

**Alaska Community Action on Toxics - American Thrombosis and Hemostasis Network  
Breast Cancer Fund - California Public Health Association-North  
Center for Environmental Health - Center for International Environmental Law  
Center for Media & Democracy Food Rights Network - Clean and Healthy New York  
Clean Production Action - Clean Water Action - Commonweal  
Connecticut Coalition for Environmental Justice - Earthjustice - Ecology Center  
Environmental Defense Fund - Environmental Health Strategy Center  
Environmental Working Group - Friends of the Earth, U.S.  
Green Science Policy Institute - Health Care Without Harm -  
Healthy Building Network - Healthy Child Healthy World - Indiana Toxics Action  
Institute for Agriculture and Trade Policy - Just Transition Alliance  
Kentucky Environmental Foundation - League of Conservation Voters  
Learning Disabilities Association of America - Natural Resources Defense Council  
Physicians for Social Responsibility - Product Policy Institute  
Reproductive Health Technologies Project - Safe Minds  
Vermont Public Interest Research Group - Washington Toxics Coalition**

**Comments on**

**Certain Polybrominated Diphenyl Ethers; Significant New Use Rule and Test Rule  
EPA-HQ-OPPT-2010-1039**

**77 Federal Register 19862-19899 (Monday, April 2, 2012)**

**Submitted July 31, 2012**

**Summary**

Environmental Defense Fund and Earthjustice, on behalf of the undersigned organizations, support EPA's proposal to promulgate a significant new use rule (SNUR) and test rule addressing certain polybrominated diphenyl ethers (PBDEs) (together, the PBDE Rule). We respectfully submit these comments that

- strongly support EPA's decision to extend the SNUR to articles containing the PBDEs at issue, and rebut arguments made by others against applying the SNUR to articles;
- strongly support the necessary and robust testing requirements outlined in the proposed test rule;
- urge EPA to abandon the proposed distinction between the intentional presence of PBDEs in an article and the presence of PBDEs in an article as an "impurity," thereby making the SNUR and the test rule applicable to manufacturing,

processing, and import of articles containing PBDEs, regardless of whether the presence of the flame retardants is intentional or not;

- urge EPA to require that importers of PBDEs as part of an article comply with import certification requirements, and to require notice of export of articles containing PBDEs subject to the SNUR;
- given the strong evidence that PBDEs pose significant risks, urge EPA to finalize the PBDE Rule as soon as possible and to make the SNUR and test rule provisions effective as soon as practicable thereafter, consistent with the voluntary phase-out agreements.

## **Introduction**

We strongly support the agency's proposal to amend the existing SNUR<sup>1</sup> by designating the processing of any of the six PBDEs currently subject to the 2006 manufacture and import SNUR (the 2006 PBDE SNUR) to be a significant new use and by newly designating the manufacturing, processing, and importing of decabromodiphenyl ether (decaBDE) to be a significant new use. The proposed modifications to the existing SNUR are necessary to protect human health and the environment from risks posed by PBDEs that are no longer made in this country, or that are in the process of being phased out, and are in line with measures EPA and the market have taken to cease the use of these chemicals. We also strongly support the proposed test rule for manufacturers, importers, and processors of commercial pentabromodiphenyl ether (c-pentaBDE), commercial octabromodiphenyl ether (c-octaBDE), and commercial decabromodiphenyl ether (c-decaBDE), which requires anyone who continues or seeks to begin manufacturing, importing, or processing those commercial PBDEs to conduct testing on their health and environmental effects.

In particular we commend the agency for extending both the SNUR and test rule requirements to manufacturers, importers and processors of articles containing PBDE substances. As evidence has mounted that humans and the environment can be exposed to toxic chemicals via their presence in articles, and that such exposures may well be the primary source of exposure to certain chemicals, it is essential that EPA use all of its existing authority to regulate these sources of exposure directly. This existing authority

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<sup>1</sup> 40 C.F.R. § 721.10000 (2012).

includes those proposed in the PBDE Rule: to designate newly initiated manufacturing, import, and processing of articles containing chemicals of concern as significant new uses; to require import certification and export notification of articles containing chemicals of concern; and to extend testing requirements to manufacturers, processors and importers of articles containing chemicals of concern. In addition, if PBDEs continue to enter the U.S. in the form of imported articles, EPA should also consider using its section 6 authorities under the Toxic Substances Control Act (TSCA).

The increasingly global nature of trade in chemicals and articles containing chemicals demands EPA expand its use of its authority under the TSCA to address articles and their importation. To cite but one of many policy and practical arguments for doing so: Limiting EPA's oversight to production or import of chemicals of concern may well fail to address meaningful sources of exposure to such chemicals from articles and may have the perverse effect of off-shoring chemical production only to see those same chemicals re-enter the U.S. and either be processed domestically for incorporation into articles or be imported in the form of finished articles. TSCA gives EPA clear authority to address these activities, and it is vital that EPA use these authorities on a routine basis when articles are a significant source of exposure.

The PBDE Rule fills significant gaps that were left by the 2006 PBDE SNUR.<sup>2</sup> First, the 2006 PBDE SNUR does not apply to decaBDE, but applies only to manufacture (defined under TSCA to include production or import) for any significant new use (defined as any use on or after January 1, 2005) of tetrabromodiphenyl ether (tetraBDE), pentabromodiphenyl ether (pentaBDE), hexabromodiphenyl ether (hexaBDE), heptabromodiphenyl ether (heptaBDE), octabromodiphenyl ether (octaBDE), nonabromodiphenyl ether (nonaBDE), or any combination of these chemical substances that results from a chemical reaction.<sup>3</sup> Second, the 2006 PBDE SNUR applies only to the manufacture and import of the chemical substances themselves; it does not apply to processing of these chemical substances or articles containing them.<sup>4</sup>

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<sup>2</sup> *Id.*

<sup>3</sup> *See id.* § 721.10000(a)(1).

<sup>4</sup> *See id.* § 721.10000.

(When the 2006 PBDE SNUR was issued, numerous commenters pointed out that exempting finished products from the rule would create an incentive for companies to shift production overseas and then import products containing these dangerous chemicals into the United States. EPA appeared to agree, but noted that because companies may have already been importing articles containing PBDEs, the agency was excluding such products from the rule.<sup>5</sup>) Third, the 2006 PBDE Rule did not include a test rule for any remaining production, import, processing of PBDEs, or incorporation of these substances into articles.

EPA has correctly determined that changed circumstances now allow it to require notification or testing of PBDEs under circumstances it was unable to require or had decided against in 2006. In 2009, EPA secured commitments from the only United States producers and the largest importer of decaBDE to stop production and import of this chemical for most uses by the end of 2012, and to cease production and import entirely by the end of 2013.<sup>6</sup> Because EPA believes that decaBDE will no longer be manufactured or processed for most or all uses in the United States, EPA has rightly determined that it can designate any new manufacturing or processing of decaBDE after the end of 2013 as a significant new use. Moreover, as a result of increasing restrictions on the use of PBDEs around the world due to the near-universal agreement that these chemicals pose unacceptable risks, EPA can now designate such discontinued uses of PBDEs in articles as significant new uses. Finally, EPA has correctly determined that there is clear evidence that the “manufacture, distribution in commerce, processing, use or disposal” of PBDEs at the very least “may present an unreasonable risk of injury to health or the environment,” within the meaning of section 4(a) of TSCA, and thus that a test rule is appropriate and necessary.

