

# BAN ASBESTOS NOW: TAKING ACTION TO SAVE LIVES AND LIVELIHOODS

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## HEARING BEFORE THE SUBCOMMITTEE ON ENVIRONMENT AND CLIMATE CHANGE OF THE COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

MAY 8, 2019

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## **BAN ASBESTOS NOW: TAKING ACTION TO SAVE LIVES AND LIVELIHOODS**

**WEDNESDAY, MAY 8, 2019**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON ENVIRONMENT AND CLIMATE CHANGE,  
COMMITTEE ON ENERGY AND COMMERCE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:03 a.m., in room 2322 Rayburn House Office Building, Hon. Paul Tonko (chairman of the subcommittee) presiding.

Members present: Representatives Tonko, Peters, McEachin, Blunt Rochester, Soto, Matsui, McNeerney, Ruiz, Dingell, Pallone (ex officio), Shimkus (subcommittee ranking member), Rodgers, McKinley, Johnson, Long, Mullin, Carter, Duncan, and Walden (ex officio).

Staff present: Jacqueline Cohen, Chief Environment Counsel; Adam Fischer, Policy Analyst; Waverly Gordon, Deputy Chief Counsel; Rick Kessler, Senior Advisor and Staff Director, Energy and Environment; Brendan Larkin, Policy Coordinator; Mel Peffers, Environment Fellow; Teresa Williams, Energy Fellow; Mike Bloomquist, Minority Staff Director; Jerry Couri, Minority Deputy Chief Counsel, Environment & Climate Change; Margaret Tucker Fogarty, Minority Staff Assistant; Theresa Gambo, Minority Human Resources/Office Administrator; Peter Kielty, Minority General Counsel; Ryan Long, Minority Deputy Staff Director; Mary Martin, Minority Chief Counsel, Energy & Environment & Climate Change; Brandon Mooney, Minority Deputy Chief Counsel, Energy; and Brannon Rains, Minority Staff Assistant.

Mr. TONKO. The subcommittee on Environment and Climate Change will now come to order. I recognize myself for 5 minutes for the purposes of an opening statement.

### **OPENING STATEMENT OF HON. PAUL TONKO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK**

Today's legislative hearing will examine H.R. 1603, the Alan Reinstein Ban Asbestos Now Act of 2019.

And I would like to start by recognizing Linda Reinstein, Alan's widow, and their daughter Emily, who are with us today. Thank you for joining us; and heartfelt thanks for being able to carry forward in a really constructive way to—respond to a really difficult time for you.

I have worked with Linda for a number of years on chemical safety efforts. She is a tireless champion for countless Americans

suffering from asbestos-related diseases and fighting for a TSCA program that actually works to protect people from toxic risks.

Linda is a powerful voice for the millions of Americans who get up every morning and go to work, and raise their families; who have done everything right, but who are now facing the painful consequences of some ill-fated toxic exposure they may not even understand; and from a Federal Government that has, for far too long, failed to take these risks seriously enough.

As a result, today asbestos can be found in countless consumer products, despite our knowing for decades that it is indeed harmful to human health. The dangers of asbestos are not new to anyone. We know the carcinogenic effects of exposure and that asbestos-related diseases kill tens of thousands of Americans each year.

I am so proud to be holding this hearing today, and I hope we are able to move forward on behalf of all the people—the victims and their families—that Linda is here to help represent. I look forward to hearing from her on today's second panel, along with our other witnesses.

The Alan Reinstein Ban Asbestos New Act was introduced by Congresswoman Bonamici, Congresswoman Slotkin, and Congress—and Chairman Pallone earlier this year. The subcommittee thanks them for their urgent and timely work.

This legislation would prohibit the manufacture, the processing, and distribution of asbestos and asbestos-containing mixtures and articles one year after its enactment. It allows for a limited exemption for national security purposes and requires a report to Congress on legacy uses; for example, asbestos already in buildings.

In March, this subcommittee heard from workers representing firefighters, teachers, autoworkers and others who have seen the consequences of long-term health impacts of workplace exposures. More than 60 countries have moved forward with asbestos bans to date. For the sake of our consumers and our loved ones, the United States must do the same. In fact, we have tried to do so in the past.

Thirty years ago, EPA attempted such a ban, which was overturned by the courts in 1991. It was the most glaring example of the inadequacy of our nation's Toxic Substances Control Act, and one of the reasons Congress advanced the Lautenberg Act to reform TSCA. My Republican counterpart Mr. Shimkus was the leader on that effort and, to his credit, worked to find compromise and give EPA the authorities necessary to protect Americans from toxic threats.

Based on the available public health and scientific data, and the heartbreaking experience of Linda's family and hundreds of thousands of others like her, that means stopping asbestos use once and for all.

This morning, I suspect we will hear that EPA already has a process under way. Asbestos was selected as one of the first ten chemicals for consideration under the Lautenberg Act, and the Agency recently issued an SNUR requiring notification if previous uses are reintroduced into commerce.

Unfortunately, that is not good enough. I am sure other members will discuss concerns with the asbestos risk evaluation. But between that and the Agency's treatment of methylene chloride, I

have little confidence that EPA will move forward on a reasonable timeline with the only acceptable outcome—a complete asbestos ban. We are approaching three years since the enactment of the Lautenberg Act, and it is likely a ban; if proposed at all, and will take many years to finalize.

Congress came together to give EPA additional authorities precisely so that substances such as asbestos, that are nearly universally agreed to present an unreasonable risk, could be properly regulated. The bill's supporters are right to think that if this is the direction that EPA claims to be heading, we can ensure a ban moves forward with confidence on a certain timeline.

I hope that members on both sides of the aisle will consider how we might be able to come together, build upon the bipartisan success of the Lautenberg Act, and help protect Americans from preventable asbestos-related diseases.

Thank you again to Assistant Administrator Dunn and our other witnesses for being here this morning. I look forward to the discussion.

I will now recognize myself, and share my remaining time with Representative McNerney of California.

Mr. MCNERNEY. I thank the chair for giving me a minute here. What I would like to do is recognize a member of the audience here.

Lina Caboteja, would you please stand. Lina is a Tuesday's Child and she will be shadowing me today. And I just want to make sure she has a great experience here on the Hill. Thanks for coming, Lina.

[Applause.]

[The prepared statement of Mr. Tonko follows:]

#### PREPARED STATEMENT OF HON. PAUL TONKO

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Linda is a powerful voice for the millions of Americans who get up every morning and go to work, and raise their families; who have done everything right, but who are now facing the painful consequences of some ill-fated toxic exposure they may not even understand, and from a federal government that has, for far too long, failed to take these risks seriously enough.

As a result, today asbestos can be found in countless consumer products, despite our knowing for decades that it is harmful to human health. The dangers of asbestos are not new to anyone. We know the carcinogenic effects of exposure and that asbestos-related diseases kill tens of thousands of Americans each year.

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Congress came together to give EPA additional authorities precisely so that substances such as asbestos that are nearly universally agreed to present an unreasonable risk could be properly regulated.

The bill's supporters are right to think that, if this is the direction EPA claims to be heading, we can ensure a ban moves forward with confidence on a certain timeline.

I hope that Members on both sides of the aisle will consider how we might be able to come together, build upon the bipartisan success of the Lautenberg Act, and help protect Americans from preventable asbestos-related diseases. Thank you again to Assistant Administrator Dunn and our other witnesses for being here this morning. I look forward to the discussion.

Mr. TONKO. I yield back.

Mr. TONKO. I now recognize Mr. Shimkus, our leading Republican for the Subcommittee on Environment and Climate Change for 5 minutes for his opening statement. Representative.

#### **OPENING STATEMENT OF HON. JOHN SHIMKUS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS**

Mr. SHIMKUS. Thank you, Mr. Chairman and, Mr. McNerney, you are such a nice guy, so.

The issue of asbestos use in America and its impact on lung cancer, other illnesses, and death is one of the more challenging and gut-wrenching I have found in my time in Congress. I have the privilege to represent part of Madison County, Illinois. And that is my home county. So I know a thing or two about asbestos and the disease it causes.

In 2014, 1,500 asbestos lawsuits were filed in Madison County, or more than a quarter of all asbestos cases filed nationally. When I have gone door to door to visit my constituents, I see them in their oxygen machines laboring to live. And I am aware of the struggle, and it is real.

Preventing asbestos-related diseases is one of the main reasons I and others came together to enact reform to the Toxic Substances

Control Act. This law directed EPA, using high-quality science, to identify high risk chemicals and prioritize them, review those chemicals and the risk, otherwise known as a moment where hazard and exposure intersect, and regulate the ones that present an unreasonable risk to health or the environment.

I felt good that we had enacted a process that was objective, and risk and science-based, that was drafted to be agnostic as to who was implementing it; and the EPA would have little trouble using very broad authority to carry out the requirements.

We didn't single out any chemical by name in that bill, including the use of the word "asbestos," but we were all conscious of ensuring that EPA could act on it. And I and others expect that EPA is doing just that; for the first time ever preventing lapsed asbestos uses from coming back into the market, and reassessing current uses concerning their unreasonable risk, and preparing to take any necessary action to reduce and remove those risks.

I know, Mr. Chairman, that moving the TSCA bill was a tough process, which you were involved with and had concerns with the preemptive provisions. But this is precisely what the majority of both Democrats and Republicans on this committee supported on the House floor.

I guess I am trying to say that I am a bit frustrated as to why we are having a legislative hearing on banning asbestos before we have had an oversight hearing to demonstrate that the EPA is failing on the technical aspects of the law in its review, missing deadlines, or some other such failing. I know my friend and full committee chairman, Chairman Frank Pallone, has on more than one occasion proclaimed he does not have faith in the professionals at EPA to carry out high-quality review and act the way he would prefer on asbestos.

I would respond in two ways.

First, under TSCA, EPA has a legal duty to support any decision on existing uses of asbestos, with substantial evidence based on objective scientific review. So, EPA cannot go into a chemical review with a predetermined outcome if it wants to avoid litigation.

Let me say that again, because EPA cannot go into a chemical review with a predetermined outcome if it wants to avoid litigation.

Second, let's be honest here, if there were a Democrat in the White House right now, my Democrat colleagues would be very critical of me trying to overturn one of the first existing chemical reviews less than three years after its enactment. That is why I have sympathy for at least letting EPA do its work before legislatively rejecting it. I understand the proponents want certainty on this issue. I am also sympathetic to those concerns.

Because of the nature of this place, and unlike EPA, we are much less likely to have the time to consider or otherwise be able to know all the impacts a ban would have directly or indirectly on all Americans, particularly without the benefit of an oversight hearing.

Multiple Super Bowl champ, champion coach Bill Belichick preaches to his players "trust the process" when preparing for challenges for a season. This formula has been successful for him. And I do believe it would be successful in TSCA.

There may be more of a need to move a bill to address the manufacturing, import, processing, and commercial distribution of asbestos; but before learning more, though, I am not convinced that that time is now.

I join the chairman in welcoming our witnesses today. I want to thank them for their sacrifice they made to be here with us. And I look forward to learning more from you all.

And with that, Mr. Chairman, I yield back my time.

Thank you, Mr. Chairman for yielding me this time.

[The prepared statement of Mr. Shimkus follow:]

#### PREPARED STATEMENT OF HON. JOHN SHIMKUS

The issue of asbestos use in America and its impacts on lung cancer, other illnesses, and death is one of the more challenging and gut wrenching I have found in my time in the Congress.

I have the privilege to represent Madison County, Illinois here in Congress—so I know a thing or two about asbestos and the disease it causes. In 2014, 1,500 asbestos lawsuits were filed in Madison County—or more than a quarter of all asbestos cases filed nationally. When I have gone door-to-door to visit my constituents, I see them and their oxygen machines, laboring to live.

I am aware of the struggle and it is real.

Preventing asbestos-related disease is one of the main reasons I and others came together to enact reforms to the Toxic Substances Control Act that I introduced. This law directed EPA, using high quality science, to identify high risk chemicals and prioritize them, review those chemicals and the risks (otherwise known as the moment where hazard and exposure intersect), and regulate the ones that present an unreasonable risk to health or the environment.

I felt good that we had enacted a process that was objective and risk and science-based, that was drafted to be agnostic as to who was implementing it, and that EPA would have little trouble using very broad authority to carry out these requirements.

