

Comments on Second Draft of EPEAT SDR Roadmap Document

EPEAT Roadmap Document (introduction page)

The second draft document received fewer views and comments than the first draft. According to the web site statistics, the site Home Page had 382 reads and the document description page (where comments were not solicited), had 233 reads. The number of reads is included for each page in the appropriate section below.

Executive Summary

Comments (127 reads):

Thu, 07/26/2007 - 18:28 — [Tom Slawik](#)

[Good with Current Wording](#)

I've reviewed the updates and am good with the current wording.

Thu, 07/26/2007 - 17:38 — [Stephen Greene](#)

[Overall Comments](#)

- 1) This has been a good process for starting process for the umbrella and specific standards.
- 2) The product categories are reasonable. The sheer volume and short life of phones makes them significant. My inclination is to look at the changers for energy efficiency and recycling for the mobile devices.
- 3) I think consumer and commercial markets should be included in the universe of users for the standards. This should not effect the standard but could be handled in the introductory wording. The emphasis should not be on government and institutional buyers but on purchasers in general.
- 4) I agree with the importance of including servers. This should include the broad range servers, mass storage and datacenter IT equipment. I think of the major change of equipment that will occur as the Air Traffic Control system is upgrade and the opportunity it represents for energy and environmental impact reductions.
- 5) The sooner the expansion of the standard takes place, the sooner the benefits can be realized.

Wed, 07/25/2007 - 16:56 — [Sue Chiang](#)

[Center for Environmental Health/CTBC Comments](#)

While I don't believe that this is the priority topic for this public comment process, I would like to resubmit comments from Arlene Blum and Russell Long on concerns about brominated fire retardants. I believe the real focus is on which product

categories should be considered and prioritized and on the roadmap process itself, and will focus the rest of my comments on those topics.

Statement on Brominated Fire Retardants for the EPEAT Standards Development Roadmap

DecaBDE and other brominated fire retardants currently used in consumer electronics and small appliances are potential hazards to human health and the environment. In laboratory animals, brominated flame-retardants have been found to cause thyroid, reproductive, and developmental problems and cancer. Neurological impacts include decreased memory and learning, behavioral disorders, and hyperactivity.

There is reason to believe the PBDE flame-retardants will be found to cause the same adverse health effects in humans as they do in animals. For example PBDEs are closely related in structure to many PCBs, PBBs, brominated and chlorinated dioxins and furans, which are neurological and developmental toxins and probable human carcinogens. For example, maternal PCB exposure up to six years before pregnancy has been shown to cause long-lasting developmental and cognitive changes, including deficits in learning, memory, and attention span in infants and children.

Many of these chemicals migrate, accumulate, and persist in humans and animals. Elevated levels of PBDEs are found in harbor seals in San Francisco Bay, birds of prey, and other creatures high on the food chain. PBDE levels are increasing with the levels in the high end of the general population within a factor of ten of where adverse neurological effects have been seen in - both rats and mice.

Children can absorb fire retardant chemicals across the placenta before they are born, from their mothers' milk, from food, furniture, and dust in their homes. PBDEs have increased 40-fold in human breast milk since the 1970s. Women in North America on average have 10 to 100 times the levels of PBDEs in their breast milk and in their body fat compared to women in Europe or Asia.

House cats share our environment and have ten to 100 times levels of PBDEs as do humans. Noting that pentaBDE is structurally similar to thyroid hormone and PBDE workers have an elevated level of hyperthyroid disease, researchers found an association between PBDEs in cats and hyperthyroidism. This disease became common in cats in the 1980s as PBDEs began to be used in significant quantities and is now the second most frequent disease in cats. Cats could be a sentinel for potential similar human health problems.

Pregnant women and children are especially vulnerable to carcinogens and endocrine disruptors. Given the past and potential future human health and environmental health problems from brominated PBDE's and related fire retardants chemicals, a relatively small investment in developing alternative nontoxic green chemical alternatives could pay huge environmental and health dividends in the future.

Sincerely,

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Henrik Viberg, Anders Fredriksson, et. al, Neurobehavioral derangement in adult mice receiving decabromiantaed diphenyl ether (PBDE 209) during a defined period of neonatal brain development – 2003- Toxicological Sciences, Volume 76, pp 112-120.
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4. Toxicological Profile for Polychlorinated Biphenyls (PCBs), November 2000
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7. Peter S. Ross, Fireproof Killer Whales (Orcinus orca): Flame Retardant Chemicals and the Conservation Imperative in the Charismatic Icon of British Columbia, Canada. Journal of Fisheries and Aquatic Sciences, Volume 63, Number 1, pp. 224-234 (11) (January 2006).
8. Thomas A. McDonald, Polybrominated Diphenylether Levels among United States Residents: Daily Intake and Risk of Harm to the Developing Brain and Reproductive Organs Integrated Environmental Assessment and Management — Volume 1, Number 4—pp. 343–354, 2005
9. Lunder S, Sharp R. 2003. Mothers' Milk: Record levels of toxic fire retardants found in American mothers' breast milk. Environmental Working Group. www.ewg.org/reports/mothersmilk/
10. J.A. Dye, M. Venier, C.R. Ward, L.Y. Zhu, R.A. Hites, L.S. Birnbaum: PET CATS IN THE U.S. HAVE HIGH POLYBROMINATED DIPHENYL ETHER (PBDE) SERUM LEVELS. Society of Toxicology2007 meeting Abstract number 853
11. D. C. Ferguson, The Pathogenesis of Feline Hyperthyroidism, 16th ECVIM-CA Congress, 2006

Wed, 07/25/2007 - 16:25 — [Kimberly Schrader](#)

[BSEF Comments: July 9 Stakeholder Background Document](#)

After reviewing the July 9 Stakeholder Background Document, the Bromine Science and Environmental Forum (BSEF) is deeply concerned that a broad spectrum of stakeholder comments regarding EPEAT's treatment of brominated flame

retardants (BFRs) have not been addressed. We join IPC in requesting a written justification of why stakeholder comments have not been fully considered and incorporated.

The treatment of BFRs, and specifically Deca-BDE and TBBPA, throughout the roadmap is scientifically insupportable. These BFRs have undergone intense scientific scrutiny by world government human health and environmental authorities and been deemed safe for continued use. Deca-BDE has been the subject of extensive scientific reviews by the National Academy of Sciences, the Consumer Product Safety Commission and a 10-year risk assessment by the European Union. None of the findings from this work support restrictions or prohibitions on the use of Deca-BDE in these applications. In fact, an EU Member State Technical Committee met on 12 June to discuss the latest science available on the brominated flame retardant Deca-BDE. Based on the support of the majority of Member States, the Committee confirmed the conclusions of the EU Risk Assessment of Deca-BDE (1), which did not identify any significant risks to the environment or human health that would require additional risk reduction measures beyond those already being applied. With this review, over 1,000 scientific studies and reports have been considered in the framework of the EU Deca-BDE risk assessment and subsequent updates.

TBBPA is currently going through the EU Risk Assessment process. The Human Health section of the Risk Assessment has been closed with no risks identified (2). The Scientific Committee on Health & Environmental Risks and a study from the University of Wurzburg (under the EU Fire project) also confirmed these conclusions. The Environmental section of the Risk Assessment was closed in March 2007 and the lead Member State (UK) will now finalize the environmental part of the report based on those discussions. No risk was identified for TBBPA when used as a reactive, such as in the epoxy resins of printed circuit boards.

As you well know, the U.S. EPA is following this issue closely and playing a substantial role in research and assessment of all PBDEs, and Deca-BDE in particular, and is taking appropriate management actions to respond to both scientific and market developments, as outlined in the EPA's 2006 PBDE Project Plan.

Since the SDR Background Document will likely serve as a resource for EPEAT work teams moving forward, we request that all comments submitted previously by BSEF, Albemarle, ICL-IP and IPC be included in the final version of that document and request that these stakeholder concerns regarding the use of flame retardants should be addressed in future stages of the standards development process based on a comprehensive scientific review.

BSEF offers again the following information:

BSEF EPEAT 6.18 Comments

Section 1.3 Preliminary Observations Regarding Energy and Environmental Considerations

Environmental and Human Health Profiles of Brominated Flame Retardants

As a reminder, it is highly misleading to refer to BFRs generically. It is even more misleading to describe the discussion by stakeholders as "controversial." Due to the differences in BFRs, the only broad claim that can be made about this family of chemicals is that they all contain bromine. There are many different brominated flame retardants, each with a different chemical structure and properties. Of the brominated flame retardants specifically referenced in the final background document:

Deca-BDE

Deca-BDE is the most studied flame retardant available and has repeatedly been found safe for continued use by bodies such as the U.S. Consumer Products Safety Commission (2006) (3), U.S. Consumer Products Safety Commission (2001) (4), European Union (10-year Risk Assessment – completed in 2004; new data reviewed on an ongoing basis) (5), US EPA's Voluntary Children's Chemical Evaluation Panel (ongoing) (6), U.S. National Academy of Sciences (7) (2000), Chemical Evaluation & Research Institute, Japan (8) (2005) and others. Based on the conclusions of the EU Risk Assessment, Deca-BDE was exempted from regulation under the EU RoHS Directive.

TBBPA and HBCD

TBBPA and HBCD are both currently going through the EU Risk Assessment process.