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<sup>5</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule, 71 Fed. Reg. 34015, 34018 (June 13, 2006).

<sup>6</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. 19862, 19864 (proposed Apr. 2, 2012) (to be codified at 40 C.F.R. pts. 721, 795, and 799); *DecaBDE Phase-out Initiative*, EPA, <http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/deccadbe.html> (last visited July 26, 2012).

Despite our strong support for the PBDE Rule, there are three critical changes that we believe must be made before the Rule is finalized. First, we urge EPA not to allow the proposed exemption in both the proposed SNUR and test rule for processors of *articles* containing PBDEs as an impurity (i.e., recycling of articles containing PBDEs where the new product contains PBDEs only incidentally carried over). This exemption would allow PBDE-containing products to be recycled into new articles without triggering the SNUR or the test rule. Given that PBDEs, in addition to being toxic and bioaccumulative, are highly persistent in the environment, the processing of articles containing PBDEs, without EPA notice or oversight, could well result in unnecessary and harmful exposures. This raises particular concerns for articles containing recycled PBDEs that are used in consumer products such as carpet padding found in homes across the United States. EPA has rightly determined that newly made articles containing PBDEs “may present an unreasonable risk of injury to health or the environment”; there is no basis for concluding otherwise for the same or similar articles containing PBDEs due to “carry-over” from recycling processes.

Second, we urge EPA not to exempt articles containing PBDEs from import certification and export notification requirements. These certifications and notifications provide critical information about the extent to which PBDEs and articles containing PBDEs are imported into, and exported from, the United States and thus the extent to which humans and the environment are being exposed. This is especially important for *ongoing* import of PBDE-containing articles that will not be subject to the SNUR requirements. In the absence of an import certification requirement, articles containing the subject PBDEs may continue to be imported as part of articles into the United States without any knowledge of regulators.

Third, we urge EPA to make the PBDE Rule effective on a more expedited basis than is called for in the Proposed Rule. We urge that the amended SNUR become effective immediately upon finalization of the proposed SNUR for tetraBDE, pentaBDE, hexaBDE, heptaBDE, octaBDE, nonaBDE, or any combination of these chemical substances that results from a chemical reaction, and that the effective date of the SNUR requirements for decaBDE be as soon as possible after finalization and at least in a timeframe consistent with the current voluntary phase out agreements. We also urge

that the effective dates of the test rule be the same as those for the SNUR. Any delay in putting the PBDE Rule into effect may result in unnecessary continued human and environmental exposure to these hazardous chemicals.

## **I. RESPONSE TO REQUEST FOR PUBLIC COMMENTS REGARDING THE SNUR**

### **A. EPA Properly Proposes to Extend the PBDE SNUR to Articles**

We strongly support EPA's proposal to designate the processing of tetraBDE, pentaBDE, hexaBDE, heptaBDE, octaBDE, nonaBDE, and the production, import, and processing of decaBDE, for *any* use, as a significant new use. We also strongly support EPA's proposal to make inapplicable in this SNUR the article exemption that otherwise applies to SNURs at 40 CFR 721.45(f). We agree with EPA's reasoning that

commencement of new uses of PBDEs or resumption of discontinued uses, including in articles, may lead to increased exposure of humans and the environment to these chemicals. Making the article exemption for SNURs inapplicable for this proposed SNUR would ensure that the agency has an opportunity to review and, if necessary, take action to restrict to prohibit significant new uses of PBDEs in articles before they resume.<sup>7</sup>

EPA has established scientifically-sound reason for being "concerned that certain PBDE congeners are persistent, bioaccumulative, and toxic to both humans and the environment,"<sup>8</sup> and that allowing new uses of PBDEs in imported articles without notice to EPA would "increase[] the magnitude and duration of exposure of human beings [and] the environment to" these toxic chemical substances.<sup>9</sup>

As documented in EPA's PBDE Action Plan, PBDEs have been detected in wildlife and human biological media (e.g., human tissue, breast milk, and blood). Additionally, PBDEs are generally present at higher levels in humans and wildlife in

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<sup>7</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19864.

<sup>8</sup> *PBDE Action Plan Summary*, EPA, <http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/pbde.html> (last visited July 26, 2012).

<sup>9</sup> TSCA § 5(a)(2)(C), 15 U.S.C. § 2604(a)(2)(C) (2012). This is one of the four factors listed in TSCA section 5(a)(2) that EPA must consider when making a determination that a use of a chemical is a significant new use.

North America compared to other regions of the world.<sup>10</sup> Corroborating biomonitoring data from the Centers for Disease Control (CDC) indicate that most Americans carry PBDEs in their bodies.<sup>11</sup> These facts are especially disturbing when paired with the serious health risks PBDEs present: numerous studies have raised concerns about potential adverse health effects resulting from PBDE exposures including liver toxicity, thyroid toxicity, developmental toxicity, and developmental neurotoxicity.<sup>12</sup> Based on cancer bioassays conducted by the National Toxicology Program,<sup>13</sup> EPA has concluded that there is suggestive evidence of carcinogenic potential for decaBDEs.<sup>14</sup> PBDEs used as flame retardants are present in a range of consumer products, and there is strong evidence that consumer products are the primary source of human exposures to these chemicals.<sup>15</sup> Given these serious health and safety concerns and the likelihood that consumer products are the main source of exposures, EPA is fulfilling its duty to protect human health and the environment by requiring notice of significant new uses of PBDEs in articles.

Moreover, there is no question that EPA has the legal authority to make this SNUR applicable to significant new uses of PBDEs as part of an article. As a general matter, TSCA authorizes EPA to regulate chemical substances in “articles.” For example, as defined in TSCA, the term “distribute in commerce” applies both to the distribution of a chemical substance or mixture, and the distribution of an article containing a substance or mixture.<sup>16</sup> In addition, EPA’s SNUR authority contemplates application to articles. Section 5(a) of TSCA authorizes EPA to regulate particular

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<sup>10</sup> EPA, PBDE ACTION PLAN 7 (Dec. 30, 2009) (“PBDE Action Plan”), *available at* [http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/pbdes\\_ap\\_2009\\_1230\\_final.pdf](http://www.epa.gov/oppt/existingchemicals/pubs/actionplans/pbdes_ap_2009_1230_final.pdf).

<sup>11</sup> CDC, FOURTH NATIONAL REPORT ON HUMAN EXPOSURE TO ENVIRONMENTAL CHEMICALS 311-318 (2009), *available at* <http://www.cdc.gov/exposurereport/pdf/FourthReport.pdf>.

<sup>12</sup> EPA, *supra* note 10, at 5.

<sup>13</sup> *Integrated Risk Information System: 2,2',3,3',4,4',5,5',6,6'-Decabromodiphenyl ether (BDE-209) (CASRN 1163-19-5)*, EPA, <http://www.epa.gov/iris/subst/0035.htm> (last visited July 27, 2012).

<sup>14</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19868, 19871.

<sup>15</sup> EPA, *supra* note 10, at 8, 12.

<sup>16</sup> TSCA § 3(4), 15 U.S.C. § 2602(4) (2012).