We didn't single out any chemical by name in that bill, including the use of the word 'asbestos', but we were all conscious of ensuring that EPA could act on it. And, as I and others expected, EPA is doing just that: for the first time ever, preventing lapsed asbestos uses from coming back onto the market and reassessing current uses concerning their unreasonable risk and preparing to take any necessary action to reduce and remove those risks.

I know, Mr. Chairman that you didn't vote for the final product because you were concerned about its pre-emption provisions, but this is precisely what the majority of Democrats and Republicans on this Committee supported on the House floor.

I guess I am trying to say that I am a bit frustrated as to why we are having a legislative hearing on banning asbestos before we have had an oversight hearing to demonstrate that EPA is failing on the technical aspects of the law in its review, missing its deadlines, or some other such failing.

I know my friend and our full committee chairman, Frank Pallone, has on more than one occasion proclaimed he does not have faith in the professionals at EPA to carry out a high-quality review and act the way he would prefer on asbestos.

I would respond in two ways: first, under TSCA, EPA has a legal duty to support any decision on existing uses of asbestos with substantial evidence based on objective scientific review—so EPA cannot go into a chemical review with a predetermined outcome if it wants to avoid litigation. Second, and let's be honest here, if there were a Democrat in the White House right now, my Democrat colleagues would be critical of me trying to overturn one of the first existing chemical reviews, less than 3 years after enactment.

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There may be a need to move a bill to address the manufacturing, import, processing and commercial distribution of asbestos. Before learning more, though, I am not convinced that that time is now.

I join the Chairman in welcoming our witnesses today and I want to thank them for the sacrifices they made to be here with us. I look forward to learning for you.

I yield back the balance of my time.

Mr. TONKO. The gentleman yields back and now I recognize Mr. Pallone, Chairman of the Full Committee, for 5 minutes for his opening statement.

**OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY**

Mr. PALLONE. Thank you, Chairman Tonko.

It has been 40 years since the Environmental Protection Agency began its work to ban asbestos under the Toxic Substances Control Act, or TSCA. It has been 30 years since EPA finalized that ban. And it has been 28 years since that ban was struck down in court.

Twenty-eight years of frustration, of sickness and loss. We have known the dangers of asbestos for decades and, frankly, enough is enough.

I wish today’s hearing wasn’t necessary, that this bill wasn’t necessary, but asbestos is still being imported into the United States, and it is still being used in this country, and it is still killing about 40,000 Americans every year.

Today this committee is beginning to take action by discussing H.R. 1603, the Alan Reinstein Ban Asbestos Now Act, which Representatives Bonamici, Slotkin, and I introduced in March. Our bill would ban the manufacture, import, processing, and distribution of asbestos. It would also require the EPA to assess and report on the risks posed by “legacy asbestos” that is found in buildings.

In addition to Representatives Bonamici and Slotkin, I want to thank some of those who have worked tirelessly to get us to this point.

Linda Reinstein, whose husband Alan is the bill’s namesake, will testify this morning. Linda, thank you for everything you have done and everything that I know you will continue to do to get asbestos out of commerce, out of our products, out of our workplaces, out of our homes.

I would also like to thank national and local labor unions who have been fighting for decades to protect workers from asbestos diseases.

AFL-CIO is also here today. In March, we heard from the International Association of Firefighters, the United Autoworkers, and the American Federation of Teachers who all testified before this committee about the risks that workers continue to face from asbestos. Those stories and those people at risk are why we are here today.

I also want to acknowledge Susan Moran, who is in the audience today. Susan’s late husband, Andy, pronounced “egregious,” was an integral part of this committee’s work to reform TSCA.

And, finally, I would like to thank the subcommittee ranking member, Mr. Shimkus, who worked closely with me and Chairman Tonko and other committee members to reform TSCA back in 2016. It was not an easy task.

The Frank R. Lautenberg Chemical Safety Act for the 21st Century, and that is TSCA, empowered EPA to ban asbestos. In fact, this committee's report on the Lautenberg Act, written under Republican leadership, states, and I am now quoting, "To many members of the committee, an important measure of TSCA reform proposals has been whether the proposal would enable EPA to take broader regulatory action to protect against unreasonable risks from asbestos. The committee expects this legislation to enable that regulatory action."

And that was from the committee's report on our expectations.

But, unfortunately, it is now clear that, despite the best efforts of our committee, the Trump EPA is not using the tools we gave it to regulate dangerous chemicals. Asbestos is the poster child for the problems we are seeing in the implementation of the Lautenberg Act. EPA's actions under the Lautenberg Act have been so legally suspect that I believe we need to pass this bill regardless of whether EPA were to announce that it is moving forward with a full ban of asbestos. We don't have time for more legal maneuvering and a drawn-out court battle while tens of thousands of people are dying.

So, it is deeply disappointing that 40 years after EPA began work to ban asbestos under TSCA, and three years after we passed the Lautenberg Act to reform that statute, we need to pass another law to ban this deadly substance. But I think it is clear that Congress must act; and we are certainly going to act.

So, with that, unless anybody else wants my minute, I will yield back. And thank you, Mr. Chairman.

Mr. TONKO. You are welcome.

[The prepared statement of Mr. Pallone follows:]

#### PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

It has been 40 years since the Environmental Protection Agency (EPA) began its work to ban asbestos under the Toxic Substances Control Act (TSCA). It has been 30 years since EPA finalized that ban. And, it has been 28 years since that ban was struck down in court. Twenty-eight years of frustration, of sickness, and loss. We have known the dangers of asbestos for decades. Enough is enough.

I wish today's hearing wasn't necessary—that this bill wasn't necessary. But, asbestos is still being imported into the United States, it is still being used in this country, and it is still killing about 40,000 Americans every year.

Today this Committee is beginning to take action by discussing H.R. 1603, the Alan Reinstein Ban Asbestos Now Act, which Reps. Bonamici, Slotkin and I introduced in March. Our bill would ban the manufacture, import, processing, and distribution of asbestos. It would also require the EPA to assess and report on the risks posed by "legacy asbestos" that is found in buildings.

In addition to Reps. Bonamici and Slotkin, I want to thank some of those who have worked tirelessly to get us to this point.

Linda Reinstein, whose husband Alan is the bill's namesake, will testify this morning. Linda, thank you for everything you have done and everything that I know you will continue to do get asbestos out of commerce, out of our products, out of our workplaces, and out of our homes.

I would also like to thank national and local labor unions who have been fighting for decades to protect workers from asbestos diseases. AFL-CIO is also here today. In March, we heard from the International Association of Firefighters, the United Autoworkers, and the American Federation of Teachers who all testified before this

Committee about the risks their workers continue to face from asbestos. Those stories, and those people at risk, are why we are here.

I also want to acknowledge Susan Moran, who is in the audience today. Susan's late husband, Andy Igrejas (pronounced—EGREGIOUS), was an integral part of this Committee's work to reform TSCA.

And, finally I would like to thank Subcommittee Ranking Member Mr. Shimkus, who worked closely with me, Chairman Tonko and other Committee members to reform TSCA back in 2016.

The Frank R. Lautenberg Chemical Safety Act for the 21st Century empowered EPA to ban asbestos. In fact, this Committee's report on the Lautenberg Act, written under Republican leadership, states, and I'm quoting now:

"To many members of the Committee, an important measure of TSCA reform proposals has been whether the proposal would enable EPA to take broader regulatory action to protect against unreasonable risks from asbestos. The Committee expects this legislation to enable that regulatory action."

That was from the Committee report on our expectations.

Unfortunately, it is now clear that, despite the best efforts of our Committee, the Trump EPA is not using the tools we gave it to regulate dangerous chemicals. Asbestos is the poster-child for the problems we are seeing in the implementation of the Lautenberg Act.

EPA's actions under the Lautenberg Act have been so legally suspect that I believe we need to pass this bill regardless of whether EPA were to announce that it is moving forward with a full ban of asbestos. We don't have time for more legal maneuvering and a drawn-out court battle while tens of thousands of people are dying.

It is deeply disappointing that 40 years after EPA began work to ban asbestos under TSCA and three years after we passed the Lautenberg Act to reform that statute—we need to pass another law to ban this deadly substance. But it is clear that Congress must act, and so we will.

Thank you, I yield back.

Mr. TONKO. The gentleman yields back, and now I recognize Mr. Walden, who is the Republican leader of the full committee, for 5 minutes for his opening statement. Representative.

#### **OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON**

Mr. WALDEN. Good morning, Mr. Chairman, and thank you.

As we examine the bill today from Ms. Bonamici and others, I must say I am actually of several minds. And let me explain.

At a 50,000-foot level I join my colleagues in wanting an end to mesothelioma, cancer, and other pulmonary diseases precipitated by asbestos. I think we all want that.

To the families suffering and those with these diseases right now, and those who have lost loved ones to them; I am deeply sympathetic to you and, obviously, to the advocates of this bill. I recognize the tragedies you have faced, and I understand you want a solution once and for all.

I also appreciate the way my colleague Mr. Shimkus has said about the process he authored a few years ago to modernize the law, to address questions of safety about chemicals, and that these have to be fact-based decisions. And as we speak—and that Ms. Dunn will talk about on the first panel today, if Congress is going to consistently, though, preempt the sort of science-based EPA reviews of statutory mandates, one has to ask the question then what is the point of all these new and expanded authorities under TSCA? Even well-meaning legislation can, frankly, be a bit of a blunt instrument for problem solving where, if not careful, Congress can create risk tradeoffs that spawn unintended public health

risks, institute unimplementable enforcement requirements, or require complex and hard-to-meet compliance obligations.

So, as I went through and looked at this legislation a number of questions came to mind.

This legislation requires any mixture or article that is distributed in commerce to not have asbestos present as an impurity. So, my question is: Does this apply to incidental fibers? Do American businesses have to test and certify every product sold in this country to guarantee it does not contain any asbestos, regardless of whether it was intentionally added? Do people in rural areas no longer get to use gravel for roads? Should talcum powder fall under this or would it be exempted as an FDA-regulated product?

These are just some of the questions that come to mind.

The legislation also requires very specific and complex reporting to the EPA by those who either manufactured, imported, processed, or moved in commerce asbestos, or mixtures, or articles containing asbestos, including an incidental amount in the three years prior to and one year after the bill's enactment. So, prior to and one year after.

So, how does a person report an incidental amount when they weren't expected to track it?

What is the utility of all this reporting to EPA on top of information from the EPA's chemical data reporting, especially if the substance is already banned?

Why is personally identifying information disclosed to the public? We are doing a lot on privacy in this committee. So the question: Why is personally identifying information disclosed to the public from each report, when EPA is only required to produce an aggregate report that isn't specific to each person reporting?

Finally, the legislation provides a shorter transition period and moots existing TSCA provisions preempting an exemption for use of a chemical that provides greater health protection than its alternative; which I think is a pretty important point.

I am especially concerned about the immediate loss of 36 percent, and that is over one-third, of our nation's chlorine production, and what that means for hospital disinfection, drinking water treatment, pharmaceutical production and the like; the resources required to push businesses to import materials rather than make them here; and do healthcare costs and drinking water rates spike as availability of these services lessen, or do gaseous chlorine shipments come to our major ports.

So, to protect the economic health of working men and women, are alternatives technologically and economically feasible? I think that is a question we need to look at; and, if so, are they drop-in ready and safer?

So, Mr. Chairman, while I support the intent, certainly, of my colleague from Oregon, Ms. Bonamici, and others, I do think there are these questions among the whole list that if we are going to legislate in this space, we need to get answers to-if we are going to be responsible.

So, I look forward to hearing from each of our witnesses today. I know their testimony will better clarify some of these for me, and I appreciate that. I would also say at the outset we have two sub-

committee meetings simultaneously, and since I am on both, I will be coming and going. But I do have your written testimony.

And, again, we all want to make the world safer. And for those who are suffering or who have lost someone, you are in our hearts, and we want to do the right thing here.

So, with that, Mr. Chairman, I yield back.

[The prepared statement of Mr. Walden follows:]

#### PREPARED STATEMENT OF HON. GREG WALDEN

Thank you for recognizing me for this opening statement.

As we examine a bill today from Ms. Bonamici, one of my colleagues from Oregon's congressional delegation, I must say that I am of many minds on the legislation.

