



July 13, 2022

Dr. Michal Freedhoff
Assistant Administrator
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington DC, 20460

RE: Proposed Risk Management Plan for Chrysotile Asbestos
Docket ID #: EPA-HQ-OPPT-2021-0057

Dear Assistant Administrator Freedhoff:

On behalf of the American Public Health Association, a diverse community of public health professionals that champions the health of all people and communities, I write to provide comments on EPA's proposed risk management plan for chrysotile asbestos. These comments were developed in collaboration with the association's Occupational Health and Safety Section.

In 2009 and again in 2019, APHA adopted a policy statement calling for a ban on the manufacture, sale, export, and import of all forms of asbestos¹ and until a ban is in place, requirements for any person or entity to disclose the amount, its port of entry, route of distribution, use, and potential for exposure.² We note that all forms of asbestos are human carcinogens, including chrysotile.^{3,4} There is no safe level of exposure to asbestos. As the World Health Organization notes, "the most efficient way to eliminate asbestos-related diseases is to stop using all types of asbestos."⁵

We concur with EPA's determination in its Risk Evaluation for Chrysotile Asbestos that it poses an unreasonable risk to public health.⁶ We support EPA's proposal to prohibit the manufacture (including import), processing, distribution in commerce, and commercial use of chrysotile asbestos as stated in Section 751.X05 "Restrictions on Conditions of Use." (87 *Federal Register* 21737). We agree with EPA's determination that the unreasonable risk present from ongoing uses of chrysotile asbestos cannot be eliminated or sufficiently reduced by action under other laws, including the Asbestos Hazard Emergency Response Act, the Clean Air Act, the Emergency Planning and Community Right-To-Know Act, the Occupational Safety and Health Act, the Resource Conservation and Recovery Act, or other laws.

¹ Defined as crocidolite, amosite, anthophyllite, tremolite asbestos, actinolite, richterite, and winchite.

² American Public Health Association. (2019). Policy Statement No. 20193: Elimination of Asbestos.

<https://tinyurl.com/3j65dkrd>

³ International Agency for Research on Cancer. (2012). IARC Monographs—Arsenic, Metals, Fibres, and Dusts.

<https://tinyurl.com/2twe6t7y>

⁴ U.S. National Toxicology Program. Report on Carcinogens, 15th edition. (2021).

<https://ntp.niehs.nih.gov/whatwestudy/assessments/cancer/roc/index.html>

⁵ World Health Organization. (2014). Elimination of Asbestos-Related Diseases.

<https://apps.who.int/iris/rest/bitstreams/1339924/retrieve>

⁶ U.S. Environmental Protection Agency, Office of Chemical Safety and Pollution Prevention. (2020). Risk Evaluation for Asbestos Part I: Chrysotile Asbestos, Document No. EPA-740-R1-8012.

Respirator Protection

APHA agrees with EPA's decision to reject the use of respiratory protection for risk management. Longstanding industrial hygiene principles require hazardous exposures be controlled at their source by first, eliminating the hazard or second applying engineering controls. When these methods are inadequate, they are supplemented by administrative controls (e.g., written procedures, training) and lastly with personal protective equipment, such as a respirator.

For a variety of reasons, respiratory protection is the least effective method of control. For employers, not only is a written respiratory protection program required by OSHA⁷, but it must be diligently followed. To wear a respirator, workers must have a medical evaluation and receive clearance from a physician or other health care provider to wear it. Some workers are unable to wear respirators because of a physical impairment or inability to obtain an adequate fit. Respirators must be selected carefully for each affected worker and properly fitted to be secured tightly on the face. Breathing resistance is not uncommon and oral communication is impeded. These intricacies result in human error and/or misuse of respirators, affecting their protective value and effectiveness. Violations of OSHA's respiratory protection requirements consistently appear in the top five of the agency's annual list of most frequently cited standards.^{8,9,10,11,12,13} With these limitations, EPA is correct in rejecting respiratory protection as a risk management strategy for chrysotile asbestos.