“use[s]” of chemicals as a “significant new use,” requiring notice to EPA.<sup>17</sup>

Incorporating a chemical substance into an “article,” is plainly a “use” of a chemical substance within the meaning of TSCA section 5. While EPA has promulgated a generic regulation that excludes articles from SNURs,<sup>18</sup> that provision explicitly allows EPA to override the article exemption for particular chemical substances.<sup>19</sup> Thus, EPA preserved its statutory power to require manufacturers, processors and importers of articles containing chemical substances subject to a SNUR, to comply with that SNUR – as it has appropriately done here.<sup>20</sup>

#### B. EPA Should Not Alter the Articles SNUR Based on the Flawed Critique in the Comments Submitted by the Chemical Users Coalition

On May 25, 2012, the Chemical Users Coalition (“CUC”) submitted comments on the regulation of articles in the proposed amended PBDE SNUR (as well as on two other proposed SNURs).<sup>21</sup> The CUC’s comments reflect a flawed understanding of SNURs, and its arguments should not persuade EPA to change the approach it has proposed with the amended PBDE SNUR. As explained in more detail below, CUC is simply wrong in arguing that: a) EPA must present a “compelling basis” for adopting an articles SNUR,<sup>22</sup> and must explain why a chemical substance SNUR is not adequate

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<sup>17</sup> 15 U.S.C. § 2604(a).

<sup>18</sup> 40 C.F.R. § 721.45(f) (2012) (persons who import or process the chemical substance as part of an article are not subject to significant new use notice requirements).

<sup>19</sup> The regulation listing generic exemptions from SNUR requirements states that it applies only “unless otherwise specified in a specific section in Subpart E [EPA’s identification of chemical substances and their significant new uses].” 40 C.F.R. § 721.45 (2012).

<sup>20</sup> This is not the first time that EPA has made a SNUR applicable to a chemical substance in articles. *See* 40 C.F.R. § 721.10068(c)(1) (2012) (“A person who imports or processes elemental mercury as part of an article is not exempt from submitting a significant new use notice.”); 40 C.F.R. § 721.2800(b)(2) (2012) (“A person who intends to import or process [erionite fiber] as part of an article is subject to [significant new use notice requirements]”).

<sup>21</sup> MARK A. GREENWOOD, CHEM. USERS COAL. COMMENTS OF THE CHEMICAL USERS COALITION TO SIGNIFICANT NEW USE RULES FOR HEXABROMOCYCLODODECANE, ET AL., (DOCKET EPA –HQ-OPPT-2011-0489), BENZIDENE-BASED CHEMICAL SUBSTANCES, ET AL., (DOCKET EPA-HQ-OPPT-201-0573), POLYBROMINATED DIPHENYLEETHERS (DOCKET EPA-HQ-OPPT-201-1039) (May 25, 2012), *available at* <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2011-0489-0040>.

<sup>22</sup> *Id.* at 3.



before it can adopt an articles SNUR;<sup>23</sup> b) articles SNURs should be “targeted” to specific uses or articles, and not be open-ended;<sup>24</sup> c) it is “unreasonable” for EPA to expect industry to “screen” all articles they receive for PBDEs;<sup>25</sup> and d) EPA should delay implementation of an articles SNUR until it determines that “there is a reasonable basis to believe that an article containing the specific chemical had been, or would be distributed in the U.S.”<sup>26</sup>

The CUC suggests that EPA must present a “compelling basis” for adopting an articles SNUR, rather than being bound by the usual TSCA section 5 standards for promulgating a SNUR.<sup>27</sup> This contention is simply incorrect. Section 5(a)(2) of TSCA makes clear that EPA may determine that a “use” of a chemical substance, including its “use” in an article, is a significant new use requiring notice to EPA based on several factors including “the extent to which a use increases the magnitude and duration of human beings or the environment” to the chemical.<sup>28</sup> EPA is correct to propose an articles SNUR for PBDEs because the evidence is clear that articles containing PBDEs contribute to the “magnitude and duration of human beings and the environment” to these chemicals. Nowhere does TSCA suggest that EPA must make any additional finding *beyond* the TSCA section 5(a)(2) criteria in order to issue an articles SNUR. Likewise, nothing in TSCA suggests that there is a higher – “compelling basis” – legal standard for issuing an articles SNUR than for a chemical substance SNUR. In sum, CUC’s attempt to raise the legal bar for issuing an articles SNUR, as well as its suggestion that this type of regulation is disfavored or beyond the purview of EPA’s mission, is entirely baseless.

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<sup>23</sup> *Id.* at 5-7.

<sup>24</sup> *Id.* at 3-4, 9-10.

<sup>25</sup> *Id.* at 13-15.

<sup>26</sup> *Id.* at 15.

<sup>27</sup> *Id.* at 3.

<sup>28</sup> 15 U.S.C. § 2604(a)(2)(C).

There is also no legal support for the CUC's contention that EPA must affirmatively explain why a chemical substance SNUR is not adequately protective of human health and the environment before it can issue an articles SNUR. TSCA does not state or suggest that chemical substance SNURs are the course of first resort, and for this reason TSCA does not require EPA to make a finding that a chemical substance SNUR is inadequate before it can issue an articles SNUR. In any event, there is no mystery about why EPA has concluded that an articles SNUR is necessary to protect health and the environment from PBDEs: people and wildlife are exposed to these toxic chemicals when they are contained in articles, and the toxic PBDE-dust that comes from articles containing PBDEs is highly persistent in the environment. Absent an articles SNUR, new uses of PBDEs in articles -- including new uses in imported articles -- could commence at anytime without EPA's knowledge, significantly undermining EPA's efforts to assess the risks from any new uses of PBDEs in this country before they commence.

The CUC rightly acknowledges that the main source of EPA's concern is that there will be new uses of PBDEs in imported articles.<sup>29</sup> Plainly, a chemical substance SNUR alone will not provide EPA with notice of new uses of PBDEs in imported articles. However, CUC argues that EPA cannot insist on notice of these new uses by importers without a finding that certain categories of imported articles are *likely* to include PBDEs. But this turns the regulatory process completely on its head: The point of a SNUR is to give EPA notice of new uses before they commence so it can assess the risks to human health and the environment -- without having to predict what uses of toxic chemicals in articles may come down the pike. EPA need not expend its resources dreaming up possible future uses of PBDEs in imported articles in order to justify a regulation requiring that it receive notice of proposed new uses. If there are no proposed new uses of PBDEs in articles, no one will be burdened by the articles SNUR. If there are proposals to adopt new uses of these persistent, bio-accumulative, and toxic chemicals in articles, it is appropriate that EPA have the opportunity to assess whether these uses should be permitted in commerce.

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<sup>29</sup> Greenwood, *supra* note 21, at 5.

The CUC also obscures the point of a SNUR when it argues that the PBDE SNUR should be “targeted” to specific uses or articles, and not be “open-ended.”<sup>30</sup> As discussed above, for EPA to “target” an articles SNUR to particular uses would necessarily require it to predict what new uses of PBDEs may be proposed in the future. If it were to fail to predict a new use that comes to pass, whole new categories of articles containing PBDEs could be introduced into commerce in this country without notice to, and review by, EPA. Moreover, once that occurred, such uses would be ongoing and hence beyond the reach of a future SNUR. Clearly this is not an acceptable result. EPA has correctly concluded that PBDEs are so persistent, bio-accumulative and toxic, and the use-related and end-of-life disposal exposures are potentially so significant, that there are *no* new uses of these chemicals for which EPA should not receive notice. A SNUR applicable to *all* uses of PBDEs in articles is the only way for EPA to adequately protect humans and the environment from PBDEs.

