

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009

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SENATE DRS55318-LD-103A* (03/10)

Short Title: Limit Toxic Flame Retardants Containing PBDEs.

(Public)

Sponsors: Senator Bingham.

Referred to:

1 A BILL TO BE ENTITLED
2 AN ACT RELATING TO ADVANCING FIRE SAFETY WHILE PROTECTING INFANTS,
3 CHILDREN, AND OTHERS FROM BROMINATED FLAME RETARDANT IN
4 PRODUCTS FOR SALE AND TO CREATE A TAX INCENTIVE FOR
5 MANUFACTURERS TO DEVELOP ALTERNATIVE PRODUCT DESIGNS WITHOUT
6 CERTAIN CHEMICAL FLAME RETARDANTS FOR FIRE SAFETY STANDARDS.

7 The General Assembly of North Carolina enacts:

8 SECTION 1. Chapter 130A of the General Statues is amended by adding a new
9 Article to read:

10 "Article 19B.

11 "Flame Retardants Containing PBDEs.

12 "**§ 130A-453.30. Legislative findings; purpose.**

13 (a) The General Assembly finds all of the following:

- 14 (1) Polybrominated Diphenyl Ethers (PBDEs) are a class of highly efficient
15 brominated flame retardant. Since PBDEs were introduced in the 1960s,
16 PBDE concentrations in human tissue have increased exponentially, with
17 concentrations doubling every three to five years. PBDE concentrations in
18 the general population of the United States are the highest in the world.
19 (2) PBDEs have been found in wildlife including fish, birds, and seals in the
20 Arctic. PBDEs are present in food consumed by people, especially fish,
21 meat, and dairy products. In the environment, higher concentrations of
22 PBDEs have been found in sediments, sewage sludge, and house dust.
23 PBDEs have also been detected in surface waters in North Carolina.
24 Scientific research indicates the concentrations of PBDEs are increasing in
25 human tissues, including breast milk, and in the environment.
26 (3) Because of these increasing PBDE concentrations and results from scientific
27 studies on laboratory animals that indicate negative health impacts from
28 PBDEs at elevated concentrations, the European Union and several U.S.
29 states have banned further use of the three primary PBDE formulations:
30 PentaBDE, OctaBDE, and DecaBDE. Of the three, only DecaBDE remains
31 in widespread use today.
32 (4) Exposure to PBDEs has been linked to damage of the immune system,
33 reproductive system, thyroid function, and sperm production. Exposures to
34 high levels of PBDEs have produced cancer in laboratory animals.



1 DecaBDE has been found to cause developmental neurotoxicity effects in
2 laboratory animals. Breast-feeding infants have the highest exposure to
3 DecaBDE.

4 (5) Effective alternatives for achieving flame retardancy appear to be available
5 for most current DecaBDE applications.

6 (b) The purpose of this Article is to protect the public health and the environment from
7 brominated flame retardants, as well as to encourage the availability to manufacturers of
8 technological and design advances so that nonchemical alternatives to brominated flame
9 retardants become increasingly available for use in products.

10 **"§ 130A-453.31. Definitions.**

11 As used in this Article, the following definitions apply:

12 (1) Brominated flame retardant. – Any chemical containing the element bromine
13 that is added to plastic, foam, or textile to inhibit flame formation.

14 (2) Congener. – A specific PBDE molecule.

15 (3) Flame retardant. – Any chemical that is added to a plastic, foam, textile, or
16 other material to inhibit flame formation.

17 (4) Manufacturer. – Any person or enterprise that manufactures a final product
18 containing a regulated brominated flame retardant or any person or
19 enterprise whose brand name is affixed to a product containing a regulated
20 brominated flame retardant.

21 (5) DecaBDE. – Decabromo diphenyl ether or any commercial or technical
22 mixture in which decabromo diphenyl ether is a significant congener.

23 (6) OctaBDE. – Octabromo diphenyl ether or any commercial or technical
24 mixture in which octabromo diphenyl ether is a significant congener.

25 (7) PentaBDE. – Pentabromo diphenyl ether or any commercial or technical
26 mixture in which pentabromo diphenyl ether is a significant congener.

