

## What are reduced ignition propensity (RIP) cigarettes?

Reduced ignition propensity (RIP) cigarettes, also known as “fire-safer” cigarettes, are cigarettes which have been designed to self-extinguish when left unpuffed. However, RIP cigarettes are no safer with respect to the health consequences of smoking than their traditional cigarette counterparts. Their primary utility compared to other types of cigarette is the reduced incendiary feature to prevent fires caused from burning cigarettes.

Conventional cigarettes are designed to continue burning when left unattended. An unfortunate consequence of this is that if they are dropped on mattresses, upholstered furniture, or other combustible material while still burning, they have a high propensity to start fires. Smoking is a leading cause of fires in many countries, producing an estimated 10% of global fire death burdens. Smoking generates an estimated global fire cost of US\$ 27.2 billion per year.

## What are the benefits of regulating the ignition propensity of cigarettes?

Ultimately, the most effective method for reducing fire incidence and fire-related mortality from smoking is to reduce the total number of smokers and the volume of flammable cigarettes available on the marketplace. Nevertheless, the introduction of fire safety technical standards for cigarettes and the adoption of legislation to ensure compliance with these standards could help to prevent a significant number of deaths, injuries, and property damage. In fact, there is good evidence to suggest that the implementation of RIP standards can yield a measurable reduction in fire deaths caused by smoking material. A 2013 report by the United States National Fire Protection Association suggests that the adoption of the RIP standard by US states appears to be the “principal reason for a 30% decline in smoking material fire deaths from 2003 to 2011” and a key contributing factor to the lowest levels of smoking-material related fire incidents and deaths since 1980. In Estonia, the number of deaths in fires due to smoking materials had dropped from 73 to 54 in 2012, the first full year of implementation of legislation requiring that only RIP cigarettes be sold on the marketplace. Finally, in Massachusetts, the Cigarette Fire Safety law adopted in 2008 was associated with a 28% reduction in the likelihood of residential fires.



## How are cigarettes which are less prone to initiating fires made?

Common ways to reduce the ignition propensity of cigarettes include altering the wrapping paper properties, decreasing the thickness and/or density of the cigarette, and the application of extinguishing bands to the cigarette paper. The method of banding is most commonly used to reduce ignition propensity. Banding involves the application of ultra-thin concentric bands to traditional cigarette paper. These bands cause the cigarette to go out if it is not smoked, by restricting oxygen to the burning ember. The tobacco industry has had the advanced science base and technology to make all cigarettes less likely to cause fires since the early 1990s but only began to market some RIP brands around the year 2000.

Technical standards for the testing of reduced ignition strength and the production of modified fire resistant cigarettes have been developed. Examples include the American Society for Testing and Materials E2187 (Standard Test Method for Measuring the Ignition Strength of Cigarettes), European Committee for Standardization's standard CEN: EN 16156:2010

November 2014

(Cigarettes–Assessment of the ignition propensity–Safety requirement), Australian Standard AS 4830-2007 (Determination of the extinction propensity of cigarettes), the US National Institute of Standards and Technology NIST SRM 1082 (Cigarette Ignition Strength Standard) and NIST SRM 1196 (Standard Cigarette for Ignition Resistance Testing), and International Organization for Standardization ISO 12863 (Standard test method for assessing the ignition propensity of cigarettes). These standards have been adopted by various countries.

## Where have reduced ignition propensity standards been implemented?

Currently, all 50 US states, Australia, Canada, Iceland, South Africa, and all 28 European Union Member States have adopted policies requiring RIP cigarettes. These countries represent approximately 20% of the world's population, consuming approximately 20% of the world manufactured cigarettes and on the whole are mostly large high income nations.

The regulatory framework for RIP laws has varied on a country to country basis. While Canada has adopted measures for reducing ignition propensity within public health laws, most US states implement such measures within laws on fire safety. In Australia and the European Union, similar measures have been implemented within the framework of consumer protection legislation.

The scientific evidence shows that, compared to conventional non-RIP cigarette smokers, those using RIP cigarettes do not change smoking behaviour (e.g. puff volume, puff duration, interval between puffs) or increase fire-risk related behaviour, such as leaving burning cigarettes unattended or smoking in bed. In addition, studies on emissions tend to show no substantial differences between conventional cigarettes and RIP cigarettes and risk assessment studies have indicated no evidence of increases in toxicant exposures among smokers. Finally, economic studies have shown no decline in cigarette sales after implementation of the fire safety standards for cigarettes, contrary to tobacco industry claims.

## What can governments do to regulate the ignition propensity of cigarettes?

Effective tobacco product regulation may contribute to reducing tobacco-attributable disease and premature death by reducing the attractiveness of tobacco products, reducing their addictiveness or reducing their overall toxicity. So far, Parties to the WHO FCTC have adopted the partial guidelines for implementation of some of the measures contemplated in Articles 9 and 10 of the Convention. These guidelines encourage Parties to reduce the likelihood of cigarette-caused fires by:

- setting a performance standard that corresponds at a minimum to the current international practice, regarding the percentage of cigarettes that may not burn their full length when tested according to the method;
- requiring tobacco manufacturers to test ignition strength, report the results to the responsible authority and pay for implementation of the measures;
- requiring that all cigarettes comply with a RIP standard and establishing the necessary enforcement mechanisms; but
- avoiding any claims suggesting that RIP cigarettes would be unable to ignite fires.

As more countries adopt RIP legislation, it will be important to obtain accurate data on the impact this has in helping to reduce fire deaths and injury. In order to do so, more standardized and comparable information regarding the trends and patterns in incidence of fire- and cigarette fire-related deaths and injuries should be collected.



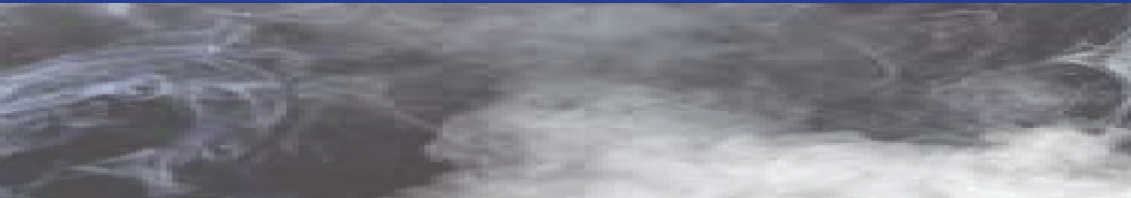
## Summary

While the number of deaths caused by cigarette fires is significantly lower than the number of deaths caused by smoking, it is a serious problem that must and can be addressed. A small number of countries have adopted RIP standards for their cigarettes in order to save lives. Countries which have adopted RIP standards and enacted RIP laws have reported reductions in smoking material fire deaths. In this way, reduced ignition propensity cigarettes offer a measurable public health impact. The adoption of RIP laws and strict enforcement of these laws to ensure compliance will ensure manufacturers review the current design of cigarettes in the marketplace and adopt international standards for RIP cigarettes. The tobacco industry should universally adopt RIP cigarette design as part of good manufacturing practice and reduce the deaths, injuries, and property destruction caused by cigarette-induced fires.

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November 2014

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