At a 50,000-foot level, I join my colleagues in wanting to see an end to mesothelioma, cancer, and other pulmonary diseases precipitated by asbestos. To the families suffering with these diseases right now and those who have lost loved ones to it, I sympathize with you and the advocates of this bill, I recognize the tragedies you have faced, and understand you want a solution once and for all.

I also appreciate what my colleague, Mr. Shimkus, has said about the process he authored into law a few years ago to address questions of safety about many chemicals—but especially one—that is playing out, as we speak, and that Mrs. Dunn will talk about on the first panel today. If Congress is going to consistently pre-empt EPA reviews with statutory mandates, what's the point of all those newly expanded authorities in TSCA?

Even well-meaning legislation can be a blunt instrument for problem solving where, if not careful, Congress can create risk trade-offs that spawn unintended public health risks, institute unimplementable enforceable requirements, or require complex and hard to meet compliance obligations.

Looking at this legislation, I have many questions about how it operates and what it means. For example:

- The legislation requires any mixture or article that is distributed in commerce to not have asbestos present as an impurity.
- Does this apply to incidental fibers?
- Do American businesses have to test and certify every product sold in this country to guarantee it does not contain ANY asbestos—regardless of whether it was intentionally added?
- Do people in rural areas no longer get to use gravel for roads?
- Would talcum powder fall under this or would it be exempted as an FDA regulated product?

The legislation also requires very specific and complex reporting to EPA by those who either manufactured, imported, processed, or moved in commerce asbestos, or mixtures or articles containing asbestos—including an incidental amount—in the three years prior to and one year after the bill's enactment.

How does a person report an incidental amount when they weren't expected to track it?

What is the utility of all this reporting to EPA on top of information from EPA's chemical data reporting—especially if the substance is banned?

- Why is personally identifying information disclosed to the public from each report when EPA is only required to produce an aggregated report that isn't specific to each person reporting?

Finally, the legislation provides a shorter transition period and moots existing TSCA provisions permitting an exemption for use of a chemical that provides greater public health protection than its alternatives.

- I am especially concerned about the immediate loss of 36 percent of our nation's chlorine production and what that

means for hospital disinfection, drinking water treatment, and pharmaceutical production.

- The resources required could push businesses to import materials rather than make them here. Do healthcare costs and drinking water rates spike, does availability to these services lessen, or do gaseous chlorine shipments come to our major ports?
- To protect the economic health of working men and women, are alternatives technologically and economically feasible? If so, are they “drop in ready” and safer?

So, Mr. Chairman, while I support the intent of my colleague from Oregon Ms. Bonamici’s bill, I do think there are issues that we need to work through if we are going to responsibly legislate in this space.

I look forward to hearing from each of the witnesses today, and I hope their testimony will better clarify for me what the best path forward is.

With that, I yield back the remained of my time.

Mr. TONKO. The gentleman yields back.

I would like to remind Members that pursuant to committee rules all Members’ written opening statements shall be made part of the record.

I will now introduce our witness for today’s first panel, Alexandra Dunn, the Assistant Administrator of the United States Environmental Protection Agency, Office of Chemical Safety and Pollution Prevention.

Before we begin, I would like to explain the lighting system. In front of you are a series of lights. The light will initially be green at the start of your opening statement. That light will turn yellow when you have one-minute left. And please begin to wrap up your testimony at that point. The light will turn red when your time expires.

So, we thank you for that help, Administrator. At this time the Chair will recognize Assistant Administrator Dunn for 5 minutes to provide her opening statement.

Oh, there are no lights on your table. OK. So, forgive me, all of that, all that—OK. Thank you. Miracles of all kinds.

So, Ms. Dunn, 5 minutes please.

**STATEMENT OF ALEXANDRA D. DUNN, ASSISTANT ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

Ms. DUNN. Well, good morning, Chairman Tonko. And notwithstanding the absence of the lights, I can see the clock up there.

Mr. TONKO. OK.

Ms. DUNN. Chairman Pallone, Ranking Member Shimkus, and Ranking Member Walden, members of the committee, as you heard, I am Alexandra Dunn, Assistant Administrator of EPA’s Office of Chemical Safety and Pollution Prevention, and it is a great privilege and honor to appear before you today to discuss asbestos.

I am pleased to share with you the significant efforts the EPA is undertaking to address public health risks from exposure to asbestos. This administration is the first in 30 years to use the Toxic Substances Control Act, amended by the Frank R. Lautenberg

Chemical Safety for the 21st Century Act, to place additional restrictions on products that contain asbestos.

It is helpful to look at EPA's asbestos regulation in three phases. As you noted, EPA's actions around asbestos took a major step forward when in 1989 we finalized the TSCA Asbestos Ban and Phase out; banning the manufacture, importation, processing, and distribution in commerce of most uses of asbestos. In 1989—excuse me, in 1991, this regulation was largely overturned by the Fifth Circuit, leaving only five asbestos products and all new uses of asbestos banned. The 1989 partial ban remains in place, and our new actions build upon it.

Second, on April 17, 2019, EPA closed a loophole left by the 1991 court decision. We signed a regulation that will present historic uses of asbestos from returning to the United States through domestic manufacture or import without EPA review. Our action affects 18 categories of historic asbestos-containing products, such as asbestos vinyl floor tiles and insulation, and has a “catch all” restricting any other uses of asbestos not currently ongoing.

This is an aggressive and critical step to protect the public from the health risks associated with asbestos, including the increased risk of cancer.

Third, we complete the circle of protecting the public from asbestos risks as we undertake a risk evaluation for the limited ongoing industrial uses of asbestos. A TSCA risk evaluation, as described by Mr. Shimkus, determines whether a chemical substance presents an unreasonable risk, under the conditions of use, to health or the environment, including an unreasonable risk to relevantly potentially exposed or susceptible subpopulations such as workers.

If EPA determines that the manufacture, processing, distribution, use, or disposal of a chemical substance presents an unreasonable risk, we must take risk management actions under TSCA Section 6. Our process is open and transparent. The asbestos draft risk evaluation will be peer reviewed and available for public comment under the timetables in TSCA.

We received two petitions asking EPA to require additional asbestos reporting. After consideration, EPA denied both petitions. Through preparing the asbestos scoping document and drafting the risk evaluation, we are confident that we have a sufficient understanding of the conditions of use of asbestos.

We understand that many stakeholders want EPA to ban all remaining asbestos products now. Under TSCA, EPA cannot move directly to risk management actions such as a ban without first completing the risk evaluation and making an unreasonable risk determination. This is the path we are following consistent with our legal authority.

EPA has also received comments asking us to address risks from legacy asbestos, asbestos-containing materials manufactured or imported in the past that may still be present in buildings and homes. We are not ignoring the legacy problem. Asbestos-containing materials that are not damaged or disturbed are not likely to pose a health risk. When asbestos is to be disturbed, Federal, State, and local laws, regulations, and programs are in place for the safe removal and disposal of these materials.

The outlined actions show that we are committed to protecting all Americans from unreasonable risk associated with asbestos and to working with stakeholders and our Federal, State, and local partners. Again, for the first time in decades, EPA has made addressing asbestos a priority.

On March 7, 2019, Representative Bonamici and others introduced H.R. 1603, the Alan Reinstein Ban Asbestos Now Act of 2019. EPA does not have a formal position on the bill but can provide technical assistance on this issue upon request.

In conclusion, thank you, Chairman Tonko, Chairman Pallone, Ranking Member Shimkus, and Ranking Member Walden, and members of the committee for the opportunity to testify before you today. EPA looks forward to continuing our work with you to protect the public's health and well-being. I look forward to any questions.

[The prepared statement of Ms. Dunn follows:]

**TESTIMONY OF  
ALEXANDRA DAPOLITO DUNN  
ASSISTANT ADMINISTRATOR  
OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION  
U.S. ENVIRONMENTAL PROTECTION AGENCY**

**BEFORE THE  
COMMITTEE ON ENERGY AND COMMERCE  
SUBCOMMITTEE ON ENVIRONMENT AND CLIMATE CHANGE  
UNITED STATES HOUSE OF REPRESENTATIVES**

**May 8, 2019**

Good morning Chairman Tonko, Ranking Member Shimkus and members of the Committee. I am Alexandra Dunn, Assistant Administrator for the Office of Chemical Safety and Pollution Prevention, at the U.S. Environmental Protection Agency (EPA). Thank you for the opportunity to appear before you today to discuss asbestos.

I am pleased to share with the Committee the significant efforts the EPA is undertaking to address public health risks from exposure to asbestos. This Administration is the first in 30 years to use the Toxic Substances Control Act (TSCA) to place additional restrictions on products that contain asbestos. Building on the partial ban on asbestos left in place after the EPA promulgated the TSCA Asbestos Ban and Phaseout Rule in 1989, we signed a final rule on April 17, 2019, that strengthens the EPA's asbestos regulations. Our action ensures that discontinued asbestos products are prohibited from being reintroduced into commerce without the Agency conducting a robust review and putting in place any necessary restrictions, including potentially prohibiting use entirely. Additionally, in implementing the Frank R. Lautenberg Chemical Safety for the 21st

Century Act, which amended TSCA, the EPA designated asbestos as one of the first 10 chemicals subject to risk evaluation. We plan to have that evaluation completed in accordance with the statutory timeline provided in TSCA and are aiming to have a draft risk evaluation available for public comment and peer review by the fall of this year. After peer review and public comment, the EPA will finalize the risk evaluation. If the Agency determines there is unreasonable risk to health or the environment from any conditions of use of asbestos we are evaluating, we will act to the extent necessary, to ensure the use of asbestos no longer presents an unreasonable risk, consistent with our authority under TSCA. These actions would be proposed within one year and finalized within two years.

It is helpful to look at the EPA's asbestos regulation in three phases. First, the EPA's asbestos actions took a significant step forward when in 1989 we finalized the TSCA Asbestos Ban and Phaseout Rule, banning the manufacture, importation, processing and distribution in commerce of most uses of asbestos. In 1991, this regulation was largely overturned by the U.S. Fifth Circuit Court of Appeals. As a result, only five asbestos products and all new uses of asbestos remained banned. Under the partial ban, new uses of asbestos means those for which manufacture, import or processing was initiated for the first time after 1989. This partial ban remains in place and our recent actions build upon it.

Second, on April 17, 2019, the EPA closed a dangerous loophole that was left by the 1991 court decision. We signed a regulation that will prevent all other discontinued uses of asbestos from returning to commerce. This action under TSCA is called a Significant New Use Rule (SNUR)

and its effect is to keep dangerous historic uses of asbestos that are no longer ongoing from returning to the U.S. through domestic manufacture or import without EPA review. Without this action, any dormant asbestos uses could begin in the U.S. at any time – without EPA notice or regulation. Our action affects 18 categories of historic asbestos containing products, such as asbestos vinyl floor tiles, insulation and other building materials, and contains an important “catch all” that restricts “any other uses of asbestos” that are neither ongoing nor already prohibited under TSCA. The April 17, 2019, action is an aggressive and critical step in the EPA’s efforts to protect the public from the health risks associated with asbestos, including the increased risk of cancer. Our action ensures that the EPA will be notified of and will be able to regulate, including the ability to prohibit, any of these uses, thus enabling the Agency to protect the public from asbestos risks.

Third, we round out our full circle of protecting the public from asbestos risks as we complete the risk evaluation for the limited conditions of use of asbestos. The EPA identified several conditions of use of asbestos to include in the risk evaluation including imported raw bulk chrysotile asbestos for the fabrication of diaphragms for use in chlorine and sodium hydroxide production; and several imported chrysotile asbestos-containing materials, including sheet gaskets for use in chemical production (*e.g.*, titanium dioxide production), brake blocks used in oil drilling equipment, aftermarket automotive brakes/linings and other vehicle friction products, and other gaskets. These are the only remaining conditions of use of asbestos in commerce that have been identified and the EPA is evaluating each of them.

Under TSCA, the purpose of risk evaluation is to determine whether a chemical substance presents an unreasonable risk, under the conditions of use, to health or the environment, including an unreasonable risk to a relevant potentially exposed or susceptible subpopulation – which could include workers. If the EPA determines that the manufacture, processing, distribution in commerce, use, or disposal of a chemical substance presents an unreasonable risk, we must take risk management actions as specified in section 6 of TSCA. This process will be open and transparent. The draft risk evaluation will be peer reviewed and made available for public comment. And the EPA will continue to follow the timetable established by Congress in TSCA.