27 (8) PBDE. – Polybrominated diphenyl ether.

28 (9) Significant. – Any congener of a PBDE mixture greater than four percent
29 (4%).

30 **"§ 130A-453.32. Sale or distribution of brominated flame retardants prohibited.**

31 (a) A person shall not in North Carolina manufacture, sell, offer for sale, distribute for
32 sale, or distribute for promotional purposes a product containing more than 50 parts per million
33 of OctaBDE or PentaBDE.

34 (b) A person shall not in North Carolina manufacture, sell, offer for sale, distribute for
35 sale, or use any of the following products containing DecaBDE:

36 (1) A mattress, mattress pad, or any other type of mattress cover or mattress top.

37 (2) Upholstered furniture intended for indoor use in a home or other residential
38 occupancy.

39 (3) Electronic devices with a plastic housing containing DecaBDE.

40 (c) This section does not apply to the sale of used products. Subsection (b) of this
41 section does not apply to the manufacture, sale, repair, distribution, maintenance,
42 refurbishment, or modification of equipment used primarily for military applications. Further,
43 all of the following products that contain DecaBDE are exempt from the requirements of
44 subsection (b) of this section:

45 (1) Motor vehicles and aircraft, or products or parts for use in motor vehicles,
46 aircraft, or transportation equipment.

47 (2) Products or equipment used in industrial or manufacturing processes.

48 (3) Electronic wiring and cable used for power transmission.

49 (d) In any of the products under subsection (a) or (b) of this section, no manufacturers
50 shall replace DecaBDE with any chemicals of similar concern due to their toxicity,
51 bioaccumulation, persistence, or long-range transport as listed in both:

- 1 (1) The United States Environmental Protection Agency Toxic Release
2 Inventory List of Persistent, Bioaccumulative, and Toxic Chemicals.
- 3 (2) The state of Washington's List of Persistent, Bioaccumulative, and Toxic
4 Chemicals.

5 **"§ 130A-453.33. Interagency committee on fire safety.**

6 A committee on fire safety is established for the purpose of assisting with the
7 implementation of this Article. This committee shall include:

- 8 (1) The State Fire Marshal or the State Fire Marshal's designee;
- 9 (2) The State Health Director or the State Health Director's designee;
- 10 (3) The Secretary of Environment and Natural Resources or that Secretary's
11 designee;
- 12 (4) An expert on human and ecological effects of brominated flame retardants
13 from the Duke University Nicholas School of the Environment, to be
14 selected by the Secretary of Environment and Natural Resources;
- 15 (5) An expert on fire safety design from the Fire & Life Safety Program at North
16 Carolina State University, to be selected by the Secretary of Environment
17 and Natural Resources.

18 **"§ 130A-453.34. Additional exemptions.**

19 (a) The Secretary of Environment and Natural Resources may grant an exemption to
20 any provisions of this Article for a term not to exceed two years. The exemption shall be
21 renewable upon written application if the specific use of commercial PBDE continues to meet
22 the criteria of this section and the manufacturer or other persons comply with the conditions of
23 its original approval. The Secretary of Environment and Natural Resources may grant an
24 exemption for a specific use of PBDE with or without conditions, upon finding that the
25 applicant has demonstrated any one or more of the following:

- 26 (1) A technically feasible alternative is not available at reasonable cost.
- 27 (2) The potential harm to public health and the environment directly posed by a
28 technically feasible alternative is greater than the potential harm caused by
29 commercial PBDE.

30 (b) A fee to apply for an exemption under this section shall be imposed and shall be
31 paid to the Department of Environment and Natural Resources. This fee shall not exceed five
32 thousand dollars (\$5,000). Fees collected under this subsection shall be used by the Secretary of
33 Environment and Natural Resources for the costs to administer this Article.

