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: Comments on NODA for TSCA Chrysotile Asbestos Part 1 Risk Management Rulemaking: <u>EPA-HQ-OPPT-2021-0057; 88 Federal Register 16389 (March 17, 2023)</u>

Dear Dr. Freedhoff:

The Asbestos Disease Awareness Organization (ADAO) submits these comments on the March 17, 2023 Notice of Data Availability (NODA) for the Environmental Protection Agency (EPA) Part 1 chrysotile asbestos rulemaking under section 6(a) of the Toxic Substances Control Act (TSCA). 88 Federal Register 16389.

Launched in 2004, ADAO is now the largest independent non-profit organization in the U.S. dedicated to eliminating asbestos-caused diseases. We have been a strong and outspoken advocate for a comprehensive US ban on asbestos, championing both strong EPA action under TSCA and enactment of the Alan Reinstein Ban Asbestos Now Act (ARBAN), which would expeditiously eliminate the importation and use of all asbestos fibers and asbestos-containing products.

Executive Summary

Asbestos is likely the most hazardous substance in commercial use since the industrial revolution and is responsible for millions of deaths worldwide. It causes lung cancer, mesothelioma, other cancers and debilitating non-cancer diseases like asbestosis. Asbestos is universally recognized to have no safe level of exposure and US deaths linked to asbestos total nearly 40,000 per year despite large reductions in current asbestos use. Following a 1991 court decision setting aside EPA's comprehensive asbestos ban and phase-out rule under TSCA, the U.S. has been alone among developed countries in allowing the continued importation and use of this uniquely dangerous substance.

With the 2016 TSCA amendments, EPA revived its long-stalled efforts to regulate asbestos. On April 12, 2022, EPA proposed to prohibit six ongoing uses of chrysotile asbestos under section 6 of TSCA. In addition to the importation and processing of raw asbestos to produce chlorine and caustic soda through the asbestos diaphragm process, these uses include sheet gaskets, brake blocks, aftermarket automotive brakes/linings, other vehicle friction products, and other gaskets imported into the U.S. EPA's proposal followed its 2020 peer-reviewed <u>evaluation</u> determining that the six chrysotile uses present an unreasonable risk to human health. Chrysotile is only one of six recognized asbestos fibers; the other five fibers are outside the scope of the proposed rule.

The NODA seeks comment on information added to the rulemaking docket after the initial comment period closed on July 13, 2022. This information, mainly submitted by industry, "pertain[s] to chrysotile asbestos diaphragms used in the chlor-alkali industry and chrysotile asbestos-containing sheet gaskets

used in chemical production" and addresses the proposed "chrysotile asbestos prohibition compliance dates." Id.

Based on our review of the new docket entries and other information, ADAO's comments on the NODA emphasize the following key points:

• There is no justification for the ACC/OxyChem proposal of a 15-year or longer phaseout period for asbestos-diaphragm plants in the chlor-alkali industry

Although the overwhelming majority of commenters have supported banning asbestos use in chloralkali production, new presentations to EPA by the American Chemistry Council (ACC) reiterate that that the ban is unnecessary to protect public health and advocate an indefensible phase-out period for asbestos diaphragms of 15 years or longer.¹ In its own presentation to EPA, Occidental Chemical Corporation (OxyChem) -- one of three companies in the industry still using asbestos and the only ACC member – endorses the Association's demands.²

TSCA section 6(d)(1)(C) requires that mandatory compliance dates for ban or phaseout rules under section 6(a) must take effect "as soon as practicable, but not later than 5 years after the date of promulgation." The 15-year delay in compliance proposed by ACC and OxyChem would violate this requirement.

Both ACC and OxyChem claim that asbestos plants can only be converted to non-asbestos technology sequentially, not simultaneously, and that each conversion will take six years. They base this extreme position on claimed shortages in critical parts and trained engineers. But the evidence of shortages they present is not specific to the chlor-alkali industry and fails to demonstrate that simultaneous conversion of the six remaining asbestos diaphragm plants is "impracticable." Difficulties procuring equipment and expertise may add cost and inconvenience to plant conversions, but this is not a permissible reason under TSCA to delay long-overdue protection of public health by a multi-billion-dollar industry.

• Recent articles by Pro Publica document unsafe asbestos exposure by workers in chloralkali plants

Neither ACC nor OxyChem mentions recent articles by the non-profit publication *ProPublica* that document how, despite claiming that their plants "safely" handle this deadly carcinogen, chlor-alkali producers have long employed negligent workplace practices that expose their employees to dangerously high chrysotile asbestos levels. Pro Publica's findings are excerpted in Part I of these comments and underscore the deep toll that proximity to chlor-alkali plants has taken on environmental justice (EJ) communities. The Pro Publica articles are powerful reminders that the risks to workers at asbestos-using plants are real, not theoretical, and rapid elimination of asbestos from the chlor-alkali industry is an urgent public health priority.

