

SLOW BURN

FIRE-SAFE CIGARETTES

THE ONGOING STRUGGLE TO REDUCE FIRES IGNITED BY CIGARETTES IS ONE CONGRESSMAN'S LEGACY ■ **U.S. REPRESENTATIVE EDWARD MARKEY**

CONGRESS HAD A GOLDEN OPPORTUNITY THIS year to reduce the number of fires started by cigarettes, but it appears to have slipped away, adding one more disappointment to the long struggle to reduce the risks of cigarette-ignited fires to life, property, and firefighters.

In 1979, a residential fire started by a neglected cigarette killed five children and their parents. It was only one of the thousands of fires caused that year by cigarettes, but it occurred in Westwood, Massachusetts, in the congressional district of my friend, Represen-

tative Joseph Moakley. The tragedy motivated Joe's 20-year quest to bring so-called fire-safe cigarettes to consumers and thus decrease the number of fires started by unattended cigarettes. His goal wasn't fully realized before his death in May 2001, but it lives on in *The*

Joseph Moakley Memorial Fire Safe Cigarette Act of 2002 (H.R. 4607), which I introduced in the House of Representatives with Representative James Hansen, R-Utah. Senator Richard Durbin, D-Ill., and Senator Sam Brownback, R-Kan., introduced a companion bill in the Senate. This crucial fire-safety legislation is the culmination of Joe's determination to elevate cigarette-ignited fires from local tragedy to national concern and prod the tobacco industry into producing a cigarette with a lower propensity to start fires.¹

Cigarettes are the single largest cause of fire deaths in the United States, igniting approximately 30 percent of fatal fires.² According to the most recent NFPA report, they result in about 1,000 deaths and 2,500 to 3,000 injuries each year and cause more than \$6 billion in property damage.³ But smokers aren't the only victims. More than 100 children and non-smokers die annually from fires that could be prevented, and our fire service professionals must deal with more than 150,000 tobacco-related fires a year, most of which are started by cigarettes.⁴

How can we justify putting a single fire-fighter at risk putting out a fire that could've been prevented at the cost of pennies simply by changing the construction of a cigarette? Fire-safe cigarettes have a significantly lower tendency to ignite upholstered furniture and mattresses because of small design changes, including a smaller diameter, a filter tip, less porous paper, citrate-free paper, and less densely packed tobacco.

The legislative history

Congressional interest in cigarette fire safety dates back to 1929 when the National Bureau of Standards, now the National Institute of Standards and Technology (NIST), conducted research on the issue on the behalf of Congress.⁵ More recently, work began in 1979 with Joe Moakley's introduction of legislation that would've required the U.S. Consumer Product Safety Commission (CPSC) to regulate cigarettes as a fire hazard. However, Moakley was unable to overcome the tobacco industry's objections to fire-safe cigarette standards until the passage of the *Cigarette Safety Act of 1984*, which established a technical study group to determine whether it was technically and economically feasible to make a fire-safe cigarette. Three years later, the technical study group reported to Congress that the production of more fire-safe cigarettes was indeed technically and economically feasible

and within the capabilities of the tobacco industry at that time, a point the industry denied.⁶

Three years after the report was published, Moakley shepherded the *Fire Safe Cigarette Act of 1990* into public law. The legislation mandated the development of a test method for cigarette fire safety within three years. NIST developed two tests, and nine laboratories, including four of them from the tobacco industry, demonstrated that both tests produced reliable results.⁷

With the testing methods in place, Moakley introduced the *Fire Safe Cigarette Act of 1999*, 20 years after the tragic fire that killed seven of his constituents. As in his initial 1979 legislation, this bill required the CPSC to establish and implement a fire-safety standard for cigarettes sold or manufactured in the United States.

Building on this momentum, I, as a Massachusetts congressman, introduced *The Joseph Moakley Memorial Fire Safe Cigarette Act* with the support of NFPA, the International Association of Fire Fighters, the National Association of State Fire Marshals, American Cancer Society, American Heart Association, American Lung Association, and the Congressional Fire Services Institute. Nevertheless, hearings on the bill have yet to be held, and Durbin's bill, which enjoys equal support, was blocked by an anonymous "hold" in the Senate, preventing its passage.

