



SENATE PUBLIC HEALTH, WELFARE & SAFETY	
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BSEF Statement to Montana Hearing in Opposition to SJ 15

14 February, 2005

To the Chairmen and members of the committee, let me thank you for allowing me the opportunity to testify in front of you today in opposition to SJ 15. My name is Raymond Dawson and I am speaking to you in my capacity as Chairman of the Bromine Science and Environmental Forum known as BSEF. BSEF is dedicated to working with regulatory authorities to generate high quality scientific data to address issues concerning brominated flame retardants (BFRs) that will allow sound regulatory decisions to be made. The member companies of BSEF comprise the major BFR producers. However, I should like to emphasize that these same companies have a broad portfolio of flame retardant chemicals including those based on phosphorus, nitrogen, aluminum, magnesium, and antimony. We thus have a very solid understanding of the relative strengths and weaknesses of the various technologies used to flame retard products. At a personal level, I hold a Ph.D. in physical chemistry and have held senior positions within the flame retardant industry as a Director of Research and Development, a Director of Customer Technical Service and Applications Technology, and as a global business manager. I thus have a good appreciation of both technical and commercial aspects of the industry and its products.

SJ 15 calls for the phase out of polybrominated diphenyl ethers (PBDEs) in Montana while maintaining existing fire safety standards. There are three commercial flame retardants that are classified as PBDEs. These are known as "Penta", "Octa", and "Deca". It is scientifically unjustified to regard these three products as having similar properties that would justify treating them all in the same manner. For example Penta is a viscous liquid made up of a complex mixture of lower brominated diphenyl ethers, whereas Deca is a white, high melting point solid composed of over 97% of the fully brominated diphenyl ether. The Penta and Octa products are no longer produced by our industry, and their phase out has been required in the European Union and a number of States such as California, Maine, and Michigan. By contrast the Deca product has not been banned in any country or state, and proposed future restrictions on its use in electrical equipment in Europe are being reconsidered in the light of the recently completed European Union risk assessment. The expectation is that these restrictions will be lifted in the near future.

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I'd like to spend a few minutes describing the significant, independent evaluations that support the continued use of Deca. The most significant of these is the European Union's risk assessment of Deca that was closed towards the end of last year. This is undoubtedly the most comprehensive and rigorous human health and environmental evaluation of any flame retardant whether brominated or not. Over a period of 10 years technical experts appointed by each of the EU's member states have evaluated what is known about Deca and have requested more information be generated to fill any significant data gaps. During that time over 100 experiments have been run. The data have been generated largely at independent test laboratories following the highest standards of scientific protocol as outlined in the EU's technical guidance document. The risk assessment has examined the use of Deca under a wide range of scenarios. Deca's impact on water, on land and air has all been considered, as well as worker and consumer exposure. Appropriate factors have been applied to ensure that appropriate safety margins have been built into all the cases. During this process there are three conclusions that can be drawn for any given scenario – conclusion i) is that further information is needed; conclusion ii) is that no further risk reduction is necessary beyond current practices; and conclusion iii) is that some risk reduction is necessary. In no case is a conclusion iii) reached, that is no risk has been identified. Industry has agreed to undertake additional monitoring and further experimentation to address some additional questions, but the bottom line is no risk identified after ten years of close study.

The conclusions of the EU risk assessment are in accord with other independent evaluations. The U.S. National Academy of Science, the Consumer Product Safety Commission, and the UK Department of Trade and Industry have all examined the use of Deca in various applications and concluded that risks are low and outweighed by the benefits of its use. No State in the Union has banned or restricted the use of Deca in any way.

Deca is used to inhibit the ignition and flame spread of polymeric materials. In simple terms it reduces the risks of plastic materials catching fire. Deca makes a very significant contribution to fire safety and its use results in lives saved, reduced levels of some of the most distressing injuries imaginable, and reduced economic loss. Deca is the most researched of all flame retardants, and, as discussed above, presents little risk to the environment or human health. To propose its elimination and substitution by less well understood chemicals is a recipe that, rather than solving problems, will create problems for the future. In those applications where it is used there are no alternatives to Deca that combine its efficiency as a flame retardant together with its cost performance. The benefits to society in using Deca are significant and should be carefully considered.

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6SJ 15 addresses a number of concerns. I believe that these concerns are almost totally associated with the components of the Penta product. The cessation of production of the Penta product will address these issues. Deca is not bio-accumulative, and it is not toxic.

I respectfully submit to the committee that SJ 15 is far too broad in calling for a ban on all PBDEs. In the case of Deca, a wealth of independent data and review shows it to present no identifiable risk that would warrant restrictions in use. SJ 15 is not based on a good appreciation of the science supporting Deca and its implementation will result in reduced levels of fire safety for the citizens of Montana. This bill is a recipe for the creation of problems in the future. For these reasons I would urge the committee to vote against SJ 15.

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