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Consumer Use of Fireworks May Increase—Injuries Need Not Rise Too

The terrorist attacks of 9/11/01 have resulted in increased security and scrutiny in nearly every facet of our lives. Many of the changes we have seen have resulted from the newly created Office of Homeland Security, and the passage last year of the Safe Explosives Act may affect a beloved American tradition – that of celebrating our nation’s birthday with public fireworks displays. Recently, the federal government issued regulations on fireworks transported by air, water, and truck, but not the railways. Since railroads are the primary, and safest, method of transporting fireworks for commercial use (that is, public displays), and there are no guidelines for compliance with anti-terror laws, railroads have refused to handle fireworks. Unless guidelines are established quickly, many July 4th celebrations around the country may not be able to include fireworks displays.

The federal legislation will affect only commercial supplies of fireworks. Consumer fireworks, such as sparklers and firecrackers, have not been affected. If commercial displays are in jeopardy this year, the public may be tempted to entertain themselves with their own fireworks displays. If this occurs, the number of fireworks-related injuries is likely to increase, since the number of fireworks-related injuries at public displays is quite low and most accidents occur with consumer use.

According to the National Fire Prevention Association (NFPA), in 2001 9,500 people were treated in hospital emergency departments for injuries related to fireworks. The majority of those injuries were burns (58.9%). In addition, figures for 1999 reveal 24,200 fires caused by fireworks were reported; these resulted in 12 additional civilian deaths, 55 civilian injuries, and \$17.2 million in property damage. Statistics for 2001 indicate that 8 out of 9 (88.5%) emergency room injuries were the result of the use of legal fireworks (those permitted by Federal Regulations for consumer use.)

Only 8 states ban the use of all fireworks by consumers. Some or all types of consumer fireworks are permitted in 37 states and the District of Columbia. In 2000, Connecticut joined a number of states in allowing consumers to purchase and use “safe and sane” fireworks. These are defined by Connecticut law as “hand-held and ground based sparkling devices that are non-explosive and nonaerial, and do not contain more than 100 grams of pyrotechnic composition per item.” Although you must be at least 16 years old to purchase legal fireworks, sparklers are usually placed in the hands of much younger children. The NFPA points out that sparklers caused 10% of all injuries in 2000. For children under the age of 5 years, sparklers, which can reach a temperature of 1800 ° F., are responsible for ¾ of fireworks injuries. Further, “safe and sane” fireworks accounted for 17% of emergency room injuries, and “caused more injuries than illegal fireworks to pre-school children.”

While the 9,500 injuries figure may not seem to be a large number nationwide compared to other sources of injury, it must be kept in mind that the use of fireworks is limited to primarily 1 or 2 (Independence Day and New Year’s Eve) days a year. This places fireworks among the most risky of all products when measured as a rate of serious injuries per hour of exposure.

Anyone who handles fireworks can reduce the risk of injury and property damage by following these guidelines:

- Never allow children to light or play with any type of firework.

- Always read and follow all warnings and instructions.
- Store fireworks in a cool, dry place.
- Keep a bucket of water or a hose nearby.
- Only ignite fireworks outdoors, pointed away from buildings, dry leaves, or any other flammable materials.
- Light only one firework at a time.
- Never try to relight a dud.
- Do not use in windy conditions.
- Do not use in combination with drugs or alcohol.
- Never shoot fireworks at another person, carry them in your pocket, or set off in a glass or metal container.
- Do not use fireworks that are leaking, are very old, or appear to have been mishandled.
- Dispose of fireworks by soaking them in water before placing them in the trash.
- Always wear protective eyewear when lighting a firework, and never have any part of the body over it.

When attending a public display of fireworks, the American Pyrotechnics Association recommends that people respect safety barriers set up around the staging area, do not get too close (the best viewing distance is ¼ mile away), leave pets at home (the fireworks can scare them and may hurt their ears), and never pick up an unexploded firework – call the local police or fire department.

For additional information about fireworks safety, contact your local or state fire marshal or the Central Connecticut Health District at 721-2822. Other sources of information include the National Fire Prevention Association on line at www.nfpa.org or the American Pyrotechnic Association at www.americanpyro.com .