Reviewer's report

Title: A cross sectional survey of determinants of serum concentrations of polybrominated flame retardants among healthy pregnant women in an urban environment

Version: 1 Date: 29 June 2012

Reviewer: Pierre Ayotte

Reviewer's report:

This is a very well written paper that presents interesting information on sources of exposure to PBDEs in a group of pregnant women from New York City. My only major criticism is the lack of information on the recruitment process and the participation rate. The authors need to provide information on women who were solicited but did not agree to participate. The reader needs to know if these women are different from those who were enrolled.

The statistical analyses are appropriate. It is somewhat disappointing that so little variance could be explained for serum PBDEs 47, 99 and 100 levels. Important sources of exposure remain to be identified and characterized for these congeners. PBDE 153 appears to be a food-chain contaminant for which exposure can be better predicted. Exposure to these PBDEs will likely decrease because their use is restricted but what about replacement products?

Minor corrections:
1) P. 7, line 4: synaptogenesis
2) P. 21, line 11: …college education, being classified as obese prior to pregnancy and less weight gain prior to pregnancy…

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests