Appendix to Comments of Safer Chemicals Healthy Families on Risk Evaluation Problem Formulation Documents for Ten Chemical Substances under the Toxic Substances Control Act

For Cyclic Aliphatic Bromide Cluster (Hexabromocyclododecane or HBCD), Docket ID No.: EPA-HQ-OPPT-2016-0735

Submitted via Regulations.gov (August 16, 2018)

This document supplements our general comments on the problem formulations for all 10 chemicals by providing specific details on HBCD.

On March 15, 2017, Safer Chemicals Healthy Families, Environmental Health Strategy Center, and Healthy Building Network provided detailed comments on the scope of the risk evaluation for five of the 10 chemicals EPA designated for initial risk evaluations on December 19, 2016.[1] We summarized information on each chemical's production and trade, uses, disposal, potentially vulnerable populations, exposure scenarios, and health and environmental hazards, as applicable. We urged the agency to ensure that the risk evaluation for each would reflect the best information available on hazard and exposure, be based on a comprehensive understanding of the chemicals' conditions of use, and employ sound, precautionary methodologies that fully capture the risks they pose to human health and the environment.

The Problem Formulation of the Risk Evaluation for Cyclic Aliphatic Bromides Cluster (HBCD) (HBCD Problem Formulation), issued by EPA on June 1, 2018, has several critical deficiencies toward meeting those criteria.

I. USES

EPA must evaluate the complete life cycle of the chemical, but currently plans to disregard important sources of exposure to HBCD:

A. EPA is excluding uses based on incomplete data and nonbinding comments from manufacturers

In the HBCD Problem Formulation, the agency has indicated that it does not intend to evaluate a number of uses for which there is substantial evidence that HBCD was utilized in the last several years, including high impact polystyrene (HIPS), adhesives, and textiles. The exclusion of all these uses is based on nonbinding statements from manufacturers and third party consultants, broad assumptions that very recently discontinued uses will not be resumed, or the improper determination that only "intentional" use as a flame retardant is applicable under TSCA. As discussed in greater detail in our general comments on the problem formulations, not only does reliance on such statements fail to meet the statutory obligations for science and information quality, but even if correct, the statements have no binding effect on chemical manufacturers or users. The Agency is failing to consider the very realistic notion that a practice only recently

[1] The March 2017 comments submitted on HBCD were assigned the identifier of EPA-HQ-OPPT-2016-0735-0008

terminated may resume based on changes to substitutes' cost, availability, or even regulatory actions.

In the case of HIPS, EPA simply notes that, "Use of HBCD in High Impact Polystyrene (HIPs) appears to have ceased."[2] As its primary support for that broad statement, EPA cites to a "personal communication" between EPA staff and a (potentially self-interested, not necessarily representative) industry consultant.[3] The agency does not appear to have considered the evidence we provided of the ongoing marketing of HBCD for HIPS in our prior comments.[4]

For commercial fabric, EPA notes evidence that "[b]y 2017, HBCD use in these textile applications appeared to be phasing out,"[5] a statement that implies an incomplete, ongoing process rather than a situation where HBCD is no longer in use. Therefore, it is likely that the chemical remains in commercially available textiles, whose ongoing use for years to come, will continue to create exposures. EPA further notes: "current use in commercial textiles could not been [*sic*] confirmed,"[6] yet rather than choose the logical action of including the use for evaluation in the face of clear uncertainty, the agency has excluded the use based seemingly on a trend and a hope.

Similarly, the agency relies on nonbinding statements from trade associations and manufacturers that HBCD is no longer used in automobile fabrics, in new automobiles, or in adhesives in order to exclude these applications from consideration, even though the agency agrees they were current uses in the very recent past. In fact, in the case of new automobiles, EPA is planning to exclude consideration despite the clear "hedging" present in the industry statements that indicated limited uses are ongoing. As quoted by the agency, the Alliance of Automobile Manufactures stated: "However, the chemical may still be used by some automakers as a flame retardant in coatings of certain components (e.g., dashboards and headliners) and in solder paste in interior components (e.g., circuits). This chemical may also be present in adhesives and foams." [7] The Agency, rather disturbingly, has interpreted "may still be used" and "may also be present" to mean "is not occurring."