Similarly, the CUC misses the point in arguing that EPA must explain “the role that specific articles play in the exposure concerns driving a SNUR action,” in order to issue a SNUR.<sup>31</sup> The SNUR is not targeted at existing uses, but at *new* uses. EPA cannot assess how humans and the environment are being exposed to PBDE’s from articles that do not yet exist, or that do not currently contain PBDEs. Under the SNUR, if new uses of PBDEs in articles are proposed, EPA must receive notice of the proposed new uses. At that time, it will assess exposure concerns in order to determine whether to allow the PBDE-containing article in commerce.

The CUC is also wrong in claiming that it is “unreasonable” for EPA to expect industry to “screen” all articles they import to determine whether they contain PBDEs.<sup>32</sup> It is hard to understand why CUC thinks it is unreasonable for industry to have a responsibility to know or find out what persistent, bio-accumulative toxic chemicals are in the articles they import into this country. As CUC acknowledges it is now quite common for jurisdictions, such as the European Union, to require companies to know -- and report -- what chemicals are in the articles they import and sell. Moreover, there is

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<sup>30</sup> *Id.* at 3-4, 9-10.

<sup>31</sup> *Id.* at 6.

<sup>32</sup> *Id.* at 13-15.

no basis for limiting the articles SNUR to certain categories of articles since the presence of PBDEs in *any* article may result in exposures -- both during its intended use and as a result of end-of-life disposal.

We agree with the CUC, however, that EPA's proposal to exempt articles containing PBDEs from import certification rules is inconsistent with making the SNUR applicable to imported articles sold in the United States. As we explain more fully below, we believe that importers should have to certify as to the presence of PBDEs in their articles. In addition to other benefits, requiring import certification would facilitate industry in carrying out its responsibility to determine whether PBDEs are present in articles they import or intend to import.

Finally, EPA should reject CUC's request that it delay implementation of the articles SNUR until it determines that "there is a reasonable basis to believe that an article containing the specific chemical had been, or would be distributed in the U.S."<sup>33</sup> Honoring this request would again undermine the very purpose of the SNUR. EPA should finalize the PBDE Rule forthwith and make it effective no later than January 1, 2013. If no new article containing PBDEs is proposed for distribution in the United States, the existence of the rule will burden nobody. However, if an entity proposes to import a qualifying "new" article containing PBDEs, the SNUR will be in place so that EPA can assess whether to allow the article to enter into U.S. commerce. It would be unworkable for EPA, as CUC suggests, to wait until it learns of a potential new use of PBDEs in articles to issue the SNUR as there is no mechanism that ensures EPA will be made aware of such new uses before they commence—this is the very purpose of a SNUR—and the lengthy process of developing the SNUR would take so long that the article could well enter commerce before the rule was proposed, preventing EPA from assessing the safety of the article before it entered United States commerce. In sum, CUC is asking EPA to hold off on issuing the SNUR until it obtains information that it can only receive once the SNUR is in place—a circular and untenable argument. The unworkability of this proposal underscores why EPA must finalize the SNUR and put it into effect as soon as possible.

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<sup>33</sup> *Id.* at 15.

### C. EPA Should Not Exempt Articles Containing Recycled PBDEs from the SNUR

In its Proposed Rule, EPA attempts to draw a distinction between articles containing intentionally-added PBDEs versus articles containing PBDEs “only as an impurity.”<sup>34</sup> Under EPA’s proposal, someone who recycles a product containing a PBDE into a new article, but does not “intend” to rely on the flame retardant properties of the PBDE, would be exempt from the SNUR on the grounds that the PBDE is present “only as an impurity.” We urge EPA to abandon this problematic distinction between intentional presence and presence as an “impurity,” and to make the SNUR applicable to manufacturing or processing of articles containing PBDEs, regardless of the purported “intent” of the manufacturer or processor.

There is no doubt that EPA has the authority to subject articles containing recycled PBDEs to a SNUR. Although generic EPA regulations exempt “process[ing a] substance only as an impurity”<sup>35</sup> from SNURs, the regulations specifically allow EPA to override the impurity exemption by regulation in the context of a particular SNUR.<sup>36</sup> There are a number of reasons that EPA should override the generic “impurity” exemption for this PBDE SNUR. First, the distinction between intentional presence and presence as an “impurity” in the manufacturing and processing of PBDEs is unworkable as an enforcement matter because EPA cannot know what a recycler “intended” by manufacturing “new” products containing PBDEs. Second, the distinction runs the risk of creating the perverse incentive of encouraging manufacturers to use more non-PBDE chemical flame retardants (many of which also present health risks or whose health risks are unknown) to support the appearance that they do not “intend” to rely on the flame retardant properties of the PBDEs already in the recycled product. Third, given the serious concerns about the impacts of PBDEs on human health and the environment, their persistence in the environment, and thus EPA’s finding that their ongoing manufacture, processing and use “may present an unreasonable risk,” EPA’s regulations should create incentives to avoid the recycling of PBDEs into new articles, which can

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<sup>34</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19867.

<sup>35</sup> 40 C.F.R. § 721.45(d). The term “impurity” is not defined.

<sup>36</sup> 40 C.F.R. § 721.45.

lead to continued and/or new exposures, rather than creating incentives to “recycle” them into new articles without any regulatory consequence.

Finally, the same rationale that supports the SNUR for manufactured articles containing PBDEs also supports a SNUR for recycled articles containing PBDEs – whether or not the PBDEs are intentionally added. The primary basis for the amendments to the SNUR is EPA’s concern that “if manufacture and processing of PBDEs were to resume, the anticipated decline in levels in humans and the environment will be disrupted as PBDEs are introduced into the environment at levels greater than would otherwise occur. The result would be that the magnitude and duration of exposure of humans and the environment in the future would likely increase.”<sup>37</sup> The same reasoning supports a PBDE SNUR on *all* recycled articles. Recycling of articles containing persistent organic pollutants (“POPs”), like PBDEs, into new articles has been identified as increasing “the magnitude and duration of exposure of human beings or the environment.”<sup>38</sup> The fourth meeting of the Conference of the Parties to the United Nations (UN) Environment Programme (UNEP) Stockholm Convention of Persistent Organic Pollutants resulted in a request of its POPs Review Committee (POPRC) to produce a technical report reviewing the implications of recycling c-pentaBDE and c-octaBDE.<sup>39</sup> The technical report concluded that recycling of articles containing PBDEs should stop as soon as possible. It stated:

The recycling of articles containing PBDE (where the articles are not first treated and the PBDE removed) *should be stopped as soon as possible*. Failure to do so will result in larger quantities of PBDE becoming dispersed into matrices from which recovery is not technically and economically feasible.<sup>40</sup>

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<sup>37</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19871.

<sup>38</sup> TSCA § 5(a)(2)(C), 15 U.S.C. §2604(a)(2)(C) (2012).

<sup>39</sup> See STOCKHOLM CONVENTION ON PERSISTANT ORGANIC POLLUTANTS, UNEP, DRAFT TECHNICAL REVIEW OF THE IMPLICATIONS OF RECYCLING COMMERCIAL PENTABROMODIPHENYL ETHER AND COMMERCIAL OCTABROMODIPHENYL ETHER (Aug. 2010) (“UNEP Technical Review”), available as UNEP/POPS/POPRC.6/2 at <http://chm.pops.int/Convention/POPsReviewCommittee/POPRCMeetings/POPRC6/POPRC6Documents/tabid/783/Default.aspx>.

