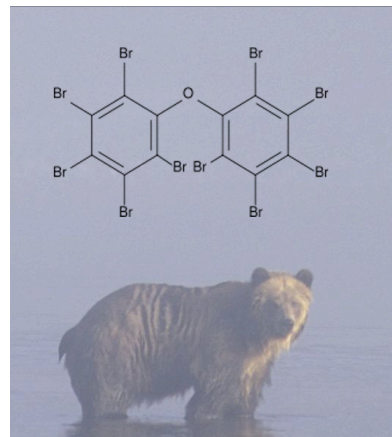


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How Environment Canada is Shirking Its Duty to Protect Wildlife (and People) from Flame Retardants

Toxic Grizzlies

By MISTY MacDUFFEE



If you are like most people, you have likely never heard of a chemical called deca Brominated Diphenyl Ether (decaBDE), but right now, Environment Canada is quietly deciding whether or not to continue exposing you and our country's wildlife to this substance.

DecaBDEs are part of a family of chemical flame retardant called polybrominated diphenylethers (PBDEs). Other family members, penta- and octa-BDE, were pulled from the market after alarming increases in their concentration in human breast milk and in wildlife.

PBDEs entered the market as a flame retardant in the late 1970s. Since then, they have been incorporated into textiles, plastics, furniture and electronics to reduce fire hazards. As the treated products age, particles break off and become dust. We then breathe them in at home, in the car and at the office.

PBDEs are similar to a family of substances that have been banned in Canada for decades: PCBs (polychlorinated biphenyls) and the organochlorine pesticide DDT. These and ten other chemicals are deemed so dangerous that they are the subject of an international convention (the Stockholm Convention). All these chemicals share four distinguishing features: they are toxic, they bioaccumulate, they don't readily break down, and they can travel thousands of kilometers. If PBDEs resemble PCBs and other dangerous chemicals, why are they still on the market in Canada? It is a question that eludes most researchers.

In 2003, the Raincoast Conservation Society and its research partners began documenting the presence of pollutants in BC's grizzlies. In sync with their growing presence in people and wildlife in other parts of the world, we found PBDEs in our bears. And we found decaBDE in our bears, contrary to the chemical industry's theory that this molecule was too big to be taken up by animals. In addition, we and others have produced evidence that this molecule actually breaks down into light PBDE

molecules: the very types of chemicals found in the banned penta and octaBDE products!

Once inside the body, PBDEs can act as hormone mimics. They can cause effects on neurological development, growth, metabolism and immune function. Because they are stored in fat including milk, nursing cubs may be the most vulnerable to their concentration and uptake.

The same is true for nursing children. Exposure models developed in US studies suggest young children are receiving 300X the exposure of adults, due largely to breast milk intake.

PBDEs are on the rise in the BC environment. Without substantive regulation to ban decaBDE, it is estimated that PBDEs will be the number one persistent organic pollutant in the BC marine environment by 2020.

By law, Environment Canada must regulate substances that are toxic, persistent or bio-accumulative. DecaBDE (and its breakdown products) qualifies in all three categories. In late 2006, Environment Canada announced plans to phase out certain PBDEs ones that industry had, for the most part, already agreed to discontinue. Unregulated DecaBDE will now make up 100% of the market use.

In February 2007, a 'Notice of Objection' to Environment Canada's decision to overlook eliminating decaBDE was filed by the Sierra Legal Defence Fund on behalf of its clients. It calls for a reconsideration of decaBDE in accordance with the Canadian Environmental Protection Act.

Recently the Canadian branch of the International Association of Fire Fighters (IAFF) joined the call to ban all PBDEs, because of the occupational health hazards they present to their frontline workers. Firefighters are keenly aware of the dangers of highly flammable consumer products, but they also know many alternatives to PBDE flame retardants exist.

The evidence and support to eliminate PBDEs, including deca, can no longer be ignored. Environment Canada has yet to respond to this nearly year old request.

Misty MacDuffee is a biologist with the Raincoast Conservation Society and part of the team investigating the presence and fate of persistent organic pollutants in grizzlies.