EPA's decision to exclude uses of HBCD in consumer textiles, and in particular children's clothing and car seats, is not only lacking of proper rationale, but especially galling given the unique susceptibility of children to the harm of HBCD. For consumer textiles, EPA offers, in part, the rationale that it has not received a SNUN under a 2015 SNUR. It does not consider the likely possibility of noncompliance. While that indeed may indicate a violation, it also represents an ongoing and easily identifiable exposure that children are facing, beyond the exposures from uses chosen by EPA to include in the risk assessment. The agency applies a broad and baseless assumption that information self-reported by manufacturers to Washington State through 2017 on the presence of HBCD in children's textiles was likely from products produced prior to the

[2] HBCD Problem Formulation, P. 21
[3] The entity cited by EPA, Design Chain Associates, describes itself on its website as, "…help[ing] manufacturers understand, comply with, and get ahead of environmental and social regulatory and customer requirements that affect their products in their markets." http://www.designchainassociates.com/about.html
[4] EPA-HQ-OPPT-2016-0735-0008 at P.10-13
[5] HBCD Problem Formulation, P. 22
[6] HBCD Problem Formulation, P. 22
[7] HBCD Problem Formulation, P. 23

2015 SNUR, or that the HBCD is not "intentionally-added."[8] This is despite the fact that manufacturers self-reported HBCD's presence, meaning the distribution of HBCD articles was clearly intentional. EPA further implies that the Washington State data could be discounted because "…the contaminant test methodologies, tested components, or prevalence of HBCD in the products [*sic*] information could not be verified."[9] Thus, EPA is effectively arguing that self-reported ***use*** of HBCD in the case of consumer textiles should be discounted as unverified, while simultaneously arguing that self-reported, or even third-party reported, ***non-use*** of HBCD in commercial textiles and many other categories should be accepted at face value with little examination.

EPA does not provide an explicit rationale for the exclusion of car seats within the HBCD Problem Formulation, just listing it among items the agency "…concluded… are not conditions of use."[10] A car seat was among the items containing HBCD that were self-reported by manufacturers to Washington State, as noted by EPA. However, the agency understates the amount of self-reported HBCD as being "equal to or greater than **100** but less than 5000 ppm,"[11] when the actual value was, "equal to or greater than **1000** but less than 5000 ppm."[12] Additionally, as we previously commented to the Agency, an independent lab identified the likely presence of HBCD in two out of 15 car seats purchased in 2016 for testing.[13] This use clearly should not be dismissed, especially without explanation.

B. EPA should include recycling of products and articles containing HBCD regardless of application, and otherwise include "legacy" use and "legacy" disposal uses

As we discuss in great detail in our general comments on the problem formulations, EPA's decision to exclude what it has deemed legacy uses and the disposal of legacy uses from consideration is not only contrary to statutory requirements, but leaves unaddressed significant pathways of use and exposure. In particular, the agency notes that while electronics can be recycled and that HIPS constitutes over 50% of plastics captured from electronics recycling, the agency is excluding the recycling process and resulting products in the stream of commerce simply because the purpose of the HBCD is no longer as a flame retardant.[14] Clearly, the well-documented common use and presence of HBCD in HIPS will undoubtedly result in ongoing exposures that should be assessed. Similarly, EPA's use of the "legacy" classification to ignore ongoing exposures to textiles, building materials, and electronics that are actively contributing to household dust, a primary pathway of exposure, will result in a grossly distorted picture of the overall risk to children, potentially resulting in the agency allowing other uses that need to be

[8] HBCD Problem Formulation, P.22
[9] HBCD Problem Formulation, P. 23
[10] HBCD Problem Formulation, P. 24
[11] HBCD Problem Formulation, P. 23
[12] EPA-HQ-OPPT-2016-0735-0008 at P.36 or EPA-HQ-OPPT-2016-0735-0022 attachment 1 or from the source at https://fortress.wa.gov/ecy/cspareporting/
[13] EPA-HQ-OPPT-2016-0735-0008 at P.34, full study at https://www.ecocenter.org/healthy-stuff/pages/childrens-car-seat-study-2016/download-report-and-graphics
[14] HBCD Problem Formulation, P. 21

curtailed to reduce the cumulative risk. As we have previously commented to the agency, about 100 million pounds of HBCD remain in the built environment.[15]

II. EXPOSURES

A. EPA has not confirmed it will capture exposures to all potentially exposed or susceptible subpopulations (PESS)

EPA identifies in the HBCD Problem Formulation some potentially exposed or susceptible subpopulations (PESS) based on their greater exposure. While we are encouraged to see the agency include those "…who live or work near manufacturing, processing, distribution, use or disposal sites,"[16] the agency should fully assess whether any communities of color or low-income communities are disproportionately exposed and thus a PESS. We recommend making this determination using Census Bureau data, geocoded locations of industrial facilities and disposal sites, and modeled or measured exposures.

In our March 2017 comments, we additionally called upon the agency to evaluate "exposures to workers involved in or affected by the intentional or accidental destruction of HBCD-containing products, including but not limited to firefighters and other emergency responders, construction and demolition workers, C&D waste workers, electronics recycling workers, and occupational bystanders."[17] EPA offers no explanation for the exclusion of most of these categories.

B. EPA should assess cumulative exposure and risk for HBCD in combination with other risk factors

The HBCD Problem Formulation has no reference to cumulative exposure. EPA must include this in its risk evaluation.

[15] EPA-HQ-OPPT-2016-0735-0008 at P.6
[16] HBCD Problem Formulation, P. 39
[17] EPA-HQ-OPPT-2016-0735-0008 at P.8