



# INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS®

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March 1, 2010

Mark Drygas, President  
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Dear President Drygas:

The International Association of Fire Fighters is concerned about health and safety of our members as well as the health and safety of all our citizens. Accordingly, the IAFF believes that the passage of legislation addressing brominated flame retardants (Polybrominated diphenylethers (PBDEs) including Penta-, Octa-, and Deca-BDEs) is a step in the right direction for improving the health and safety of our fire fighters and the citizens who are exposed to these toxic substances. Accordingly, we support the efforts of the Alaska State Legislature on this issue.

Before going ahead, I believe it is important for you to understand what our organization is and whom we represent at these hearings. The IAFF is an international union affiliated with the AFL-CIO and the Canadian Labour Congress. At the present time, we represent over 296,000 paid professional fire service employees in the United States and Canada. The membership of the IAFF is employed by various parties that include the federal government, states, counties, municipalities, fire districts, airports, industrial manufacturers, and so on.

The profession of fire fighting is and has always been a hazardous occupation. Every year the IAFF reviews the deaths and injuries occurring in the fire service, and each year the hazards of fire fighting continue to exist and display ever-varied forms. Fire fighter line-of-duty fatalities have ranked fire fighting among other publicized hazardous occupations in the private sector, such as mining and construction.

One of the primary applications of PBDE's is as a flame retardant applied onto or in many common household goods (furniture foam; plastic cabinets; computers and small appliance; consumer electronics; wire insulation; and back coatings for draperies and upholstery) to reduce and retard the amount of flame spread. While these chemicals inhibit the formation and spread of flames, they do not completely prevent fires. However, unlike other flame retardants, when PBDE's burn they release dense fumes and black smoke that reduce visibility and a highly corrosive gas known as hydrogen bromide. In addition, PBDE's produce highly toxic byproducts of incomplete combustion. Although use of flame retardants may save lives and property, there have been unintended consequences. There is evidence that PBDEs persist in the environment and accumulate in living organisms, as well as toxicological testing that indicates these chemicals may cause liver toxicity, thyroid toxicity, and

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neurodevelopmental toxicity. Many studies involving fire fighters exposed to these and other toxic gases during active fire fighting, overhaul, and long term exposure from these chemicals penetrating protective gear, have found that fire fighters have a much greater risk of contracting cancer, heart and lung disease, and other debilitating diseases. While we support the concept of flame retardant chemicals, there are alternatives that do not contain bromine or chlorine and are much safer for fire fighters than PBDE's.

The IAFF salutes those companies that have stopped using brominated flame retardants (such as Dell, Hewlett-Packard, Ikea and many others) and are now using safer alternative fire retardants. These companies demonstrate that alternative flame-retardant technologies for achieving fire safety standards do exist and are readily available for other manufactured products.

Three years ago, as the result of a successful political action initiative led by the Washington State Council of Fire Fighters, Washington State banned PBDEs effective in 2008, pending a study of alternatives.

Maine became the second U.S. state to ban PBDEs, thanks to an initiative led by the Professional Fire Fighters of Maine. The Maine bill specifically targets deca-BDEs and phases them out by the year 2010. Other States examining the PBDE issue include California, Connecticut, Hawaii, Illinois, Maryland, Michigan, Minnesota, Montana, New York and now Alaska. We are certainly appreciative to the Alaska Professional Fire Fighters Association to also address this important issue with legislation for the safety of our fire fighters and our citizens.

Further, the IAFF with the assistance of the National Association of State Fire Marshals (NASFM) worked with the National Institute for Standards and Technology and organized a scientific workshop on the potential health effects to fire fighters of flame retardants in the aftermath of a fire. This meeting was held in September of last year. Technical experts from the government and private sector representing the fire services, health sciences, fire science, environmental sciences, and product manufacturers explored our state of knowledge about and stimulated open discussion by the meeting participants on:

- Approaches to reducing the flammability of building products and the rate of fire spread in buildings;
- The composition and nature of products formed during and after an actual building fire, and how they are affected by the presence of a fire retardant;
- Quantification of the concentration of the fire products;
- Routes of exposure by emergency responders and clean-up crews to hazardous fire products;

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- The possible relationship between acute and chronic health effects on emergency responders exposed to fire products, and the type and amount of fire retardant involved in the fire; and
- Knowledge gaps and the identification of a possible future research agenda.

Finally, the IAFF has worked with the manufacturing industry on this issue to further protect our membership. Chemtura, one of the nation's largest manufacturers of DecaBDE (Decabrom), has been in opposition to the legislation. However, Chemtura and the IAFF have now agreed to jointly support federal legislation that would establish:

- A time table to ban the production or importation of Decabrom for US consumption;
- A time table to ban the sale of finished products containing Decabrom; and
- A mechanism to compel compliance and enforcement of the respective bans.

Due in part to that effort, the US Environmental Protection Agency announced on December 17, 2009, that the two U.S. producers of decabromodiphenyl ether (decaBDE), Albemarle Corporation and Chemtura Corporation, and the largest U.S. importer, ICL Industrial Products, Inc., have committed to end production, importation, and sales of decaBDE for most uses in the United States by December 31, 2012, and to end all uses by the end of 2013. EPA has long been concerned about these fire retardants' impact on human health and the environment. Again, their studies have shown that decaBDE persists in the environment, potentially causes cancer and may impact brain function.

Any measure that takes a potentially dangerous chemical away from the fire fighters' workplace will enhance fire fighter safety, and as a result, public safety. Let me conclude by addressing the perception of public safety and fire fighter and citizen exposures to toxic products. During the last year's holiday shopping season, there was uproar around the world about 90 ppm of the flame retardant antimony that was found in Zhou Zhou toy hamsters, a popular Christmas toy. What didn't make the news is that currently:

- 30,000 ppm of flame retardants is found in nursing pillows, high chairs, and stroller foam;
- 75,000 ppm of antimony is found in TV enclosures; and
- 150,000 ppm of DecaBDE is found in plastic enclosures.

The amount of antimony in the toy hamsters was determined not to migrate out and cause a health problem for children. However the flame retardants in baby products,

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furniture and TV enclosures do migrate into dust and as I have discussed can contribute to toxic exposures to citizens and fire fighters. That is why the IAFF and our state and provincial associations, including the Alaska Professional Fire Fighters Association have been addressing these exposures and we are working with federal, state and provincial governments as well as the industry to remove many of these chemicals from common products.

The International Association of Fire Fighters and the Alaska Professional Fire Fighters Association once again appreciate the Alaska State Legislature's proposal to address fire fighter exposures to toxic materials and we support such efforts to protect our members.

Sincerely



Richard M. Duffy  
Assistant the General President  
Occupational Health, Safety and Medicine

cc: Ricky Walsh, IAFF District Vice President