The Human Health section of the TBBPA Risk Assessment has been closed with no risks identified. The Scientific Committee on Health & Environmental Risks and a study from the University of Wurzburg (under the EU Fire project) also

confirmed these conclusions. The Environmental section of the Risk Assessment was closed in March 2007. No risk was identified for TBBPA when used as a reactive, such as in the epoxy resins of printed circuit boards. Technical experts confirmed a risk for sediment and water when TBBPA is added to ABS plastics. These risks are manageable through the Voluntary Emissions Control Action Program (VECAP). Under this program, TBBPA additive customers in Europe (89% by volume) have already started reducing their emissions. This program also encompasses Deca-BDE and HBCD.

Others

In cases where particular flame retardants have been prohibited, that should be noted and referenced. For electronics, PBBs, Penta-BDE and Octa-BDE have been prohibited in the European Union and are regulated under the RoHS Directive. Penta- and Octa-BDE have also been prohibited in several states.

Brominated flame retardants are managed under a comprehensive product stewardship program – VECAPTM

The bromine industry recognizes the importance of minimizing potential emissions of chemicals to the environment. As such, the major producers of brominated flame retardants are committed to making their manufacturing facilities compliant with the industry's Voluntary Emissions Control Action Program (VECAPTM), and to expand the program to their downstream users in North America. Under VECAPTM, the manufacturers and users of brominated flame retardants are working together to establish and implement best practices for reducing and preventing emissions of these products to the environment.

Energy and Environmental Criteria

We would expect that the criteria examined would very closely, if not exactly, follow the required and optional elements of the existing IEEE 1680 standard, but from a review of this document, there are many inconsistencies.

Use of Brominated Flame Retardants and Alternatives

The decision by some television manufacturers to use alternative flame retardants appears to be driven by market pressures, and is not supported by scientific evidence related to the use of Deca. For those using alternatives, such use is typically in specific models at the higher end of the cost range.

It should be noted that the use of flame retardants in televisions in the US is voluntary – there are no federal or state fire safety standards for most consumer electronics, despite the fact that electronics generally contain significant heat sources and are made of highly flammable plastics. Deca-BDE has become the flame retardant of choice in certain electronics applications because it is easy to use, highly effective and cost efficient. As such, eliminating Deca-BDE and forcing the use of products that are harder to use, less effective in same thickness plastics and more costly could very likely lead to the removal of flame retardants altogether. As we have seen in Europe (9), this can lead to more fires and unnecessary injuries and deaths.

Additionally, principles of sound chemical regulation suggest that, in order to be considered “safer,” an alternative should have been subjected to an equivalent battery of testing for human health and environmental effects as the substance they are meant to replace, and been found to have a more favorable toxicity profile. In fact, no other flame retardant has been as exhaustively evaluated as Deca-BDE, from initial production through recycling at the end of consumer product life, and been found safe for continued use.

In its areas of application, Deca-BDE is the most effective flame retardant available. There are no potential alternatives that combine Deca-BDE's technical efficiency with such rigorous evaluation of potential environmental and human health impacts. Requiring the replacement of Deca-BDE, a product with no identified risks to human health or the environment, with other flame retardants whose potential impacts on human health and the environment are far less understood is not sound policy.

TBBPA continues to be used in 95% of all FR-4 printed wiring boards.

Section 2.2 Mobile Devices Environmental Profile

TBBPA in printed wiring boards is fully reacted and therefore no longer present as a distinct substance.

Regardless, neither TBBPA nor Deca-BDE pose a threat to the environment (10) or human health (3, 8), and should not be included as a consideration in this section.

Section 3.2 Printers Environmental Profile

Neither TBBPA nor Deca-BDE pose a threat to the environment or human health (3,8) and should not be included as a consideration in this section.

The use of Deca-BDE in the computer industry is very limited and the decision by some manufacturers to use alternative flame retardants appears to be driven by market considerations, not by science-based concerns with the use of Deca.

You mention on page 8 of the document that a “number of manufacturers have voluntarily removed DecaBDE from their products” and subsequently state that “time did not permit a careful analysis of the environmental or human impact of those alternative approaches.” We state again - any alternatives considered should have been subjected to an equivalent battery of testing for human health and environmental effects as the substance they are meant to replace, and been found to have a more favorable toxicity profile. In fact, no other flame retardant has been as exhaustively evaluated as Deca-BDE, from initial production through recycling at the end of consumer product life, and been found safe for continued use. The use of less-tested substances should not be encouraged by proposing to deselect BFRs for institutional purchasing via the EPEAT process.

Section 4.2 Copiers Environmental Profile

You state on page 10 of the document that “the content specific concerns for copiers are similar to those for printers.” Neither TBBPA nor Deca-BDE pose a threat to the environment or human health (3,11) and should not be included as a consideration in this section.

The use of Deca-BDE in the computer industry is very limited and the decision by some manufacturers to use alternative flame retardants appears to be driven by market considerations, not by science-based concerns with the use of Deca.

Any alternatives considered should have been subjected to an equivalent battery of testing for human health and environmental effects as the substance they are meant to replace, and been found to have a more favorable toxicity profile. In fact, no other flame retardant has been as exhaustively evaluated as Deca-BDE, from initial production through recycling at the end of consumer product life, and been found safe for continued use. The use of less-tested substances should not be encouraged by proposing to deselect BFRs for institutional purchasing via the EPEAT process.

Section 6.2 Servers Environmental Profile

BFRs should be removed as an environmental criterion. It is highly misleading to refer to BFRs generically. Due to the differences in these various materials, the only broad claim that can be made about this family of chemicals is that they all contain bromine. There are many different brominated flame retardants, each with a different chemical structure and properties.

Inclusion of BFRs will set disturbing precedent by blacklisting an entire class of chemicals – all brominated flame retardants – based on speculation that all chemicals in a given class have similar effects on human health and the environment. Scientific analysis of individual chemicals proves that this theory is wrong.

Section 7.2 Televisions and Television Monitors Environmental Profile

On page 18 of the final background document, you state that “televisions and television monitors are similar in composition to other computer products, so they likely have similar constituents of concern.” BSEF offers the following comments on this categorization:

The decision by some television manufacturers to use alternative flame retardants appears to be driven by market pressures, and not by scientific concerns with the use of Deca-BDE. For those using alternatives, such use is typically in specific models at the higher end of the cost range.

As noted above, the use of flame retardants in televisions in the U.S. is voluntary – there are not federal or state fire safety standards for most consumer electronics, despite the fact that the electronics generally contain significant heat sources and are made from highly flammable plastics. Deca-BDE has become the flame retardant of choice in certain electronics

applications because it is easy to use, highly effective and cost efficient. Eliminating Deca-BDE and forcing the use of products that are harder to use, less effective in the same thickness plastics and more costly could lead to the removal of flame retardants altogether. As we have seen in Europe⁷, this can lead to more fires and unnecessary injuries and deaths.

(1) European Union Risk Assessment Report: Bis(pentabromophenyl ether). 1st Priority List, Volume 17. European Commission Joint Research Centre, EUR 20402 EN, 2002. Please cut and paste the link below into your browser: ecb.jrc.cec.eu.int/documents/Existing-Chemicals/RISK_ASSESSMENT/REPORT/decabromodiphenyletherreport013.pdf

(2) European Union Risk Assessment Report: 2,2',6,6'-TETRABROMO-4,4'-ISOPROPYLIDENEDIPHENOL (TETRABROMOBISPHENOL-A or TBBP-A) Part II – Human Health. http://ecb.jrc.it/documents/Existing-Chemicals/RISK_ASSESSMENT/REPORT/tb...

(3) U.S. Consumer Product Safety Commission, Quantitative Assessment of Potential Health Effects from the Use of Fire Retardant (FR) Chemicals in Mattresses, January 2006 (<http://www.cpsc.gov/library/foia/foia06/brief/matttabd.pdf>)

(4) U.S. Consumer Product Safety Commission, CPSC Staff Exposure and Risk Assessment of Flame Retardant Chemicals in Residential Upholstered Furniture, April 2001 (<http://www.cpsc.gov/library/foia/foia02/brief/briefing.html>, pages 658 through 765 of 922 pages in Small Open Flame Ignition of Upholstered Furniture (4014), Options to Address Small Open Flame Ignition of Upholstered Furniture; October 30, 2001, Over 900 pages (PARTS 10, 11, and 12).)

(5) European Union Risk Assessment Report: Bis(pentabromophenyl ether). 1st Priority List, Volume 17. European Commission Joint Research Centre, EUR 20402 EN, 2002. http://ecb.jrc.it/DOCUMENTS/Existing-Chemicals/RISK_ASSESSMENT/REPORT/de...

(6) Voluntary Children's Chemical Evaluation Program, Status, Decabromodiphenyl ether, CAS No. 1163-19-5 (<http://www.epa.gov/oppt/chemrtk/vccep/pubs/chem21.htm>)

(7) U.S. National Academy of Sciences, National Research Council, Toxicological Risks of Selected Flame-Retardant Chemicals, 2000 (<http://www.nap.edu/>)

(8) Japan New Energy and Industrial Technology Development Organization, Initial Risk Assessment Report of Chemical Substances, 2005

(9) LCA Study of Flame Retardants in TV Enclosures, Presented to Flame Retardants 2000 Conference, Margaret Simonson, SP, P.O. Box 857, S-501, 15 Börås, Sweden and Håkan Stripplé, SP P.O. Box 47086, S-402 58, Gothenberg, Sweden, February 2000.

(10) John D. Lincoln, Oladele A. Ogunseitan, Andrew A. Shapiro & Jean-Daniel M. Saphores: Leaching Assessments of Hazardous Materials in Cellular Telephones; Environ. Sci. Technol., 41(7), 2572-2578, 2007. ACS Publications.