• The chlor-alkali industry has made substantial voluntary reductions in asbestosdiaphragm capacity that have resulted in supply shortages and increased prices for the water treatment sector

¹ ACC, Sequential plant conversion is necessary to convert one-third of the existing chlorine production to non-asbestos technology, presentation to EPA, January 2023 (OPPT-2021-0057-0451)

² OxyChem, *Membrane Conversion Schedule*, presentation to EPA, November 2022. (OPPT-2021-0057-0453)

ACC and OxyChem also fail to mention the significant reductions in asbestos diaphragm capacity that the industry has already made even while challenging EPA's ban. As documented in Part II of these comments, eight of ten asbestos-using plants previously identified by EPA have either closed or reduced capacity or are in the process of conversion to non-asbestos technologies. These capacity reductions have decreased the asbestos diaphragm share of total chlor-alkali production far below the outdated 33 percent estimate that ACC continues to cite. Because asbestos-diaphragm plants have supplied a disproportionately high portion of "merchant" chlorine and caustic soda that serve the water treatment sector, this sector has experienced shortages of chlorine and caustic soda and increased prices. Ironically, these are the very consequences that ACC and its fellow associations cite as a reason to postpone an asbestos ban yet they have already occurred because of the industry's own curtailment of supply.

• OxyChem's ongoing conversion of its LaPorte asbestos diaphragm plant illustrates the economic benefits of membrane technology

As demonstrated in Part III of these comments, in presentations to shareholders, OxyChem has touted its ongoing investments in non-asbestos membrane technology at its La Porte facility as reducing energy costs, improving product quality, increasing production and boosting return on investment. These are the very economic benefits that EPA has previously found are delivered by membrane plants, which now account for 80 percent of global chlor-alkali production and over 60 percent of U.S. capacity. According to OxyChem, no loss of production will occur during the LaPorte transition, refuting concerns that plant conversion will result in significant interruptions in supply. Moreover, while ACC claims that major capital projects in the chemical industry typically take six years,³ OxyChem's ongoing conversion of its LaPorte facility demonstrates that the transition to non-asbestos technology can be completed in 3-4 years, during which no shortages of chlorine and caustic soda will occur.⁴

• Olin's plan for phasing out asbestos diaphragm facilities in seven years is responsible and constructive and merits serious consideration by EPA

The largest U.S. and global chlor-alkali producer, Olin Corporation, no longer a member of ACC, has distanced itself from the extreme positions of ACC and OxyChem and proposed a more realistic and responsible plan for complying with the Part I rule. Mr. Scott Sutton, CEO of Olin, states in his <u>April 4 letter to Administrator Regan</u> that he "would support an EPA action to ban the installation of any new or replacement asbestos-based diaphragms in two years, in combination with an additional five years to operate any existing asbestos-based diaphragm production cells." He adds that:

If the EPA were to adopt this plan, at the end of this seven-year period, no asbestos-based diaphragm cells would remain in any chloralkali industry facilities. During this additional fiveyear window to operate, we would use an in-situ process to maintain the diaphragms which does not involve workers removing asbestos diaphragms from the closed process for repairs or

⁴ Warren Buffett's Berkshire Hathaway Inc (NYSE: BRK-A) (NYSE: BRK-B) acquired more shares in Occidental Petroleum Corp (NYSE: OXY), increasing its stake to about 23.1%, according to a regulatory filing. https://www.yahoo.com/entertainment/warren-buffetts-berkshire-hathaway-boosts-

³ ACC, Generic Large Capital Project Phase Deliverables Chart, presentation to EPA (OPPT-2021-0057-0453)

^{142630490.}html#:~:text=Warren%20Buffett's%20Berkshire%20Hathaway%20Inc,according%20to%20a%20re gulatory%20filing

constructing new asbestos diaphragms. Additionally, no asbestos imports into the U.S. are required past today.

While EPA will need additional information to fully evaluate the Olin plan, we believe it should receive careful consideration as a credible and constructive step in developing a viable compliance path for the Part 1 rule.

• OxyChem is likely the sole U.S. importer of raw chrysotile asbestos since February 2021

Olin has confirmed to ADAO that it has not imported raw asbestos since February 2021 and its April 4 letter underscores that "no asbestos imports into the U.S. are required past today." Westlake (the third chlor-alkali producer using asbestos) has also informed ADAO that it last imported chrysotile asbestos in 2016. A company spokesperson told <u>INSIDE TSCA</u> that Westlake "has a multi-year conversion underway of one remaining U.S. plant from an asbestos-based process in a safe and economically sustainable manner in compliance with state and federal regulations. Westlake stopped purchasing asbestos several years ago."

