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Nation

Defective sprinklers spur fire officials to push for backups

By Peter Eisler, USA TODAY

WASHINGTON — Building codes around the nation rest heavily on the theory that sprinkler systems provide the best protection against fire. Now, with millions of defective sprinklers being recalled, fire officials face a new question: What if a sprinkler fails?

Beginning in the 1970s, state and local codes gave property owners who installed sprinklers more and more leeway to scale back on other safeguards such as smoke alarms and fire-resistant construction materials.

However, those so-called trade-offs are getting a second look after a string of four sprinkler recalls that has identified 45 million defective sprinkler heads in the past seven years — a number equal to about one in every 10 sprinklers installed nationwide since 1991.

"We think we've gone too far with the trade-offs in the codes, and we're seeking to reverse that trend," says New York State Fire Administrator James Burns, president of the National Association of State Fire Marshals. "With all the trade-offs we've got now, we're afraid a building with one of these faulty sprinklers is going to burn."

The fire marshals and other fire-safety groups are campaigning for code changes so that buildings with sprinklers would be required to have more backup protections such as smoke alarms and flame-resistant walls. They're getting some resistance from sprinkler makers and developers worried about higher construction costs, especially for the commercial and multiple-occupancy buildings that often require more fire protection.

More recalls possible

Sprinklers have been in use for a century, and not one was recalled until 1998. Of the four recalls since then, the biggest is a recall of 35 million sprinkler heads now being replaced by Tyco Fire & Building Products. More recalls could be on the way.

The Consumer Product Safety Commission is still investigating other sprinkler models, says Gib Mullan, the commission's head of compliance. Those investigations include a review of at least one model produced by the Reliable Sprinkler Co., which lost a court challenge of the product safety commission's authority to assess sprinkler performance.

All of the sprinklers recalled so far use valves sealed with rubber O-rings that can corrode and fail to open. The faulty sprinklers include both "wet" systems, which use pipes filled with water, and "dry" systems, which tend to be used in colder climates because the pipes are empty of water until the sprinklers are activated.

The O-ring valves no longer are used by any sprinkler maker.

"What we're trying to do is replace an older technology with a newer one that doesn't use an O-ring," says Tyco Vice President Carmine Schiavone.

Tyco will keep offering free replacement of its defective heads for as long as the company is receiving a "significant" flow of claims, Schiavone says.

Tyco has spent more than \$2 million publicizing the recall. The company is trying to raise awareness among sprinkler installers, Schiavone says, because it often takes a trained eye to spot the flawed sprinklers. Tyco also has a website (www.sprinklerreplacement.com) and a toll-free number (1-866-505-8553) to help consumers.

Prudence or an overreaction?

The fear in fire-safety circles is that the news of the Tyco recall and other smaller sprinkler recalls might discourage businesses and others from installing sprinklers, which safety experts still see as the best defense against fire. When properly installed and maintained, they have an unmatched record of preventing multiple deaths in fires.

"There's no question that a sprinkler system provides great, great protection," Maine State Fire Marshal John Dean says. But the recalls have made fire officials more aware of the need for backup protections, he adds. "We don't want to put all our eggs in one basket."

The fire marshals are bringing their concerns to two organizations that write the model codes used by most state and local governments: The International Code Council and the National Fire Protection Association.

The codes of both groups include trade-offs that allow buildings with sprinklers to go without some of the fire-safety protections required for buildings that lack sprinklers.

Some aren't as keen on changing the rules.

John Viniello, president of the National Fire Sprinkler Association, an industry group, says the efforts are an overreaction that could drive up construction costs and lessen builders' incentives to install a proven safety feature. He notes that there has yet to be a death associated with the recalled sprinklers.

"Trade-offs have been in the codes for 50 years — it's nothing new," he says. "So why should you have the belt-and-suspenders approach to fire safety, which is what (fire marshals) are asking for, when you haven't had the loss of life?"

Fire marshals acknowledge the concerns about rethinking trade-offs in building codes.

"There is this pressure from groups to try to contain building costs, especially in areas that want to have development, and we're sensitive to that," Dean says.

"We can encourage the use of sprinklers by allowing some (trade-offs). We just want to make sure we have some backup," he says. "It's like cars: We have seat belts and we have air bags, and we tell people to use both."

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Defective sprinklers still in use

By Peter Eisler, USA TODAY

WASHINGTON — More than four years after the government announced the recall of 35 million defective fire sprinkler heads used in nursing homes, hospitals, schools and other buildings, almost two-thirds of them remain in use.

No deaths or injuries have been tied to the recalled sprinklers. But Tyco Fire & Building Products, the sprinklers' manufacturer, says there have been several claims of property damage. Virginia, Ohio, New York, New Jersey and Washington are among the states trying to identify facilities still using the sprinklers, the National Association of State Fire Marshals reports. (**Related story:** [Recalls prompt re-examining of 'trade-offs'](#))

"Will somebody die? If they don't get these (sprinklers) out, it'll happen, sooner or later," says Larry Glenn, deputy state fire marshal in Washington. "We've gone through nursing homes, boarding homes, assisted-living facilities, and a lot of them had (the recalled sprinklers) and weren't aware of it."

The recall began in 2001 after investigations found that a rubber O-ring in the sprinklers' valves can corrode and prevent the release of water. That occurred in 20% to 45% of the sprinklers in lab tests.

The sprinklers were sold under three brands — Central, Star and Gem — all since purchased by Tyco. Tyco began the voluntary recall under an agreement with the Consumer Product Safety Commission (CPSC). The company provides free replacement and installation.

Tyco has replaced 12 million sprinklers and identified 6 million more to be replaced by mid-2007, Tyco Vice President Carmine Schiavone says. "We'd like to find as many as possible."

Gib Mullan, head of compliance at the CPSC, says the recall is going "extremely well" and the replacement rate is better than average for such a big recall — the fourth-largest in commission history.

Many fire marshals think more can be done. Replacing 30% to 40% of the faulty sprinklers "is not acceptable," says Emory Rodgers, deputy chief of Virginia's Division of Building and Fire Regulation, which aims to get 90% of the sprinklers replaced. "People's lives could depend on it."

The 35 million faulty sprinklers equal about the number of sprinklers sold nationwide in a year, reports the National Fire Sprinkler Association, a trade group.