(11) European Union Risk Assessment Report: 2,2',6,6'-tetrabromo-4,4'-isopropylidene diphenol (tetrabromobisphenol-A or TBBP-A). 4th Priority List, Part II – human health Volume 64. European Commission Joint Research Centre, EUR 22161 EN, 2006. http://ecb.jrc.it/DOCUMENTS/Existing-Chemicals/RISK_ASSESSMENT/REPORT/te...

Wed, 07/25/2007 - 11:58 — [Sahar Osman-Sypher](#)

[IPC Comments](#)

IPC's comments can be viewed at http://www.ipc.org/3.0_Industry/3.4_EHS/2007/IPC_EPEATComments07232007.p...

The tables included in the IPC comments can be viewed in its original tabular format at the above link.

[IPC Association Connecting Electronics Industries Comments](#)

July 23, 2007

Via Electronic Submission
EPEAT SDR Collaboration Website
http://zerowaste.org/epeat_collab/sdr_doc

IPC Association Connecting Electronics Industries is the national trade association for the electronic interconnection industry, and represents more than 2,400 member companies involved in the manufacturing and assembly of printed circuit boards. Printed circuit boards and electronic assemblies are the backbone of a variety of electronic devices including computers, cell phones, pacemakers, automobiles, and sophisticated defense systems. On behalf of our members, IPC would like to offer the following comments on the Electronic Product Environmental Assessment Tool (EPEAT) Standards Development Roadmap (SDR).

After reviewing the July 9, 2007 EPEAT SDR Final Background Document, IPC is concerned that our comments continue to be misunderstood or possibly ignored. Despite repeated comments provided by IPC and others, the SDR background document continues to include unsubstantiated statements about brominated flame retardants (BFRs) and other substances. In the interest of maintaining the integrity of EPEAT and the transparency of the revision process, IPC urges editors of the SDR to resolve the following industry concerns prior to finalizing the document.

IPC is disappointed with the incomplete literature review that was conducted for the SDR. As a result of the incomplete literature review, the SDR creates a misleading and biased picture of BFRs Tetrabromobisphenol-A (TBBPA) and Decabrominated Diphenyl Ether (DecaBDE). IPC is perplexed that while unsupported stakeholder comments expressing concern about BFRs were incorporated in the SDR, the breadth of scientific data supporting the lack of human health and environmental risks for TBBPA and DecaBDE was suspiciously excluded. DecaBDE has been the subject of extensive scientific reviews by the National Academy of Sciences, the Consumer Product Safety Commission and a 10-year Risk Assessment by the European Union. TBBPA is currently going through the EU Risk Assessment process. The Human Health section of the Risk Assessment was closed in 2005 with no risks identified. The Environmental section of the Risk Assessment was closed in March 2007 with no risk identified for TBBPA when used reactively as in the epoxy resins of printed circuit boards. The EU Scientific Committee on Health & Environmental Risks (SCHER- an independent committee that advises the Commission) and a study from the University of Würzburg (under the EU Fire project) also confirmed these conclusions. None of the findings from this wide body of works support listing TBBPA or DecaBDE as “content specific environmental or human health concerns.” Surprisingly, while the SDR claims to “have included the most up-to-date data where available,” there was no mention of any of these peer-reviewed scientific studies in the SDR.

Despite repeated comments provided by industry, the SDR continues to make inaccurate and misleading statements regarding TBBPA and DecaBDE (See Table 1). While we appreciate EPA’s efforts to respond to our comments by removing most gross generalizations about the diverse family of BFRs, the statement “Also likely to contain brominated flame retardants that may be hazardous to human health” seems to have been overlooked (See page 14 of the July 9, 2007 SDR Background Document). Furthermore, EPA’s attempt to avoid such blanket statements by specifically identifying TBBPA and DecaBDE as a “content specific environmental or human health concern,” is still erroneous and problematic. Likewise it is inappropriate to label these substances as “materials of concern,” or “constituents of concern.” As noted in our previous comments, while environmental and health concerns exist for certain BFRs, such as Polybrominated Biphenyls (PBBs) and Penta- and Octa-Polybrominated Diphenyl Ether (Penta- and Octa-PBDE), industry has responded by removing them from products. Others BFRs, such as TBBPA and DecaBDE have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore it is entirely inappropriate to list TBBPA and DecaBDE as “content specific environmental or human health concerns,” or to refer to these substances as “materials of concern,” or “constituents of concern.” This implies that EPA considers TBBPA and DecaBDE to be an environmental or human health concern. In order to prevent implied validation of stakeholder concerns that have not been thoroughly examined, EPA should remove all these inaccurate statements (See Table 2). Any references to TBBPA and DecaBDE could more appropriately be placed in the “Product Profile Section” followed by a simple statement that certain stakeholders have expressed concerns regarding the use of these materials.

IPC is particularly troubled that EPA continues to imply corroboration of unsubstantiated stakeholder claims by referring to them as “controversy around the human health and environments impacts associated with the use of flame retardants.” EPA further implies support by repeatedly referring back to the so-called controversy throughout the SDR. While some stakeholders may take issue with the use of flame retardants, there is no scientific evidence to support these concerns, nor is there any scientific controversy. Stakeholder concerns regarding the use of flame retardants should be addressed in future stages of the standards development process, where a comprehensive scientific review can be conducted. Until a thorough scientific review can be conducted, IPC requests that EPA take a neutral position by clearly stating that these are the concerns of certain stakeholders.

IPC is also concerned that the SDR fails to explain how ongoing research efforts undertaken by EPA will be included in the standards development process. EPA’s Design for the Environment (DfE) Program is currently investigating the environmental, health and safety aspects of alternative flame retardants for printed circuit boards. Through the DfE, EPA will determine whether the materials currently being considered as replacements for these BFRs are any better or worse for the environment or human health.

The SDR also ignores current EPA efforts to reexamine the applicability of the PBT criteria to metals including lead. EPA’s Framework for Metals Risk Assessment clearly suggests that the PBT classification of lead is no longer justified and should be revoked. EPA is currently “cross-walking” the framework with methods used to assess metals in agency programs. IPC suggests that instead of merely stating that “Lead is a PBT,” the SDR also mention that EPA is currently reevaluating the questionable application of the PBT criteria to metals such as lead. The SDR needs to explain how the metals framework will be included in the standards development process.

As mentioned in our previous comments, until relevant and scientifically validated data are presented proving that TBBPA and DecaBDE have an adverse human health or environmental impact and the alternatives are better, these substances should be withdrawn from use as an EPEAT “content specific environmental or human health concern.” However, certain stakeholder concerns regarding use of flame retardants can be examined in future stages of the standards development process, where a complete scientific review regarding any associated human health and environmental impacts can be conducted.

If the editors remain unable to address all stakeholder comments, IPC insists that a written explanation for the decision be provided to all stakeholders. For more information, please contact Fern Abrams, Director of Environmental Policy, at fabrams@ipc.org or 703-522-0225.

Table 1 - Significant Industry Concerns Continue to be Ignored by EPEAT Revision Process

Section 1.3 -Preliminary Observations Regarding Environmental Considerations

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, TBBPA and Deca-BDE should not be identified as “constituents of concern.”

April 10, 2007 EPEAT SDR Background and Discussion Document:

BFRs are identified as a category in the table “Preliminary Summary of Opportunity for Environmental Benefits” (p. 12-14)

June 4, 2007 EPEAT SDR Background Document:

“Nearly all products use some flame retardants that have been identified as constituents of concern – including TBBPA (reacted into circuit boards), decabromodiphenyl ether (Deca-BDE – used primarily in housings are large plastic parts)...”(p.2)

July 9, 2007 EPEAT SDR Final Background Document:

“Nearly all products use some flame retardants including TBBPA (reacted into circuit boards), decabromdiphenyl ether (Deca-BDE –used primarily in housings and large plastic parts)...Based on stakeholder comments, it is clear that there is controversy around the human health and environments impacts associated with use of some flame retardants, including brominated flame retardants. Consequently, the flame retardants listed above are noted as constituents of concern in this

document. See http://zerowaste.org/epeat/roadmap_docs.htm for comments received during the two public comment periods for this document. This SDR process did not consider flame retardants as a criterion for prioritizing products for standards development and does not include any recommendations associated with the use of flame retardants. The standard development process for each product category will address criteria associated with the use of specific flame retardants.” (p. 2-3)

Section 2.0 Mobile Devices (Mobile Phones, Smartphones and PDAs) (Previously Section 3.1 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

Since the July 9, 2007 SDR Background Document continues to identify TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern,” the document is still incorrect. TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern” should be removed.

April 10, 2007 EPEAT SDR Background and Discussion Document:

Under the heading “Content Specific Environmental or Human Health Concerns” the following is stated, “Toxic materials likely found in cell phones sold today include (Socolof, 2007): BFRs-tetrabromobisphenol-A (TBBPA)...” (p. 18)

June 4, 2007 EPEAT SDR Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Materials of concern likely found in cell phones sold today include (Socolof, 2007): BFRs-tetrabromobisphenol-A (TBBPA)...” (p.5)

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Materials of concern likely found in mobile phones sold today include (Socolof, 2007)... BFRs-tetrabromobisphenol-A (TBBPA)... may be present in mobile devices (see Section 1.3 for a discussion on flame retardants)” (p.5)

Section 3.0 Printers

(Previously Section 3.2 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30,2007 and June19, 2007:

The July 9th SDR continues to improperly characterize TBBPA and DecaBDE. TBBPA and Deca-BDE have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “constituents of concern” should be removed.