Thus, OxyChem (the only ACC member among the 3 producers using asbestos diaphragms) is likely the sole remaining importer of raw asbestos into the U.S. and has accounted for all imports since February 2021. According to the <u>International Trade Commission</u>, asbestos imports in 2021 and 2022 totaled 434 tons and originated in Brazil and China.

Ceasing asbestos imports is an important step in implementing the Part 1 rule because it eliminates potential exposure from accidents or spills during transport, limits the amount of asbestos present in the chlor-alkali workplace and reduces generation and disposal of asbestos wastes. Olin and Westlake are to be commended for stopping imports.

• An ECEL is necessary to assure worker protection during the transition process

If compliance periods for chlor-alkali production or other chrysotile asbestos uses exceed two years under EPA's final rule, adoption of an Existing Chemical Exposure Limit (ECEL) is essential to protect workers during the transition to non-asbestos technology.

• *EPA* should require a compelling justification for extending the compliance deadline for asbestos gaskets used in the chemical and petroleum industries

Chemical industry users of asbestos gaskets, including Chemours and Dow, have objected to EPA's proposed 1-year compliance period for eliminating their use and advocated substantially more time for gasket replacement. The American Petroleum Institute (API), representing refineries using asbestos gaskets, has proposed a phaseout timeline of up to 20 years. If any extension is granted, the justification for additional time should be compelling. EPA should not extend the compliance deadline based merely on cost or convenience factors or to allow gaskets now in place to complete their useful lives. In addition, if the compliance timeline for these facilities exceeds two years, they must be subject to the ECEL.

• The final asbestos reporting rule and Part 1 rule should be closely aligned

We strongly recommend that EPA frame the final asbestos reporting rule so that the Agency obtains information from industry that supplements, and supports implementation of, the final Part 1 rule.

I. Unsafe Workplace Practices at Asbestos Diaphragm Plants in the Chlor-Alkali Industry

The industry's constant refrain that asbestos is used safely at chlor-alkali plants and does not warrant regulation under TSCA is starkly refuted by investigative reporting by Pro Publica documenting unsafe practices at these plants that place workers at serious risk of asbestos-induced disease and death.

Pro Publica's first piece, <u>The U.S. Never Banned Asbestos. These Workers Are Paying the Price</u> (October 20, 2022), was based on interviews of former long-time employees at recently closely asbestos diaphragm plants. The revelations of these employees included the following:

The companies say asbestos is integral to chlorine production at several aging plants and have made a compelling argument to keep it legal: Unlike in the horrific tales of the past, their current protocols for handling asbestos are so stringent that workers face little threat of exposure.

But at OxyChem's plant in Niagara Falls, New York, where Saenz worked for nearly three decades, the reality was far different, more than a dozen former workers told ProPublica. There, they said, asbestos dust hung in the air, collected on the beams and light fixtures and built up until it was inches thick. Workers tramped in and out of it all day, often without protective suits or masks, and carried it around on their coveralls and boots. They implored the plant's managers to address the conditions, they said, but the dangers remained until the plant closed in late 2021 for unrelated reasons.

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The company would have known employees were being exposed; workers with a high risk of exposure sometimes clipped a small monitor to their bodies to measure the amount of asbestos in the air around them. At least five times in 2001 and 2002, the levels around team member Patrick Nowak exceeded OSHA's exposure limit, his company records show. "I failed so many times, they quit testing me," he said.

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Water-blasting the screens was like washing a car with a high-powered hose. Asbestos splattered everywhere. It wasn't a problem when the asbestos was wet. But it would dry overnight, and the next morning, it would be stuck to the ceiling and the walls. Clumps would roll across the floor like tiny tumbleweeds. Floating particles would catch the light when the sun poured in. There was so much asbestos in the cell-maintenance building that it was impossible to keep it all wet, said Robert Cheff, who worked at the plant from 1981 to 2007. "We were constantly swimming in this stuff."

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Workers wore protective gear for certain tasks, like pressure washing and screen dipping. But they went into the building to carry out other tasks without special suits or anything protecting their faces, despite company requirements. One worker said managers enforced those rules. But a dozen others interviewed by ProPublica recalled that the bosses looked the other way. Suiting up was impractical, those workers said. It took time away from the tasks that needed to get done and was uncomfortable, especially on hot days, when the temperature inside could reach 100 degrees.