34 **"§ 130A-453.35. Labeling; positive recognition for manufacturers.**

35 The Secretary of Environment and Natural Resources may establish a "Meets fire safety
36 standards without the use of chemical flame retardants" product-labeling program for products
37 that meet fire safety standards and do not contain chemical flame retardants. The Secretary of
38 Environment and Natural Resources may establish partnerships with manufacturers to enhance
39 the market for products designed to retard fire without the use of chemical flame retardants and
40 reduce the use of potentially hazardous flame retardants in products. The Secretary of
41 Environment and Natural Resources may develop an awards program in conjunction with the
42 Environmental Stewardship Initiative Program to recognize the accomplishments of North
43 Carolina manufacturers who exceed the requirements of this Article and who excel at reducing
44 or eliminating chemical flame retardants in products and the environment.

45 **"§ 130A-453.36. Transition to design for fire prevention.**

46 North Carolina manufacturers who develop alternative product designs in order to meet fire
47 safety standards while removing chemical flame retardants from their products are eligible for a
48 tax credit on a percentage of their research and development expenses under G.S. 105-129.56.

49 **"§ 130A-453.37. Outreach and education; multistate clearinghouse.**

1 (a) The Secretary of Environment and Natural Resources shall develop a program to
2 inform and educate retailers regarding the requirements of this Article and methods for
3 identifying products that contain DecaBDE, OctaBDE, or PentaBDE.

4 (b) The Secretary of Environment and Natural Resources may participate in the
5 establishment and implementation of a regional, multistate clearinghouse to do all of the
6 following:

7 (1) Assist in the implementation of the requirements of this section.

8 (2) Help coordinate public education and outreach activities.

9 (3) Review risk assessments.

10 (4) Review alternatives to DecaBDE, OctaBDE, or PentaBDE.

11 (5) Implement other activities related to the administration of this Article.

12 **"§ 130A-453.38. Report requirement.**

13 No later than January 15 every other year, the Commission shall report to the
14 Environmental Review Commission and the General Assembly regarding the regulation of
15 brominated flame retardants in the State, in other states, and nationally. The report shall include
16 recommended additional actions to protect the public health and the environment from
17 brominated flame retardants, as well as the availability to manufacturers of technological and
18 design advances, and nonchemical alternatives to brominated flame retardants. This report shall
19 consider whether the provisions of this Article are accomplishing the purposes of this Article.

20 **"§ 130A-453.39. Certificate of compliance; injunctive relief and civil penalties.**

21 (a) If the Secretary of Environment and Natural Resources reasonably suspects that a
22 product containing a regulated brominated flame retardant is being manufactured, sold, offered
23 for sale, or distributed for sale in violation of this Article, the Secretary of Environment and
24 Natural Resources may request the manufacturer of the product to provide the Secretary of
25 Environment and Natural Resources with a certificate of compliance. Within 10 days of receipt
26 of the request for a certificate of compliance, the manufacturer shall do at least one of the
27 following:

28 (1) Provide the Secretary of Environment and Natural Resources with a
29 certificate declaring that the product complies with the requirements of this
30 Article.

31 (2) Notify persons that sell the manufacturer's product in the State that the sale
32 of the product is prohibited and submit to the Secretary of Environment and
33 Natural Resources a list of the names and addresses of those notified.

34 (b) If a manufacturer fails to comply with the requirements under this Article, the
35 Secretary of Environment and Natural Resources may take enforcement action against the
36 product manufacturer by assessing civil penalties under subsection (c) of this section or
37 requesting the Attorney General to initiate immediate injunction proceedings to prevent the sale
38 of the product, or both.

39 (c) Subject to subsections (d) and (e) of this section, a person who violates this Article
40 is subject to the following civil penalties:

41 (1) If the violation is the person's first offense under this Article, a civil fine of
42 not more than one hundred dollars (\$100.00) per item, not to exceed five
43 thousand dollars (\$5,000) total.

44 (2) If the violation is the person's second offense under this Article, a civil
45 penalty of not more than five hundred dollars (\$500.00) per item, not to
46 exceed a total of twenty-five thousand dollars (\$25,000).

47 (3) If the violation is the person's third or subsequent offense under this Article,
48 a civil penalty of not more than one thousand dollars (\$1,000) per item, not
49 to exceed a total of fifty thousand dollars (\$50,000).

1 (d) If a person knowingly violates this Article, the person is subject to a civil penalty
2 equal to three times the amount of the penalty under subdivision (3) of subsection (c) of this
3 section.

