEASE
May 3, 2005
Release #05-165

Jake's Fireworks Recall Hotline: (800) 766-1277
CPSC Recall Hotline: (800) 638-2772
CPSC Media Contact: (301) 504-7908
Firm's Media Contact: Michael Marietta, (620) 231-2264

CPSC, Jake's Fireworks Inc. Announce Recall of Fireworks

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.

Name of Product: 24-shot Excalibur Reloadable Artillery Shell Kits

Units: About 75,000 reloadable kits

Importer: Jake's Fireworks Inc., of Pittsburg, Kan.

Hazard: The aerial shells are fused, shaped, and labeled in a way that could cause consumers to unintentionally place them into the launch tube upside down, resulting in a ground-level explosion. Such an explosion can cause serious injuries to consumers in close proximity of the device.

Incidents/Injuries: CPSC has confirmed one incident where a consumer inadvertently placed an Excalibur shell inside a tube upside down. No injuries were reported.



Upshot: Compliance w/ CPSC Regs.

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • If fireworks comply: <ul style="list-style-type: none"> – They can be distributed to the general public. – No license or permit is needed (federally) – Are legal within the U.S. (state laws can be, and are, more restrictive). | <ul style="list-style-type: none"> • If fireworks Fail: <ul style="list-style-type: none"> – Cannot be distributed or sold to consumers. – Civil penalties (1.825 million or \$8,000/ violation, per product – Seizure – injunction – Criminal Prosecution |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



CPSC's Liaison with ATF and the U.S. Department of Transportation

- Imports and Recalls: frequently coordinate compliance activities when there is an overlap
 - Require ATF and DOT compliance – with some interesting results
- Many jointly worked investigations and cases and many success stories
 - U.S. v. Kenneth Shearer – 80 months in prison



B. Fireworks Intended for the Professional, Display Market or Other Commercial Sectors

- Display fireworks – regulated cradle-to-grave as explosives by ATF
- Agricultural pyrotechnics – also ATF regulated



Necessary Overlap with ATF Regulations

- ATF regulates “explosives” and “explosive materials”
- Extensive licensing, record keeping, storage requirements
- Consumer Fireworks – under ATF law, only need a license to manufacture, but must meet all CPSC requirements to be a legal consumer item
- Display fireworks and (to a lesser extent) agricultural pyrotechnics - need ATF license to manufacture, buy, sell, “engage in the business”
- Common points of intersection selling “overloaded” consumer items in the consumer market selling display fireworks on the consumer black market



Necessary Overlap with DOT Regulations

- DOT has established a hazard classification scheme that controls the transportation of fireworks
 - Must submit approval package to DOT
 - DOT assigns EX number and hazard class
 - Hazard class tied to transportation requirements
- DOT Focus: safety of “first responders” and public at large



DOT Fireworks Classifications

- Display Fireworks - 1.3G, UN0335, old “Class B”
- Consumer Fireworks - 1.4G, UN0336, old “Class C”
- Pest Control Devices - 1.4E, UN0412, UN0471
- Theatrical Pyrotechnics - 1.4G, UN0431
- Novelties, Some Components - 1.4S, UN0337
- Bulk chemicals: only requirements about joint shipping

** Common points of intersection: display fireworks illegally transported as consumer items, without proper hazard class placards, i.e. 1.3G



Display Multi-Shot “Cake”

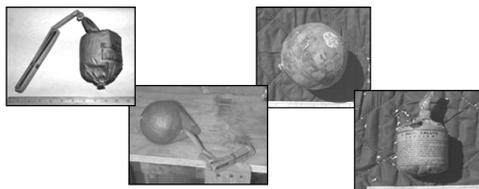


- 1600%: profit on the consumer black market
- Plain wrap with minimal labeling.
- Often has “quick match”-paper fuse rather than green coated “hobby” fuse.



Professional Display Shells

- Many display fireworks use “quick match,” a type of ignition fuse visually different from the green, coated “hobby” fuse typically used in consumer fireworks
- Size is also an indicator; consumer fireworks mortars cannot exceed 1.75” in diameter - display fireworks are commonly 3, 4, 5 even 12 or more inches in diameter
- Display fireworks rarely have colorful consumer labeling



“Pest Control Devices”

- Designed for agricultural/wildlife control purposes.

More “Pest Control” Devices

Common Names/Terms

- Bird Banger (15 or 37mm)
- Bird Screamer
- Pest Control Device
- Bird Scare Device

- These devices may be sold with a “launcher” resembling a pistol.
- Pistol-launched cartridge can be rigged with fuse = firecracker

NEWS from CPSC
U.S. Consumer Product Safety Commission

Office of Information and Public Affairs Washington, DC 20207

FOR IMMEDIATE RELEASE CPSC Consumer Hotline: (800) 638-2772
 January 17, 2003 CPSC Media Contact: Scott Wolfson, (301) 504-7051
 Release # 03-072

Missouri Company Ordered To Stop Manufacturing and Selling Illegal Fireworks

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission (CPSC) is announcing today that Max 2000 Inc., of Stanton, Mo., and company officials Thomas and Mary Scaman, have agreed to stop manufacturing and selling an illegal agricultural firecracker that was widely available to consumers. Max 2000 made and sold over one million “Pest Control Report 2000” (PCR 2000) firecrackers that each contained nearly 1,000 milligrams of explosive powder, which is far in excess of the legal limit for consumer firecrackers. These firecrackers, if used by consumers, could cause serious injuries or death.