Feasibility in Chlor-alkali Industry

We are aware of objections raised by some firms in the chlor-alkali industry about the feasibility of eliminating asbestos diaphragms for the manufacture of chlorine and caustic soda. The Chairman of Olin Corporation indicates that EPA's proposal, if adopted, will result in plant shutdowns because "acceptable asbestos replacement alternatives do not exist."¹⁴

On the contrary, technology for non-asbestos diaphragms was developed in the 1980s.¹⁵ Nearly half of U.S. chlor-alkali capacity uses a process to produce chlorine that does not use asbestos. (87 *Federal Register* 21707). APHA appreciates EPA's notation that all three firms that continue to use asbestos-based technology (i.e., Occidental Chemical, Olin, and Westlake) also operate chlor-alkali plants in the

⁷ U.S. Occupational Safety and Health Administration. Respiratory Protection, 29 CFR 1910.134(c).

⁸ U.S. Occupational Safety and Health Administration. Top 10 Most Frequently Cited Standards (FY 2021). <https://www.osha.gov/top10citedstandards>.

⁹ OSHA publishes top 10 list of most frequently cited standards for 2020. (March 9, 2021). Velocity EHS. <https://tinyurl.com/2p9ykert>

¹⁰ Druley, K. OSHA's top 10 most cited violations for 2019. Safety + Health: a National Safety Council publication. Nov. 24, 2019. <https://tinyurl.com/42ep575y>

¹¹ OSHA's top 10 most frequently cited violations of 2018. (Oct. 23, 2018). Velocity EHS. <https://tinyurl.com/mpp4w28r>

¹² Druley, K. OSHA's top 10 most-cited violations for fiscal year 2017. Safety + Health: a National Safety Council publication. Nov. 25, 2017. <https://tinyurl.com/48sfkd8y>

¹³ Musick, T. OSHA's top 10 most cited violations for 2016. Safety + Health: a National Safety Council publication. Nov. 26, 2016. <https://tinyurl.com/y85v7pan>

¹⁴ Scott Sutton, Chairman, President & CEO, Olin Corporation. Comments to docket submitted April 18, 2022. <https://www.regulations.gov/comment/EPA-HQ-OPPT-2021-0057-0248>

¹⁵ Brinkmann T, Santonja, GG, et al. 2014. Best Available Techniques Reference Document for the Production of Chlor-alkali. Industrial Emissions Directive 2010/75/EU, Integrated Pollution Prevention and Control (2014), page 24. https://publications.jrc.ec.europa.eu/repository/bitstream/JRC91156/cak_bref_102014.pdf

U.S. that use non-asbestos processes. (87 *Federal Register* 21721). It is evident that firms have knowledge and technical capability to make the necessary changes.

Other higher-resource countries already have asbestos prohibitions in place, resulting in near elimination of asbestos-diaphragms in the chlor-alkali industry. For example, the three chlor-alkali plants in France have been using a non-asbestos process since 2003. In the 27 nation European Union, only the Dow Chemical facility in Stade, Germany uses an asbestos diaphragm system.¹⁵ Pursuant to an EU regulation, no later than July 1, 2025 the facility will have modernized its process so that it does not use asbestos.¹⁶ In Canada, only one chlor-alkali plant, located in Bécancour, Quebec and operated by the Olin Corporation, uses an asbestos-diaphragm process. This plant is required to convert to asbestos-free technology no later than December 31, 2029.¹⁷ This evidence demonstrates that alternative technology is available and being used. We agree with EPA's assessment that feasible alternatives to asbestos-diaphragms exist.