April 10, 2007 EPEAT SDR Background and Discussion Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “BFRs which have been found to be ubiquitous in the environment are neurotoxins in children, immune system suppressors, and have other chronic human health affects (Rossi and Heine, 2007)” (p. 22-23)

June 4, 2007 EPEAT SDR Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Printers may also include brominated flame retardants that have been identified as constituents of concern above (TBBPA in circuit boards and DecaBDE)” (p.8)

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Printers may also include brominated flame retardants that have been identified as constituents of concern above (TBBPA in circuit boards and DecaBDE) (see Section 1.3 for discussion on flame retardants)” (p.8)

Section 6.0 Servers

(Previously Section 3.7 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

BFRs are a family of 75 chemical substances with different properties, characteristics, and performance. The only commonality is that all BFRs contain bromine – an element that is available in nature. It is therefore inappropriate and misleading to repeatedly make blanket statements that group all BFRs into one category.

April 10, 2007 EPEAT SDR Background and Discussion Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.36)

June 4, 2007 EPEAT SDR Background Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.14)

July 9, 2007 EPEAT SDR Final Background Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.14)

Table 2- Proposed EPEAT SDR Clarifications

Section 1.3 -Preliminary Observations Regarding Environmental Considerations

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, TBBPA and Deca-BDE should not be identified as “constituents of concern.”

July 9, 2007 EPEAT SDR Final Background Document:

“Nearly all products use some flame retardants including TBBPA (reacted into circuit boards), decabromdiphenyl ether (Deca-BDE –used primarily in housings and large plastic parts)...Based on stakeholder comments, it is clear that there is controversy around the human health and environments impacts associated with use of some flame retardants, including brominated flame retardants. Consequently, the flame retardants listed above are noted as constituents of concern in this document. See http://zerowaste.org/epeat/roadmap_docs.htm for comments received during the two public comment periods for this document. This SDR process did not consider flame retardants as a criterion for prioritizing products for standards development and does not include any recommendations associated with the use of flame retardants. The standard development process for each product category will address criteria associated with the use of specific flame retardants.” (p. 2-3)

Additional Comments:

The statement, “Based on stakeholder comments, it is clear that there is controversy around the human health and environments impacts associated with use of some flame retardants, including brominated flame retardants” implies that there is a scientific controversy about the human health and environmental impacts. While some stakeholders make take issue with the use of flame retardants, there is no scientific evidence to support these concerns, nor is there any scientific controversy. EPA should clearly state that these are concerns of certain stakeholders.

Suggested Language:

“Nearly all products use some flame retardants. While this document does not attempt to review scientific evidence regarding any associated human health and environmental impacts or the lack thereof, the use of flame retardants in electronics is noted as a concern of some stakeholders and should be thoroughly reviewed in the next steps of the standard development process.”

Section 2.0 Mobile Devices (Mobile Phones, Smartphones and PDAs) (Previously Section 3.1 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

Since the July 9, 2007 SDR Background Document continues to identify TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern,” the document is still incorrect. TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern” should be removed.

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Materials of concern likely found in mobile phones sold today include (Socolof, 2007)... BFRs-tetrabromobisphenol-A (TBBPA)... may be present in mobile devices (see Section 1.3 for a discussion on flame retardants)” (p.5)

Additional Comments:

The inclusion of TBBPA and DecaBDE under the heading “Content Specific Environmental or Human Health Concerns” implies that EPA considers TBBPA to be an environmental or human health concern, despite the lack of any supporting scientific documentation.

Suggested Language:

Suggest moving the statement regarding the presence of BFRs from the ‘Content Specific Environmental or Human Health Concerns’ to the previous ‘Product profile section.’ Following the statement regarding the presence of flame retardants, you may wish to repeat or reference the fact that certain stakeholders have expressed concerns regarding the impact of these materials.

Section 3.0 Printers

(Previously Section 3.2 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

The July 9th SDR continues to improperly characterize TBBPA and DecaBDE. TBBPA and Deca-BDE have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “constituents of concern” should be removed.

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Printers may also include brominated flame retardants that have been identified as constituents of concern above (TBBPA in circuit boards and DecaBDE) (see Section 1.3 for discussion on flame retardants)” (p.8)

Additional Comments:

The inclusion of TBBPA and DecaBDE under the heading ‘Content Specific Environmental or Human Health Concerns’ implies that EPA considers TBBPA to be an environmental or human health concern, despite the lack of any supporting scientific documentation.

Suggested Language:

Suggest moving the statement regarding the presence of BFRs from the ‘Content Specific Environmental or Human Health Concerns’ to the previous ‘Product profile section.’ Following the statement regarding the presence of flame retardants, you may wish to repeat or reference the fact that certain stakeholders have expressed concerns regarding the impact of these materials.

Section 6.0 Servers

(Previously Section 3.7 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

BFRs are a family of 75 chemical substances with different properties, characteristics, and performance. The only commonality is that all BFRs contain bromine – an element that is available in nature. It is therefore inappropriate and misleading to repeatedly make blanket statements that group all BFRs into one category.

July 9, 2007 EPEAT SDR Final Background Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.14)

Additional Comments:

The presentation of this statement in the product profile section is appropriate, however, the statement, “that may be hazardous to human health” draws a conclusion that has not been supported by scientific documentation and is more appropriately addressed in future stages of the standard development process.

Suggested Language:

Suggest changing the statement to read, "Also likely to contain brominated flame retardants that have been identified as a human health and environmental concern by certain stakeholders."

Wed, 07/25/2007 - 08:11 — [Pierre Georlette](#)

[IPC comments is completely right](#)

It is completely true that the background document is unfortunately still a very short in single sided view of the information that consciously or unconsciously will mislead the various teams who will work on the draft of the various standards. It will indeed give them a bad basis to start the job.

It is indeed strange that a host of often valuable scientific information has been provided as references to correct the wrong information given on brominated flame retardants in general but also on TBBPA and Deca BDE in particular. But unfortunately about none of them has been found worthwhile to be mentioned as a footnote in the text of background for the draft while all the others, with often questionable values, were maintained. The limited literature search behind this due limited budget is in my opinion not an excuse as all the references given with the comments are available often since April and it would have been fair to have mentioned some of them with the same care given to the other ones in order to give a more balanced background.

I am happy about the comprehensive input given by the IPC that I support fully.

Tue, 07/24/2007 - 08:52 — [Chris OBrien](#)

[Let's avoid duplicating standards](#)

A growing problem in our work promoting responsible purchasing is the existence of competing standards. This is already confusing to purchasers and it will get worse if EPEAT creates standards that duplicate EcoLogo, such as those for imaging devices.

I strongly advise GEC/EPEAT to avoid reinventing the wheel. Instead, focus on two things:

1. Create standards for products that don't already have them
2. Coordinate with other environmental standards setters to avoid overlap and to create mutual support and synergy.

Many people are unfamiliar with EcoLogo. Rather than undermine its potential for success, EPEAT and EcoLogo should collaborate to assign product categories and/or markets or come up with some other solution for being complementary rather than competitive.

Creating duplicates causes extra work and confusion for everyone involved. For our own part, a new imaging devices standard would require a revamp to our brand new Responsible Purchasing Guide for office electronics - which we are launching on a national webcast this very afternoon.

We, at the Responsible Purchasing Network, strongly support the efforts of both EPEAT and EcoLogo and we urge that they coordinate on product choices rather than be duplicative.

Thanks kindly,
Chris O'Brien
Director, Responsible Purchasing Network

Mon, 07/23/2007 - 10:11 — [Colleen Pickford](#)

[EIA Comments](#)

Overall comments

EIA supports EPEAT standards for new product categories. However, the recommendations laid out in this document lack an established scope and a number of other key elements. Likewise, much of the information included in this document is entirely new and will have an impact on the flow of the overall process and would have been best included in earlier drafts. We are concerned that the proposed timeline is far too aggressive and have made recommendations that we hope will allow for the development of a more appropriate timeline.

Executive Summary

These recommendations do not account for any delay in the development of new standards to account for the revision of 1680. EIA feels the development of any additional standards is ultimately dependent on the substance of the 1680 umbrella. The current timeline will likely have four processes open at once which will cause significant strain on stakeholders wishing to participate in multiple processes. In order to properly revise 1680 and lay the groundwork for new standards, it is likely that a minimum of 6 months will be necessary.

Fri, 07/20/2007 - 08:53 — [Scot Case](#) New

[Focus on Areas Where There Are No Existing Standards](#)

Greetings --

As EPEAT sets its next priorities, I'd like to strongly encourage EPEAT to focus on product categories for which there are not currently existing standards. The EcoLogo program already has standards and certified products for office equipment. While the standards are only recently being actively marketed, there are a number of well-known products already certified under the EcoLogo standard.

Rather than re-creating existing standards, I'd encourage EPEAT to focus on product areas for which no existing standards exist -- televisions, PDAs, servers, cell phones, digital converter boxes, etc.

I've been focusing on the standards world for 15 years and I strongly believe that the world needs standards for more products not more standards for the same products.

- Scot

Fri, 07/20/2007 - 07:13 — [Mike Fisher](#) New

[Recommendation 5. Launching the standard](#)

The project should further consider if EPA should have sole responsibility for launching the standard development process. Perhaps DOE and DOC/NIST should be collaborators given the scope of EPEAT.

- [delete](#)
- [edit](#)
- [reply](#)

Fri, 07/20/2007 - 07:10 — [Mike Fisher](#) New

[Method of Standard Development](#)

The project needs to be very clear on whether its goal is to develop a U.S. or International Standard. Page 5 references "U.S. standard".

It would be helpful to note that the standard should meet WTO guidelines.

Thu, 07/12/2007 - 14:25 — [Samuel McCord](#) New

[Comments on order of standards to create](#)

Thanks for developing EPEAT and the future roadmap!

