IPEN Comments on Revised C-PentaBDE Alternatives Guidance

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IPEN appreciates the additional work on the original document and the opportunity to comment on the second draft. The comments will focus on only a few specific points.

1. The Summary mentions materials design and barrier technologies but does not describe them. In contrast, drop in chemical substitutes are both mentioned and described. Since many readers will focus only on the Summary, IPEN believes it is important to have a very brief description of what is meant by materials design and barrier technologies in the Summary.

Proposed text: Non-chemical techniques such as design changes or barrier technologies can also provide fire resistance. Some manufacturers have re-designed products to eliminate flammable materials such as filling material in furniture. Barrier technologies have the widest commercial applicability and involve layers of materials that provide fire resistance.

2. Paragraph 2.1 currently asserts that "Tightened legislation and tougher fire requirements are the major forces that have driven forward development towards functionally better and more effective flame retardants." This is not a scientific statement and it in fact hides significant forces that influence how legislation and fire requirements come about. IPEN believes that the point of this paragraph is to inform the reader that fire standards have been developed and that they include flame retardants.

Proposed text: ~~Tightened legislation and tougher fire requirements are the major forces that have driven forward development towards functionally better and more effective flame retardants. In the light of this trend, a~~ A large number of specific fire standards with unique fire requirements have been developed internationally for various widely differing situations.

3. Paragraph 6.5 discusses halogenated flame retardants, concerns about their use, and various restrictions on certain substances. IPEN believes that it is also important to state here that governments are not the only actors that have taken action. In fact, major companies have also undertaken substitution to eliminate halogenated flame retardants. This point is clearly made in UNEP/POPs/POPRC.3/20/Add.1 which describes company actions to eliminate C-PentaBDE. Readers should be aware that the private sector can, and is, acting to substitute these substances.

Proposed text (verbatim from parts of the POPRC document cited above): Cost-competitive non-POP alternatives are available and have been taken up by companies as replacements for C-PentaBDE in PUR-foam and electronic equipment. Some companies, such as IKEA, have already phased out all C-PentaBDE globally. US companies announced in 2005 that they have developed or are developing electrical and electronic

equipment that does not contain C-PentaBDE. In Asia more than 90% of electronic manufacturers already make products compliant with EU regulations. Examples of alternative flame retardants processes currently being utilized include; bromine-free circuit boards (Sony), phosphorus-based flame retardants for printed circuit boards (Hitachi), flame resistant plastic (Toshiba), halogen-free materials and low-voltage internal wires (Panasonic/Matsushita) (Norwegian EPA, 2003).

5. IPEN proposed paragraph 8bis: Thank you for the proposal to use some of the ideas in this proposed paragraph for the general guidance document. Some of the components of the paragraph would be appropriate for this purpose. However, the purpose of proposing this paragraph was to present information to help delegates interpret the vast amount of data that comprises the topic of alternatives to C-pentaBDE. It might be useful for countries to understand that some Ministries of Environment have evaluated the data and made some conclusions. This increases the utility of the document for actual use in decision-making by countries. Furthermore, this sort of information has already been approved the PORPC and is present in UNEP/POPs/POPRC.3/20/Add.1 but dispersed in various places. It would be helpful to gather these statements so that delegates have some meaningful understanding of what the information in the guidance means. This information could be placed in a pre-existing paragraph or some other suitable location.

Proposed text (verbatim from parts of the POPRC document cited above):
Hexabromocyclododecane, an alternative for C-PentaBDE in coatings and adhesives, is not a preferable alternative. This compound already causes concern because of its chemical properties in several countries and regions. RPA (2000) suggests that only tetrabromobenzoate (TBBE) and chlorinated alkyl phosphate esters, tris (2-chloroisopropyl) phosphate (TCPP) in particular, followed by phosphate esters, are relevant chemical alternatives to PentaBDE. However, since that time other alternatives may have been developed and commercialized and should also be considered. Leisewitz et al. (2000) says that no problems should arise from the use of zinc borate, magnesium hydroxide or expandable graphite as alternatives to the brominated flame retardants. There are also durable flame retardant materials, such as wool and polyester fibres. Given the range of alternative flame retardants available, a wise course would be to examine the manufacturing processes, evaluate the use of synthetic materials, and give preference to those that pose least risk.