

tube mine and shell fireworks, stated that they were *not* opposed to less intrusive actions such as new standards, or additional labeling, and/or consumer education. Some commenters specifically stated that they favor a standard to reduce the potential for tipover.

As explained in this notice, the Commission is proposing a performance standard that would improve the stability, and thus the safety, of these devices but still leave them available for consumers to purchase and display.

b. *Labeling and education.* Some commenters stated that improved labeling and/or education are sufficient to address the tipover hazard.

In addressing a product hazard, it is most effective to remove the hazardous design features out of the product. The tipover hazard stems from the design of the product and could occur even if a user does read the warning label. Although some users may read and follow the information on a warning label, fireworks are frequently used at night when it is too dark for someone to read a warning label. Their frequent use at parties or celebrations further reduces the likelihood that warnings will be read and followed.

c. *Multiple tube devices have improved.* Some commenters argued that the design and quality of multiple tube devices have improved in recent years and that regulation is no longer necessary.

Although manufacturers have made design and quality changes and reduced the dynamic stability hazard of some large multiple tube devices since the two deaths, additional domestic and imported large multiple tube mine and shell devices have been distributed which tipped over while functioning during official CPSC compliance testing. During fiscal year 1994, 32 official samples of large multiple tube mine and shell devices were tested for possible tipover while functioning. All 24 imported samples and one domestic sample tipped over while functioning. Since design and quality changes and development of the voluntary standard for multiple tube mine and shell devices have not yet corrected the dynamic stability hazard, the staff believes a regulation addressing it is necessary.

d. *Existing regulations are sufficient.* Some commenters stated that existing regulations are sufficient and that poor quality products should be addressed on an individual basis.

Existing fireworks regulations under the FHSA do not address the tipover hazard with multiple tube mine and shell devices. The continued manufacture and distribution to

consumers of devices which fail official compliance testing for this tipover hazard is evidence that the existing regulations and compliance actions on a case-by-case basis have not sufficiently eliminated the dynamic stability hazard.

3. General Regulatory Issues

a. *Innovations in fireworks design.* The NFPA commented that innovations in the industry make it difficult to develop adequate regulations. A standard that works for today's devices might be inadequate for new products.

The Commission agrees that it is not always possible to anticipate problems that may occur in the future. However, new fireworks products created by industry are still required to meet CPSC regulations that prescribe safety requirements for assorted fireworks devices. If new products have additional hazardous characteristics, CPSC can evaluate them and correct any hazards by working with industry or by promulgating a mandatory safety rule. Moreover, new products that pose a "substantial product hazard" can be addressed through the Commission's section 15 regulation. See 16 CFR part 1115. In short, manufacturers remain free to design new devices as long as their performance meets the CPSC safety requirements.

b. *Consumer responsibility.* Several commenters stated that the consumer should be responsible for using fireworks devices safely and that manufacturers should not have to guard against all conceivable misuses of their products.

Certainly, consumers must exercise caution when using fireworks. They should follow the use instructions provided and, particularly with multiple tube devices, set them on a level, smooth surface. The Commission's concern, however, is that even when set on a level patch of grass, these devices may tip over and cause injury or death. It is reasonably foreseeable that a consumer would set up these devices in an open field that is covered with grass and is relatively level. This is the kind of condition for which the staff designed its test procedures.

c. *Voluntary standards.* Many commenters stated that voluntary standards efforts are sufficient to address the tipover hazard. Some took the opposite view.

The AFSL has adopted a voluntary standard involving the use of polyurethane upholstery foam as a substitute test surface for grass. The AFSL standard specifies 1-inch foam for devices with any tube that has an inside diameter less than or equal to 1.0 inch

and 2-inch foam for devices with any tube that has an inside diameter greater than 1.0 inch. However, AFSL has not provided CPSC with any statistical evaluation of the use of polyurethane upholstery foam as a substitute test surface. As explained above, CPSC staff did not find sufficient agreement between grass and foam in the tests that it conducted of the tipover rates of large multiple tube devices.

The AFSL standard also requires a "tip angle" of at least 18 degrees, whereas CPSC tests show that devices with tip angles less than 60 degrees may tip over during operation. Finally, AFSL has stated that *no* domestic products are certified to the standard and has not stated how many imported devices have been tested and certified. Nor has AFSL provided information regarding the number of products that meet the standard.

d. *Large and small diameter devices should be treated separately.* Some commenters stated that large and small diameter multiple tube devices should be treated separately, arguing that deaths were associated only with large diameter devices, while only minor injuries were associated with small devices. Another commenter argued that all multiple tube devices should be banned because it would be more difficult to enforce a ban that applies only to large diameter devices.

As explained above, the Commission is proposing a performance standard that would apply only to devices with inside diameters of at least 1.5 inches. In tests conducted by the staff, a performance standard based on the tip angle test did not appear to be appropriate for smaller devices.

Additional work would be needed to develop a standard for smaller devices.

e. *Comment period.* Two commenters complained that the comment period was too short and came at the busiest time of the year for people in the fireworks industry.

The Commission believes that the comment period was adequate. The Commission provided 60 days for comments, which is the maximum amount of time allowed under the FHSA for comments on an ANPR. Over 100 comments were received. Consistent with Commission policy, the staff has considered comments received after the close of the comment period. Finally, all interested persons will have an additional opportunity to comment on the proposed rule.

f. *Rulemaking process and data analysis.* One commenter asked how the CPSC rulemaking process works. The same commenter asked who at CPSC analyzed the injury and death data and