Each of the four new standards sound good to have, but I am most interested in seeing the standard on imaging devices first. I've been trying to develop a form of matrix/scorecard to be able to grade the environmental features of these, but if you're able to beat me to the finish line - great! If you're interested, I'll be happy to forward what I have for my scorecard if it will help any.

TVs as the following standard sounds timely as TVs are so ubiquitous and big.

Thank you,

Samuel McCord
Pollution Prevention
Sandia National Laboratories
samccor@sandia.gov
505.845.7935 (w)
505.844.9977 (f)

Fri, 07/20/2007 - 09:20 — [Scot Case](#) New

[Check out EcoLogo](#)

Sam --

You ought to check out the EcoLogo standard for office equipment. It includes standards for copiers and printers. It can be easy to overlook if you google for photocopiers. I'll send you a copy.

- Scot

Thu, 07/12/2007 - 06:22 — [Joe Kraus](#) New

[Recommendations](#)

EPEAT should consider adding network routers and switches to the program. With the convergence of content to IP, these devices are becoming central to voice, video and data distribution. Further, the number of major vendors is limited and, as a result, could produce significant advantage for the program.

1.0 Project Overview

Comments (86 reads)

Fri, 07/20/2007 - 08:12 — [Mike Fisher](#) New

[Project Overview](#)

The level of technological innovation in product design and manufacture as well as product recovery at end-of-life has evolved significantly over the past decade. For reasons of intellectual property protection, most of this knowledge base is not understood by the vast majority of EEE stakeholders. This makes standards development a somewhat risky business.

Fri, 07/20/2007 - 08:04 — [Mike Fisher](#) New

[Project Overview](#)

The existing ISEE 1680 standard is quite good but suffers from its inconsistency in addressing structural material issues. There needs to be a consistent approach to this subject that does not disadvantage one material versus another without sound scientific justification. The subject of recycle content is one example.

A sense of proportion should be applied to environmental criteria and lifecycle thinking stressed.

Fri, 07/20/2007 - 07:55 — [Mike Fisher](#) New

[Scientific evaluation relative to Section 1.0 Project Overview](#)

The Project Overview section needs to emphasize that the EPEAT environmental assessment process will include a "scientific evaluation" step. Otherwise there remains uncertainty if meaningful and significant issues are being addressed and if the recommendations are reliable.

2.0 Product Recommendations

Comments (95 reads)

Tue, 07/31/2007 - 11:50 — [Jenny Bragg](#) New

[The Green Grid EPEAT recommendation to focus on servers](#)

A growing requirement for data center computing power has created an acute need for the industry to address data center energy efficiency. Analysts predict that half of the world's data centers will run out of power by the end of 2008. Analysts have also stated that data centers typically waste more than 60% of the total energy used to cool equipment. With servers and data centers consuming power at new levels, The Green Grid recommends that servers be the priority for the next EPEAT project.

Wed, 07/25/2007 - 17:09 — [Sue Chiang](#) New

[Center for Environmental Health/CTBC Comments](#)

I would like to reiterate our recommendation to prioritize televisions for immediate standards development, given the 2009 analog to digital deadline. Also, given that televisions are similar to computer monitors, it is a logical extension of the existing EPEAT computer standards. Digital converter boxes or DTAs should also be considered but should not unduly delay standards development for televisions.

The focus on televisions would require the expansion of EPEAT beyond institutional purchasers to cover the consumer market. We are already hearing about interest in this arena through retailers who are starting to develop their own electronics environmental rating programs. EPEAT should expand to fill this void and create a uniform standard that will help retailers and consumers identify environmentally preferable products.

I also agree that it is important for EPEAT not to compete with existing standards (such as EcoLogo) but to aim for harmonization with them or if they are not sufficient on their own, to build on them.

Wed, 07/25/2007 - 11:42 — [Anne Stocum](#) New

[Imaging Equipment - Ecolabels already exist.](#)

There are existing ecolabels for imaging equipment such as Energy Star and Canada's ecologo - which is just undergoing a revision to update the standard. No need to rush to create a new ecolabel for imaging equipment. Rather, investigate these existing ecolabels for use

When and if imaging equipment standards are developed within EPEAT, we should aim to HARMONIZE the requirements.

Tue, 07/24/2007 - 08:58 — [Chris OBrien](#) New

[Please don't duplicate EcoLogo standards for imaging devices](#)

I strongly echo Scot Case's concerns about duplicating an existing standard. EcoLogo has imaging device standards. EPEAT - and the purchasers who rely on it - would be better off supporting strong standards where they already exist and focusing new standards development on product categories that are not already covered.

We, at the Responsible Purchasing Network, support EPEAT and EcoLogo (and several other environmental standards setters) and want to see them both succeed rather than reinvent the wheel.

Thanks very much,
Chris O'Brien
Director, Responsible Purchasing Network
www.responsiblepurchasing.org

Tue, 07/24/2007 - 14:48 — [Michael Kirschner](#) New

[EcoLogo CCD-035 is ancient and narrowly scoped](#)

Well, the existing standard is not only difficult to find, it's also nearly 9 years old. Several generations of technology have come and gone. I see some good ideas in it; I also see weaknesses inherent in a 9 year old technology standard (for instance, require duplex capabilities in a copier with 44 page/minute capability or greater - my \$200 all-in-one laser printer/copier/fax does 21ppm and has duplex capabilities - we have a different class of problems and challenges now due to lower price, better performance and, hence, wider adoption). I do not see it as a "strong standard"...it's an "old standard" and it needs to be

updated. I'm glad it exists, because it has some good ideas, but there are ideas in 1680 that can be extended to this class of product as well.

Not all the EcoLogo standards are so ancient; I do think that, where they exist, they should be reviewed for incorporation or, if they already fit the bill, then skip a 1680 implementation and somehow bring in these standards.

Michael Kirschner
President
Design Chain Associates, LLC

Mon, 07/23/2007 - 10:19 — [Colleen Pickford](#) New

[EIA comments regarding product recommendations by section](#)

2.1 Throughout the convening process and in the development of the background and discussion document, set top boxes and digital converter boxes were mentioned but were not considered any type of priority until this final roadmap document. Including these products in with televisions would likely lengthen the complexity as well as the time needed to complete the television standard. Grouping these products together seems ill-conceived as they are vastly different products from a technical standpoint. Many previous comments correlated the need for a television standard based on the 2009 digital transition, any addition or delay to the television standard increases the likelihood that efforts to complete a standard before that transition would be moot. This late addition of set top boxes and digital convert boxes to this document has engendered a great deal of concern among our members as to the process by which comments are integrated into these recommendations.

2.2 Section 1.2 of IEEE 1680 explicitly states the purpose of the standard for use in institutional markets. Altering this purpose to serve consumer needs as opposed to institutional needs will likely dilute the efficacy of the standard in securing the “green” design changes advocated by many of the stakeholders in this process. Changing the overall purpose of EPEAT should be considered with great trepidation before moving forward.

2.3 The recommendation by ZWA to include set top boxes and digital converter boxes is not included in this sequencing recommendation under televisions. All aspects of a standard should be included in every area of consideration for these standards. Likewise, it is not clear if servers or mobile devices are equal priority. Due to their rapidly evolving nature and given that neither of these product categories will be examined for at least 18-24 months, EIA recommends a brief reevaluation of their priority and the usefulness of an EPEAT standard in the months before commencing standards development in either of these categories. Specifically EIA encourages the examination of the upcoming Energy Star and Department of Energy efforts regarding external power supplies and their relevance to a mobile device standard as suggested by Motorola in the last version of this roadmap. This sequence of standards development should include any revision or reevaluation of 1680. If 1680 is split into an umbrella standard this process should be almost complete before starting another process as it will dictate the scope and purpose of the standard. An EIA member who served as part of the initial development of the standard from the beginning and having gone through the first round of verification, have proposed that the 1680 standard be reorganized into several subsections:

1. The annual corporate report (already in place) remains and applies to all products in 1680.
2. The existing 1680 should be broken into non-product –type specific points that would apply to all products within the 1680 standard. This would require a review of the existing standard as well as an open development process to add/remove additional points now that the standard is more mature. Items like RoHS compliance, potentially the entire packaging section would move to this standard.
3. The product specific standards would be built, starting with the existing desktops/notebooks/monitors piece which would also need revisions. Then each of the new products subsets could be developed. This section is unclear in it's recommendation for the conditions by which servers and mobile devices should be undertaken.

2.3.1 There needs to be a clear separation for imaging devices between the consumer level which is purchased at a retailer, installed and maintained by the customer versus commercial level products sold to institutions, installed and maintained by factory trained engineers.

2.3.4 This standard development should reflect upcoming standards from within EPA and Department of Energy regarding external power supplies.

Fri, 07/20/2007 - 20:58 — [Theresa Jordan](#) New

Focus on EPEAT strength as institutional tool

Reiterating a previous commentor's points, the use of EPEAT by institutional purchasers is guaranteed based on the Jan 2007 Executive Order. Much market research shows that most consumers do not make purchasing decisions based on environmental attributes. EPEAT should expend its efforts on developing standards that will continue to capitalize on its institutional success, and not expend resources on marketing EPEAT as a consumer standard at this point. Consumer goods with limited purchases by institutions, such as mobile devices, should not be included in the scope of EPEAT at this time.

Fri, 07/20/2007 - 20:48 — [Theresa Jordan](#) New

Late recommendation of DTA's and Set-top boxes

The third revision of the SDR is the first time the recommendation to include DTA's and set-top boxes in this next phase of EPEAT standards. Therefore, many stakeholders who are not otherwise involved in this process have been effectively excluded from participating, as they will be unaware of this development and have no opportunity to provide input.