In the summer, the windows and doors were left open to keep the workers from overheating, allowing asbestos to escape outside. Wet asbestos splashed on their uniforms, coats, helmets and boots. One guy seemed to always have some on his mustache. It would dry and flake off their clothes wherever they went, they said. Saenz remembered walking into safety meetings in the administrative building with asbestos drying on his coveralls. The guys carried so much asbestos into the trailer where they ate lunch and took breaks that it needed to be replaced, former union leaders said.

After Pro Publica's initial article appeared, many other workers came forward to report similar unsafe practices at asbestos-using chlor-alkali plants. These reports were featured in a second piece, *Workers* <u>Across America Break Their Silence on Decades of Asbestos Exposure</u> (December 7, 2022), which reported that:

But in the weeks since <u>ProPublica revealed unsafe practices</u> at a plant in Niagara Falls, New York, people who worked at other chlorine plants across the United States have voiced concerns about the way asbestos was handled at their facilities. One former engineer at a plant outside Las Vegas said the substance was difficult to control. Former lab analysts at a Texas plant said colleagues there raised issues about potential exposures with safety managers in 2018.

Inside the plant, workers struggled to keep the asbestos contained, according to the seven people who worked there. They were told they could stay safe by keeping the material wet, preventing it from becoming airborne. But that was an impossible task, several of them told ProPublica.

A slight breeze would cause the asbestos to dry, said Chris Murphy, a former union president who worked in the maintenance department from 2009 until 2020. It wasn't unusual to find it settled on machines and caked onto the beams overhead, he said. "Any areas that didn't stay wet," he said, "you'd find it."

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Controlling the asbestos was also a challenge at Olin's plant in Henderson, Nevada, said Dawn Henry, the plant's engineer from 2004 through 2010. Although the asbestos workers at the facility outside Las Vegas wore personal protective equipment during the most dangerous tasks and supervisors tried to enforce the safety standards, "you can only do so much," she said. "It is a messy job."

In the desert heat, Henry said, it was impossible to expect all the asbestos would stay wet. "It wasn't like it was in a clean room," she added. "It was in a room that was open to the atmosphere. The building was adjacent to the offices where the engineers worked. It was a one-minute walk away. The garage door was always open."

As these graphic accounts illustrate, the realities of asbestos exposure by chlor-alkali workers contradict the industry's self-serving worker protection narrative. Despite the glowing picture industry has tried to paint, chlor-alkali plants are simply not tightly controlled environments, worker protections are often inadequate or non-existent, and unsafe exposures are common. These conditions not only threaten workers but pose risks to their families and the larger community. As EPA has recognized in its Economic Analysis (p. 6-32), both chlor-alkali plants and disposal facilities managing asbestos wastes are located in EJ communities in Texas and Louisiana with large minority populations, high levels of poverty, disproportionate levels of industrial pollution and elevated rates of cancers and other diseases.

Because asbestos can cause harm at any level of exposure, even stringent workplace standards cannot eliminate significant risks, as OSHA has recognized.⁵ Where risks are magnified because of poorly controlled pathways of exposure, the dangers to workers are even greater. For these reasons, authoritative bodies like the <u>World Health Organization (WHO)</u> have long recognized that eliminating the presence of asbestos in workplaces is the only effective way to prevent its harmful effects. As the Pro Publica accounts show, chlor-alkali plants are no exception to this principle. EPA must therefore eliminate asbestos exposure by this industry as soon as possible.

II. Recent Shutdown of Asbestos Diaphragm Capacity

Although ACC and other industry associations have warned that the proposed EPA ban would cause catastrophic reductions in the supply of chlorine and caustic soda, OxyChem and Olin have in fact been significantly reducing asbestos diaphragm production capacity over the last few years. These voluntary efforts have been independent of the EPA rulemaking and instead prompted by concerns about the high operating costs and low return on investment of plants using the asbestos diaphragm process. The resulting reductions in asbestos diaphragm capacity continue a long-standing trend in the industry away from asbestos technology and the dramatic shift in the US and globally to non-asbestos diaphragms and cell membranes, which are not only safer but offer unique environmental, energy and economic benefits. Today, many leading manufacturers of chlorine and caustic soda rely exclusively on non-asbestos technology and the cell membrane process now accounts for <u>80 percent of global</u> chlor-alkali production. Plainly, asbestos diaphragm units are an outlier in the industry.