The company and individuals signed a consent decree of permanent injunction, which was approved and entered on the record by the U.S. District Court for the Eastern District of Missouri.

“In 2001, there were an estimated 9,500 visits to emergency rooms across the country because of injuries related to fireworks,” said CPSC Chairman Hal Stratton. “To help bring this statistic down, CPSC is going after companies that violate the law by selling

Seized Diverted Display Fireworks

25 Shot Thunder King

More Diverted Display Fireworks

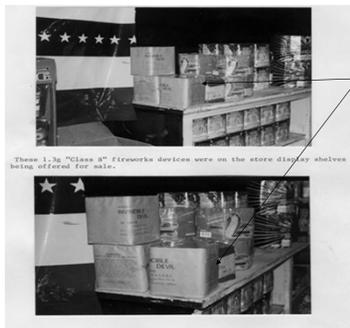
Diverted Display Fireworks Sold to an Undercover CPSC Investigator

Outer Packaging, which holds 6 devices

Single Shot Thunder King's Colorful, Consumer-like Packaging



Typical Case Involving Non-Compliance with CPSC Requirements

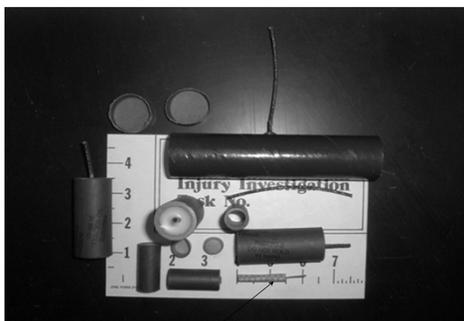
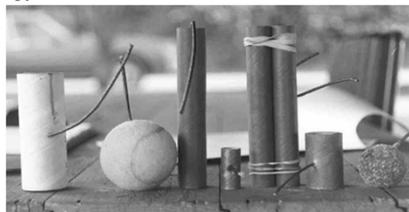


- 1.3g devices on a retail shelf right next to typical 1.4g consumer fireworks.
- Retailer does not have license to possess or sell.
- This is a potential criminal case.



C. Illegal Flash Powder Devices - No Legitimate Market -

- Common perception is that these are "Firecrackers."
- Experience has shown that this type of explosive poses the greatest danger to consumers, public safety personnel, etc. of any type of pyrotechnic.



Consumer firecracker compared with various size flash powder explosive devices such as M-80s



The drawers of the cabinets in the check-out area were filled with M-80's and "quarter sticks." These are pictures of some of the M-80's, which were bagged or rubber-banded together. Some of the bags had make-shift warning labeling taped to them.

Illegal Flash Powder Devices

- These are M-80 style, plastic tubes.
- No labeling on individual devices.
- Bundled w/ rubber band and kept in drawer.
- "M-80's and other large firecracker type devices are ALWAYS ILLEGAL. They are banned. Period."



Illegal flash powder explosives being mass produced in a residential basement



1000's of M-80s seized from same basement

NEWS from CPSC
U.S. Consumer Product Safety Commission

Office of Information and Public Affairs Washington, DC 20207

FOR IMMEDIATE RELEASE CPSC Consumer Hotline: (800) 638-2772
 March 3, 2000 CPSC Media Contact: Ken Giles, (301) 504-7052
 Release # 00-075

Two People Sentenced for Selling Illegal Fireworks in Wisconsin

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission (CPSC) played a critical role in the investigation that resulted in two people being sentenced on federal charges involving illegal fireworks in Wisconsin. Two others have already been sentenced.

U.S. District Court Judge Charles N. Clevert sentenced 61-year-old Donald R. Peters, of Green Bay, Wis., and his 34-year-old daughter, Peggy S. Malueg, also of Green Bay, for their role in the illegal sale and transportation of fireworks devices commonly known as quarter-sticks, half-sticks and M-80s. Peters is the owner and operator and Malueg is vice president of Uncle Sam's Fireworks stores in Wisconsin's Washington and Brown counties.

Peters was sentenced to 30 months in prison and fined the maximum fine of \$60,000. He also forfeited \$300,000 to the federal government as proceeds from his illegal activities. Malueg was sentenced to 8 months in prison and fined \$6,000. Both were banned from owning, operating or taking part in any business involved in the sale of fireworks or explosive devices.

"These illegal fireworks are extremely dangerous," said CPSC Chairman Ann Brown. "They can maim and even kill. We are gratified

 **D. Bulk Components & Chemicals**

– chemicals and components used to manufacture illegal flashpowder devices



 **Typical Components Case**



1 3/4" Long x 3/4" ID "M-80" Tubes



3/4" End Plugs

 **Typical Components Case**



Visco or Hobby fuse

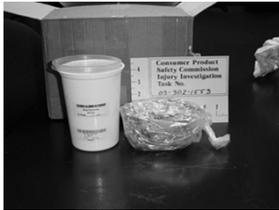


Chemicals needed to make flashpowder

 **Typical Components Case**



Potassium Perchlorate (KClO4)



Aluminum Powder (AL)

 **CPSC Contacts**

Office of Compliance (HQ):

Jim Joholske (301) 504-7527 or jjoholske@cpsc.gov
 Dennis Blasius (262) 650-1216 or dblasius@cpsc.gov
 Michelle Gillice (301) 504-7667 or mgillice@cpsc.gov

Field Offices

See handout for a listing of field Investigators

Website

www.cpsc.gov