Fri, 07/20/2007 - 20:44 — [Theresa Jordan](#) New

Inclusion of DTA's and Set-top boxes with Televisions

DTA's and Set-top boxes are fundamentally different products from televisions and should not be included in the same standard. Furthermore, DTA's and set-top boxes themselves are significantly different from each other and do not lend themselves to be rated by a single standard. The USEPA Energy Star program recognizes this and has developed an Energy Star specification solely for DTA's, with a separate specification under development for set-top boxes.

Fri, 07/20/2007 - 08:56 — [Scot Case](#) New

EcoLogo already has standards for imaging equipment

Greetings --

As EPEAT sets its next priorities, I'd like to strongly encourage EPEAT to focus on product categories for which there are not currently existing standards. The EcoLogo program already has standards and certified products for office equipment, which includes printers, photocopiers, and fax machines. While the standards are only recently being actively marketed, there are a number of well-known products already certified under the EcoLogo standard and have been for years. People just don't know to ask for them yet, although the U.S. Environmental Protection Agency has purposefully purchased EcoLogo copiers for its offices.

Rather than re-creating existing standards, I'd encourage EPEAT to focus on product areas for which no existing standards exist -- televisions, PDAs, servers, cell phones, digital converter boxes, etc.

I've been focusing on the standards world for 15 years and I strongly believe that the world needs standards for more products not more standards for the same products.

- Scot

Fri, 07/20/2007 - 07:40 — [Mike Fisher](#) New

[Sections 2.3.1, 2.3.2, 2.3.3, 2.3.4](#)

It is somewhat disturbing that there is not consensus among product producers and users on the need for or level of need for EPEAT relative to targeted products. Doesn't this raise a concern on whether a further expansion of EPEAT is warranted at this time? Maybe the level of understanding of environmental issues needs to further mature first.

Fri, 07/20/2007 - 07:30 — [Mike Fisher](#) New

[Section 2.3.2 Televisions](#)

The 4th bullet should point out that the presence of CRTs is the primary reason for the relatively high weight percentage of TVs. Otherwise, environmental issues are distorted.

Fri, 07/20/2007 - 07:26 — [Mike Fisher](#) New

[Consideration in Selecting Products](#)

The third bullet should reference both national and global markets since some environmental impacts are of interest principally from a global perspective.

Fri, 07/20/2007 - 07:21 — [Mike Fisher](#) New

[Consideration in Selecting Products](#)

A weakness of the project is that it ignores the manufacturing stage. This is all right as long as this is clearly acknowledged in the standard and its implications explained. Presently this is not the case.

How a product is manufactured can have a very significant impact on the environment.

For credibility this issue must be much better addressed in the standard.

Fri, 07/20/2007 - 04:31 — [Pierre Georlette](#) New

[Considerations in Selecting Products](#)

Page 5 in the paragraph "Considerations in Selecting Products," addition of another bullet about safety:

It is suggested to add Safety of use as an important topic to take into consideration while selecting products in term of its environmental impact.

Several categories of safety should be considered:

Fire safety

Safety against chemicals being used (batteries, toner, ink)

Electrical shock

Mechanical impact

Possible noise and radiation emission

Fri, 07/20/2007 - 04:30 — [Pierre Georlette](#) New

Considerations in Selecting Products

Page 5 in paragraph "Considerations in Selecting Products," second bullet:

1.a The energy consumption required to produce the relevant electronic equipment is an important aspect to take into consideration and one that is part of the life cycle of any piece of electronic equipment. The energy needed is consumed to produce various raw materials, mainly metals, glass and plastics, as well as the energy consumed by the processing steps to mold and assemble the different parts.

The environmental impact of the product would be minimized by a design associated with a reduction in the energy needed to produce it.

Based on existing products in the market, it should be easy to define classification in term of energies of production.

1.b Aspects to be considered about the environmental impact of the management of the product at the end of life are:

the ease and the energy consumed during recycling steps

the energy recovery during incineration

3.0 Implementation Recommendations

Comments (60 reads)

Comments

Wed, 07/25/2007 - 11:49 — [Anne Stocum](#) New

Umbrella standard needs stakeholder input

Please ensure that the creation of the IEEE "umbrella" standards happens with appropriate stakeholder input. 3.2 states that the umbrella standard is expected to include "common" environmental criteria that will eventually apply to all product categories.

Tue, 07/24/2007 - 09:03 — [Chris OBrien](#) New

RE: sec. 3.5 new standards

Please see my comments in previous sections regarding the importance of not duplicating existing standards, such as the EcoLogo standards for imaging devices.

Duplication frustrates manufacturers, confuses purchasers and gobbles up precious time from all of us in the movement who are trying to make it easier for buyers to comprehend and specify products with environmental certifications. Competing standards distract us from making progress in other product categories for which there are no existing standards.

Thanks very much,
Chris O'Brien

Director, Responsible Purchasing Network
www.ResponsiblePurchasing.org

Mon, 07/23/2007 - 10:25 — [Colleen Pickford](#) New

EIA Comments on Implementation

3.1 EIA supports the use of IEEE as the SDO for this and all subsequent EPEAT.

3.2 EIA supports the creation of a family of standards as it has the potential to provide a structure that will most effectively manage the various standards. Both the demand for additional standards and overlapping criteria dictate the need for efficient methodology.

3.4 EIA can support editorial changes to the IEEE 1680 standard, but recommends that this process be narrowly focused to ensure EPEAT registered products remain within the criteria. Should the standard be split into 1680 and 1680.1, the original intent of the document should be preserved in its purpose and scope.

3.6 Implementation Timeline EIA encourages a reevaluation of this implementation timeline. It is entirely premature to recommend initiation of standards when funding and facilitation have not yet been secured. If EPA intends to hold a funders/kickoff meeting in early/mid September it is unlikely that the workgroup will be fully formed until at least October. Should an umbrella standard be created, it would be unwise to kick off additional standards while this revision is occurring. The umbrella will set the tone for standards development and will likely take a minimum of 6 months to update. We do not recommend initiating any other standards before the umbrella standards or any amendments to 1680 are completed. We agree with the recommendation that no more than two standards should be open and in process at any given time. For the lower priority product categories, EIA recommends that both standards initiate once their respective Energy Star standards are completed.

3.7 EIA encourages EPA to seek out a process manager who is experienced with facilitating standards development and is a neutral party outside of the stakeholder group.

3.8 1. Before any funding decisions can be considered, we need an estimate of how much money is required and how it is used in the standard development process. What are the consequences if industry is not willing/able to fund this standard development alone? We would hope funding would be provided by all stakeholders in this process.

2. In order to properly expand EPEAT into a consumer standard extensive stakeholder discussion would be necessary as the group that is currently assembled was assembled to examine an institutional, not consumer standard.

Fri, 07/20/2007 - 09:03 — [Scot Case](#) New

Section 3.5 -- Developing New Standards

Greetings --

When determining which new standards to develop, I would strongly recommend that EPEAT exclude product areas for which existing standards already exist unless EPEAT determines that the existing standards are inadequate based on pre-defined criteria. Having been in the standards world a very long time, I am dismayed whenever I see standard organizations duplicating the work of other standards organizations. These kinds of market-based mechanisms work best when there is a single environmental standard. Having multiple environmental standards for products creates confusion in the marketplace -- purchasers are unsure which standard to specify and manufacturers are unsure which standards to prioritize.

Some of the proposed new EPEAT standards duplicate existing EcoLogo standards for which products have been certified for years. Rather than creating more standards for the same product categories, EPEAT should focus on expanding the number of product categories for which there are standards.

- Scot

Fri, 07/20/2007 - 07:47 — [Mike Fisher](#) New

[Section 3.5/Working Groups](#)

Scrap processors and the waste management industry should be listed among stakeholders.

Fri, 07/20/2007 - 07:44 — [Mike Fisher](#) New

[Section 3.1 Selection of a SDO](#)

Has there been sufficient discussion of the need for an IEC standard instead of or in addition to an ISEE standard?

4.0 Next Steps and Funding

Comments (59 reads)

Fri, 07/20/2007 - 09:08 — [Scot Case](#) New

[Missing a Critical Step](#)

Before finalizing the roadmap in mid-August, I think EPEAT should review the existing standards for the proposed product categories. I don't think EPEAT should be creating new standards for product categories if existing standards are already adequate. EcoLogo, for example, has had standards for office equipment (printers, copiers, fax machines, etc.) for years. The U.S. Environmental Protection Agency has intentionally purchased EcoLogo certified photocopiers. Why spend the time inventing a new standard when an existing one already works? Should EPEAT be focusing its energy on developing standards for product areas that are not already covered?

I suggest prior to finalizing the SDR roadmap that EPEAT review the existing environmental standards for the proposed products. If existing standards are deemed inadequate (based on a specific set of requirements), then EPEAT should feel free to duplicate efforts. Barring that, I think EPEAT should avoid duplicating existing standards. The time could be better spent developing standards for product categories that don't yet have standards.

- Scot

Roadmap Attachments

Comments

Tue, 07/31/2007 - 12:53 — [Dani Tsuda](#) New

[More on definition of Mobile Devices](#)

ref: On June 20, 2007, Governor John E. Baldacci signed Public Law 343, "An Act to Promote Recycling of Cellular Telephones," which will impose a disposal ban and requirements on both retailers and service providers. The Act is codified at 38 MRSA § 2143. The Act was passed in part in response to the recommendations contained in the "Report on the Recycling of Cellular Telephones in Maine" provided by DEP to the Legislature in January 2007. The new Maine cell phone law includes a definition of cell phone (to differentiate it from other communication devices) --- EPEAT may want to review their documents to be able to clearly define and scope "Mobile Devices" (maybe even better than what they did) currently, it is NOT clear (to me) that the EPEAT definition scopes or differentiates what is and is not within the scope of EPEAT mobile devices ...