4 (e) A civil fine imposed under this section shall be waived if it is determined that a
5 person acted in good faith to be in compliance with this Article, pursued compliance with due
6 diligence, and promptly corrected any noncompliance after discovery of the violation.

7 (f) As used in this section, 'manufacturer' means any person who manufactured the final
8 product or whose brand name is affixed to the product and includes, in the case of a product
9 that was imported into the United States, the importer or domestic distributor of the product
10 when the person who manufactured or assembled the product, or whose brand name is affixed
11 to the product, does not have a presence in the United States.

12 **"§ 130A-453.40. Rule making.**

13 (a) The Secretary of Environment and Natural Resources may adopt rules to implement
14 this Article.

15 (b) The Secretary of Environment and Natural Resources may adopt rules regulating the
16 manufacture, use, sale, or distribution of any additional halogenated flame retardant if the
17 Commission determines that the halogenated flame retardant is harmful to public health and the
18 environment, and that safer alternatives are available."

19 **SECTION 2.** G.S. 105-129.50 reads as rewritten:

20 **"§ 105-129.50. (See note for effective date and repeal) Definitions.**

21 The definitions in section 41 of the Code apply in this Article. In addition, the following
22 definitions apply in this Article:

23 ...

24 (6) Qualified flame-retardant research expenses. – Any amount the taxpayer
25 paid or incurred for research performed in this State for the purpose of
26 producing a product design that meets the standards established in
27 G.S. 130A-453.32 for use of polybrominated diphenyl ether and is free of all
28 other chemicals listed in sections 302 and 313 of the Emergency Planning
29 and Community Right-to-Know Act, as codified at 42 U.S.C. §§
30 11001-11050.

31 ~~(6)~~(6a) Qualified North Carolina research expenses. – Qualified research expenses,
32 other than North Carolina university research expenses, for research
33 performed in this State.

34"

35 **SECTION 3.** Article 3F of Chapter 105 of the General Statutes is amended by
36 adding a new section to read:

37 **"§ 105-129.56. Credit for nonchemical flame-retardant product research and**
38 **development.**

39 (a) Credit. – A taxpayer that has qualified flame-retardant research expenses for the
40 taxable year is allowed a credit equal to a percentage of the expenses, determined as provided
41 in this section. Only one credit is allowed under this subsection with respect to the same
42 expenses. If more than one subdivision of this subsection applies to the same expenses, then the
43 credit is equal to the higher percentage, not both percentages combined. If part of the taxpayer's
44 qualified flame-retardant research expenses qualifies under subdivision (2) of this subsection
45 and the remainder qualifies under subdivision (3) of this subsection, the applicable percentages
46 apply separately to each part of the expenses.

47 (1) Small business. – If the taxpayer was a small business as of the last day of
48 the taxable year, the applicable percentage is three and seventy-five one
49 hundredths percent (3.75%).

(2) Low-tier research. – For expenses with respect to research performed in a development tier one area, the applicable percentage is three and seventy-five one hundredths percent (3.75%).

(3) Other research. – For expenses not covered under subdivision (1) or (2) of this subsection, the percentages provided in the table below apply to the taxpayer's qualified North Carolina research expenses during the taxable year at the following levels:

<u>Expenses Over</u>	<u>Up To</u>	<u>Rate</u>
<u>-0-</u>	<u>\$50,000,000</u>	<u>1.75%</u>
<u>\$50,000,000</u>	<u>\$200,000,000</u>	<u>2.75%</u>
<u>\$200,000,000</u>	<u>=</u>	<u>3.75%."</u>

SECTION 4. The initial report under G.S. 130A-453-38, as enacted by Section 1 of this act, is due no later than January 15, 2010.

SECTION 5. G.S. 130A-453.32(b), as enacted by Section 1 of this act, becomes effective October 1, 2010, and G.S. 130A-453.39, as enacted by Section 1 of this act, becomes effective January 1, 2010. Section 2 and Section 3 of this act are effective for taxable years beginning on or after January 1, 2009. The remainder of Section 1 of this act and the remaining sections of this act become effective October 1, 2009. This act applies to products manufactured, offered for sale, or distributed in North Carolina on or after that date.