

## **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 Asbestos, Docket ID No.: EPA-HQ-OPPT-2016-0736**  
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 asbestos.

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.<sup>1</sup> 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.

Our requests were reiterated and expanded in our comments submitted in response to EPA's publication of the Scope documents in June 2017.<sup>2</sup>

The Problem Formulation of the Risk Evaluation for Asbestos (Asbestos Problem Formulation), issued by EPA on June 1, 2018, has several critical deficiencies toward meeting these criteria.

### **I. USES**

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

#### **A. EPA is improperly ignoring the well documented presence of asbestos in talc**

As noted both in our past comments to the agency, and as documented by the agency in its market summary for asbestos,<sup>3</sup> it's common to find asbestos fibers in talc because of the co-occurrence of asbestos with talc deposits. As we noted in our comments of March 2017, "More than 650 million pounds of talc, which is often contaminated with asbestos, was imported into U.S. annually over the last five years, with 32% from Pakistan which obtains asbestos-tainted

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<sup>1</sup> The comments submitted on Asbestos were assigned the identifier of EPA-HQ-OPPT-2016-0736-0064. They were removed from the public docket because they referenced Google Earth. They are available on the SCHF website at: [https://saferchemicals.org/sc/wp-content/uploads/2017/03/saferchemicals.org\\_asbestos\\_comment\\_schf\\_ehsc\\_hbn.pdf](https://saferchemicals.org/sc/wp-content/uploads/2017/03/saferchemicals.org_asbestos_comment_schf_ehsc_hbn.pdf)

<sup>2</sup> The comments submitted on Asbestos were assigned the identifier of EPA-HQ-OPPT-2016-0736-0109

<sup>3</sup> "In addition, asbestos may be listed as a food additive due to its mineral deposit proximity, and therefore potential to contaminate talc..." USEPA. "Use and Market Profile for Asbestos." June 2017. P. 2-19.

talc from Afghanistan.”<sup>4</sup> Talc is commonly used in consumer products and as a food additive, including in products frequently marketed to and utilized by children. Again, as we previously noted, “Talc is still used in some baby and body powders, cosmetics, and as a filler in crayons, for which asbestos contamination has been documented.”<sup>5</sup> Indeed, a study just released in August of 2018 by the U.S. PIRG Education Fund documented lab-confirmed presence of asbestos fibers in a common brand of crayon.<sup>6</sup>

Asbestos fibers in talc represent an ongoing “use” of asbestos in the context of TSCA requirements as it is the known (and therefore intentional) introduction of asbestos into commerce, and therefore the uses of talc resulting in exposures must be evaluated by the agency. Additionally, given the broad use of talc and the potential exposures to large segments of the general population and in particular to susceptible subpopulations including children, it is impossible for the agency to calculate a meaningful assessment of general population exposure to asbestos without considering the risk posed by its presence in talc.

### **B. EPA’s decision to exclude “legacy” use and “legacy” disposal is excluding much of the documented use and exposure**

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. Asbestos is perhaps the clearest example of this. In addition to the direct exposure of the general population to asbestos-containing materials, especially those used in construction materials, the incorporation of asbestos material into the waste stream is going to continue to produce exposure pathways for decades to come. For example, we noted in our March 2017 comments, “About 12 million tons of recycled asphalt shingles are generated yearly; One study found that of 27,000 asphalt shingles collected from around the country, about 1.5% contained more than 1% asbestos.”<sup>7</sup>

### **C. EPA is excluding uses based on incomplete data and nonbinding comments from manufacturers**

As discussed in our general comments on the problem formulations, TSCA requires the agency to obtain and utilize all available data in order to make informed assessments of risk. However, the asbestos problem formulation reflects the decision of the agency to simply ignore items for which it has determined there is inadequate information, noting on page 10, “EPA has insufficient information following the further investigations during problem formulation to find they are circumstances under which the chemical is actually [in use.]” The agency should either include these uses in the risk assessment using the best available information, or gather and present affirmative evidence showing that the use does not exist.