"EPEAT definition of Mobile Devices - Proposed mobile phone definition - mobile phone is a portable handheld device that transmits voice at a minimum and its principal function is two way vocal communication. The products shall be primarily designed for the transmission of telephone calls and messages. They may, however, offer additional functions, such as, for example, organizers, as well as wireless internet access and data transmission via infrared interfaces or Bluetooth." (ref: SDR_Product_Definitions_070709 pdf)

Note - Walkie talkies, citizens band, ham radio, security, police, fire, emergency services, military, and homeland security non-cell phone types of portable, handheld voice/data (and sometimes video) communication devices are not mentioned and there is not a clear definition of what is defined as "telephone calls".

Note2 - Might military/govt portable, handheld voice/data (and sometimes also video) communication devices be specifically excluded?

Note3 - someone in Maine also thought of the GM-type of Blue Star cell-phone system that is imbedded into automobiles & specifically mentions it as being excluded.

Wed, 07/25/2007 - 11:33 — [Dani Tsuda](#)

[definition of Mobile Devices](#)

Dani.Tsuda@WSPGroup.com

More Qs than comments - re: Attachment 2: Proposed Product Definitions (Mobile Devices)

1. Are walkie-talkie/CitizenBand/HAM radio-types of communication devices included within the definition and scope of Mobile Devices?
2. Might emergency (police, fire, medical, etc), home-land and other security, and/or military communication mobile devices be specifically mention as to being included/excluded?
3. Might the removable/replaceable mobile cell phone cards that are typically used within portable laptop computers (& some PDAs) be included within this definition?
- If not, might these 'components that can not be used all by themselves' be excluded?

Fri, 07/13/2007 - 11:16 — [Jeff Eagan](#)

[Product Prioritization by Dept of Energy](#)

From the perspective of the Department of Energy, here is our list of priorities:

- 1) Imaging - specifically printers (and to a lesser extent copiers)
- 2) Servers

3) Televisions

4) PDA's

The first two categories are much higher in priority than the last two. We need EPEAT to take on printers and servers as our highest concern. Copiers are less of a concern but still rate above the rest.

Televisions are not a major priority for our federal agency, although we are sensitive to the forthcoming obsolescence of millions of TVs.

In our previous remarks, we questioned PDA's and cell phones as an appropriate target for EPEAT, due to the rapid turnover of product and frequent technical modifications. We have heard nothing to change our opinion on this matter and worry that scarce EPEAT resources will be expended without major impact.

Thank you for the opportunity to comment.

Jeff Eagan
DOE Electronics Stewardship Coordinator
Office of Nuclear Safety and Environmental Assistance
Department of Energy

Mon, 07/23/2007 - 08:59 — [Juan Lopez](#)

[Agree with DOE](#)

Our Office (OFEE) agrees with DOE's comments and support their rationale.

Fri, 07/20/2007 - 09:11 — [Scot Case](#)

[EcoLogo already covers Copiers and Printers](#)

I love the prioritization. I think it is the correct focus. I would like to point out, however, that EcoLogo already has a standard for copiers and printers. A number of well-known products have already been certified as meeting the EcoLogo standard. I would encourage EPEAT to focus on developing standards for which current standards do not already exist -- servers, televisions, PDAs, cell phones, etc.

- Scot

Discuss it!

This section was intended to be used to discuss the operation and effectiveness of the web site, but received the following comment.

Comments (32 reads):

Wed, 07/25/2007 - 07:19 — [Sahar Osman-Sypher](#)

IPC Association Connecting Electronics Industries Comments

IPC's comments can also be viewed at:

http://www.ipc.org/3.0_Industry/3.4_EHS/2007/IPC_EPEATComments07232007.p...

July 23, 2007

Via Electronic Submission

EPEAT SDR Collaboration Website

http://zerowaste.org/epeat_collab/sdr_doc

IPC Association Connecting Electronics Industries is the national trade association for the electronic interconnection industry, and represents more than 2,400 member companies involved in the manufacturing and assembly of printed circuit boards. Printed circuit boards and electronic assemblies are the backbone of a variety of electronic devices including computers, cell phones, pacemakers, automobiles, and sophisticated defense systems. On behalf of our members, IPC would like to offer the following comments on the Electronic Product Environmental Assessment Tool (EPEAT) Standards Development Roadmap (SDR).

After reviewing the July 9, 2007 EPEAT SDR Final Background Document, IPC is concerned that our comments continue to be misunderstood or possibly ignored. Despite repeated comments provided by IPC and others, the SDR background document continues to include unsubstantiated statements about brominated flame retardants (BFRs) and other substances. In the interest of maintaining the integrity of EPEAT and the transparency of the revision process, IPC urges editors of the SDR to resolve the following industry concerns prior to finalizing the document.

IPC is disappointed with the incomplete literature review that was conducted for the SDR. As a result of the incomplete literature review, the SDR creates a misleading and biased picture of BFRs Tetrabromobisphenol-A (TBBPA) and Decabrominated Diphenyl Ether (DecaBDE). IPC is perplexed that while unsupported stakeholder comments expressing concern about BFRs were incorporated in the SDR, the breadth of scientific data supporting the lack of human health and environmental risks for TBBPA and DecaBDE was suspiciously excluded. DecaBDE has been the subject of extensive scientific reviews by the National Academy of Sciences, the Consumer Product Safety Commission and a 10-year Risk Assessment by the European Union. TBBPA is currently going through the EU Risk Assessment process. The Human Health section of the Risk Assessment was closed in 2005 with no risks identified. The Environmental section of the Risk Assessment was closed in March 2007 with no risk identified for TBBPA when used reactively as in the epoxy resins of printed circuit boards. The EU Scientific Committee on Health & Environmental Risks (SCHER- an independent committee that advises the Commission) and a study from the University of Würzburg (under the EU Fire project) also confirmed these conclusions. None of the findings from this wide body of works support listing TBBPA or DecaBDE as "content specific environmental or human health concerns." Surprisingly, while the SDR claims to "have included the most up-to-date data where available," there was no mention of any of these peer-reviewed scientific studies in the SDR.

Despite repeated comments provided by industry, the SDR continues to make inaccurate and misleading statements regarding TBBPA and DecaBDE (See Table 1). While we appreciate EPA's efforts to respond to our comments by removing most gross generalizations about the diverse family of BFRs, the statement "Also likely to contain brominated flame retardants that may be hazardous to human health" seems to have been overlooked (See page 14 of the July 9, 2007 SDR Background Document). Furthermore, EPA's attempt to avoid such blanket statements by specifically identifying TBBPA and DecaBDE as a "content specific environmental or human health concern," is still erroneous and problematic. Likewise it is inappropriate to label these substances as "materials of concern," or "constituents of concern." As noted in our previous comments, while environmental and health concerns exist for certain BFRs, such as Polybrominated Biphenyls (PBBs) and Penta- and Octa-Polybrominated Diphenyl Ether (Penta- and Octa-PBDE), industry has responded by removing them from products. Others BFRs, such as TBBPA and DecaBDE have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore it is entirely inappropriate to list TBBPA and DecaBDE as "content specific environmental or human health concerns," or to refer to these substances as "materials of concern," or "constituents of concern." This implies that EPA considers TBBPA and DecaBDE to be an environmental or human health concern. In order to prevent implied validation of stakeholder concerns that have not been thoroughly examined, EPA should remove all these inaccurate statements (See Table 2). Any references to TBBPA and DecaBDE could more appropriately be placed in the "Product Profile Section" followed by a simple statement that certain stakeholders have expressed concerns regarding the use of these materials.

IPC is particularly troubled that EPA continues to imply corroboration of unsubstantiated stakeholder claims by referring to them as "controversy around the human health and environments impacts associated with the use of flame retardants." EPA

further implies support by repeatedly referring back to the so-called controversy throughout the SDR. While some stakeholders may take issue with the use of flame retardants, there is no scientific evidence to support these concerns, nor is there any scientific controversy. Stakeholder concerns regarding the use of flame retardants should be addressed in future stages of the standards development process, where a comprehensive scientific review can be conducted. Until a thorough scientific review can be conducted, IPC requests that EPA take a neutral position by clearly stating that these are the concerns of certain stakeholders.

IPC is also concerned that the SDR fails to explain how ongoing research efforts undertaken by EPA will be included in the standards development process. EPA's Design for the Environment (DfE) Program is currently investigating the environmental, health and safety aspects of alternative flame retardants for printed circuit boards. Through the DfE, EPA will determine whether the materials currently being considered as replacements for these BFRs are any better or worse for the environment or human health.

The SDR also ignores current EPA efforts to reexamine the applicability of the PBT criteria to metals including lead. EPA's Framework for Metals Risk Assessment clearly suggests that the PBT classification of lead is no longer justified and should be revoked. EPA is currently "cross-walking" the framework with methods used to assess metals in agency programs. IPC suggests that instead of merely stating that "Lead is a PBT," the SDR also mention that EPA is currently reevaluating the questionable application of the PBT criteria to metals such as lead. The SDR needs to explain how the metals framework will be included in the standards development process.