Our research reveals the following OxyChem plant closures and conversions:

- On August 21, 2021, OxyChem<u>announced</u> the closure of its Niagara Falls, NY chlor-alkali plant, which used the asbestos diaphragm process. In its announcement, OxyChem pointed to high rail costs as a "major hit on chlorine profitability." Recent production data are unavailable for the Niagara Falls plant but a trade press<u>article</u> cites a 2001 SEC filing as indicating that "the plant can produce 335,000 mt/year of chlorine and 371,000 mt/year of caustic soda" (a total of 706,000 mt/year)
- On August 3, 2022, in its quarterly earnings presentation, OxyChem <u>announced</u> it was proceeding with the conversion of its LaPorte, Texas (Battleground) asbestos diaphragm facility to an membrane unit with substantially greater production capacity. According to a recent <u>article</u>, the La Porte site can currently produce up to 527,800 mt/year of chlorine and 580,000 mt/year of caustic soda.
- During the August quarterly presentation, Occidental's Chief Financial Officer (CFO) Rob Peterson also disclosed that "we're in the process right now of making a conversion change at our Wichita facility to polyramics . . a non-asbestos type diaphragm technology" and that OxyChem would soon begin conversion planning for its asbestos diaphragm units at its

⁵ Occupational Safety and Health Administration. Asbestos, tremolite, anthophyllite, and actinolite. Available at: https://www.osha.gov.

Convent and Ingleside facilities. As estimated by EPA,⁶ the chlorine capacity of the Wichita facility is 171,000 mt/year.

When totaled across these three plants, OxyChem's reductions in asbestos-diaphragm capacity would represent 1,984,800 mt/yr.

Olin's announced shutdowns of asbestos diaphragm units have also been substantial:

- On March 16, 2021, Olin <u>announced</u> that it was permanently shutting down approximately 50% of its diaphragm-grade chlor-alkali capacity (approximately 200,000 tons) at its McIntosh, Alabama facility and would complete the closure by March 31, 2021. Olin's CEO commented that: "This is yet another step in Olin's efforts to right-size our asset base and achieve reinvestment economics across our complete Electrochemical Unit portfolio . . . Shareholders can expect Olin to continue to take high-capital, non-accretive assets off our balance sheet."
- On May 19, 2021, Olin <u>announced</u> that it intended to permanently shut down around 20% of its diaphragm-grade chlor-alkali capacity (roughly 225,000 ECU tons) at its Plaquemine, LA facility. The shutdown was described as "the next step on Olin's path to exit high-capital, low-return diaphragm ECUs." At the same time, Olin reported that its previously announced shut down of 230,000 diaphragm ECU tons at its Freeport, TX facility would occur in the second quarter of 2021.
- On October. 21, 2021, Olin <u>announced</u> that it planned to permanently shut down the remaining diaphragm-grade chlor-alkali capacity (approximately 230,000 ECU tons) at its McIntosh, Alabama facility. The closure was expected to be completed by the end of third quarter 2022 and was in addition to the 200,000 ECU tons shut down at McIntosh in first quarter 2021. According to Olin's <u>CEO</u>: "When this shut down is complete, Olin will have rationalized approximately 855,000 ECU tons of high-cost, low-value diaphragm-grade chlor alkali capacity since early 2021."
- On August 24, 2022, Olin <u>announced</u> the permanent shutdown of 225,000 more ECU tons of diaphragm-grade chlor alkali capacity at its Freeport facility by the end of 2022. Olin's overall reduction in diaphragm-based capacity will total 1,110,000 ECU metric tons by the end of this year. Olin's CEO indicated that "[t]hese actions demonstrate our commitment to lift and maintain our ECU values, while developing a more sustainable asset configuration."

We estimate that, as of the end of 2022, Olin's overall reduction in diaphragm-based capacity totaled 1,110,000 ECU metric tons.

As described above, the third producer, Westlake, is in the process of converting its Plaquemine, LA asbestos diaphragm facility to non-asbestos technology.

In sum, in the last three years, two asbestos diaphragm plants have been closed entirely, two have reduced the volumes of chlorine and caustic soda produced using the asbestos diaphragm process, and four have begun conversion to non-asbestos technology. Only two plants continue to operate diaphragm units at their original production capacities and have not yet begun conversion:

⁶ See EPA Economic Analysis, Table 2-2.

Chlor-Alkali Plants Using Asbestos Diaphragms		
Plants	Status	
OxyChem - Convent, LA	Active	
OxyChem - Gregory (Ingleside), TX	Active	
Olin - Plaquemine, LA	Production Reduced	2022: Olin Announces Chlor-Alkali Capacity Reduction <u>https://bit.ly/3D2jrkj</u>
Olin - Freeport, TX	Production Reduced	2021: Olin announces chlor-alkali capacity reduction in Louisiana <u>https://bit.ly/3eWu3cD</u>
Westlake - Plaquemine, LA	Conversion in Process	2023 Inside EPA <u>https://insideepa.com/tsca-news/chlor-alkali-industry-splits-over-tsca-asbestos-timeline-amid-olin-phaseou</u> t
OxyChem - Taft (Hanhnville), LA	Conversion in Process	ЕРА-НQ-ОРРТ-2021-0057-0453
OxyChem - Wichita, KS	Conversion in Process	2022: Oxy Second Quarter Earnings Conference Call https://bit.ly/3TsA2ES
OxyChem - La Porte (Battleground), TX	Conversion in Process	2022: Occidental Petroleum (OXY) Q2 2022 Earnings Call Transcript https://bit.ly/3MZdxF2
OxyChem - Niagara Falls, NY	Closed	2021: OxyChem to Close Niagara Falls Chlor Alkali Plant https://bit.ly/3D1BgQs
Olin- McIntosh, AL	Closed	2021: Olin to shut more caustic soda capacity at Alabama plant https://bit.ly/3SwQlzp