In the absence of a federal standard, Massachusetts, Minnesota, Oregon, and Vermont have introduced their own legislation to regulate the fire safety of cigarettes. However, only New York has passed a law requiring a fire-safety standard for cigarettes. Signed on August 16, 2000, the law requires the cigarette fire-safety standard be established by January 1, 2003, and it will come into effect the following July 1. At this time, it's unknown what standard New York will adopt, but the testing strategy will be based upon the methods developed at NIST in the early 1990s. Although the European Union, Canada, and New Zealand have expressed interest in developing fire-safety standards for cigarettes, the New York law is the only one of its kind to date.

The tobacco industry hasn't generally supported legislation mandating fire-safe cigarettes. They've argued that fire-safe ciga-

rettes aren't technically feasible and that any cigarette that would meet a fire-safety standard wouldn't satisfy their consumers. They also believe that a fire-safe cigarette would give smokers a false sense of security, leading to an increase in negligence because smokers would assume they couldn't start a fire.⁸

According to a statement from R.J. Reynolds Tobacco Company, extensive "testing with commercial upholstered fabrics demonstrates that the laboratory tests for fire-safe cigarettes have little, if any, relationship to how cigarette-related fires occur. Cigarettes that pass a laboratory test, and thus could be labeled 'fire-safe,' do not necessarily reduce the likelihood of ignition when dropped on the wide variety of upholstered furniture fabrics as they are used in homes in real-life situations, or when dropped on anything else outside the lab."

Instead of developing fire-safe cigarettes, the industry has shifted the fire-resistance burden to mattress, furniture, and pajama manufacturers. Their answer to cigarette fire safety is, in the words of Joe Moakley, "to fire-proof the world against our torches."

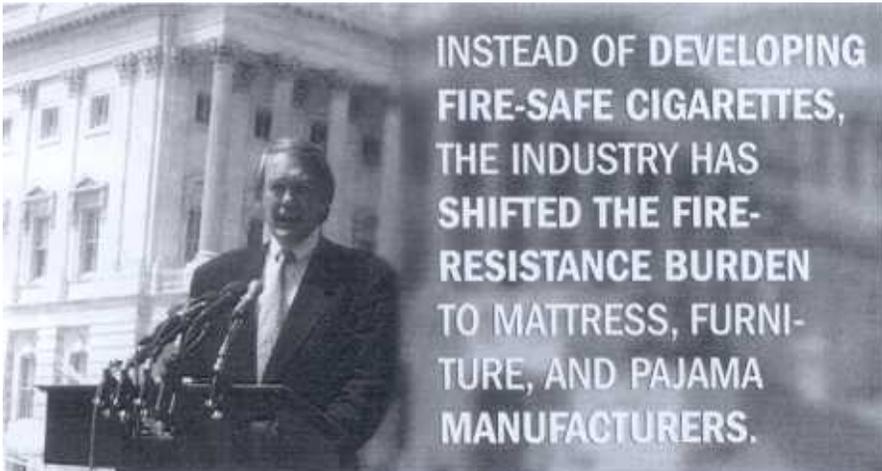
Now that state legislatures are seeking to establish various fire-safe cigarette standards, however, the tobacco industry has expressed some interest in a single national standard. Philip Morris has split from its industry brethren and endorsed moving forward with a Senate bill, although they insist on a different bill in the House.⁹ In fact, the industry has refused to endorse the House bill and instead chosen to support provisions that would preempt the states' rights to establish stronger standards, prolong implementation of the standard, and allow the economic hardship on the industry, rather than public safety, to sway future reconsideration of the standard.¹⁰

Standards and current technology

The two test methods NIST developed under the mandate of the *Fire Safe Cigarette Act of 1990* to establish fire-safety standards for cigarettes are still in use.¹¹ The first involves laying a lit cigarette on a piece of fabric, which simulates a piece of furniture, to directly test whether the cigarette will ignite a bed or chair. In the second test, designed to determine whether a cigarette can ignite furniture, a lit cigarette is placed on several layers of

FOR MORE INFORMATION, GO TO
WWW.HOUSE.GOV/MARKEY

CONGRESSMAN EDWARD MARKEY, D-MA,
first elected to Congress in 1976, is a champion of
consumer rights and health reform.



Congressman Edward Markey

extremely pure and strictly standardized filter paper used in the chemical industry to ensure repeatable test results. A strong igniter, as are most of today's cigarettes, burns its full length while a weak cigarette loses energy to the paper and goes out. Cigarettes perform comparably in both test methods.

A test similar to the second test will be used as the basis of the New York standard. The voluntary standards organization, the American Society for Testing and Materials (ASTM) International, also used the second test to develop ASTM E 2187 with the participation of most of the major tobacco companies.

