



# INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS®

HAROLD A. SCHAITBERGER  
General President

EDWARD A. KELLY  
General Secretary-Treasurer

February 13, 2020

Senator Delores Kelley, Chair  
Senate Finance Committee  
3 East, Senate Miller Office Building  
Annapolis, Maryland 21401

## **Testimony Concerning SB 447, Public Health - Products Containing a Flame-Retardant Chemical**

### **Submitted to the Finance Committee**

#### **Position: Support**

My name is John Niemiec and I am the Deputy Director for Occupational and Behavioral Health Services at the International Association of Fire Fighters (IAFF). The IAFF represents over 320,000 professional fire service employees in the United States and Canada. As an organization, we have been actively involved in improving the health and safety of fire fighters for more than 100 years.

We appreciate the opportunity to express our support for Senate Bill 447, prohibiting the sale of juvenile products, mattresses, and upholstered or reupholstered furniture that contain flame retardant chemicals. Passing this bill will protect Maryland residents, especially children, fire fighters and other vulnerable populations, from being needlessly exposed to intentionally added toxic chemicals that are ineffective and unnecessary in these product categories.

Flame retardants are abundant in modern household furnishings and appliances. Polybrominated diphenyl ethers (PBDEs) and its penta, octa, and deca congeners were the most commonly used flame retardants in the U.S. but there are several other classes of flame retardants used in consumer products today. These chemicals were originally added to slow or prevent the growth of fire. Unfortunately, they did not perform as expected and over time many have been identified as toxic. When foam containing flame retardants burns, it gives off higher levels of carbon monoxide, soot, and smoke compared to foam without flame retardants, creating a more hazardous fire. Such fires also release dense black smoke that reduces visibility and increases highly corrosive gases.

Unfortunately, these toxic conditions have become the normal working environments for fire fighters. Every time a fire fighter enters a fire, they are confronted with a haze of toxins and chemical compounds that are released under extreme heat conditions. When flame retardant chemicals burn, they convert into cancer causing chemicals such as dioxins and furans. Fire fighters are exposed to these carcinogens on the fireground during fire activities, including suppression and overhaul. They are also exposed at the station and at home from residue on their protective equipment and from contaminants they carry back to the station. Toxins are inhaled as well as absorbed by the fire fighter in these multiple environments, adding to an individual's toxic load. It is our position that this exposure contributes to the reason our members have a significantly higher incidence rate of certain types of cancer.

Research shows that Halogenated flame retardants are some of the deadliest flame retardants and are directly linked to cancer as well as endocrine disruption effecting neurodevelopment, reproductive systems and immune suppression.

The National Institute for Occupational Safety and Health (NIOSH) conducted a landmark study of cancer among U.S. fire fighters that included data from over 30,000 career fire fighters employed between 1950 and 2010. The research found that fire fighters had statistically significant increases in both diagnosis and death from cancers of the respiratory, digestive and urinary systems compared to the general population.

Additional studies also show that fire fighters have much higher levels of these cancer-causing chemicals in their blood than the general population. Research revealed these toxic flame retardant chemicals are associated with a range of serious health effects in fire fighters including cancer, endocrine and thyroid disruption, reproductive toxicity and immunotoxicity.

We believe that the health risks to fire fighters associated with the use of these chemicals is greater than the fire risk without using these chemicals, resulting in the manifestation of occupational cancer and other diseases.

We have seen many states shift away from these toxic flame retardants as they are not as effective as they claimed to be and ultimately make the fire fighter work environment more dangerous and toxic. The federal government is also taking steps to regulate such chemicals. In 2017, the Consumer Product Safety Commission voted to initiate a rulemaking under the Federal Hazardous Substances Act (FHSA) to study the effects Organohalogen Flame Retardants (OFRs) have on consumer health. They recommended that manufacturers of children's products, upholstered furniture sold for use in residences, mattresses and mattress pads, and plastic casings surrounding electronics refrain from intentionally adding nonpolymeric OFRs to products.

By essentially banning several broad categories of flame retardant chemicals in children's and household products, SB 447 will significantly reduce fire fighters' exposure to these chemicals, thus reducing fire fighters' toxic load and reducing their risk for cancer.

SB 447 improves upon efforts made by Maryland to ban certain flame retardants. Maryland has already banned octa-, penta-, and deca- brominated flame retardants in a number of consumer products. However, the transition away from these legacy chemicals has led to the use of organophosphorus flame retardants. As a result, Maryland rightly banned two organophosphates, TCEP and TDCPP, from child care products, but other flame retardants in this group remain in use.

We continue to see specific flame retardants being banned and then replaced with a regrettable substitution. This cycle needs to stop. By banning full classes of flame retardants, SB 447 will prevent the importation or sale of children's products and household furniture containing alternative chemicals with the same or worse toxic properties, and thus better protect the health of children, families and fire fighters.

The risks faced by consumers and first responders has not gone away, and neither have the chemical companies' efforts to keep putting them in our products. For the safety of Maryland residents, and fire fighters, we need to get toxic flame retardants out of our homes once and for all.

For these reasons, I respectfully ask that you support SB 447. Thank you.