It has been claimed by industry and EPA that asbestos diaphragm plants contribute around 33 percent of total U.S. output of chlorine and caustic soda.⁷ However, as a result of Westlake, Olin and OxyChem plant closures and conversions, the current asbestos diaphragm share of total chlor-alkali output is likely significantly smaller. Asbestos diaphragm plants have been disproportionately large

⁷ Thus, in predicting a "catastrophic chain-reaction for many industries" from EPA's rule, a July 8, 2022 <u>letter</u> to the Agency from ACC and other associations asserts that "an abrupt ban would affect one-third of America's chlorine capacity."

suppliers of "merchant" chlorine and caustic soda to water treatment facilities.⁸ The contraction of asbestos diaphragm capacity has resulted in this sector experiencing shortages of supply and increases in prices, as noted by <u>EPA itself</u> and representatives of <u>drinking water utilities</u>. Ironically, while Washington lobbyists like ACC and the US Chamber of Commerce have opposed the EPA ban out of professed concern for the safety of drinking water supplies, voluntary plant closures have burdened water utilities with the very conditions -- reduced availability of chlorine and caustic soda and increased treatment costs – that these lobbyists claim to want to prevent.

III. OxyChem's LaPorte Conversion: A Case Study of the Benefits of Transitioning to Membrane Cell Technology

The recent downsizing of asbestos diaphragm capacity demonstrates that the industry itself views this technology as obsolete and uncompetitive in comparison with membrane cell units. OxyChem's public statements about the ongoing replacement of its LaPorte asbestos diaphragm unit with membrane technology further illustrate the superior economic benefits that conversion can deliver to chlor-alkali producers.

On August 3, 2022, in its quarterly earnings presentation, OxyChem <u>announced</u> it was proceeding with the conversion of its LaPorte, Texas (Battleground) asbestos diaphragm facility to an membrane unit with substantially greater production capacity, lower operating costs and higher return on investment:

HIGHLIGHTS OXYCHEM BATTLEGROUND MEMBRANE CONVERSION

- Modernization and expansion of the Battleground plant expected to increase cash flow through improved margins and higher product volumes, while enhancing operational flexibility:
 - Conversion from diaphragm to membrane technology expected to improve margins, while lowering maintenance capital and GHG emissions intensity
 - Expand chlor-alkali capacity to cover strategic commercial and supply chain initiatives
 - Improve plant logistics to create additional operating flexibility
- Battleground project expected to generate a strong return while improving OxyChem's market position
- Construction expected to commence in 2023, with completion expected in early 2026:
 - Existing operations to continue as normal during construction



⁸ According to the EPA Economic Analysis, EPA estimates that 5 percent of sodium hydroxide production and 7 percent of chlorine production are used for water treatment. *Economic Analysis of the TSCA Section 6 Proposed Rule for Asbestos Risk Management, Part I*, April 2022, at 2-2. According to industry sources, these water treatment uses may represent a third of the output of asbestos-diaphragm units.

<u>The</u> predictions of ACC (representing only OxyChem) of catastrophic shortages of chlorine and caustic soda under EPA's rule assume that chloro-alkali plants will suspend production during conversion to new manufacturing technology. However, OxyChem's recent LaPorte announcements explicitly commit to continue alkali-alkali production without interruption while asbestos-diaphragm units transition to the membrane cell process. During the August 3 investor presentation, Occidental's CFO explained that:

we will continue to operate the facility throughout the construction process. There may be some short periods where we'd take very short outages for important connections between existing infrastructure in the facility. We're confident, throughout that process, we can build inventory and continue to build product with no impact on our customers. And so, as you think about the Battleground process, you should not assume any loss of sales or margin during the actual project itself.

OxyChem's ability to continue operating diaphragm units until conversion is complete has important implications for the length of the phase-out period under EPA's rule. If in fact closure of diaphragm units to comply with an asbestos ban would not reduce available supplies of chlor-alkali chemicals, the shortages predicted by ACC and others would not materialize and it would be unnecessary to stagger unit closures to avoid supply disruptions.

