

ENVIRONMENT COMMITTEE

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*HIS WORSHIP, THE MAYOR  
AND COUNCILLORS*

**SUBJECT: POLYBROMINATED DIPHENYL ETHERS (PBDE'S)**

RECOMMENDATIONS:

1. THAT Council write to the Federal Minister of the Environment in support of a Federal Private Member Bill M-38 calling for legislation to completely phase out the production and importation of products containing Polybrominated Diphenyl Ethers (PBDE's).
2. THAT a copy of the letter to the Federal Minister of the Environment in support of Federal Private Member Bill M-38 be sent to the Provincial Minister of the Environment and FCM.
3. THAT a copy of this report be sent to Mr. Peter Julian, MP, Burnaby-New Westminster.

REPORT

The Environment Committee, at its Open meeting held on 2006 October 10, received and adopted the attached report in response to correspondence from Peter Julian, MP, Burnaby-New Westminster urging the City to support his motion before the Parliament calling for legislation to completely phase out the production and importation of products containing Polybrominated Diphenyl Ethers (PBDE's). Given the availability of non-brominated fire retardant alternatives to PBDE's and the impact of PBDE's to the environment and humans in the long term, the Committee supported Mr. Julian's resolution.

Arising from discussion, the Committee requested that a copy of the letter to the Federal Minister of the Environment supporting the Motion M-38 on phasing out PBDE's be sent to the Provincial Minister of the Environment and FCM.

Respectfully submitted,

Councillor Dan Johnston  
Chair

Councillor Pietro Calendino  
Vice Chair

Councillor Lee Rankin  
Member

COPY - CITY MANAGER  
DIRECTOR ENGINEERING

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**TO:** CHAIR PERSON & MEMBERS  
ENVIRONMENT COMMITTEE

**DATE:** 2006 10-02

**FROM:** DIRECTOR ENGINEERING

**FILE:** 33000-05

**SUBJECT:** Polybrominated Diphenyl Ethers (PBDE's)

**PURPOSE:** To provide the Committee with information on use of Polybrominated Diphenyl Ethers (PBDE's) and to respond to the correspondence from Peter Julian, MP, Burnaby-New Westminster.

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**RECOMMENDATION:**

1. THAT the Committee recommend that Council :
  - a) write to the Federal Minister of the Environment in support of a Federal Private Member Bill M-38 calling for legislation to completely phase out the production and importation of products containing Polybrominated Diphenyl Ethers (PBDE's)
  - b) forward a copy of this report to Mr. Peter Julian, MP, Burnaby-New Westminster

**REPORT**

**1.0 INTRODUCTION**

At the Environment Committee Meeting on September 12, 2006, the Committee received correspondence from Peter Julian, MP, Burnaby-New Westminster urging the City to support his motion before the Parliament calling for legislation to completely phase out the production and importation of products containing Polybrominated Diphenyl Ethers (PBDE's). Arising from this, the Committee requested staff to prepare a report.

The following report provides information on uses of PBDE's, impacts to human health and the environment, and responds to the correspondence from Mr. Peter Julian, MP.

## 2.0 POLYBROMINATED BYPHENYL ETHERS (PBDE's)

Polybrominated Diphenyl Ethers (PBDE's) are a group of brominated chemicals that have been used as flame retardants in a variety of polymer resins and plastics since 1970's. They are generally found in three commercial mixtures, penta-BDE, octa-BDE and deca-BDE. While PBDE's are not manufactured in Canada they are imported in finished articles or used in making a variety of commercial and consumer products such as computer housings, household appliances, furniture, automotive and aircraft seating and interiors, and a variety of electrical and electronic components. PBDE's are also used to a lesser degree in some textiles, adhesives, sealants and coatings.

Releases of PBDE's to the environment can occur during manufacturing and processing operations, throughout the service life of articles containing PBDE's and when articles that contain PBDE's are disposed.