<sup>40</sup> *Id.* at 31 (emphasis added).

The UNEP Technical Review made findings regarding exposures and risks associated with the recycling of articles containing PBDEs,<sup>41</sup> including that:

- “Recycling of articles containing POPs inevitably increases releases of POPs which can result in environmental and health risks.”<sup>42</sup>
- “The contamination of a wide range of product streams is now a practical and policy challenge that is likely to be exacerbated by recycling. Recent studies have revealed that plastic from waste electrical and electronic equipment (WEEE) containing PBDE is largely uncontrolled and is found in many recycled products (children’s toys, household goods, video tape casings and electronics).”<sup>43</sup>
- “PentaBDE was mainly used in North America for the treatment of polyurethane foams (PUF) – with extensive applications in mattresses and furniture, followed by vehicles in terms of total volumes. The main recycling route, rebonding to carpet padding, is shown to expose recycling workers and carpet installers along with hundreds of thousands or even millions of consumers. Dust ingestion is the main uptake route of PBDE for more highly exposed individuals. The incorporation of PentaBDE in carpet cushion which generates the highest levels of dust in the zones where children are playing is therefore of particular concern. It is notable that dust release increases as carpet ages thus exposing the children of poorer families more heavily – an exposure reflected in the published literature. An indicative assessment of the health costs associated with PUF recycling shows that total damages can be estimated at close to \$USD 6 billion/year. The commercial value of the North American rebond market, by contrast, is estimated to be less than \$USD 15 million/year.”<sup>44</sup>
- “The PBDE in the current stocks and recycling flow is contributing to further contamination at levels which the evidence presented in this report indicates are causing harm to human health and the environment. The reduction of further damage requires strict control of these flows and the cessation of recycling. With the harm caused by the use of PBDE and with the threats to important recycling flows it has become obvious that chemicals used now

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<sup>41</sup> The UNEP Technical Review also noted the “surprising lack of information about the scale of the usage and the level of contamination” from the use of foam for rebond. In particular, it mentioned that “USEPA were unable to provide any details” about the extent of use of scrap polyurethane foam in the rebond industry. *Id.* at 17. Extending the PBDE SNUR to impurities would help to shed light on the extent of exposure to toxic chemicals by this means.

<sup>42</sup> *Id.* at 5.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

and in the future for flame-retardancy need a much more rigorous evaluation over their whole life-cycle.”<sup>45</sup>

- “Dust samples from automobiles in the US showed the six highest levels of BDE-47 and BDE 99 reported were all in cars which were made in or after 2004 and the three highest levels were from cars manufactured in the USA (Lagalante 2009) This seems likely to be a consequence of the use of rebond containing PentaBDE in new cars.”<sup>46</sup>
- “Finally it must be noted that the concentrations of POP-BDE in first use articles are at levels where their identification, at least on the basis of bromine content, is straightforward using relatively cheap techniques. If the concentrations of POP-BDE are diluted by recycling then their subsequent identification for collection and treatment becomes much more difficult, the identification of the waste streams likely to be contaminated becomes more challenging – and much larger volumes of material would then have to be treated. *In practical terms, therefore, if recycling of articles containing POP-BDE is allowed then future recovery of these POPs is likely to be much more difficult and may be impossible. In these circumstances widespread human and environmental contamination would be inevitable.*”<sup>47</sup>

As a result of the UNEP Technical Review, recommendations were developed for the 5th meeting of the Conference of the Parties of the Stockholm Convention.<sup>48</sup>

These recommendations included:

- “The objective is to eliminate brominated diphenyl ethers from the recycling streams as swiftly as possible. To meet this objective, the principal recommendation is to separate articles containing brominated diphenyl ethers as soon as possible before recycling. Failure to do so will inevitably result in wider human and environmental contamination and the dispersal of brominated diphenyl ethers into matrices from which recovery is not technically or economically feasible and in the loss of the long-term credibility of recycling. Initially, the main focus should be on developed countries handling primary flame-retarded articles containing higher concentrations of brominated diphenyl ethers and attention should be paid to

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<sup>45</sup> *Id.* at 7.

<sup>46</sup> *Id.* at 27.

<sup>47</sup> *Id.* at 32 (emphasis added).

<sup>48</sup> See STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS, UNEP, WORK PROGRAMMES ON NEW PERSISTENT ORGANIC POLLUTANTS (Dec. 20, 2010), available as UNEP/POPS/COP.5/15 at <http://chm.pops.int/Convention/ConferenceofthePartiesCOP/Meetings/COP5/COP5Documents/tabid/1268/Default.aspx>.



identification and treatment of brominated diphenyl ethers in articles for both domestic use and for export [sic].”<sup>49</sup>

- “Time is short because articles containing brominated diphenyl ethers are already present in many existing waste streams as a result of the time frame of former production of these articles. Brominated diphenyl ethers should not be diluted since this would not reduce the overall quantity in the environment. In some cases, it is likely that the quantities in waste have reduced significantly from their peak concentration levels.”<sup>50</sup>

In short, the UN has provided ample substantiation of the fact that recycling of certain PBDEs can result in an increase in the “magnitude and duration of exposure of humans or the environment.”<sup>51</sup> Furthermore, in this Proposed Rule, EPA itself indicates that recycling of products is likely a source of PBDE exposure to humans and wildlife: “The exact mechanisms or pathways by which the PBDEs move into and through the environment and allow humans and wildlife to become exposed are not fully understood, but are likely to include releases from manufacturing of the chemicals, processing PBDEs into products like plastics or textiles, aging and wear of products like sofas and electronics, and releases at the end of product life (disposal or recycling).”<sup>52</sup> *None of these concerns depend on whether or not PBDEs are intentionally added or present.* For this reason, EPA should include all processing of articles containing PBDEs into new articles (recycling) in the SNUR so that the agency can receive notice of new articles using recycled PBDEs, and assess the safety of such uses before they begin.

#### D. EPA Should Not Exempt PBDE-Containing Articles from Import Certification or Export Notification Requirements

We strongly urge EPA not to exempt articles containing tetraBDE, pentaBDE, hexaBDE, heptaBDE, octaBDE, nonaBDE, or any combination of these congeners resulting from a chemical reaction, or decaBDE from import certification or export

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<sup>49</sup> *Id.* at 3.

<sup>50</sup> *Id.*

<sup>51</sup> TSCA § 5(a)(2)(C), 15 U.S.C. §2604(a)(2)(C) (2012).

<sup>52</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. 19862, 19870-71 (proposed Apr. 2, 2012) (to be codified at 40 C.F.R. pts. 721, 795, and 799).

notification requirements, as is currently proposed. The Proposed Rule suggests that EPA is considering exempting imported articles and exported articles containing new uses of PBDEs from certification and notification requirements because it is concerned that the potential burdens associated with compliance with this requirement could be significant.<sup>53</sup> We are not convinced that this concern is valid. Given that tetraBDE, pentaBDE, hexaBDE, heptaBDE, octaBDE, nonaBDE, and decaBDE are either no longer being manufactured in this country, or will shortly be phased out from manufacture, and imported articles will be subject to a SNUR once the Proposed Rule is finalized, we fail to see on what basis EPA believes that requiring certification of imported PBDE-containing articles and notice of the export of PBDE-containing articles subject to the SNUR would result in significant additional burdens.

