



SAFE 'crackers

The sale of legal consumer fireworks has prompted NFPA to develop a standard protecting retail consumer fireworks facilities. **ALAN R. EARLS**

July 3, 1996, was a hellish day in the history of American pyrotechnics. In Scottown, Ohio, along the Ohio River 100 miles south of Columbus, Todd Hall, a 24-year-old man from nearby Proctorville, Ohio used a cigarette to ignite a fireworks device inside the Ohio River Fireworks store. Of the 40 customers and staff members in the store at the time, 9 died, and 11 were injured in the ensuing fire.

According to news reports, the store quickly erupted into something resembling a war zone, with bottle rockets whizzing about in all directions, strings of consumer firecrackers exploding, and acrid smoke preventing shoppers from finding the exits. When firefighters finally brought the blaze under control two hours after it started, they found the bodies of all the victims within 5 feet (1.5 meters) of the door.

Ohio is one of 40 states that allow the sale of consumer fireworks, but in which it's illegal to use them. This type of mixed messages extended to other aspects of safety, too. Despite the deadly nature of the store's goods, no special safety features were in place to help guard against the tragedy.

Fireworks, the use of which is a time-honored tradition in the United States and around the world, have persistently presented a significant safety problem, despite periodic efforts to reduce their availability and potential lethality. Indeed, NFPA has been in the forefront of such efforts since the early 1900s. For more than five decades, NFPA has maintained a position against any consumer use of fireworks. Consistent with this policy, NFPA has nonetheless recognized the need for consensus-based standards to enhance the safety of retail facilities in those states that permit the sale of fireworks to the public.

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Who's minding the store?

Due to jurisdictional issues and the fact that most injuries occur away from retail settings, however, the government's focus on consumer fireworks safety remained elsewhere. As part of its consumer fireworks surveillance program, for example, the U.S. Consumer Product Safety Commission (CPSC) concentrates on preventing large numbers of especially hazardous fireworks from reaching store shelves. Between 1986 and the Scottown blaze in 1996, CPSC and the U.S. Customs Service seized or detained more than 2.5 million fireworks that violate Federal regulations at docks across the country. The Bureau of Alcohol, Tobacco and Firearms enforces regulations governing the storage of consumer fireworks throughout the United States.

Such oversight still left a glaring hole: retail facilities, many of which were ripe for calamities just as great as the Scottown tragedy.

NFPA's role

The question of what role NFPA should play in the protection of retail consumer fireworks facilities and how precisely to craft requirements that would meaningfully enhance retail safety remained daunting.

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One of the Association's first actions was to add language to the 2000 edition of NFPA 1, *Fire Prevention Code*, addressing consumer fireworks retail sale and storage facilities. Section 16-10 of NFPA 1 contains provisions for the sale, handling, and storage of consumer fireworks that resulted from NFPA's consensus code-development process. The provisions were developed by NFPA's Fire Prevention Code Committee, approved by NFPA members at the 1999 Fall Meeting, and issued by the Standards Council in January 2000. They have since been further modified by a Tentative Interim Amendment (TIA) to NFPA 1, which was supported by the Fire Prevention Code Committee and issued by NFPA's Standards Council in January 2001. The TIA on the consumer fireworks issue will be a

proposal for consideration in the next revision cycle of NFPA 1, scheduled for a membership vote in November 2002.

Although the American Pyrotechnics Association objected to the addition of such requirements in NFPA 1, the NFPA Standards Council determined that the 2000 edition of NFPA 1 should be issued with the proposed retail sale provisions for consumer fireworks intact, although the Council concluded "that certain provisions are deserving of further study."

To facilitate the further study of this issue, the Standards Council formed a task group consisting of representatives of three NFPA committees—Fire Prevention Code, Pyrotechnics, and Life Safety—and directed the group to develop a TIA to improve NFPA 1 requirements. The task group's TIA was issued in October 2000. In addition, the Standards Council reaffirmed that the primary responsibility should lie with the committee on pyrotechnics.

Challenges

According to Guy Colonna, NFPA's assistant vice president of fire protection applications and chemical engineering and staff liaison to

the Pyrotechnics Committee, the provisions contained in NFPA 1 are still the only language that applies directly to consumer fireworks retailers. What's crucial, though, is that, "despite disagreement about amateur fireworks use and safety, the fire prevention community is now working with the consumer fireworks industry to find common ground on the issue of retail consumer fireworks stores that can be the basis for developing a new standard," he notes.

Martha Curtis, NFPA's senior fire service specialist and NFPA 1 staff liaison, says that there may be no need to add much more to NFPA 1, because it generally incorporates existing codes and standards by reference or extraction, rather than developing everything "from scratch." The NFPA 1 technical

committee is trying to develop provisions that can be adopted into law by individual states or jurisdictions.

Now you can buy them, now you can't

The other issue complicating the development of appropriate national regulations is the different laws states have passed regarding consumer fireworks sales. On opposite ends of the spectrum are Nevada, which doesn't regulate consumer fireworks sales at all, and Rhode Island, which completely bans sales.

"It depends on the state. In some states, consumer fireworks sales are a temporary thing, allowed a few weeks a year, and in others, it's 365 days a year," notes Colonna. For example, Louisiana consumers can buy fireworks for a few weeks every year before the Fourth of July holiday, but that's it. Tennessee permits consumer fireworks sales from June 20 through July 5 and then again from December 10 through January 2, and Mississippi and Alabama take a similar approach. Florida, by contrast, allows consumer fireworks stores to operate year-round.

"We need a different approach to those operations from a protection standpoint," says Curtis. The NFPA 1 Committee would prefer to let the Pyrotechnics Committee develop provisions that approach risks effectively and promote a level of protection the consumer fireworks industry can achieve and the fire prevention community expects.

Colonna says that such a document will have to deal with the ways retailers display consumer fireworks, the quantity of consumer fireworks they store on site, the size of the facility, and issues of access and egress. As a result, says Colonna, the document will necessarily interface with NFPA 101®, *Life Safety Code*®, which regulates safe egress from buildings, automatic fire sprinkler requirements, and so on.

Colonna explains that the Pyrotechnics Committee started with a "clean slate" and has been working on the proposed document for a year. It will publish its draft provisions for public comment in the summer.

Colonna wants interested parties to be aware of the upcoming timetable and be prepared to provide feedback during the public comment period.

"In particular, we want NFPA members to be aware of how the process will work, since they'll be voting on the document," he says. ♣