We received two petitions asking the EPA to require additional asbestos reporting that petitioners believe will further inform the EPA's risk evaluation for asbestos. After careful consideration, the EPA denied both petitions and, through the process of preparing the asbestos scoping document and drafting the asbestos risk evaluation, we are confident that we have a sufficient understanding of the conditions of use of asbestos.

We understand that many stakeholders want the EPA to ban all remaining asbestos products now. Under TSCA, the EPA cannot move directly to risk management actions such as a ban – which is indeed an option in certain cases – or to any other restrictions without first completing the risk evaluation and making an unreasonable risk determination. This is the path we are following consistent with our legal authority.

The EPA also received considerable comment during recent public comment periods regarding the need to address the risks from what is known as legacy asbestos, that is, the asbestos-containing materials manufactured or imported in the past that may still be present in buildings and homes. We recognize that legacy asbestos, if not properly maintained and left intact, can present a health risk. While the risk evaluation under TSCA is focused on uses of asbestos for which the manufacture (including import), processing and distribution in commerce is prospective or ongoing, we are not ignoring the legacy problem. Asbestos-containing materials that are not damaged or disturbed are not likely to pose a health risk. When asbestos is to be disturbed, there are laws, regulations and programs in place for the safe removal and disposal of asbestos-containing building materials. For example, the Asbestos Hazard Emergency Response Act, which is Title II of TSCA, requires schools to inspect for asbestos, prepare management plans, and take action to prevent or reduce hazards. Under the Clean Air Act, the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations specify work practices for asbestos during demolition and renovation of certain structures, installations, and buildings to prevent the release of asbestos fibers. The Occupational Safety and Health Administration (OSHA) requirements help prevent or reduce workers' asbestos exposure in the workplace. Most states have laws regarding asbestos. Many states also have regulations regarding asbestos. In addition, the EPA provides guidance and advice on our website for professionals and the public with questions about asbestos in building materials.

The actions I have briefly outlined above constitute an effort to complete a circle of protection from asbestos risks. The partial ban from 1989, the final rule to restrict discontinued uses of asbestos from returning to commerce, and the risk evaluation of the few remaining uses, address

all historic and current uses under our TSCA authorities. We are committed to protecting all Americans from unreasonable risks associated with asbestos and to working with all our stakeholders and our partners at the federal, state and local level. For the first time in decades, the EPA has made addressing asbestos a priority.

On March 7, 2019, Representative Bonamici and others introduced H.R.1603, the Alan Reinstein Ban Asbestos Now Act of 2019. The EPA does not have a formal position on the bill. The EPA stands ready to provide technical assistance on this important issue upon request.

In conclusion, I would like to thank you, Chairman Tonko, Ranking Member Shimkus and members of the Committee for the opportunity to testify before you today. The EPA looks forward to continuing our work with this Committee to protect the public's health and well-being. I will be happy to answer any questions you may have.

Mr. TONKO. Thank you very much. Now that the Administrator has concluded her opening statement, we will move to member questions. Each Member will have 5 minutes to ask questions of our witness. I will start by recognizing myself for 5 minutes.

Administrator Dunn, thank you again for appearing before the subcommittee. It is my sincere hope that you are able to lead the Office of Chemical Safety and Pollution Prevention effectively. In my opinion, the office went off track in the early years of this, the Trump administration.

Congress passed the Lautenberg Act to have certainty that EPA would have the authority to ban indisputably harmful substances like asbestos. Three years later and I certainly am not as confident that will be the ultimate outcome.

Administrator, do you have any thoughts on how over 60 other nations, and even the United States at one time when it had banned asbestos, have managed to continue to be productive despite having banned asbestos?

Ms. DUNN. We are always engaged in international conversations with other countries. We believe that we are implementing TSCA, the new law that we have, using all of its authorities and powers that we have to look at asbestos; and feel very confident that we have the tools that we need.

Mr. TONKO. And do you have concerns that the United States could not manage that transition?

Ms. DUNN. I am confident that we are able to manage the transition to the new Lautenberg law. We have met all the deadlines under the new law to date.

Mr. TONKO. Well, with a ban in general could we manage that transition?

Ms. DUNN. Managing a ban, if under TSCA we reach a conclusion that there is an unreasonable risk presented under the conditions of use, and that a ban is the only way that those risks could be mitigated. EPA would have the capability to manage that process.

Mr. TONKO. And, obviously, work has been done going back to the 1970s on the United States ban. There are career staff at EPA that have been working on asbestos for literally decades. What role do you believe EPA career staff should play in determining the agency's path forward on asbestos?

Ms. DUNN. I am absolutely privileged every day to work with our career staff. They have prepared me today for speaking with all of you. They have incredible expertise about asbestos; how it is used in the United States. They did all the ground work around our risk evaluation, and they are absolutely dedicated to the task at hand. Very committed to the public service.

Mr. TONKO. In late August, the New York Times reported a story entitled "EPA Staff Objected to Agency's New Rules on Asbestos Use Internal Emails Show," which outlined career staff's concerns with this new proposal. I appreciate that story was published before your confirmation; but just this morning The Times published "EPA Leaders Disregarded Agency's Experts in Issuing Asbestos Rule Memos Show."

Do you have any thoughts on these stories or understand why it may cause some members to question EPA's political leadership's commitment to implementing a ban?

Ms. DUNN. I don't want to comment on internal conversations amongst our staff. We encourage full disclosure and conversation amongst our teams. We explore a variety of options at all times. And my door remains open to any member of our staff who feels they are not being heard in regard to their professional opinions.

Mr. TONKO. But moving forward do you plan on seeking input from career staff from across program offices on asbestos and other risk evaluations?

Ms. DUNN. Absolutely.

Mr. TONKO. And I know you previously led EPA Region 1. Do you believe the career staff at regional offices can provide valuable insights?

Ms. DUNN. Having been the regional administrator in New England for all of 2018, I have a great appreciation for the ability of our EPA regions; many of whom you all interact with when you are home. That is the EPA that you see, not necessarily the Beltway EPA.

What I really enjoyed about the regional office is that we are very close to communities. I went to many public meetings. I sat with communities. Probably got a flavor for what you all go through when you go home, when you listen to communities with concerns, whether it was with regard to Superfund sites or other chemical exposures.

So, so being on the ground, to answer your question, yes, our regions can be very helpful to us with that direct communication from the field essentially.

Mr. TONKO. And are you familiar with criticisms by Region 10 staff of both the proposed SNUR and the scope of the risk evaluation from May and August 2018 respectively?

Ms. DUNN. I am not familiar with the Region 10 staff.

Mr. TONKO. Well, based on some of these communications, it seems clear that numerous EPA career staff believe the Agency is not fully pursuing efforts to reduce asbestos exposure. And I hope these expert voices have an appropriate role in the process as it moves forward.

And with that, I thank you for your response to our questions.

The Chair now recognizes Mr. Shimkus, our leading Republican on the subcommittee, for 5 minutes to ask questions.

Mr. SHIMKUS. Thank you, Mr. Chairman.

I get the sense from listening to the majority that they are concerned that comprehensive action on asbestos isn't happening and they want it to occur immediately. I detected from your opening statement that there is an effort within EPA's TSCA work to get at many of these things.

So, can you help me piece together how the Agency is addressing asbestos? Can you please walk me through the thinking and implications of EPA actions on your Significant New Use Rule on asbestos and the ongoing risk evaluation of asbestos?

Ms. DUNN. Yes. It would be my pleasure to do that.

The Significant New Use Rule, which we just signed a few weeks ago, is a very important action for us to take. It makes clear that

any historic, not-ongoing use of asbestos cannot occur and resume in the United States without notification to EPA. Notification to EPA provides us all the tools in TSCA to look at the proposed use.

If anyone thought that getting into the business of asbestos was a good idea, they would have to come forward to the EPA, we would have to look at the type of activity that they wanted to undertake, we would have to assess any potential risks, and we would have to put requirements on that activity to mitigate all risks.

The requirement could also turn out to be a no, that they may not commence that activity.

So, the action we took with the SNUR is very important. It puts EPA in a very important place with regard to these historic uses.

Mr. SHIMKUS. Thank you. Are you on track to timely complete your evaluation and make a determination on asbestos by the end of this year?

Ms. DUNN. We are on track. We are completing the risk evaluations of asbestos and the other nine chemicals. Just this morning an announcement went out that our Science Review Committee, which is brand new under TSCA, will be meeting in June to begin looking at the first of the first ten chemicals. And we will be moving our way through them throughout the summer. We are very much anticipating meeting our end-of-year deadline.

Mr. SHIMKUS. That is that purple 29 one?

Ms. DUNN. Pigment violet 29.

Mr. SHIMKUS. Purple was my high school color, so.

Some of you have heard today—some of what you have heard today and the dinging the Agency for not addressing legacy uses of asbestos. What do you say in response to those criticisms?

Ms. DUNN. EPA's authority under TSCA has to do with the manufacture, distributing, importation, and use, and disposal of asbestos. So, we are focusing on our legal authority.

When it comes to legacy uses, EPA relies on the fact that there are many, many other programs, including under OSHA, under our Clean Air Act, the NESHAP. There are requirements for anyone who is disturbing asbestos when it is intact. We want to make sure that that is done safely and properly. So, there are many controls at the State and Federal level around legacy asbestos.

Mr. SHIMKUS. In 2016, EPA designated asbestos as one of the first ten chemical substances subject to risk evaluation. Is the Agency on track to complete this risk evaluation by the end of 2019?

Ms. DUNN. We do remain on track, yes.

Mr. SHIMKUS. Can we expect a determination regarding unreasonable risk for all the conditions of use the agency identified in its scoping document from June 2017?

Ms. DUNN. I cannot prejudge today what we will find through our risk evaluation. The risk evaluation will go to peer review, also to public comment.

We are looking at the limited, ongoing uses of asbestos. Right now they are industrial. They largely have to do with the fabrication of diaphragms for chlorine and sodium hydroxide production, as well as some other very, very narrow industrial uses.

Mr. SHIMKUS. Since H.R. 1603 is silent on it, what legal effect does H.R. 1603, if enacted, have on ongoing risk evaluation and any resultant risk management requirements?

Ms. DUNN. The fact that the bill is silent on that is of some concern. It does not tell us to stop our work. And so we would hope to reach some clarity around that should the bill advance.

Mr. SHIMKUS. Thank you. My time has expired.

Let me just say those are questions I wanted to get on the record. I tell people I hate asbestos, OK. But in delving down into chemicals and dealing with the risk issue, I like the fact that chlorine is a major use in keeping water safe for use. I like the soda hydroxide for cleaning hospitals. So, we have some issues here. But I appreciate your being here.

I'm sorry to go over time. I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentleman from California, Representative Peters, for 5 minutes.

Mr. PETERS. Thank you, Ms. Dunn, for being with us today.

Can you explain to me what has been the status—well, let me ask first, what has been the status since between 1991 and up to the time of your issuance of the Significant New Use Rule on asbestos? How has that differed from what you are doing now?

Ms. DUNN. There was not a significant movement to bring historic uses back to the United States. However, we took action on the SNUR to ensure that that could not occur.

Mr. PETERS. OK. And so, have you been approached by people who want to continue to use asbestos or use it in ways that would require the development of the Significant New Use Rule? Is that what?

Ms. DUNN. We have not been approached right now by entities that intend to commence the asbestos uses.

Mr. PETERS. OK. So what would be examples of asbestos-containing goods that you would expect would be eligible for the case by case approval?

Ms. DUNN. Some of the historic uses that we address in the SNUR are 18 categories. They include building insulation, asbestos vinyl floor tile, roofing tile. Those are some of the examples of products that historically contained asbestos that are not currently being imported or brought into the United States. And we would want to ensure that before that ever occurred EPA would have a chance to review that.

Mr. PETERS. And it is my understanding that in each of those uses substitutes have developed for asbestos that have been effective. Is that your understanding as well?

Ms. DUNN. I am not aware of the full range of substitutes, but I know that roofing is occurring today without imported asbestos roofing tile.

Ms. PETERS. Right. How would your evaluation of the Significant New Use Rule application be affected by the availability of substitutes in the economy?