APHA is also familiar with statements by the chlor-alkali industry about the adverse impact of a chrysotile ban on the supply of chlorine, in particular for municipal water treatment. We note however that less than 5% of chlorine produced in the U.S. is used for municipal water treatment.¹⁸ The majority of chlorine is profitably produced for use in the manufacture of plastics, with other significant uses such as the manufacturer of organic and inorganic chemicals. As reported by The Chlorine Institute, just nine of the 42 chlor-alkali plants operating in the U.S. would be affected by a chrysotile ban.¹⁹ We recommend that EPA evaluate the chlor-alkali industry's statement that the agency's proposed risk management plan would "cause substantial harm to America's drinking water supply."²⁰ We are not aware of credible data to substantiate this claim when only a fraction of chlorine production is used for this purpose.

APHA supports an aggressive timetable (e.g., two years as proposed) for prohibiting the use of chrysotile asbestos, one that is informed by evidence on the potential impact on the supply and cost of chlorine and caustic soda with respect to municipal water utilities.

"Safe Use" of Chrysotile Asbestos

We concur with the agency's determination that OSHA's asbestos standard (1910.1001) is inadequate to fulfill EPA's mandate under TSCA Section 6(a) to regulate a chemical substance such that it no

¹⁶ European Union. Commission Regulation (EU) 2016/1005, amending Annex XVII to regulation (EC) No. 1907/2006...concerning REACH as regards to asbestos fibres (chrysotile). Official Journal of the European Commission June 22, 2016.<http://data.europa.eu/eli/reg/2016/1005/oj>

¹⁷ Government of Canada. Prohibition of Asbestos and Products Containing Asbestos Regulations: Frequently Asked Questions. (Nov. 19, 2020). <https://tinyurl.com/mr28d9cr>

¹⁸ U.S. Environmental Protection Agency. Letter from Administrator Michael Regan to Chemical Sector Partners, June 30, 2021. <https://tinyurl.com/5n6mpe6k>

¹⁹ The Chlorine Institute (2020). Pamphlet 10 North American Chlor-Alkali Industry Plants and Production Data Report for 2019. Edition 8, Revision 1.

²⁰ American Chemical Council. ACC urges EPA to reconsider its flawed chlor-alkali proposal: Agency's plan threatens America's drinking water, supply chain. (April 5, 2022). <https://www.americanchemistry.com/chemistry-in-america/news-trends/press-release/2022/acc-urges-epa-to-reconsider-its-flawed-chlor-alkali-proposal>

longer presents an unreasonable risk to public health. Some stakeholders assert that chrysotile asbestos can be used safely by following the OSHA standard and industry guidelines.²¹ We disagree.

The current OSHA permissible exposure limit for asbestos was adopted 35 years ago.²² At the PEL, the estimated risk of lung cancer mortality is substantial at six excess deaths per 1,000 workers. Opponents of EPA's proposed ban on chrysotile asbestos are incorrect to assert that OSHA standards are sufficient to eliminate TSCA's "unreasonable risk" threshold.

The Olin Corporation indicates that the "asbestos material used by the chlorine industry is managed under significant protocols."²⁴ Having written procedures, personal protective equipment, and warning labels are inadequate. Even the most well-meaning attempts to follow policies and procedures by chlor-alkali—for asbestos or other chemical hazards—are susceptible to competing priorities (e.g., production, cost-savings, profit, safety) and human error.

We note that a fire and chlorine release occurred at the Olin plant in Plaquemine, La. in April 2022. The incident led to a shelter in place order and 30 people were transported to the hospital for chlorine-related injuries. OSHA is investigating the incident which is most likely related to the company's failure to follow all applicable process safety management regulations. These include requirements such as safe work practices and written operating procedures.²³ Similar types of procedures and safety practices are required by OSHA for handling asbestos. When companies failed to follow regulations designed to prevent catastrophic explosions and fires, it is difficult to have confidence in their assertions that they follow them diligently with respect to asbestos. Prohibiting the import and use of chrysotile is the only way to address the unreasonable risk it poses to public health.