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<sup>4</sup> EPA-HQ-OPPT-2016-0736-0064 at p.4

<sup>5</sup> EPA-HQ-OPPT-2016-0736-0064 at p.5

<sup>6</sup> Chokshi, Niraj. “Asbestos in a Crayon, Benzene in a Marker: A School Supply Study’s Toxic Results.” New York Times. August 8, 2018. <https://www.nytimes.com/2018/08/08/education/asbestos-crayons-school-supplies.html>

<sup>7</sup> EPA-HQ-OPPT-2016-0736-0064 at p.5

Additionally, the agency appears to be relying on information provided by manufacturers that they are no longer using asbestos in order to exclude uses from the risk assessment. This information is both impossible to verify, and more significantly, the statements made to EPA are not legally binding on the manufacturers. For example, the Asbestos Problem Formulation notes at p.19: “EPA had originally identified an asbestos-containing adhesive for use as a mirror adhesive but later determined after contacting the supplier that it is no longer sold. EPA also identified during the scoping process a domestic company that appeared to manufacture and sell asbestos-containing roof and non-roof coatings, but after contacting the company, determined that the information available on their website was outdated and those products were no longer manufactured and sold in the United States.” Absent agency action, nothing prevents the recommencement of production, and their recent availability in the market certainly would imply their future production is foreseeable. These uses should therefore be thoroughly evaluated by the agency.

## II. EXPOSURES

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

EPA names workers and occupational non-users, as well as consumers and bystanders to consumers using asbestos-containing products, as potentially exposed or susceptible subpopulations (PESS), although the agency leaves open the possibility of considering additional PESS. As stated in our March 2017 comments, we urge EPA to 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 also provided EPA with a list of PESS that the agency should have considered and believe EPA has improperly excluded them from being considered:

1. Workers in Brazil and Russia who mine and bag asbestos to supply the U.S. chlor-alkali industry that still relies on outdated asbestos diaphragm technology;
2. Fenceline communities adjacent to asbestos mining operations, chlor-alkali plants, and facilities that handle asbestos;
3. Workers that transfer asbestos everywhere from mines to ships to unloading and distribution hubs to chlor-alkali plants and landfills that receive asbestos or asbestos-bearing materials;
4. Infants and children exposed to asbestos from baby powder, body powder, and from playing with products like crayons, which are contaminated with asbestos from talc;
5. Consumers and workers who install asbestos-contaminated building products such as window glazing and roofing products; and
6. Workers at recycled asphalt shingle grinding operations and at asphalt ready mix plants that use ground shingles.

Additionally, EPA had included firefighters in the scope, but implies they will be excluded as part of the problem formulation. EPA notes on p.32: “fire fighters will be exposed to materials that are predominately legacy uses, which will not be evaluated in the risk evaluation.” This

exclusion, based on a misinterpretation of TSCA, is troubling. The risks faced by firefighters clearly should be examined, as they are a PESS.

We again urge EPA to assess aggregate exposures for *all* PESS. Disregarding exposure from air and water (in non-work settings) renders this task impossible.

**B. EPA should look at variation amongst chlor-alkali plants and utilize the worst-case exposures**

A recent report from the Healthy Building Network, entitled “Chlorine and Building Materials: A Global Inventory of Production Technologies, Markets, and Pollution”<sup>8</sup> examines the global supply chain for building products that include chlorinated components, and documented patterns of asbestos release, amongst other pollutants, from chlor-alkali plants. As EPA considers the exposures to workers, surrounding communities, and to environmental media, it is important that the agency consider the highest levels found, as well as the potential future emissions based on increased utilization of existing plants or addition of new production facilities at existing sites.

**C. EPA should assess cumulative exposure and risk for asbestos in combination with other risk factors**

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

### **III. HEALTH AND ENVIRONMENTAL IMPACTS**

**A. EPA disregards key health hazards posed by asbestos**

The Asbestos Problem Formulation states that EPA has decided to only include the risks associated with inhalation of asbestos causing lung cancer or mesothelioma, despite both the agency<sup>9</sup> and numerous commenters, including us, documenting numerous other cancer and non-cancer endpoints, as well as additional routes of exposure. For the reasons documented in our general comments on the problem formulations, this is contrary to law and will understate the risk posed by asbestos. In the risk assessment, the agency must fully consider all the human health impacts and routes of exposure that both it and commenters have identified. In particular, given the high levels of exposure to the general population to asbestos fiber in drinking water and the addition of asbestos to water from cement pipes, it is especially critical that the agency include oral exposures and expand its consideration of gastro-intestinal cancers.

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<sup>8</sup> Available at <https://healthybuilding.net/reports/18-chlorine-building-materials-project>

<sup>9</sup> EPA’s Scoping Document, at P.34-35 noted, “Mortality studies of asbestos workers have revealed increases in cancer mortality at one or more sites other than the lung, the pleura or the peritoneum. Cancer of the larynx and ovary and gastrointestinal cancers, such as colorectum, pharynx and stomach, have been observed in populations exposed to various types of asbestos (IARC, 2012; NRC, 2006). Some studies have also noted excess deaths from, or reported cases of, cancers at other sites, such as the kidney and esophagus; however, the evidence is not consistent.”