After developing these testing methods, NIST researchers also tested commercially available cigarettes' propensity to cause fires for their 1993 report to Congress. They found that the 14 bestsellers, all of which had similar tobacco-packing density, paper permeability, and circumference, ignited the fabrics in the tests, but six other brands with different characteristics showed lower ignition propensities, an encouraging sign that fire-safe cigarettes could be developed.¹²

In July 2000, Philip Morris announced it had, in fact, developed a cigarette paper that would make a cigarette less likely to start a fire. After extensive consumer testing, its PaperSelect™ paper is now used on its Merit brand cigarettes nationwide. According to Philip Morris, PaperSelect cigarettes have "speed bumps" that slow down the rate at which the cigarette burns. Rings of ultra-thin paper are applied on top of traditional cigarette paper during the papermaking process to

make a cigarette that's more likely to extinguish on its own when left unattended, a concept tested and shown effective under the *Cigarette Safety Act of 1984*.¹³

In May 2000, the Federal Trade Commission asked NIST to test the PaperSelect cigarettes in order to verify Philip Morris' claim that the cigarette reduced the risk of ignition if dropped or discarded. Using the testing methods it developed under the *Fire Safe Cigarette Act of 1990*, NIST tested modified cigarettes from a test-marketing city and unmodified cigarettes from the Washington, D.C. area, which wasn't a test market. NIST determined that the modified cigarette did have a lower relative ignition propensity than the traditional cigarette.¹⁴ The use of PaperSelect paper in cigarettes nationwide could reduce the number of cigarette-induced fires.

Philip Morris has also tested the toxicological properties of cigarettes made with the new paper and found there was no major difference in the overall smoke chemistry or biological activity of the PaperSelect cigarettes as compared to those made with the usual cigarette paper.¹⁵

Smokes without fires?

Some 23 years after the 1979 tragedy that started the late Joe Moakley's quest for fire-safe cigarettes and thousands of deaths later, we still don't have a national fire-safety cigarette standard. With NIST's robust testing methods in place, the time is right to develop a national fire-safety standard for cigarettes. We know it's feasible to make a less fire-prone cigarette because Philip Morris already has one on the market. Twenty years of public

awareness campaigns and attempts to fire-proof furniture haven't stopped the fatalities caused by cigarette-ignited fires. Delaying these standards again just puts lives at risk.

Although the opportunity was lost this year, there's a strong commitment in Congress to complete Moakley's work and extinguish the "torches." With the continued help of fire-safety professionals across the nation, we will establish a national fire-safety cigarette standard. ♦

Endnotes

1. Leistikow, Bruce, Daniel Martin, and Christina Milano (2000), "Fire Injuries, Disasters, and Costs from Cigarettes and Cigarette Lights: A Global Overview," *Preventive Medicine*, 31, 91-99.

2. Hall, John Jr. (2001), "The U. S. Smoking-Material Fire Problem," NFPA unpublished annual report.

3. American Burn Association fact sheet on fire-safe cigarettes.

4. Leistikow, et al. (2000).

5. Op. cit.

6. "Toward a Less Fire-Prone Cigarette," Final Report to the Congress, Technical Study Group on Cigarette and Little Cigar Fire Safety, *Cigarette Safety Act of 1984*, 1987.

7. Ohlemiller, T.J., Villa, K.M., Braun, E., Eberhardt, K.R., Harris, Jr., R.H., Lawson, J.R., and Gann, R.G. (1993), "Test Methods for Quantifying the Propensity of Cigarettes to Ignite Soft Furnishings," Report No. 2, Technical Advisory Group, Fire Safe Cigarette Act of 1990 and NIST Special Publication 851, NIST, Gaithersburg, MD.

8. See R. J. Reynolds' statement on fire-safe cigarettes at www.rjrt.com/TI/TIFireSafety.asp.

9. Philip Morris, April 25, 2002, press release.

10. H. R. 5059 *Fire Safe Cigarette Act of 2002*.

11. Ohlemiller, et al. (1993).

12. Ibid.

13. Philip Morris, July 12, 2000, press release.

14. Gann, R.G., Steckler, K.D., Ruitberg, S., Guthrie, W.F., and Levenson, M.S. (2001), "Relative Ignition Propensity of Test Market Cigarettes," NIST Technical Note 1436, NIST, Gaithersburg, Maryland.

15. Philip Morris, July 12, 2000, press release.