We point to the information provided to the record from an individual who worked in the chlor-alkali industry. He wrote in his comments, "Good risk management practices involves the use of the 'hierarchy of controls' which places removal and replacement of high hazard material at the top of the list, and places training and PPE at the bottom of the list as least effective."²⁴

Notably, this commenter worked at Olin and provided his industrial hygiene expertise when the company eliminated its mercury-based technology to its chlor-alkali process. "[T]he technology exists to replace [asbestos diaphragm] technology," he wrote, "...it simply represents another advancement."²⁴ APHA wants to emphasize that it is an essential and long needed advancement for public health.

Asbestos Imports

Since 2015, according to the U.S. Geological Survey, the chlor-alkali industry accounts for 100% of asbestos fiber consumption. From 2017 through 2021, the industry has imported 1,590 metric tons of raw asbestos. In the first quarter of 2022, 114 metric tons of chrysotile asbestos was imported from

²¹ Robert J. Simon, American Chemical Council. Testimony before the U.S. Senate Committee on Environment and Public Works. June 9, 2022. <https://tinyurl.com/4zew37s>

²² U.S. Occupational Safety and Health Administration. Health Standard Asbestos. 51 *Federal Register* 22612. June 20, 1986.

²³ U.S. Occupational Safety and Health Administration. 29 CFR 1910.119 (Process Safety Management standard.)

²⁴ David Abrams. Comments submitted to docket, submitted June 7, 2022. <https://www.regulations.gov/comment/EPA-HQ-OPPT-2021-0057-0277>

Brazil and China, according to data from the U.S. International Trade Commission.²⁵ Beyond the burden to public health in the U.S., the chlor-alkali industry's use of asbestos has health and environmental consequences for the workers and communities where it is mined, processed, packaged and transported. Our nation's failure to ban asbestos—and the chlor-alkali industry's demand for it—affects the health of children and adults beyond our shores. The entities that use chrysotile asbestos hold responsibility for that harm despite the unlikelihood that they will ever to be held accountable for causing it.

Disposal & recordkeeping

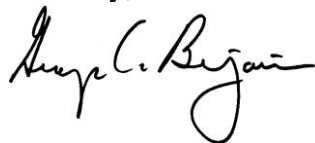
We support EPA's proposal to require individuals that dispose of chrysotile asbestos and articles that contain chrysotile asbestos to maintain records in accordance with OSHA standard 29 CFR 1910.1001(k) and EPA standard for waste disposal (40 CFR 61.150). We support EPA's proposal that disposal records be maintained for five years from the date the record was generated. We urge EPA to make these records available to the public. We cannot educate the affected communities about potential exposure to these continued uses of chrysotile without these records.

APHA appreciates the opportunity to comment on the proposed risk management plan for chrysotile asbestos. This is an important step in the 50-year effort by the public health community to prevent asbestos-related disease and death.

We regret however that this rulemaking does not constitute a ban on all forms of asbestos as adopted in dozens of other countries. It does not address fully the asbestos hazards encountered—most times unknowingly—by the public and workers. Because this rulemaking only affects six specific conditions in which chrysotile asbestos is used, it leaves a regulatory gap to address conditions of use currently unknown or not disclosed, as well as future uses. Moreover, it does not address the unreasonable risk posed by other forms of asbestos (i.e., crocidolite, amosite, anthophyllite, tremolite asbestos, actinolite, richterite, and winchite) that are present in homes, schools, and workplaces, particularly in building materials, as well as in consumer products. We recognize the grave risk of exposure to firefighters and fully support the comments submitted by the International Association of Fire Fighters.

Throughout the bipartisan deliberations about the Lautenberg Chemical Safety Act of 2016, the fact that asbestos is not banned in the U.S. was used to illustrate the profound need for a new law. Now, more than six years after the bill became law, EPA's proposed risk management plan for chrysotile asbestos must be finalized expeditiously. We look forward to working with EPA to expand public health protections by adopting a rule that will ultimately prevent any person in the U.S. from importing, manufacturing, processing, using, or distributing any form of asbestos or articles containing asbestos.

Sincerely,



Georges C. Benjamin, MD
Executive Director

²⁵ U.S. International Trade Commission. Data: Imports for Consumption. <https://dataweb.usitc.gov/>