Ms. DUNN. Well, certainly through our chemicals program we are always looking for new chemicals. We have an entire new chemicals program where innovators bring forward new chemistries. They ask us to review them. That's another one of our authorities

under TSCA. We review new chemicals. We determine if any restrictions need to be placed on them.

We don't say that every new chemical is (air quote) "greener than an existing chemical," but in many cases the new chemistries coming forward are shorter-lived in the environment, more focused in how they act in the environment, and can in some cases be greener.

Mr. PETERS. Let me be a little bit more focused. So, let's take building insulation, which has been the big use over time and from which a lot of the friable asbestos come. That is not the standard anymore. People are using different materials for building fire retardants and for insulation. Those are available in the economy.

And someone comes to you, they want to do a new product for that use with asbestos in it, you have to evaluate the risk; right?

Ms. DUNN. Yes.

Mr. PETERS. And so, is part of the evaluation of the risk for the new product the fact that it is really not needed because it has been, the need for it has been met by other substitute product?

Ms. DUNN. We look at a full range of factors under the law as to whether or not that product can come to market. Most of our review is around the safety of the product. We do look to see if there are other products in the marketplace that can give us a sense of risk. But EPA is not in the role of making decisions about the marketplace.

Mr. PETERS. OK. Can you describe for me what the analysis is generally behind the Significant New Use Rule application?

Ms. DUNN. Right. So, as an application comes in, we have a team of risk assessors, risk evaluators.

Mr. PETERS. Health risk assessors, health risk evaluators?

Ms. DUNN. Health risk assessors, yes. Exposure experts. They look at all the conditions of use. They not only look at what that applicant says they want to do with that chemical, but they also have to under TSCA look at other reasonably foreseeable uses.

Mr. PETERS. Right.

Ms. DUNN. So, we have to look out and determine if there are any other uses that maybe the applicant has no intent of using the chemistry in that fashion, but we look at the other ways it could be used. We assess any of those risks as well.

And we come back and we determine if there are requirements that need to be put in place to mitigate risk.

Mr. PETERS. And how do you determine what an acceptable level of health risk is?

Ms. DUNN. Well, it depends on the chemical, but we look at the hierarchy of controls. So, we largely look at how the workers are coming into contact with the chemistry. So, we look at ventilation. We look at how—

Mr. PETERS. I am sorry, I have about 3 seconds left.

Let me just tell you my concern. We can pick it up later.

Ms. DUNN. OK.

Mr. PETERS. Which is that you could decide that something—you are willing to take a certain amount of risk if it is a product that is necessary to meet some need in the economy. What I would like to hear is that, given that there are other ways to meet that need

in the economy, you would take a hard line on asbestos and evaluating what risk is acceptable.

I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the representative from West Virginia, Representative McKinley, for 5 minutes. Representative.

Mr. MCKINLEY. Thank you, Mr. Chairman.

In the construction industry we have found ways of dealing with asbestos over the years. We have banned the product quite effectively, finding alternative use, alternative materials, even though polyurethane has been often criticized because it has other environmental issues in using polyurethane. So we in the construction industry we have found ways for dealing with it.

But after this, the 1989 ban and then the 1991 return, from what I understand there are only five products that apparently were ultimately completely banned.

Ms. DUNN. Yes.

Mr. MCKINLEY. And that allowed us, people to continue using some form of asbestos.

So, I'm curious, since the construction industry came up with alternatives—

Ms. DUNN. Yes.

Mr. MCKINLEY [continuing]. That were viable, effective, why hasn't the industry been able to replace asbestos to be using all other products? Why do we, why in God's name do we, still use this thing?

Ms. DUNN. Well, we largely do not use it. So, the action that we took a few weeks ago is to ensure that any of those historic uses that were left out after the court decision invalidated our total ban, what we did was we took the 18 categories of uses that were still available should someone decide to enter the United States marketplace with them. No one has been. They are dormant uses. But what we have done now is close the door to ensure that someone could not decide to bring back one of those uses for whatever reason they chose, without coming through EPA.

Mr. MCKINLEY. Can you explain a little bit about the chlorine? I need to understand that because we banned all the piping with it. How is that involved with chlorine?

Ms. DUNN. So, each—

Mr. MCKINLEY. Chlorine filters, I think you said something with filters.

Ms. DUNN. Yes. EPA is required under TSCA to look at the ongoing conditions of use of asbestos. So, you were asking where is asbestos still used in the United States? Not largely in building and construction, as you mentioned.

Mr. MCKINLEY. Know that.

Ms. DUNN. But I will tell you where it is used. It is used all through import. All the asbestos that comes into the United States today is imported from other countries. And the imported raw, bulk asbestos is used to make diaphragms for chlorine and sodium hydroxide production. It is also used in sheet gaskets in chemical production such as titanium dioxide production. It is used in brake blocks in oil drilling equipment.

Mr. MCKINLEY. So, OK.

Ms. DUNN. Yes.

Mr. MCKINLEY. I can read that as well.

But why do we allow that? Why are we importing, why are we allowing imports to come in that are hazardous?

Ms. DUNN. So, this is the risk evaluation process that EPA is undertaking now. We are looking at all those uses, and a few more that I just listed. We are looking at whether these uses pose unreasonable risk.

And if we find that they pose unreasonable risk, we have two years to take action.

Mr. MCKINLEY. Well, only thing in a reasonable risk, if we don't allow American manufacturers to do it, why would we let a foreign manufacturer do it?

Ms. DUNN. Well, these are American companies importing these, this raw asbestos for these limited industrial uses.

Mr. MCKINLEY. Well, you have opened up a can of worms here with that.

So, then we just say that maybe falling back again with what Shimkus was raising on his questioning, and I've got just a minute left on it. Can you follow up more on the importance of following the procedures outlined under TSCA when considering future actions? I'd like to understand more of that aspect of it.

Ms. DUNN. Well, what I hear from you, Representative, is a great concern about these remaining uses of asbestos. And so, the process that we are following is that by the end of this year we will complete a risk evaluation of any risk that we identify under these uses in the chlorine manufacturing and the other industrial uses.

We then, if we find unreasonable risk, and we have to make that finding under TSCA, if we find any unreasonable risk, and it wouldn't be across the whole category, we have to look at each use, then we have two years to take a risk management activity. That could require labeling, restrictions, a whole variety of ways to get rid of that risk.

The most significant way to get rid of a risk is a ban. But that's only one of our tools.

Mr. MCKINLEY. OK. I guess I have run out of time.

I am just—would you explain to me—as I understand this—I am walking out of this now, you said American manufacturers can't make the asbestos product, a brake block, a brake assembly, but if they go overseas and import it, they can?

Ms. DUNN. They are bringing the asbestos in.

Mr. MCKINLEY. That is incredible. Thank you.

I yield back.

Mr. TONKO. The gentleman yields back.

We now go to the voice of Delaware, Representative Blunt Rochester.

Ms. BLUNT ROCHESTER. Thank you, Mr. Chairman and thank you, Ms. Dunn, for your testimony.

Based on the scientific evidence available at the time, EPA determined in 1989 that a ban on asbestos was necessary to protect human health. That decision was based on 10 years of work and an exhaustive record.

In the 30 years since the ban was published, research has shown more dangerous forms of asbestos and more deadly impacts. We

now know that asbestos not only causes mesothelioma and lung cancer, but also cancer of the larynx, pharynx, stomach, and colorectum, and ovary. Unfortunately, EPA excluded those cancers from the problem formulation document for asbestos.

Ms. DUNN, can you explain why EPA excluded those cancers from the problem formulation document?

Ms. DUNN. Well, we are looking at the industrial uses that I was just explaining; those five or six limited industrial uses. And we will look at any health risks associated with those uses. So, if there are health risks along the lines that you identify we will be looking at all the relevant literature.

Ms. BLUNT ROCHESTER. I actually have a document to submit for the record. And it is a memorandum prepared by career staff in EPA's Region 10 office raising concerns about the EPA's problem formulation for asbestos. And I would like to submit this for the record.

Mr. SHIMKUS. Mr. Chairman, I reluctantly object to its submission. As the Assistant Administrator spoke earlier, she can't comment on internal documents. So, for us having an open hearing here without her ability to comment or put the whole memo on context, I wish we wouldn't ask for that to be submitted.

Mr. TONKO. Mr. Shimkus, I believe the representative wants simply to relate what she has before her and ask for a response from the witness. I believe if she puts it in that context, that she shares the statement, all we are looking for is a reaction to that statement.

Ms. BLUNT ROCHESTER. Mr. Chairman, could I just briefly read a quote and then respond to the quote?

Mr. SHIMKUS. Well, I can't stop you from reading a quote. My concern is a submission for the record and this not being the Oversight and Investigation Committee.

But I want to also say, Chairman, if I may, and if your time—Can I—I am open to have a debate on these memos in a bipartisan process somewhere outside of this hearing.

Mr. TONKO. Well, then I would say, fine; let the representative go forward with the quote.

Ms. BLUNT ROCHESTER. OK. So, this is the quote. "There are other significant lethal and nonlethal harms from asbestos exposures, including asbestosis and other respiratory ailments, ovarian cancer, colorectal cancer, and cancers of the stomach, esophagus, larynx, and pharynx. These additional harms should be included if there is to be a comprehensive evaluation of the risks from exposure to asbestos."

And so, the question was do you dispute that, that claim?

Ms. DUNN. Well, Representative, I am not familiar with that. And I would prefer not to comment on internal deliberative conversations of our staff.

Ms. BLUNT ROCHESTER. What I did—what I thought I did hear you say earlier is—because my next question was would you consider these cancers in the risk evaluation? And I think I heard you say?

Ms. DUNN. If our evaluation of the conditions of use reveal that those types of cancers are a possible outgrowth of the ongoing conditions of use, then we would not rule them out.

Ms. BLUNT ROCHESTER. So, Assistant Administrator Dunn, we always talk on this committee about risk as a product of hazard and exposure. And do you agree with that as part of the formulation?

Ms. DUNN. That is absolutely how we approach risk at the United States EPA.

Ms. BLUNT ROCHESTER. So, I have one minute.

To me it seems obvious that excluding those hazards and those exposures undermines the validity of your risk evaluation and amounts to considering non-risk factors, which is prohibited under TSCA. That is why I share the chairman's concerns that your actions under TSCA on asbestos will not survive a court challenge. That is one of the concerns and why I don't think we can really wait to ban this substance. And I support this bill and hope my Republican colleagues will also join in supporting and doing so.

Thank you. I yield back.

Mr. TONKO. The representative yields back.

The Chair now recognizes the gentleman from Ohio, Representative Johnson, for 5 minutes. Representative.

Mr. JOHNSON. Thank you, Mr. Chairman.

We are discussing a very important issue today. There is no question about that. I share the concerns about asbestos. I don't think there is any question about the health implications of asbestos.

However, Assistant Administrator Dunn, I am trying to piece together how the implementation of the required private sector reporting would work based on this legislation H.R. 1603. It appears to be silent on how to determine if asbestos is contained in a material or product, in particular those containing asbestos as an impurity.

So, how would the EPA define impurity for the purposes of implementing this legislation? Could it be one strand of fiber?

Ms. DUNN. Thank you for your question. Currently TSCA Title 2 defines an asbestos-containing material as a material containing more than 1 percent asbestos by weight. That is what we use today.

Our review of the bill does not reveal that it includes a factor like that.

Mr. JOHNSON. OK. Does it seem reasonable to you that standardized, cost-effective test methods may be necessary to implement the ban?

Ms. DUNN. Absolutely. There are a number of different test methods. There is no sort of consensus method at this point. So it would require some time to agree in the scientific community as to what method would be the best of the many that exist.

Mr. JOHNSON. Yes, that is some of the devil in the details, because when we have no agreed-upon standardized test then we wind up shooting with a shotgun instead of with a laser to try and solve a problem.

Is there a test in particular that could easily be deployed?

Ms. DUNN. In talking to our technical experts, there are a variety of tests. They would want to do more research to respond to your question in terms of how easily some might be deployed over others.

Mr. JOHNSON. Could you get back to us on that?

Ms. DUNN. Be happy to do that.

Mr. JOHNSON. OK. And you might have to give the same answer for these other questions as well.

Is there enough expertise and laboratory capacity to operate these tests for compliance purposes?

Ms. DUNN. We have not done an assessment of laboratory capacity at this point.

Mr. JOHNSON. OK. Can you get back to me when you do?