In any event, requiring certification and notification would provide significant benefit. Requiring certification that imported articles containing PBDEs are in compliance with TSCA (because a SNUN has been submitted to EPA) or that the article is not subject to TSCA (because the PBDEs do not constitute a new use) would give notice to the U.S. company that is purchasing the product that it contains a toxic chemical, thus giving the company the opportunity to ask the manufacturer to stop using PBDEs, or to stop buying the product. Moreover, if PBDE-containing articles will still be manufactured in this country and exported even once the PBDE Rule is in effect, requiring export notification would prevent the exporting of the risks posed by PBDEs without the knowledge of EPA or the recipient country. These benefits outweigh any burdens imposed by the certification and notification requirements. We strongly urge that EPA require imported and exported articles containing PBDEs, including when present as impurities, to be subject to import certification and export notification requirements.

Import certification. EPA's proposal suggests that it lacks authority to subject articles containing any of the seven PBDEs to import certification requirements, but this is not correct. Section 13 of TSCA directs the Secretary of the Treasury, after consultation with the Administrator, to issue rules administering the import of chemicals

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<sup>53</sup> *Id.* at 19878-79.

and articles containing chemicals.<sup>54</sup> The rules promulgated by the Secretary state that “importer[s] of a chemical substance or mixture as part of an article *must comply with the [import] certification requirements . . . only if required to do so* by a rule or order issued under TSCA.”<sup>55</sup> In other words, the Treasury Department’s rules explicitly acknowledge that EPA retains the authority to promulgate a rule under TSCA requiring an importer of an article to comply with the certification requirements.<sup>56</sup> Accordingly, EPA has clear authority to require import certification for articles containing any of the seven PBDEs.

Not only does EPA have the authority to require import certification for all articles containing any of the seven PBDEs, there are strong policy reasons for it to do so. As discussed in section I.A. above, EPA is rightly concerned about human and environmental exposures to PBDEs resulting from their presence in articles and is appropriately extending the SNUR to imported articles containing PBDEs. However, by definition, the SNUR is limited to “new uses.” Thus, already ongoing import of articles that contain PBDEs will not be covered by the amended SNUR. However, under the Treasury Department rules, if the import certification requirements applies to articles containing PBDEs, importers would have to certify “either that the chemical shipment is subject to TSCA and complies with all applicable rules [including the SNUR] and orders thereunder, or that the chemical shipment is not subject to TSCA,”<sup>57</sup> presumably because the use of PBDEs is not a “new use” and hence not subject to the SNUR. Either

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<sup>54</sup> TSCA §13(b), 15 U.S.C. § 2612(b) (2012).

<sup>55</sup> 19 C.F.R. § 12.121(b) (2012) (emphasis added).

<sup>56</sup> The Proposed Rule states that it “would not affect the exemption from import certification under TSCA section 13(b) for chemicals contained in articles. Persons who import PBDEs contained in articles would not be subject to import certification requirements.” Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19879. However, nothing in section 13 of TSCA even suggests, let alone requires, that chemicals contained in articles should be treated differently than bulk chemical substances or mixtures when it comes to importation requirements. Rather, TSCA section 13(a) treats articles “containing a chemical substance or mixture” identically to the way it treats bulk chemical substances or mixtures outside of articles. *See* 15 U.S.C. § 2612(a) (Secretary shall refuse entry of any “chemical substance, mixture or article containing a chemical substance or mixture offered for such entry” if it fails to meet requirements of TSCA). Likewise, TSCA section 13(b) also does not exempt articles from import certification. *Id.* § 2612(b).

<sup>57</sup> 19 C.F.R. § 12.121(a)(1).

way, the purchaser of the product is on notice both that any TSCA requirements have been satisfied, and that the article contains PBDEs.

Absent a requirement of import certification, EPA will remain in the dark about which imported articles contain PBDEs as part of an ongoing use, and thus will have no knowledge of the extent to which exposures from imported articles may still be occurring despite the PBDE phaseouts and SNURs. Requiring import certification of articles containing these substances would provide EPA with information regarding the extent to which ongoing import of articles containing PBDEs is still occurring. EPA could use this information to determine if such activity presents risk to humans or the environment and take any further regulatory steps necessary to protect against such risks. Moreover, EPA could make this information available to industry, which could use it to identify and take steps to restrict use of PBDEs by its suppliers. In addition, as noted above, import certification would assist companies that are subject to the articles SNUR in knowing whether PBDEs are present in the articles they are importing. Accordingly, in the Final Rule, EPA should require that importers of PBDEs as part of an article must comply with the import certification requirements in 19 C.F.R. section 12.121(b).<sup>58</sup>

Export notification. We also urge EPA not to exempt articles containing PBDEs from export notification requirements. Under TSCA, EPA has the authority to require notice of export of articles containing PBDEs subject to a SNUR,<sup>59</sup> and it should use that authority here.

EPA states in the Proposed Rule that “there is growing evidence that people and the environment are exposed to PBDEs contained in articles, and that those PBDEs may have adverse effects on human health and the environment.”<sup>60</sup> These concerns are relevant regardless of whether or not articles are being imported into or exported from

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<sup>58</sup> For all the reasons discussed in section I.C. above, relating to extending the SNUR to articles containing recycled PBDEs, the import certification requirement for articles containing PBDEs must apply to all articles containing PBDEs, whether the PBDEs are intentionally added or not.

<sup>59</sup> 40 C.F.R. § 707.60(b) (2012) (“No notice of export will be required for articles, except PCB articles, unless the Agency so requires in the context of individual section 5, 6, or 7 actions.”).

<sup>60</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19864.

the United States. Moreover, any global presence of PBDEs is problematic for the residents of the United States, given the evidence for PBDE transport over long distances. EPA explains this potential in its PBDE Action Plan:

The atmosphere and marine currents can transport PBDEs over relatively long distances (> 1,000 km). Evidence for this comes from the presence of PBDEs in the tissues of deep ocean dwelling whales and other marine mammals far from anthropogenic sources (Shaw and Kannan, 2009), as well as from modeling (Wania and Dugani, 2003). The body burdens of PBDE congeners in a wide variety of biota indigenous to geographical areas ranging from the equator to the poles also substantiate their propensity for long-range transport (LRT), and constitute evidence of environmental persistence (Environment Canada, 2006).<sup>61</sup>

Because of the potential for long range transport of PBDEs, exported articles containing these substances (including as an impurity) are a potential source of PBDE exposure for people and wildlife in this country. Accordingly, we urge EPA to require that any new export of articles containing PBDEs subject to the SNUR also meet export notification requirements.

#### E. The Amended SNUR Should Be Finalized and Go Into Effect As Soon As Possible

EPA has solicited comment on several questions related to the timing of different aspects of the PBDE Rule. Given the known risks posed by PBDEs, we urge EPA to finalize the PBDE Rule as soon as possible – and certainly not wait until December 31, 2013 -- and to make the SNUR provisions effective as soon as practicable thereafter.