As mentioned in our previous comments, until relevant and scientifically validated data are presented proving that TBBPA and DecaBDE have an adverse human health or environmental impact and the alternatives are better, these substances should be withdrawn from use as an EPEAT "content specific environmental or human health concern." However, certain stakeholder concerns regarding use of flame retardants can be examined in future stages of the standards development process, where a complete scientific review regarding any associated human health and environmental impacts can be conducted.

If the editors remain unable to address all stakeholder comments, IPC insists that a written explanation for the decision be provided to all stakeholders. For more information, please contact Fern Abrams, Director of Environmental Policy, at fabrams@ipc.org or 703-522-0225.

Table 1 - Significant Industry Concerns Continue to be Ignored by EPEAT Revision Process

(The table format can be viewed at: http://www.ipc.org/3.0_Industry/3.4_EHS/2007/IPC_EPEATComments07232007.p...)

Section 1.3 -Preliminary Observations Regarding Environmental Considerations

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, TBBPA and Deca-BDE should not be identified as "constituents of concern."

April 10, 2007 EPEAT SDR Background and Discussion Document:

BFRs are identified as a category in the table "Preliminary Summary of Opportunity for Environmental Benefits" (p. 12-14)

June 4, 2007 EPEAT SDR Background Document:

"Nearly all products use some flame retardants that have been identified as constituents of concern – including TBBPA (reacted into circuit boards), decabromodiphenyl ether (Deca-BDE – used primarily in housings are large plastic parts)..."(p.2)

July 9, 2007 EPEAT SDR Final Background Document:

"Nearly all products use some flame retardants including TBBPA (reacted into circuit boards), decabromdiphenyl ether (Deca-BDE –used primarily in housings and large plastic parts)...Based on stakeholder comments, it is clear that there is controversy around the human health and environments impacts associated with use of some flame retardants, including brominated flame retardants. Consequently, the flame retardants listed above are noted as constituents of concern in this document. See http://zerowaste.org/epeat/roadmap_docs.htm for comments received during the two public comment periods

for this document. This SDR process did not consider flame retardants as a criterion for prioritizing products for standards development and does not include any recommendations associated with the use of flame retardants. The standard development process for each product category will address criteria associated with the use of specific flame retardants.” (p. 2-3)

Section 2.0 Mobile Devices (Mobile Phones, Smartphones and PDAs) (Previously Section 3.1 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

Since the July 9, 2007 SDR Background Document continues to identify TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern,” the document is still incorrect. TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern” should be removed.

April 10, 2007 EPEAT SDR Background and Discussion Document:

Under the heading “Content Specific Environmental or Human Health Concerns” the following is stated, “Toxic materials likely found in cell phones sold today include (Socolof, 2007): BFRs-tetrabromobisphenol-A (TBBPA)...” (p. 18)

June 4, 2007 EPEAT SDR Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Materials of concern likely found in cell phones sold today include (Socolof, 2007): BFRs-tetrabromobisphenol-A (TBBPA)...” (p.5)

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Materials of concern likely found in mobile phones sold today include (Socolof, 2007)... BFRs-tetrabromobisphenol-A (TBBPA)... may be present in mobile devices (see Section 1.3 for a discussion on flame retardants)” (p.5)

Section 3.0 Printers

(Previously Section 3.2 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30,2007 and June19, 2007:

The July 9th SDR continues to improperly characterize TBBPA and DecaBDE. TBBPA and Deca-BDE have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “constituents of concern” should be removed.

April 10, 2007 EPEAT SDR Background and Discussion Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “BFRs which have been found to be ubiquitous in the environment are neurotoxins in children, immune system suppressors, and have other chronic human health affects (Rossi and Heine, 2007)” (p. 22-23)

June 4, 2007 EPEAT SDR Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Printers may also include brominated flame retardants that have been identified as constituents of concern above (TBBPA in circuit boards and DecaBDE)” (p.8)

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Printers may also include brominated flame retardants that have been identified as constituents of concern above (TBBPA in circuit boards and DecaBDE) (see Section 1.3 for discussion on flame retardants)” (p.8)

Section 6.0 Servers

(Previously Section 3.7 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

BFRs are a family of 75 chemical substances with different properties, characteristics, and performance. The only commonality is that all BFRs contain bromine – an element that is available in nature. It is therefore inappropriate and misleading to repeatedly make blanket statements that group all BFRs into one category.

April 10, 2007 EPEAT SDR Background and Discussion Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.36)

June 4, 2007 EPEAT SDR Background Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.14)

July 9, 2007 EPEAT SDR Final Background Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.14)

Table 2- Proposed EPEAT SDR Clarifications

(The table format can be viewed at: http://www.ipc.org/3.0_Industry/3.4_EHS/2007/IPC_EPEATComments07232007.p...)

Section 1.3 -Preliminary Observations Regarding Environmental Considerations

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, TBBPA and Deca-BDE should not be identified as “constituents of concern.”

July 9, 2007 EPEAT SDR Final Background Document:

“Nearly all products use some flame retardants including TBBPA (reacted into circuit boards), decabromdiphenyl ether (Deca-BDE –used primarily in housings and large plastic parts)...Based on stakeholder comments, it is clear that there is controversy around the human health and environments impacts associated with use of some flame retardants, including brominated flame retardants. Consequently, the flame retardants listed above are noted as constituents of concern in this document. See http://zerowaste.org/epeat/roadmap_docs.htm for comments received during the two public comment periods for this document. This SDR process did not consider flame retardants as a criterion for prioritizing products for standards development and does not include any recommendations associated with the use of flame retardants. The standard development process for each product category will address criteria associated with the use of specific flame retardants.” (p. 2-3)

Additional Comments:

The statement, “Based on stakeholder comments, it is clear that there is controversy around the human health and environments impacts associated with use of some flame retardants, including brominated flame retardants” implies that there is a scientific controversy about the human health and environmental impacts. While some stakeholders make take issue with the use of flame retardants, there is no scientific evidence to support these concerns, nor is there any scientific controversy. EPA should clearly state that these are concerns of certain stakeholders.

Suggested Language:

“Nearly all products use some flame retardants. While this document does not attempt to review scientific evidence regarding any associated human health and environmental impacts or the lack thereof, the use of flame retardants in electronics is noted as a concern of some stakeholders and should be thoroughly reviewed in the next steps of the standard development process.”

Section 2.0 Mobile Devices (Mobile Phones, Smartphones and PDAs)
(Previously Section 3.1 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

Since the July 9, 2007 SDR Background Document continues to identify TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern,” the document is still incorrect. TBBPA and Deca-BDE, have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore,

all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “materials of concern” should be removed.

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Materials of concern likely found in mobile phones sold today include (Socolof, 2007)... BFRs-tetrabromobisphenol-A (TBBPA)... may be present in mobile devices (see Section 1.3 for a discussion on flame retardants)” (p.5)

Additional Comments:

The inclusion of TBBPA and DecaBDE under the heading “Content Specific Environmental or Human Health Concerns” implies that EPA considers TBBPA to be an environmental or human health concern, despite the lack of any supporting scientific documentation.

Suggested Language:

Suggest moving the statement regarding the presence of BFRs from the ‘Content Specific Environmental or Human Health Concerns’ to the previous ‘Product profile section.’ Following the statement regarding the presence of flame retardants, you may wish to repeat or reference the fact that certain stakeholders have expressed concerns regarding the impact of these materials.

Section 3.0 Printers

(Previously Section 3.2 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

The July 9th SDR continues to improperly characterize TBBPA and DecaBDE. TBBPA and Deca-BDE have been thoroughly tested and found to have no identified risks or negative impacts on human health or the environment. Therefore, all references to TBBPA and Deca-BDE as “environmental or human health concerns,” and “constituents of concern” should be removed.

July 9, 2007 EPEAT SDR Final Background Document:

Under the heading, “Content Specific Environmental or Human Health Concerns” the following is stated, “Printers may also include brominated flame retardants that have been identified as constituents of concern above (TBBPA in circuit boards and DecaBDE) (see Section 1.3 for discussion on flame retardants)” (p.8)

Additional Comments:

The inclusion of TBBPA and DecaBDE under the heading ‘Content Specific Environmental or Human Health Concerns’ implies that EPA considers TBBPA to be an environmental or human health concern, despite the lack of any supporting scientific documentation.

Suggested Language:

Suggest moving the statement regarding the presence of BFRs from the ‘Content Specific Environmental or Human Health Concerns’ to the previous ‘Product profile section.’ Following the statement regarding the presence of flame retardants, you may wish to repeat or reference the fact that certain stakeholders have expressed concerns regarding the impact of these materials.

Section 6.0 Servers

(Previously Section 3.7 in the April 10, 2007 SDR Background Document)

Summary of IPC Comments on April 30, 2007 and June 19, 2007:

BFRs are a family of 75 chemical substances with different properties, characteristics, and performance. The only commonality is that all BFRs contain bromine – an element that is available in nature. It is therefore inappropriate and misleading to repeatedly make blanket statements that group all BFRs into one category.

July 9, 2007 EPEAT SDR Final Background Document:

“Also likely to contain brominated flame retardants that may be hazardous to human health.” (p.14)

Additional Comments:

The presentation of this statement in the product profile section is appropriate, however, the statement, “that may be hazardous to human health” draws a conclusion that has not been supported by scientific documentation and is more appropriately addressed in future stages of the standard development process.

Suggested Language:

Suggest changing the statement to read, “Also likely to contain brominated flame retardants that have been identified as a human health and environmental concern by certain stakeholders.”

IPC's comments can also be viewed at:

http://www.ipc.org/3.0_Industry/3.4_EHS/2007/IPC_EPEATComments07232007.p...