Although OxyChem is now advocating a 15-year transition period that allows asbestos plants to be converted to non-asbestos technology sequentially, its earlier statements to analysts contemplated overlapping conversions of its remaining asbestos-diaphragm units. Thus, in OxyChem's August 3 investor presentation, its CFO explained that, after the LaPorte conversion, "we'll only [have] our Convent [and] Ingleside facilities utilizing asbestos diaphragms. And we'll begin the conversion studies on those as we get further underway with the actual Battleground conversion. We'll do them sort of in series together. We won't wait for one to be completed to make a decision on the other, but we'll sort of stagger them together."⁹

Length of the Conversion Process

At its August 3 investor presentation, OxyChem estimated that conversion of the LaPorte plant will be completed in 3 years. Earlier this year, the company <u>confirmed</u> that the refurbished plant is on track to begin operation in early 2026. This timeline is inconsistent with ACC's claim that six years is the minimum amount of time required for plant conversion. Moreover, as OxyChem has indicated, LaPorte is a large facility and the company is expanding its capacity by 80 percent, suggesting that less complex conversions can be completed in the same or less time. Moreover, OxyChem has indicated that it is now converting its Wichita and Taft plants in addition to LaPorte. It is thus hard to understand why, together with ACC, Oxy-Chem is insisting that at least 15 years are necessary for full conversion of its plants to non-asbestos technology. With one conversion complete in early 2026 and two others underway, the replacement of asbestos diaphragm plants should be achievable in far less time.

⁹ In a March 10, 2023 letter to Peter Gimlin of EPA, OxyChem indicated that it had begun conversion activities at its Taft chlor-alkali facility as well. (OPPT-2021-0057-0453)

Economic Benefits of Conversion

According to the EPA Economic Analysis (p. 3-41), while conversion to the membrane process would incur capital costs, it would also increase energy efficiency and reduce operational costs and could enable production of higher-quality caustic soda that would boost revenues. Thus, EPA's Analysis shows that, under some scenarios, conversion of plants to membrane technology would actually result in annualized cost savings to the industry, meaning that it would produce *net economic benefits and pay for itself over time by improved energy efficiency, higher quality product and longer service life.* For this reason, EPA projects a "high probability" that asbestos diaphragm units would be retired or replaced even in the absence of a ban on these units, continuing the recent trend in the industry.

Although these findings have been disputed in the ACC comments, they are strongly confirmed by OxyChem's business case for its LaPorte membrane conversion project. In its August 3 presentation to investors, OxyChem emphasized that the project is "expected to increase cash flow through improved margins and higher product volumes, while enhancing operational flexibility", that the shift to membrane technology would "improve margins, while lowering maintenance capital and GHG emissions intensity", and that overall the conversion would "generate a strong return while improving OxyChem's market position." In its February 2022 quarterly presentation, Occidental's Chief Financial Officer Rob Peterson elaborated on the benefits of membrane conversion, emphasizing that "[m]odernizing these assets would result in a material energy efficiency improvement, which will also lower the carbon intensity per ton of the product produced and delivered. The project would also provide the opportunity for a significant expansion of our existing capacity to meet growing demand for our key products."

These benefits of investing in membrane and other non-asbestos technologies underscore that transitioning away from asbestos is a win-win proposition for public health and industry.

IV. Need for an ECEL to Assure Worker Protection During the Transition Process

If compliance periods for chlor-alkali production or other chrysotile asbestos uses exceed two years under EPA's final rule, adoption of an Existing Chemical Exposure Limit (ECEL) is essential to protect workers during the transition to non-asbestos technology. The TSCA risk evaluation for chrysotile asbestos determines that workers in chlor-alkali plants and other asbestos-using operations now experience unreasonable risks. EPA's obligation under TSCA section 6(a) is to reduce worker exposure "to the extent necessary so that the chemical substance no longer presents such risk." As OSHA itself has recognized, its current occupational health standard for asbestos fails to eliminate cancer risks that would be considered "significant" under the Occupational Safety and Health Act, let alone the more protective "unreasonable risk" standard EPA applies under TSCA. ¹⁰

We recommend designing the ECEL for chrysotile asbestos in accordance with the well-established "hierarchy of controls" for protection against workplace risks. Under the hierarchy, administrative measures and engineering controls that prevent exposure are preferable to personal protective equipment (PPE) such as respirators or gloves, which are considered a last resort. PPE are often

¹⁰ In adopting its asbestos standard, OSHA estimated 7 workers per 1,000 would develop lung cancer even if every employer fully complied with asbestos exposure limits. Occupational Safety and Health Administration. Asbestos, tremolite, anthophyllite, and actinolite. Available at <u>https://www.osha.gov</u>

unreliable and ineffective and can place unreasonable burdens on workers that limit their use. The Pro Publica articles report circumstances where PPE were not made available to workers at chlor-alkali plants or their proper use was not enforced. The ECEL included in the final Part 1 rule should rely on PPE to reduce worker exposure only where other more reliable and effective methods of protection are infeasible.