Ms. DUNN. We can.

Mr. JOHNSON. OK. Do you read H.R. 1603 to assume those persons subject to its ban provision would need to test products and materials to comply?

Ms. DUNN. Our review of the bill does appear to require testing, yes.

Mr. JOHNSON. OK. So, other than tobacco products, pesticides, guns and bullets, nuclear materials regulated by the Atomic Energy Act, and items regulated by the Federal Food, Drug, and Cosmetic Act, would every other item manufactured, imported, processed, or distributed in commerce be subject to these requirements?

Ms. DUNN. I think the require—at least our initial assessment is that the bill is focused on asbestos, but it could certainly set testing precedent.

Mr. JOHNSON. But, well, I know it is focused on asbestos but, you don't know until you test. So, my question is other than tobacco products, pesticides, guns and bullets, nuclear materials, and those food items or those items regulated by the Federal Food, Drug, and Cosmetic Act, it seems to me that every other item manufactured, imported, processed, or distributed in commerce would be subject to these testing requirements under the bill. Is that correct?

Ms. DUNN. We have not done a complete assessment of that, but we would be happy to get back to you.

Mr. JOHNSON. Would you please?

Ms. DUNN. Yes.

Mr. JOHNSON. Thinking about the utility of all this reporting or on a substance that is being banned, do you see a clear benefit to the Agency for using this information that is required to be collected by H.R. 1603?

Ms. DUNN. We believe through our work under TSCA that we have a very good understanding of the limited, ongoing uses of asbestos in the United States. So, we do not believe that the information requested by this bill would be particularly helpful to the Agency. It would be a significant undertaking to gather it.

Mr. JOHNSON. OK. Kind of a corollary then, since the risk evaluation of asbestos will be over by the end of 2019, and the bill bans asbestos, how might the Agency use all this information that it is going to be collecting?

Ms. DUNN. It is unclear exactly how we would be able to use the information, given the timelines of our work under meeting the TSCA deadlines.

Mr. JOHNSON. OK. All right. Mr. Chairman, I am going to yield back the balance of my time, a whole 20 seconds.

Mr. TONKO. Well, I think we are a little off with the clock. So, it is fine, you didn't lose any seconds.

So, the gentleman yields back. And the chair now recognizes the gentleman from Florida, Representative Soto, for 5 minutes.

Mr. SOTO. Thank you, Chairman.

And I think we understand the history of this; generations of workers who lost their lives due to a chemical that since the Twenties here in the United States there was awareness of its toxicity. We see mesothelioma commercials are ubiquitous across T.V. People get a sense this is dangerous, and it no longer should be in society.

So, I think one of the biggest surprises to me, being new on the committee, is how this took so long to even get to this point. A lot of my colleagues like to extol the importance of common sense. It would be a great time to apply it here.

The public expects us to get it right, particularly on public health. They assume we are going to stop things that are going to kill us from being in commerce anymore, and that is one of our biggest, you know, duties here.

The Lautenberg Act was a great work, great bipartisan work that set up a great framework. That was then, and this is now. We aren't bound even by this great framework that could help with a lot of other chemicals, as you know. We can, as our prerogative, set up general progress—process, and then still on this law get more aggressive with certain chemicals, in this case asbestos. Being a political branch, we are not bound by agency action or inaction.

I guess my first question is: Is asbestos still being manufactured in the United States?

Ms. DUNN. No. All the asbestos in the United States is currently imported.

Mr. SOTO. OK. So, but it is still being purchased and in commerce at this point?

Ms. DUNN. It is brought into the United States for the limited industrial uses that I previously alluded to.

Mr. SOTO. Do you know how many new cases of asbestos exposure have happened post the Lautenberg Act?

Ms. DUNN. I do not have that figure available, but I would be happy to get back to you on that.

Mr. SOTO. Do you have an estimate? Is it in the hundreds? Is it in the thousands of people?

Ms. DUNN. I don't have an estimate of that.

Mr. SOTO. So we don't know how many people are dying still because of inaction; is that correct?

Ms. DUNN. We do know that some asbestos-related diseases are many years in revealing themselves. So, the Lautenberg Act was passed in 2016, and we have been aggressively working on asbestos since then.

Mr. SOTO. But there could be new exposures happening post that, that we will find out about 10, 20 years from now; right? Is that fair to say?

Ms. DUNN. Under the risk evaluation that we are conducting of the limited industrial uses that remain, we are looking at exposures, particularly to workers.

Mr. SOTO. Does EPA oppose having a ban of asbestos?

Ms. DUNN. We have no position on the bill.

Mr. SOTO. OK. So, what's holding us back? What are the benefits of continuing to have asbestos in commerce currently in the United States?

Ms. DUNN. Well, what we have determined—and, again, we are doing a risk evaluation of this process—is that for about the five or six industrial uses that they import asbestos to the United States for chlor-alkali production, sodium hydroxide production, several others, sheet gasket production, that this asbestos is still the product of choice. That is not EPA's role to tell the companies what product to use.

Mr. SOTO. So it's not the role of EPA to tell companies what product to use that we know has a substantial risk of cancer? Is that what you're saying there?

Ms. DUNN. We are following our legal process. And so if we reach the end of our risk evaluation process and find unreasonable risk from the use of asbestos in these industries, we then have the legal power to take a number of important steps, which could include what you are looking for; which is saying that it could not be used any longer.

Mr. SOTO. And how long do you think it is going to take to finish this process?

Ms. DUNN. We have two years after the end of this year to complete that process.

Mr. SOTO. And do you expect you will take the full two years?

Ms. DUNN. I don't want to speculate on how long it will take us to act. We will act expeditiously.

Mr. SOTO. OK. I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentleman from Missouri, Representative Long, for 5 minutes. Representative.

Mr. LONG. Thank you, Mr. Chairman and thank you, Ms. Dunn, for being here. I think that we can all agree that asbestos is one of the few things that has a lower approval rating than members of Congress. So we, we all are in agreement that whatever we can do to help in this situation we need to get done.

This bill before us today would require entities to report to the Environmental Protection Agency regarding use, quantity, and exposure of asbestos within the last three years prior to its passage. The bill would also require the Environmental Protection Agency to make this information public within a certain time frame.

The question for you: would the EPA be able to meet the information collection requirements under the Paperwork Reduction Act for deadlines required from H.R. 1603 for producing reporting instructions and forms?

Ms. DUNN. Thank you for your question. The EPA and all Federal agencies are always extremely cognizant of the burdens of information collection by the Federal Government on the American public and on anyone who has to respond to our requests. Our preliminary assessment is that the amount of data collection contemplated by this bill would be quite significant and quite impactful.

Mr. LONG. Based on how you read this legislation, do you have an estimate of how much it would cost the EPA to implement the information collection requirements?

Ms. DUNN. We have not done an estimate.

Mr. LONG. You have no estimate at all?

Ms. DUNN. No.

Mr. LONG. OK. What would the impact be to EPA's current TSCA budget to implementation? I guess you don't know that either if you don't know what the cost is going to be?

Ms. DUNN. What I can tell you is that our TSCA staff are working dedicatedly to meet the deadlines under TSCA. This law, which as you know was significantly overhauled in 2016, put us on a very aggressive clock to look at a number of chemicals, the first ten. We already identified 20 more that we are looking at; another 20.

What I can say is that requirements like this would certainly put an additional strain on our current staff.

Mr. LONG. OK. The public disclosure provisions are an amendment to TSCA Section 6, which are further governed by confidential business information provisions in Section 14, as well as the Federal Trade Secrets Act. This might tie into what you were saying a minute ago, but do you see any conflict at all between the information this bill requires to be released and existing Federal law protecting the disclosure of certain types of confidential information?

Ms. DUNN. One of the obligations that we have in the chemical program is to be very respectful of confidential business information. I would like to note that the confidential information provisions were the provisions of TSCA completely struck by Congress and completely replaced.

So, we look at those new provisions very, very carefully. We have not done a full analysis of any potential conflicts between this bill and our existing confidential business information requirements. But we would be happy to get back to your office on that.

Mr. LONG. When my friend Mr. McKinley was questioning you about these four or five existing commercial purposes that asbestos is imported into the United States for their usage, did I understand you all are doing a study on that or not?

Ms. DUNN. Yes. Yes. We are required under TSCA as naming, since we named asbestos one of the first ten chemicals, we are doing a full risk evaluation of all of those uses. And at the end of that process we have to make a determination of unreasonable risk or no risk essentially.

And so, if we reach an unreasonable risk determination, we then have two years to regulate it, meaning we could require a variety of different controls to take that risk away. There are lots of ways to remove risk. You could produce the chemical in a completely sealed box where none of it gets out.

But another option that is open to EPA under the law is a ban. That is another way to remove the risk.

Mr. LONG. OK.

Ms. DUNN. But we can't prejudge where we are going to go with that.

Mr. LONG. And what is your time frame as far as completing this study?

Ms. DUNN. We are on track to complete the risk evaluation by the end of 2019. And then under TSCA we have two years to complete the regulatory action.

Mr. LONG. By the end of this year?

Ms. DUNN. By the end of 2019.

Mr. LONG. December 31, 2019, your study will—

Ms. DUNN [continuing]. —2021 we would complete the risk evaluation we would complete the risk management component of the remaining limited uses of asbestos.

Mr. LONG. OK, thank you.

Mr. Chairman, I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the chairman of the full committee, Mr. Pallone, for 5 minutes. Mr. Chairman.

Mr. PALLONE. Thank you. Thank you, Chairman Tonko.

Every day it seems new evidence comes to light that EPA is failing to protect the American people from asbestos and toxic chemicals in general. On asbestos, everything we have seen out of the Agency, from the scoping document to the recent Significant New Use Rule, to the denial of the petition by multiple State AGs, shows the desire to discount risk and entertain the possibility of new ones or new uses.

So, I don't think EPA is moving towards a ban. But Administrator Wheeler did commit when he was here last month to promulgate a ban.

So, my question to you, Ms. Dunn, are you aware of Administrator Wheeler's commitment to me last month to ban ongoing uses of asbestos under TSCA?

Ms. DUNN. I can't comment on the administrator's representation to you.

Mr. PALLONE. Well, he said he was going to ban it. Is there a timeline for finalizing the ban or do you know anything about what he is going to do in terms of finalizing a ban?

Ms. DUNN. I can't comment on that. What I can comment on is that we continue to do our work under TSCA to complete our asbestos risk evaluation on time this year.

Mr. PALLONE. Well, let me go back to this risk evaluation. One of my biggest concerns with your risk, your asbestos risk evaluation is the Agency's position that you have the discretion to exclude significant exposures. So, let me ask, the scoping document for the asbestos risk evaluation excluded exposure, and I quote, "to legacy asbestos from EPA's risk evaluation." Is that correct?

Ms. DUNN. Yes.

Mr. PALLONE. OK. Have you changed course or will the risk evaluation, which is due to be published next month, exclude the risk from legacy asbestos?

Ms. DUNN. We are not ignoring the legacy asbestos problem, Representative. However, we do believe that there are extensive Federal, local, and State requirements that address legacy asbestos if it is to be disturbed and removed, demolished essentially.

Mr. PALLONE. You have also excluded exposure from disposal of legacy asbestos, despite the fact that disposal is explicitly included in the statute. Is that correct, that you have excluded exposure from disposal?

Ms. DUNN. We are looking at the ongoing uses of asbestos in commerce today, and that is in the manufacturing process.

Mr. PALLONE. But I mean, do you, don't you, won't you acknowledge that disposal is explicitly included in the statute?

Ms. DUNN. Absolutely TSCA defines use as processing, manufacture, import, disposal, et cetera, yes.

Mr. PALLONE. Well, then how do you exclude exposure from disposal?

Ms. DUNN. In formulating that scoping document there was a determination made which certainly through the peer review process and through the transparent process we will follow this summer could certainly be questioned whether that was a reasonable assumption by our scientific experts that that could come up.

Mr. PALLONE. I mean the exclusion of the legacy asbestos and the legacy disposal is, I think, a major reason why I think Section 3 of my bill is so important. But I am also concerned that you have excluded relevant cancers, relevant forms of asbestos, significant exposure pathways. And I think you are failing to meet the letter and spirit of the law by failing to evaluate firefighters as a relevant disproportionately exposed subpopulation.

Have you reversed course any of those things that I just mentioned?