Although the flame retardants save lives and property, they have unintended consequences. There is growing evidence from environmental monitoring programs in North America, Asia, Europe and Arctic that PBDE's persist in the environment and do accumulate in living organisms. Trace levels of PBDE's have been found in all environment media (air, water and land), fish, aquatic birds and in human breast milk. Furthermore, these levels have shown to be increasing at a rapid rate since early 1990's.

Based on the findings, several jurisdictions around the world have taken action on banning PBDE's. The commercial mixtures of penta-BDE and octa-BDE are being banned by European Union (in effect 2004), California (2008), Hawaii (2006) and Maine (2006). Maine has also proposed a ban on deca-BDE for 2008. Other American states such as Washington, Michigan and New York are considering or have passed similar legislation restricting/banning certain PBDE's. The US Environmental Protection Agency has had a voluntary agreement with the major manufacturer of penta-BDE and octa-BDE to cease production in 2004. Sweden, concerned about the perceived risks, has unilaterally decided to draft plans for a ban on the use of deca-BDE in national production.

Penta-BDE and octa-BDE commercial mixtures are also being considered for addition to two international agreements because the PBDE's contained in them have the ability to undergo long-range transport, are persistent and bioaccumulative and cause adverse effects.

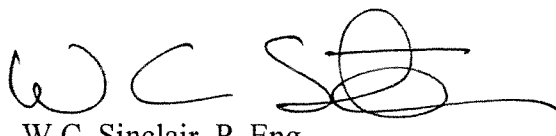
In December 2005, the parties of the United Nations Economic Commission for Europe (UNECE) Long-Range Transboundary Air Pollution (LRTAP) Conventions protocol on Persistent Organic Pollutants (POP's) agreed that penta-BDE should be considered as a persistent organic pollutant. Examination on management strategies have begun under the Convention. In addition, the European Commission has submitted a proposal to add octa-BDE commercial mixture to the Protocol.

Within Canada, Environment Canada and Health Canada have recently completed their final ecological and human health screening assessment reports for seven PBDE's. The final ecological screening assessment report published on July 01, 2006 concluded that the seven PBDE's (tetra-BDE, penta-BDE, hexa-BDE, hepta-BDE, octa-BDE and deca-BDE) are entering into the environment in a quantity or concentration or under conditions that have or may have an immediate or long term harmful effect on the environment or its biological diversity. It also concludes that three PBDE's (tetra-BDE, penta-BDE and hexa-BDE) meet the criteria for persistence and bioaccumulation according to the *Persistence and Bioaccumulation Regulations* referenced in the *Canadian Environmental Protection Act, 1999 (CEPA 1999)*. As a result, it is proposed that all seven PBDE's be added to the Canadian List of Toxic Substances under Schedule 1 of CEPA 1999. It also recommends that tetra-BDE, penta-BDE and hexa-BDE be targeted for virtual elimination. Environment Canada is presently seeking for comments on the proposed Canadian Risk Management Strategy for PBDE's. The Strategy concerns not just those PBDE's predominant in the Commercial penta-BDE and octa-PBDE mixture, but also deca-BDE mixture which is the dominant component of the Commercial deca-BDE mixture.

Given the availability of non-brominated fire retardant alternatives to PBDE's and the impact of PBDE's to the environment and humans in the long term, staff support the resolution proposed by Mr. Peter Julian, MP in his correspondence.

### 3.0 CONCLUSION

There is sufficient environmental evidence being gathered to show that PBDE's are impacting the environment and humans. Various countries around the world have initiated bans on manufacturing and/or use of PBDE's. The final ecological screening assessment published by Environment Canada in July 2006 also concludes that seven PBDE's are entering into the environment in a quantity or concentration or under conditions that have or may have an immediate or long term harmful effect on the environment or its biological diversity. Based on this, staff is recommending that the resolution noted in the correspondence from Mr. Peter Julian, MP be supported.



W.C. Sinclair, P. Eng.  
DIRECTOR ENGINEERING

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Copied to: City Manager