EPA should not delay in finalizing this rule. Delayed implementation could increase exposures from PBDEs in articles, jeopardizing human and environmental health. As EPA recognizes:

[T]here is growing evidence that people and the environment are exposed to PBDEs contained in articles, and that those PBDEs may have adverse effects on human health and the environment. The agency is concerned that commencement of new uses of PBDEs or resumption of discontinued uses, ***including in articles***, may lead to increased exposure of humans and the environment to these chemicals.<sup>62</sup>

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<sup>61</sup> EPA, *supra* note 10, at 7.

<sup>62</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19864 (emphasis added).

EPA should also not delay implementation of the amendments to the SNUR with respect to the six PBDEs covered by the 2006 PBDE SNUR until January 1, 2014: U.S. production and import of these substances have already ceased, and any person wishing to commence production or import of these chemicals is subject to current SNUR requirements. There is no reason to delay subjecting processors of these substances to these requirements. EPA has appropriately voiced concern that “if manufacture and *processing* of PBDEs were to resume, the anticipated decline in levels in humans and the environment will be disrupted as PBDEs are introduced into the environment at levels greater than would otherwise occur. The result would be that the magnitude and duration of exposure of humans and the environment in the future would likely increase.”<sup>63</sup>

Delaying the effective date of the amended SNUR to January 1, 2014 would, as acknowledged by the agency, increase the potential for exposure to toxic, bioaccumulative chemicals, by providing many months in which “new” processing of these toxic chemicals could occur without any requirement to notify EPA. In order to maximize protection of human health and the environment, EPA should minimize the period of time during which “new” processing of these six PBDEs may occur without EPA notification, which would also have the effect of discouraging such activity from commencing in the first place.

We also urge EPA not to delay finalizing the amendments to the PBDE SNUR that would designate manufacture and processing of decaBDE for any uses that are not ongoing to be a “significant new use.” Like the SNUR for the other PBDEs, EPA should promulgate the decaBDE SNUR as soon as possible and the SNUR should go into effect no later than December 31, 2012 for all uses other than military and transportation uses, which is the date by which most manufacture of decaBDE in this country will end. With respect to military and transportation uses only, an effective date of December 31, 2013, is appropriate and consistent with the phaseout commitments.

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<sup>63</sup> *Id.* at 19871 (emphasis added).

We note that EPA initially included a January 1, 2013 effective date in the draft proposed rule that it sent to the White House Office of Information and Regulatory Affairs (OIRA) for review for the six PBDEs covered by the 2006 PBDE SNUR and for non-military and non-transportation uses of decaBDE. These originally drafted effective dates suggest it is feasible for EPA to implement the PBDE SNUR in a manner more expedited than that outlined in this proposed rule.

## **II. RESPONSE TO REQUEST FOR PUBLIC COMMENTS ON THE PROPOSED TEST RULE**

### **A. The Proposed Test Rule Is An Appropriate Mechanism for Gaining Vital Information on the Health and Environmental Impacts of Any Ongoing Uses of PBDEs**

We strongly support the need for EPA’s proposed test rule to be applied to anyone who manufactures, imports, or processes -- including in articles -- c-pentaBDE, c-octaBDE, and c-decaBDE (the “commercial PBDEs”) after the effective date of the SNUR, in order to “obtain information needed to assess the effects on humans and the environment of manufacture, import or processing of [the commercial PBDE products].”<sup>64</sup>

EPA has outlined in great detail the evidentiary basis required for a test rule pursuant to TSCA section 4(a)(1)(A): that the manufacture, import, processing, use, disposal, and/or distribution in commerce of commercial PBDEs “may present an unreasonable risk of injury to health or the environment.”<sup>65</sup> As already discussed above, PBDEs are persistent, bioaccumulative, and toxic. A substantial body of scientific evidence has established that these substances linger in the environment; are found throughout the food chain where they concentrate in higher order organisms; and present significant health hazards to both humans and wildlife. In light of the adverse effects attributable to PBDE exposure, several states, along with the European Union

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<sup>64</sup> *Id.* at 19865.

<sup>65</sup> 15 U.S.C. § 2603(a)(1)(A)(i) (2012).

and Canada, have enacted various restrictions on commercial PBDEs.<sup>66</sup> Additionally, the Stockholm Convention on Persistent Organic Pollutants lists pentaBDE as a persistent organic pollutant, which requires that signatory countries must reduce releases or eliminate production and use of the substance.<sup>67</sup> Studies of the widespread human and environmental contamination by PBDEs, along with the actions taken by governments around the world, are fully consistent with EPA's proposed finding that PBDEs “may present an unreasonable risk of injury to health or the environment.”<sup>68</sup>

The ubiquitous and persistent presence of PBDEs in the environment and in humans, together with their well-documented hazards, are ample justification to require testing to provide EPA with the information it will need to determine whether ongoing uses of PBDEs, including in articles and as impurities in articles, present an unreasonable risk to human health or the environment at any point along their lifecycle. As stated in the proposed rule,

The purpose of the testing would be to develop data with respect to the health and environmental effects for which there is an insufficiency of data and experience, and which are relevant to a determination that the manufacture, distribution in commerce, processing, use, or disposal of the chemical substance or mixture, or that any combination of such activities, does or does not present an unreasonable risk of injury to health or the environment.<sup>69</sup>

While PBDEs may be better studied than many other substances, available information regarding exposure, fate, and toxicity throughout the lifecycle of these

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<sup>66</sup> Phil Brown & Alissa Cordner, *Lessons Learned from Flame Retardant Use and Regulation Could Enhance Future Control of Potentially Hazardous Chemicals*, 30 HEALTH AFFAIRS 906, 908 (2011).

<sup>67</sup> STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS, UNEP, REPORT OF THE CONFERENCE OF THE PARTIES TO THE STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS ON THE WORK OF ITS FIFTH MEETING 68 (May 29, 2011), *available as* UNEP/POPS/COP.5/36 *at* <http://chm.pops.int/Convention/POPsReviewCommittee/POPRCMeetings/POPRC6/POPRC6Documents/tabid/783/Default.aspx>.

<sup>68</sup> 15 U.S.C. § 2604(b)(4)(A)(i).

<sup>69</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed Reg. at 19866.



substances is still incomplete. To cite but one example, as discussed in EPA's action plan on PBDEs and reiterated in this proposed rule,

After reviewing the available information, EPA has concluded that decaBDE is a likely contributor to the formation of bioaccumulative and/or potentially bioaccumulative transformation products such as lower brominated PBDEs, in organisms and in the environment see, e.g., (Refs. 35-38), *but the overall impact of this process as a source of the more toxic, lower brominated PBDE congeners has not been fully characterized.*<sup>70</sup>

Clearly EPA needs to have a better understanding of the extent to which decaBDE is debrominated in order to adequately assess the full risks associated with ongoing uses of decaBDE. Thus, EPA's proposed series of three chemical fate tests for decaBDE is appropriate.

For each test proposed, EPA has provided sufficient justification. Taken together, the known concerns associated with PBDEs and the absence of complete information regarding their risk make it imperative that EPA promulgate the proposed test rule.

Lastly it is important to emphasize that, as noted in the proposed rule,<sup>71</sup> the scope of proposed test rules under TSCA is not bound to the factual basis for the original TSCA section 4 finding.<sup>72</sup> Although the complete toxicological and risk profile for PBDEs has not been established, the considerable evidence of the health and environmental risks posed by PBDEs—detailed in this proposed rule—are more than sufficient to meet the standard that commercial PBDEs “may present an unreasonable risk of injury to health or the environment.” It is therefore critical and correct that EPA require extensive testing—including on hazard endpoints such as immunotoxicity for which less is known and for which the evidence for this proposed test rule is not based—of these substances in order to adequately assess risks associated with ongoing or potentially new uses of these chemicals.