Ms. DUNN. We have not had discussions around those items. I would be happy to follow up with your office to talk more about them.

Mr. PALLONE. I appreciate that. In my view these are fatal flaws in your risk evaluation that are going to doom any future regulatory action. And as one of the original drafters of the Lautenberg Act, I can tell you that we did not intend for EPA to conduct risk evaluations that ignore major drivers of risk, like the risks posed by legacy asbestos. And I don't think your actions implementing TSCA comport with the law. I don't think you are moving towards a ban, even though Mr. Wheeler said so.

And so I urge my colleagues to join us in supporting the bill. And that is why we need to have this bill that bans asbestos once and for all.

Can I just ask a question, while there is not much time? Pigment violet 29, as part of your risk evaluation for pigment violet 29, you identified several studies that have been submitted to the European Chemicals Agency that would be relevant to your evaluation. Is that correct?

Ms. DUNN. That is correct.

Mr. PALLONE. And you tried to identify United States entities that have those studies in order to inform your risk evaluation; is that correct?

Ms. DUNN. Right.

Mr. PALLONE. You then reached out to the EU entities in possession of those studies so you could use them in your risk evaluation; correct?

Ms. DUNN. Right.

Mr. PALLONE. And then you received those studies from the EU entities and used them in your risk evaluation. That is correct as well?

Ms. DUNN. That is correct.

Mr. PALLONE. All right. I think I have run out of time, Mr. Chairman, on that. But I will ask you to get back to us on what you offered before on the asbestos.

Ms. DUNN. Be happy to.

Mr. PALLONE. Thank you.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentleman from the State of South Carolina, Mr. Duncan, for 5 minutes, please.

Mr. DUNCAN. Thank you, Mr. Chairman and, I thank the witness for being here.

Administrator Dunn, I am struggling with how some of the provisions of this bill will be used. H.R. 1603 requires a legacy use consensus—or census of asbestos within 18 months of enactment.

I'm from South Carolina. I lived in South Carolina, North Carolina, Virginia. We have textile communities all over our States. And those textile communities back in the day, the local textile mill-built houses for its employees. Many of those houses were built prior to 1950. Many of those houses have asbestos siding still. A lot of those houses have been renovated by the owners and that asbestos siding has been covered up by more modern siding. Right? So, keep that in mind.

How challenging would it be for the EPA to coordinate with the Departments of Labor and Health and Human Services to produce a report that accurately estimates the presence of asbestos in every residential, commercial, industrial, public, and school building and the extent of exposure and risk not later than 18 months after enactment?

Folks, there is no way in Washington that you can determine every house just in the South. That is not counting all the northern communities that are like textile communities in the South where there might be asbestos in the siding. No way. And definitely not in 18 months.

And so the number of buildings nationwide, the amount of asbestos remaining in the United States, how hard is that going to be for you?

Ms. DUNN. We identified this provision of the bill as being a significant challenge to do well. We pride ourselves at EPA, when asked to undertake assessments, of being comprehensive, thorough, and accurate. And under 18 months we are questioning whether we could come close to completion.

Mr. DUNCAN. Are you going to send every homeowner, every landlord a questionnaire and say, does the house that you own have asbestos siding?

Ms. DUNN. We had not even begun to think about how we would implement it. But I think even getting responses—

Mr. DUNCAN. That is a heck of a lot of properties.

Ms. DUNN. It is. We do not have the ability to enter private property.

Mr. DUNCAN. We have probably already identified most of the public buildings and school buildings and that sort of thing that may or may not have asbestos. But in those school districts we are going to have to spend a lot of resource looking at the insulation in their boiler rooms, on their pipes, to look at their sidings, their

roofing insulation materials. How do you plan to leverage resources without any additional funding?

Ms. DUNN. That would be a significant challenge. And as I stated earlier, when asbestos is intact and not disturbed it does not generally pose a risk.

Mr. DUNCAN. All right. Do you have the resources and employees to complete this report without disrupting ongoing activities at the Agency?

Ms. DUNN. It would impact.

Mr. DUNCAN. I mean, are you going to have to pull people from other projects to conduct a survey and provide a report in 18 months?

Ms. DUNN. I am not sure our colleagues in other offices with other statutory obligations would look kindly on us borrowing their people, but I think we would have a very difficult job getting this work done with our existing resources.

Mr. DUNCAN. All right. So, H.R. 1603 requires the President rather than the Administrator to determine whether an exemption is granted. It also prevents the use of waiver by EPA to protect national defense. Since the exemption only applies to national security and limits the President's ability to use asbestos in the interests of the nation in mind, does this limitation on the President infringe upon the President's Article II, Section 2 powers under the Constitution in your opinion?

Ms. DUNN. We have not fully assessed the implications of this provision, but we did identify it as of concern because Section 22 of TSCA already has a definition of national defense that appears to be in conflict with what is in the bill.

Mr. DUNCAN. All right. I appreciate your being here.

Let me just make a point. As this bill moves forward there will probably be amendments proposed that will give more timeline if we are going to do a census. I think there is an agreement that asbestos in certain forms and areas are toxic and are detrimental to the health of folks in the nation. But there has got to be some common sense injected into legislation, and I hope to do that in full committee in mark-up.

I thank you for being here today.

Mr. SHIMKUS. Would the gentleman yield for his last—

Mr. DUNCAN. Yes, yes.

Mr. SHIMKUS. I just want to check for the record, if we could check the record for the Wheeler hearing and make sure. I think he said he would like to. Well, I would check the record to make sure that that is what the Administrator said.

I yield back.

Mr. DUNCAN. I reclaim my time and I yield back, Mr. Chairman.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentleman from the State of California, Representative McNerney, for 5 minutes.

Mr. MCNERNEY. I want to thank the Chairman, and I thank Ms. Dunn for testifying this morning.

But I want to focus on an important part of the legislation under consideration, namely the definition of asbestos. This bill makes clear that the ban on asbestos should include several forms that were excluded from the EPA's proposed ban back in 1989 because

we didn't know back then that they had, some of these other forms had the same properties and same risks. This includes several of the Libby amphiboles that have been connected to the terrible burden of disease in Libby, Montana.

I have a document here, a memorandum from career staff in EPA's Region 10 office that was sent to your office regarding the proposed asbestos Significant New Use Rule, or SNUR, raising concerns about the definition of asbestos in that document. Now, I will go over some parts of the document with you.

The career staff in Region 10 raised a concern about the proposed SNUR because it focused only on the six forms of asbestos covered in the original 1989 ban. Does the final SNUR focus only on those six forms?

Ms. DUNN. The—we are, we did not redefine asbestos for the purposes of the final action we took in April. We are using the definition of asbestos in Title 2 of the statute, which does not include the two fibers that you are referring to, richterite and winchite.

Mr. MCNERNEY. So we are restricting this to only the six forms? That is a yes or no answer.

Ms. DUNN. We are using the current statutory definition.

Mr. MCNERNEY. This Region 10 memo cites W.R. Grace Superfund case from 2002 concerning the Libby contaminants where the Federal District Court rules that the Libby amphiboles are in fact asbestos. Are you aware of that case?

Ms. DUNN. I am not familiar with that case.

Mr. MCNERNEY. OK. I would recommend that you familiarize yourself.

The Region 10 memo also states, and I am quoting, "the EPA is now aware that there are more than six types of asbestos fiber, including several Libby amphiboles which the EPA has known about since the 1990s."

Do you agree with that statement that the EPA was aware that there are other forms?

Ms. DUNN. I do not have a position on that statement. We are using the definition of asbestos in the Act.

Mr. MCNERNEY. All right. This memo is focused on the asbestos SNUR, but the same concerns hold true for overall risk evaluation and possible risk management. Is your risk evaluation for asbestos going to include exposures to all forms of asbestos?

Ms. DUNN. Our risk evaluation is looking at the limited ongoing industrial uses of asbestos today. There are approximately five or six.

Mr. MCNERNEY. Additional types?

Ms. DUNN. Uses that are still ongoing.

Mr. MCNERNEY. Uses?

Ms. DUNN. Yes.

Mr. MCNERNEY. So you will consider just the six types in these five or six uses?

Ms. DUNN. Right. We are—we are, exactly, yes.

And the types of asbestos fibers that are used in these ongoing industrial manufacturing settings are within the current definition of asbestos in the statute.

Mr. MCNERNEY. So it seems to me like you are missing out on quite a bit of risk with regard to additional asbestos types that are damaging the American public; is that right?

Ms. DUNN. Well, we feel very confident that looking at the ongoing conditions of use of asbestos in these industrial applications will allow us to do a very protective risk evaluation.

Mr. MCNERNEY. Well, I think it is important to define and ban all forms of asbestos, not just the six we knew about 30 years ago. It is clear that an accurate definition of asbestos in this bill is one of the most important reasons that this bill will be more protective than other actions coming out of the EPA.

Mr. Chairman, I thank you for holding the hearing and I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentleman from the State of Georgia, Representative Carter, for 5 minutes, please.

Mr. CARTER. Thank you. Thank you, Mr. Chairman and thank you, Ms. Dunn, for being here. I appreciate it very much. This is a very important subject for all of us.

Let me ask just a couple of broad simple questions to begin with. Since the Toxic Substances Control Act was passed in 2016, what kind of extra authority has it given EPA? I mean, you have some explicit authorities as a result of that. Can you explain those to me very quickly?

Ms. DUNN. Yes. It is a very powerful law. It Acts, puts us on a very aggressive time frame to look at chemicals.

Some of the things we are most proud of—we have just completed an inventory of chemicals in the United States. It was estimated that there were over 83,000 chemicals in commerce in the United States. We have checked with the manufacturers and importers and we just announced and finalized that the list is actually half. It is about 40,000 chemicals in commerce in the United States. So, we cut the list in half. That cuts our workload in half.

But we have to bit by bit work our way through that list. We are starting with the chemicals on the 2014 TSCA work plan. We are starting with the first ten chemicals that we have been talking about today including asbestos. We have already named 20 high priority chemicals that we are going to start looking at next year, as well as 20 lower priority chemicals.

Mr. CARTER. Right. And certainly this is important for a number of reasons. Particularly in my district I assume that a lot of these go through ports and seaports. And being the home of two major seaports in coastal Georgia, this is extremely important for us. Our constituents are very concerned about this and about the work you have been doing.

Now, it is my understanding that you are currently reviewing the use of asbestos.

Ms. DUNN. We are.

Mr. CARTER. And that you are going to be releasing your draft findings soon. Do you know when that will be?

Ms. DUNN. We anticipate it will be, I will say, before the end of the late summer. We have a scientific review panel that has to review it. And most of those individuals are academics. The best time to get academics is when they are not teaching classes. So, we want

to make sure that that information is available for them to meet and review in June, July, and August of this summer.

Mr. CARTER. OK. Well, I think it is clear from the hearing today that none of us, you know, want to see anybody harmed. We want protection for everyone.

I will be quite honest with you, it is my understanding the majority of asbestos is no longer being in production, is no longer in use. But is any? I didn't realize there were any—

Ms. DUNN. There is only—

Mr. CARTER [continuing]. Forms of asbestos out there.

Ms. DUNN. There are only five ongoing limited industrial uses of asbestos in the United States today. It is in manufacturing. All of the asbestos that is used is imported. So there is no ongoing asbestos mining in the United States anymore. And that is something that would be covered by our activity that we took a few weeks—

Mr. CARTER. Whoa, whoa, whoa. Hold on. I don't mean to interrupt you, but you raise my concern here. If it is coming from out of the country, then we are not having any regulation over it before it gets here? Do we, are we checking it when it gets here?

Ms. DUNN. Well, any import of a chemical does have to be checked at the border.

Mr. CARTER. But specifically asbestos? That is what I am concerned with here.

Ms. DUNN. As asbestos is coming in, what we are doing right now is a comprehensive risk evaluation of that type of asbestos and the uses that it is still being used in the United States, which is in the manufacture of brake blocks for oil drilling, automotive brakes, vehicle friction products, some gaskets, and a couple of chemical productions.

Mr. CARTER. OK. Specific to those that you just mentioned—

Ms. DUNN. Yes.

Mr. CARTER [continuing]. What is EPA doing to guard against any problems there may be with those specific ones that you just listed?

Ms. DUNN. Well, any imports of chemicals have to be handled with border, Customs and Border Protection now.