V. Lack of Justification for Extending the Compliance Deadline for Asbestos Gaskets Used in the Chemical and Petroleum Industries

Chemical industry users of asbestos gaskets, including Chemours and Dow, have objected to EPA's proposed 1-year compliance period for eliminating their use. Chemours has requested five years to replace existing gaskets¹¹ and Dow has asked to keep asbestos gaskets in place until the end of their useful lives.¹² Similarly, API has indicated that, "[b]ased on the number of chemical and refinery facilities in the United States, there may be hundreds of thousands, possibly millions, of gaskets that would need to be identified, removed, and replaced when considering the size and complexity of the sites involved." API asserts that a "realistic schedule for the replacement of all chrysotile asbestos-containing gaskets in service will require much longer than two years; it is foreseeable that a 20-year timeframe could be more appropriate."¹³

EPA should scrutinize these requests carefully. Gaskets in chemical plants and petroleum refineries were identified as existing uses of chrysotile asbestos shortly after EPA began work on its risk evaluation in 2016 and the industry has had several years to identify non-asbestos alternatives and plan for their installation and removal of existing gaskets.¹⁴ That industry has chosen to delay transition planning and procurement of alternative products until the final rule takes effect shows a lack of diligence that should not be rewarded by EPA. If any extension is granted, the justification for additional time should be compelling. EPA should not extend the compliance deadline based merely on cost or convenience factors or to allow gaskets now in place to complete their useful lives. In addition, if the compliance timeline for these facilities exceeds two years, they must be subject to the ECEL.

VI. Aligning the Final Asbestos Reporting Rule and the Final Part 1 Rule

EPA is in the final stages of finalizing its proposed asbestos reporting rule under section 8(a) of TSCA.¹⁵ We strongly recommend that EPA frame the final rule so that its reporting requirements

 ¹¹ Undated Letter from Chemours to EPA docket for asbestos Part 1 rulemaking. (OPPT-2021-0057-0366)
¹² Memo of Meeting Between Dow and EPA regarding chrysotile asbestos Part 1 rulemaking, July 13, 2022
OPPT-2021-0057-0375

¹³ Undated letter from Michael Kennedy, API, to Peter Gimlin of EPA. (OPPT-2021-0057-0411).

¹⁴ According to the Economic Analysis at 2-12, "Branham Corporation is the one known company in the United States to fabricate gaskets from asbestos- containing rubberized sheeting. This stamping activity occurs at two Branham facilities: one in Gulfport, Mississippi and the other in Calvert City, Kentucky. Branham imports the sheeting, with the sheets containing 80 percent or more chrysotile asbestos encapsulated in 20 percent styrene-butadiene rubber." Branham supplies its finished asbestos-containing gaskets to Chemours and other customers in the chemical industry.

¹⁵ 87 Federal Register 27060 (May 6, 2022).

supplement, and support implementation of, the final Part 1 rule. For example, if that rule provides more than 2 years to cease asbestos use by the chlor-alkali industry or other sectors and imposes an ECEL during the phase-out process, annual reporting under section 8(a) will be vital so that EPA can track compliance. Similarly, annual reporting on all asbestos fibers and uses is essential so that conditions of use outside the Part 1 rule can be identified and addressed in Part 2.

Conclusion

These comments highlight several important developments that compel EPA to reject the ACC/OxyChem demand for 15 years or longer to close asbestos-diaphragm plants in the chlor-alkali industry. These developments include the substantial reduction in chlor-alkali capacity that has occurred independent of the EPA rulemaking, the demonstrated economic and environmental benefits of non-asbestos technology, the pace of conversion activity that is already underway in the industry, and the cessation of imports by two of the three companies using asbestos. In addition, the largest global chlorine and caustic soda producer, Olin, has proposed a responsible and constructive phase-out plan that is substantially more expeditious than the ACC/OxyChem proposal and merits careful consideration by EPA in developing the final Phase 1 rule.

We appreciate the opportunity to comment on the NODA and look forward to working with EPA as it finalizes the Part I rule.

Please contact me with any questions.

Sincerely yours,

Junk Rent

Linda Reinstein, President/CEO, Co-Founder and Mesothelioma Widow Asbestos Disease Awareness Organization (ADAO)