



South Carolina Department of Labor, Licensing and Regulation
Division of Fire and Life Safety
141 Monticello Trail • Columbia, SC 29203
Phone: 803-896-9800 • Fax: 803-896-9806 • www.statefire.llr.sc.com

June 30, 2017

The Honorable Hugh K. Leatherman, Sr.
President *Pro Tempore*
South Carolina Senate
111 Gressette Building
Columbia, SC 29201

REDUCED CIGARETTE IGNITION PROPENSITY STANDARDS AND FIREFIGHTER PROTECTION ACT REPORT

The following report is provided by the Office of the State Fire Marshal (OSFM), a division of the Department of Labor, Licensing and Regulation, pursuant to S.C. Code of Laws section 23-51-30(N):

Development and Objective:

South Carolina Code of Laws, Title 23, Chapter 51, the "Reduced Cigarette Ignition Propensity Standards and Firefighter Protection Act," (the "Act") became effective January 1, 2010. The Act requires that cigarettes sold in South Carolina meet certain criteria designed to reduce the likelihood of cigarettes becoming an ignition source for upholstered furniture, mattresses, and bedding. These items accounted for about 80 percent of the cigarette-related fire deaths in the 1980's. At that time, feasibility studies began to evaluate the value of reducing cigarette ignition propensity (creating "fire-safe" cigarettes). "Fire-safe" is how these types of cigarettes are commonly known but they are more accurately described as "less fire-prone" or of "reduce ignition propensity." The most common fire-safe technology used by cigarette manufacturers is to wrap cigarettes with two or three thin bands of less-porous paper that act as "speed bumps" to slow down a burning cigarette. If a fire-safe cigarette is left unattended, then the burning tobacco will reach one of these "speed bumps" and self-extinguish.

Testing:

Cigarettes are tested using American Society of Testing Materials (ASTM) E2187-04, "Standard Test Method for Measuring the Ignition Strength of Cigarettes." In a performance test, a lit cigarette is placed on a standard substrate made of a stack of 10 extremely thin filter papers, which act as a small heat sink. If the cigarette burns strongly, then it will continue burning despite this heat loss, potentially being capable of igniting an actual mattress or piece of upholstered furniture. If the cigarette burns weakly, then even the small heat loss to the test substrate will lead to the cigarette extinguishing. This test procedure is repeated 40 times, and the number of full-length burns is recorded. In the actual test, no more than 10 of the 40 tested cigarettes (of a given brand style) may burn their full length. This test procedure was initially adopted by the State of New York, which was the first state to require reduced cigarette ignition propensity standards. These cigarettes are commonly known as Fire Standards Compliant (FSC) cigarettes. All 50 states now have a FSC program.

FSC Program Major Requirements:

The provisions of the Act requires that cigarettes sold in South Carolina conform to the performance standards testing and that manufacturers provide copies of test results to the State Fire Marshal upon request. Each cigarette manufacturer must submit an initial application for their product, attesting compliance with the Act, and recertification every three years thereafter. Cigarette packages, cartons, and cases must be marked to specific standards, normally consisting of the letters "FSC" on each component. Section 23-51-60 establishes the penalties for the sale of uncertified cigarettes and provides for the forfeiture of unmarked cigarettes. The State Fire Marshal is charged with the responsibility for operating the program in the areas of application processing, performance testing, program enforcement, and program oversight.

Funds generated by the certification of FSC cigarettes are to be deposited to a special fund in the State Treasury and made available to the State Fire Marshal to support the processing, testing, enforcement and oversight activities required by the Act. Any monies recovered as penalties are to be deposited into a special fund in the State Treasury and made available to the State Fire Marshal to support fire safety and prevention programs.

Actions Taken by OSFM to Date:

Since its implementation, the program has been managed by the OSFM's Public Fire Education and Data Management Manager. During that time period, the agency's information technology department developed an in-house database management program to track the certification of various manufacturers. Each manufacturer submits the required application, with the supporting documentation, which is evaluated and entered into the database. The manufacturers are notified of the approval or disapproval of their application. After verifying that the particular brand styles have been approved for sale in South Carolina by the Attorney General, the information about cigarette brands approved for sale in SC is posted on the OSFM website. Those approved as FSC, but not approved by the Attorney General, are so marked on the website. If a manufacturer adds or changes a brand style, then a supplemental application and supporting documents are submitted for review and approval. Publication is the same as for an initial approval. Recertification of all approvals is required every three years (products initially approved in 2010 were due for recertification in 2013 and 2016). As of the end of Fiscal Year 2017, there are 29 cigarette manufacturers, representing 1117 individual brand styles of cigarettes, certified for sale in South Carolina as being FSC.

Program Effectiveness:

The ultimate measure of effectiveness is the reduction of cigarette-initiated fires. Based on information provided by South Carolina fire departments from 2006 to 2016, through the National Fire Incident Reporting System, the highest number of confirmed cigarette-initiated fires during the period occurred in 2010 (285). From 2010 to 2013, there was a 29% decrease in documented cigarette-initiated fires. However, since 2013, the number of documented cigarette-initiated fires has fluctuated from 203 to 269. This results in an average of 233 cigarette-initiated fires per year in the years after program implementation in 2010 compared to an average of 238 for the years prior to program implementation.

Planned Program Adjustments:

Plans are in development to provide education and awareness to cigarette manufacturers, wholesalers, and retail dealers and their employees about the Fire Standards Compliant Cigarette program. A combination of education and awareness will provide a first line of protection for consumers who may unknowingly purchase unmarked and unapproved cigarettes. Additionally, increased awareness for retail dealers and their employees will help to ensure that the cigarettes being sold in their establishments conform to the Statute.

An inspection program is under development whereby establishments where cigarettes are placed, sold, or offered for sale will be inspected by trained Deputy State Fire Marshals. This will ensure compliance with the law. Deputies will also be trained in the proper procedures for identifying products that are subject to forfeiture.

The Community Risk Reduction Section of the OSFM will monitor data provided by reporting systems in regards to smoking-related fire events. The State Fire Community Loss Education and Response (CLEAR) Team assists local fire departments with determining the most probable cause of fires that result in the death of a civilian. When the fire-related death is considered to be attributable to smoking, the CLEAR Team members will collect additional information about the brand style of cigarettes involved and examine packaging (if possible) for the proper FSC markings.

It is anticipated that these internal program implementations will increase awareness and compliance with the existing law. No legislative recommendations are submitted at this time.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Jonathan C. Jones', with a stylized flourish at the end.

Jonathan C. Jones
State Fire Marshal