

# Smoke Eater

By

Ronny J. Coleman

Back in the “good ole days” there was a complimentary phrase that was used to describe a firefighter. Really good ones were called “smoke eaters”. When used in conversation about someone being called by that term, the reaction would be a big grin on someone’s face accompanied by an expansion of the chest to demonstrate pride.

Most all of them died prematurely. This was because the smoke they willingly ate was lethal. Many lived long enough to retire, but not long enough to enjoy the benefits of retirement. I knew some of them. You may have known some of them.

Today if we label someone as a smoke eater, it is almost an indictment of their behavior. We have other terms for people who eat smoke such as line of duty casualty or line of duty death. This is nothing to celebrate. It is nothing to be proud of.

Scientists are now telling us that any behavior that continues to expose firefighters to carcinogens is dangerous. That is a simple enough statement, but has been ignored in both the past and in the present. Unfortunately, there are some that will ignore this warning even in the future. Something has to be done to limit this threat to firefighters.

Turning to what scientists are telling us is simple also. We now have instruments that can measure what is in the smoke and how it enters the human body. Many people are only concerned about breathing it in. You can be exposed to carcinogens by particles that can be absorbed through your skin.

Believe it or not, this is one of the rare opportunities where fire prevention and fire suppression share a joint agenda. A smoke eater of the past was dealing primarily with fuels such as; wood, wool, paper, and the like. The material used in construction was generally natural, i.e. wood, concrete, stone, and steel. Fire prevention bureaus play a big role in terms of what is in all buildings. Modern materials have increased significantly in both content and construction. Plastics, synthetics and even fire retardants have been added to the fuel load. We are doing a great deal more in protecting buildings for example, sprinklers, compartmentalization, evaluation of flame spread of materials, and so forth.

Concurrently we have added to the technology of protecting firefighters. Two of the best examples of this can be found in the development of air management policies and procedures and the installations of Firefighter Air Replenishment System (FARS) in high rises, tunnels and subways, large area buildings and shipboard. These technologies improve the efficiency and effectiveness of the individual firefighter while at the same time increasing the level of safety during operations. Flame and heat are the enemy to the building; toxic combustion products are the enemy of the firefighter.

But, we are sealing buildings up to make them greener and we are filling buildings up with products that produce a toxic atmosphere.

So now, fire suppression forces not only have to worry about what is happening to trapped victims, but must be equally concerned about their own safety. This opens up an entirely new conversation about what the fire prevention bureau allows in a building versus what fire suppression personnel can survive in that same building.

In order to summarize this argument, I remember a line from a movie many years ago. It was called "The Graduate". One of the participants at a cocktail party whispered to a young man a single word; plastics. The actor Dustin Hoffman may or may not have taken the suggestion, but we know a lot of other people did. The amount of plastics in a building today is statistically significant. If you read the literature, it is suggested that plastics have properties that make for ideal building materials. As a result, plastics have evolved into a product of choice for many purposes in homes and businesses. But, the fire service has also recognized that plastics have limitations.

It is hard to argue against technological improvements that provide economic benefit. But it is equally important that we assess the consequences of a product in a building that endangers both its occupants as well as public safety personnel.

This is not anything new. As early as 1955, the scientific community was interested in this topic.<sup>1</sup>

Did the fire service learn anything from this study? I am not so sure. For 25 years after the issuance of that warning document, there were fire departments still refusing to wear breathing apparatus and firefighters dying of cancer.

The current professional wisdom views this issue differently as a result of increased awareness. For example, we have the following three organizations that have focused on firefighter safety. All three have been utilized the educational process to raise awareness of what is going on. They are:

National Fallen Firefighter – Ron Siarnicki - (410) 721-6212 - [rsiarnicki@firehero.org](mailto:rsiarnicki@firehero.org) - P.O. Drawer 498, Emmitsburg, MD 21727

Firefighter Cancer Support Network – (866) 994-3276 - 2600 West Olive Ave, 5<sup>th</sup> Floor, PMB 608, Burbank, CA 91505

Fire Smoke Coalition – Shawn Longerich - (317) 690-2542 - [shawn@firesmoke.org](mailto:shawn@firesmoke.org) - 120 E Market St., Suite 120, Indianapolis, IN 46204

---

<sup>1</sup> Plastics in Buildings, Building Research Institute, National Academy of Sciences, National Resource Council, Washington DC, April 1955

## Summary

The changes in the fire environment that the firefighter needs to be concerned about is what is approved inside of buildings. This concern is justified. While industry representatives will continually debate the wisdom of the use of various materials, the fire service will continue to be impacted by the byproducts of combustion given off when plastics burn. Adding fire retardants to those same plastic materials does not reduce the concern for the toxic byproducts.

Instead of being smoke eaters, the future of the fire service is figuring out how to control fires without killing firefighters. Adoption of new methods of operations such as air management is a long-term strategy that will improve firefighter health. Adoption of new technologies such as FARS will improve the effectiveness and efficiency of the fire force on the ground.

*Ronny J. Coleman is a 50-year veteran of the fire service. He is the Past President of the International Association of Fire Chiefs and the Fire & Emergency Television Network, which features career development and succession planning in its Command Transfer series. He served as the Fire Chief in Fullerton and San Clemente, CA, and was the Fire Marshal of the State of California from 1992 to 1999. He is a certified fire chief and a master instructor in the California Fire Service Training and Education System. A Companion Fellow of the Institution of Fire Engineers, he has an associate's degree in fire science, a bachelor's degree in political science and a master's degree in vocational education. In 2014, Chief Coleman received the Tom Brennan Lifetime Achievement award from Fire Engineering. In 2015 he was awarded the International Public Safety Leadership & Ethics Institute Honors Award.*