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<sup>70</sup> *Id.* at 19869 (emphasis added).

<sup>71</sup> *Id.* at 19866.

<sup>72</sup> TSCA Section 4(a)(1)(B) Final Statement of Policy, 58 Fed. Reg. 28736, 28738-39 (May 14, 1993).

## B. Articles Containing Recycled Materials that Include Commercial PBDEs Should Be Subject to the Test Rule

We strongly believe that, with respect to persons who *process* articles containing commercial PBDEs by recycling them, the applicability of the test rule should not be made dependent on whether or not the persons rely on the continued functioning of the PBDEs in the newly made recycled article. EPA has proposed to exempt persons who process commercial PBDEs “as impurities” contained in articles from the test rule requirement because it “has not determined whether this activity alone may present an unreasonable risk of injury to health or the environment.”<sup>73</sup> However, EPA has failed to present a substantive basis for this assertion. Specifically, the agency has not provided any evidence to suggest that the processing of articles containing recycled commercial PBDEs that are incidentally carried over into the new article presents any less risk of injury to health or the environment compared to processing of commercial PBDEs when intentionally added to articles, an activity for which EPA is requiring testing. For example, there is no basis to assume that the presence of commercial PBDE flame retardant mixtures in carpet rebond resulting from the recycling of furniture foam treated with these mixtures would present any less risk to humans than their original presence in the furniture foam—an activity EPA has appropriately found may present an unreasonable risk to human health and the environment and for which it is proposing to require testing. Essentially, one household item containing harmful PBDE substances has been converted into another household item containing those same harmful substances, with no reason to assume any diminution in hazard, exposure or risk. As noted earlier, there is ample evidence of significant risk arising from recycling of articles containing PBDEs, whether or not they are intentionally added to the recycled product.<sup>74</sup>

Moreover, EPA is proposing to exempt those who process recycled PBDEs in articles from proposed amendments to the SNUR requirements. The effect of exempting such persons from both SNUR requirements and test requirements would mean that EPA

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<sup>73</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19865.

<sup>74</sup> See STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS, *supra* note 39.

would receive no information regarding the extent to which such activities are happening and present risks, nor would there be any disincentive to continue or commence such activities.

In sum, we strongly recommend that EPA subject all persons that process recycled commercial PBDEs in articles to the test rule to the same extent as those persons that process non-recycled commercial PBDEs in articles.

### C. Additional Responses to EPA's Solicitation of Comments About the Test Rule

EPA is soliciting comment on what test substances should be required for pentaBDE, octaBDE, and decaBDE, and whether the test substances should be the 99% pure pentaBDE, octaBDE, and decaBDE with an isomer composition identified for each. In general we support EPA testing of representative commercial forms of pentaBDE, octaBDE, and decaBDE. Among the reasons EPA suggests for testing the commercial forms of these substances, we particularly agree that is important to examine and understand the potential cumulative effects of exposure to the mixture of the individual congeners present in the commercial forms of these substances: "EPA believes that testing the mixture will best reflect the effects of exposure due to the possible additive, synergistic, and/or antagonistic effects resulting from the possible interaction of congeners in a mixture."<sup>75</sup>

EPA is also soliciting comment on the submission of test data with SNUN submissions. As EPA explains in the Proposed Rule, TSCA section 5(b)(1) requires persons submitting a Significant New Use Notice (SNUN) for a chemical subject to a test rule to submit the required test data at the time the SNUN is submitted. While we agree with this requirement, EPA should clarify in the final rule how it will apply, given that the proposed test rule applies to commercial PBDE mixtures whereas the proposed SNUR applies to individual PBDE congeners or any combination of these congeners.

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<sup>75</sup> Certain Polybrominated Diphenylethers; Significant New Use Rule and Test Rule, 77 Fed. Reg. at 19871.

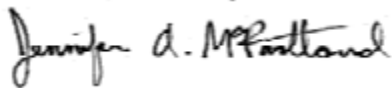
## Conclusion

In sum, we strongly support the proposed amendments to the 2006 PBDE SNUR and the proposed test rule for the subject PBDEs and urge EPA to reject the baseless arguments made by others arguing against applying the SNUR and test rule to articles. However, in order to protect human health and the environment from these persistent, bioaccumulative, and toxic substances to the extent allowed under TSCA sections 4 and 5, we urge EPA to:

- maintain the necessary and robust testing requirements outlined in the proposed test rule;
- abandon the proposed distinction between the intentional presence of PBDEs in an article and the presence of PBDEs in an article as an “impurity,” thereby making the SNUR and the test rule applicable to manufacturing, processing, and import of articles containing PBDEs regardless of whether the presence of the flame retardants is intentional or not;
- require that importers of PBDEs as part of an article comply with import certification requirements, and to require notice of export of articles containing PBDEs subject to the SNUR;
- finalize the PBDE Rule as soon as possible and to make the SNUR and test rule provisions effective as soon as practicable thereafter, consistent with the voluntary phase-out agreements.

We appreciate your consideration of these comments.

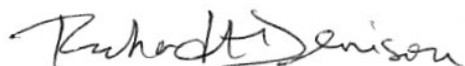
Sincerely,



Jennifer McPartland, PhD  
Scientist  
Environmental Defense Fund



Eve C. Gartner, JD  
Staff Attorney  
Earthjustice



Richard A. Denison, PhD  
Senior Scientist  
Environmental Defense Fund

On behalf of:

Pamela Miller  
Executive Director  
Alaska Community Action on Toxics

Diane Aschman  
President & CEO  
American Thrombosis and Hemostasis  
Network

Janet Nudelman  
Director of Program and Policy  
Breast Cancer Fund

David Spath  
President  
California Public Health Association-North

Judy Levin  
Pollution Prevention Co-Director  
Center for Environmental Health

Baskut Tuncak  
Staff Attorney  
Center for International Environmental Law

Rebekah Wilce  
Lead Writer, Food Rights Network  
The Center for Media and Democracy

Kathleen A. Curtis, LPN  
Executive Director  
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Mark Rossi, PhD  
Co-Director  
Clean Production Action

Cindy Luppi  
New England Regional Director  
Clean Water Action

Sharyle Patton  
Director, Health and Environment Program  
Commonweal

Mark A. Mitchell, MD, MPH  
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Connecticut Coalition for Environmental  
Justice

Tracey Easthope, MPH  
Director, Environmental Health Project  
Ecology Center

Mike Belliveau  
President and CEO  
Environmental Health Strategy Center

Jason Rano  
Director of Government Affairs  
Environmental Working Group

Russell Long, PhD  
Board Member  
Friends of the Earth, U.S.

Arlene Blum  
Executive Director  
Green Science Policy Institute

Rachel L. Gibson  
Safer Chemicals Program Director  
Health Care Without Harm

Tom Lent  
Policy Director  
Healthy Building Network

Gigi Lee Chang  
CEO  
Healthy Child Healthy World

Lin Kaatz Chary, PhD, MPH  
Executive Director  
Indiana Toxics Action

Kathleen Schuler, MPH  
Senior Policy Analyst  
Institute for Agriculture and Trade Policy

José T. Bravo  
Executive Director  
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