Mr. CARTER. So you are grouping them into all chemicals, not just focusing on these that you just listed?

Ms. DUNN. All. We manage the import of all chemicals.

Mr. CARTER. You see where I am coming from. It would just appear to me that you would be more concerned because we know the dangers of asbestos. It would seem to me that you would be more concerned with those than you would be for just generalizing them and putting them into a broad group.

Ms. DUNN. No, I understand where you are coming from. My—again, the manufacturers, those companies that are using asbestos in these limited applications certainly are trying to produce a high-quality product. They also have a business interest in ensuring that all the ingredients that they use are safe in how they are using them.

Mr. CARTER. OK. I am still a little concerned about that. So, please, let's take that as being noted. I appreciate it.

Thank you very much again for being here and I yield back.

Mr. TONKO. The gentleman yields back.

The Chair now recognizes the gentle lady from the State of California, Representative Matsui, for 5 minutes. Representative.

Ms. MATSUI. Thank you, Mr. Chairman.

You know, since this hearing was noticed my colleagues and I have heard from an array of industries that rely upon the chlor-alkali industry to produce chlorine and caustic soda. These industries are concerned about a possible disruption in the chlor-alkali industry, so I want to ask a few questions about how and why some members of that industry use asbestos.

Roughly one-third of the chlorine chlor-alkali industry uses asbestos diaphragms in their production process. Is that right?

Ms. DUNN. That, I don't have the figures in front of me but that sounds ballpark.

Ms. MATSUI. Does that seem right? OK.

What information have you sought from those members of this industry? And what information have they given you about their plans to replace their asbestos diaphragms with other diaphragms?

Ms. DUNN. We have collected extensive information from the manufacturers. I would like to be able to get back to you, Representative, on what information they may have provided to us around alternatives or plans to replace. I don't have that information.

Ms. MATSUI. OK. Now, several years ago a large section of the chlor-alkali industry changed their—changed over their plants to phase out dangerous mercury in their processes. Did that transition disrupt the chlorine or caustic soda markets?

Ms. DUNN. I would have to check with our experts and get back to you on that, Representative.

Ms. MATSUI. OK. Isn't it true that non-asbestos diaphragms using other chlor-alkali plants are more energy efficient and have longer service lives than asbestos?

Ms. DUNN. Once again, with regard to some of the technical questions I would be more than happy to consult with our career experts and provide that information back to you very quickly.

Ms. MATSUI. OK. Because my understanding is that it is more efficient, so that those who use asbestos could realize energy and climate benefits in addition to the benefits of getting rid of the toxic asbestos.

So I would really like that information. I think it is very important.

Ms. DUNN. Absolutely.

Ms. MATSUI. Now, your agency has extensive authority under the TSCA to get data from manufacturers. What information has your agency requested from the chlor-alkali industry about the exposures faced by its workers and by the workers who handle disposal of the diaphragms?

Ms. DUNN. Well, in terms of preparing for our risk evaluation we have requested extensive information from the manufacturers who are using asbestos in the chlor-alkali production. We have a number of studies regarding exposures provided to us. And I can find out. We try to have a very transparent process and make all of our information available.

Ms. MATSUI. OK. What information have you requested about health monitoring and incidents of cancer among workers in the chlor-alkali industry?

Ms. DUNN. So, again, in doing our comprehensive risk evaluation we look for all types of information with regard to exposures, illness, et cetera.

Ms. MATSUI. And you have that information?

Ms. DUNN. If we have the information I will go back and talk to our staff and see if we can make that available.

Ms. MATSUI. OK. What can you tell us about the fate of asbestos diaphragms used in industry? How are they disposed? Have they contributed to contamination of land or water?

Ms. DUNN. I, again that is a—I apologize, that is a technical question, but I would like to be able to get back to you on that. I do not have that information with me at this moment.

Ms. MATSUI. Well, I think it is very important that we understand the risk to workers in the industry and also the alternatives that might be available to members of the industry.

Ms. DUNN. And the information that you are asking about is all included in our risk evaluation of chlor-alkali production. So, all of those forms of releases, disposal, manufacturing will all be addressed in the document.

Ms. MATSUI. In the document.

Ms. DUNN. That we are completing and will be available for public review and peer review late this summer.

Ms. MATSUI. So, does that also include the information I asked you previously that you can get back to me on? Or is that additional information you need to get for me?

Ms. DUNN. Well, I certainly wouldn't make you wait for that, so I will make sure that we get back to you more promptly.

Ms. MATSUI. OK. I expect to get it as promptly as possible.

Ms. DUNN. Absolutely.

Ms. MATSUI. Thank you. And I yield back.

Mr. TONKO. The gentle lady yields back.

The Chair now recognizes the Republican leader of the full committee, Representative Walden, for 5 minutes.

Mr. WALDEN. Thank you, Mr. Chairman.

And I don't know, you may have to get back to me on this one for the record. I am told 36 percent of domestic chlorine production is manufactured using a totally enclosed process that does use an asbestos filter. Assuming H.R. 1603 becomes law and the ability to continue this process ceases, the Safe Drinking Water Act has provisions—and we reauthorized that in a bipartisan way in the last Congress—that requires access to chlorine, chemicals for public water systems that disinfect their water with chlorine.

Do you read the language in H.R. 1603 to create a potential conflict between its provisions and that section of the Safe Drinking Water Act? I know that is pretty technical, but.

Mr. DUNN. It is an important topic. And what I would like to do is bring this back to our Office of Water—

Mr. WALDEN. Yes.

Mr. DUNN [continuing]. And ask for their perspective on it and get back to you.

Mr. WALDEN. Yes, I would like that. That would be—and I understand. Because we are obviously very concerned as we go down this path what are the unintended consequences.

Mr. DUNN. Absolutely.

Mr. WALDEN. And, you know, we don't want to get into a situation where water utilities may not be able to get what they need to be compliant with safe drinking water.

EPA recently denied petitions for collecting additional information under TSCA asbestos. Why?

Mr. DUNN. We received two petitions. We looked at both of them very carefully. We have published in the Federal Register detailed reasons why we denied. But, in short, due to our comprehensive assessment of the limited ongoing uses of asbestos today in the industrial sector we did not believe that the petitions would, the actions they were asking us to take and the information they were asking us to collect would, enhance our knowledge.

Mr. WALDEN. OK. So that is why you would consider the information petitioned—

Mr. DUNN. Would not—

Mr. WALDEN [continuing]. Would not be helpful?

Mr. DUNN. Would not add information to EPA that we did not already have.

Mr. WALDEN. OK. All right. In carrying out its work under TSCA, Section 6, has EPA missed any of what some of us would argue are pretty aggressive timelines Congress placed on the Agency, either as it relates to asbestos or any of the other chemicals you are evaluating? Are you on target in time?

Mr. DUNN. We are proud to say that we have met every chemical-related deadline under TSCA?

Mr. WALDEN. Including asbestos?

Mr. DUNN. We are on track to meet asbestos on time.

Mr. WALDEN. All right. All right. Because those were pretty aggressive. I mean, sometimes when we legislate, we put down timelines. And some agencies are better at meeting those than others, and sometimes our timing is off. But you are on target?

Ms. DUNN. We are on target. We are working very, very hard.

Mr. WALDEN. All right. All right.

Ms. DUNN. Our team is doing a great job.

Mr. WALDEN. All right. Those are the questions I have for now. I will look forward to hearing back from you, Ms. Dunn. And thanks for your leadership over there.

Ms. DUNN. Thank you.

Mr. WALDEN. Mr. Chair, I yield back.

Mr. TONKO. The Chair yields back. The gentleman yields back.

The Chair now recognizes the representative from California, Representative Ruiz, for 5 minutes, please.

Mr. RUIZ. Thank you, Chairman. Thank you, Assistant Administrator Dunn, for being here.

I support the efforts to decrease the use of asbestos. In fact, eliminating the risk of asbestos causing lung cancer, mesothelioma, asbestosis, and other scarring of the lung tissue that can greatly and terribly affect a person's quality of life is something that we should all strive to do, given that it is so horrible to experience shortness of breath.

It is devastating for families when somebody gets diagnosed with lung cancers only simply because they were just doing their job. And those responsible to ensure that they had a safe job to work in failed to adequately prohibit and prevent those risks from happening in the first place.

It is still astonishing that in 2019 we are still manufacturing and just recently imported tons of asbestos from Russia, China, and Brazil, and still processing new asbestos materials in this country given all the science and all the public health dilemmas that our public health experts have already identified and are warning us about.

Many of us have been following the court cases concerning exposure to asbestos as a contaminant in talc powder. You use that to get beach sand off your legs; use that in children, in babies. But I doubt many realized that it is still legal to have asbestos as a contaminant in consumer products.

This bill would change that. And under this bill, the manufacture and processing of asbestos even as a contaminant would be banned. So, to me this is an incredibly important part of this bill. Whether it is makeup sold to kids and teenagers, talc powder sold for babies, potting soil or other products; our products should be asbestos free, period.

And I want to make sure that we get this part right. So, Assistant Administrator Dunn, I have a couple of technical questions for you.

The bill uses the term “impurity” because the term appears in your TSCA regulations already. How do you understand the term “impurity”?

Ms. DUNN. So, thank you so much. This is an important issue and I understand the concern with trace elements of asbestos in consumer products. We—

Mr. RUIZ. So, the term “impurity”, how do you define “impurity”?

Ms. DUNN. We currently define “impurity” as material containing more than 1 percent asbestos by weight.

Mr. RUIZ. OK. And so, I heard from some of the stakeholders that the word “contaminant” might be more clear. In your view, is the term “contaminant” different from “impurity”?

Ms. DUNN. We have not conducted an assessment of whether different words would be more effective.

Mr. RUIZ. Can you take that back and respond to my question in writing?

Ms. DUNN. We could certainly take a look at that for you.

Mr. RUIZ. All right. Because I think that would be important. And because I think that the question, I want to ask is: Would we be missing anything by not including the word “contaminant”?

Ms. DUNN. I understand your question. And we will make sure that we get back to you. As noted, EPA provides technical assistance to Congress as Congress—

Mr. RUIZ. Does EPA have a technical definition of “contaminant”?

Ms. DUNN. We may have a definition under other programs. It is certainly an important term in the Superfund program. I am not aware of it having—

Mr. RUIZ. OK.

Ms. DUNN [continuing]. A meaning in this law.

Mr. RUIZ. So, I want to make sure that this bill is clear that we are—what we are intending, which is to ban asbestos in products, whether it be on purpose or by accident, as an impurity, a contaminant, ingredient, anything. Just completely not in the products.

In your view, is the bill clear on that point?

Ms. DUNN. We continue to be available to provide technical assistance. We do think that some clarity around, for example, the definition would be needed; the 1 percent. How much are we talking about? There are trace elements, as you mentioned, of asbestos in a variety of products.

Mr. RUIZ. OK, thank you. That is all my questions. I yield back.

Mr. TONKO. Thank you. The gentleman yields back.

And now the chair recognizes the gentleman from Virginia, the very patient Representative McEachin.

Mr. MCEACHIN. The penalty for being tardy, Mr. Chairman. Thank you.

Assistant Administrator Dunn, I am going to ask you some questions about the Significant New Use Rule. Hopefully they will be brief and straightforward, but let's see if we can't work together on that.

When EPA issues a Significant New Use Rule identifying a new use as significant, is that use banned?

Ms. DUNN. The terminology can be a bit confusing. A Significant New Use means that the use would be new, and EPA would have to review it. So, the effect is that it is not ongoing today. And if someone were to want to commence those activities, they would have to come to use under the Significant New Use Rule and propose, essentially, a significant new use of asbestos. An example could be to use it in roofing tiles, and EPA would conduct a risk evaluation of whether that could be done safely.

Mr. MCEACHIN. So, as I hear your answer then, even when you issue the rule you leave the door open for some sort of use? Is that correct?

Ms. DUNN. The door is open; the door is open. We are not aware of anyone who is planning on taking advantage of bringing back the dormant uses of asbestos.

Mr. MCEACHIN. OK. At the present time?

Ms. DUNN. At the present time we are not aware. And EPA would have to review any such proposal.

Mr. MCEACHIN. OK. Do you foresee the possibility that you would approve a pre-manufacture notice for an asbestos use listed in a Significant New Use Rule?

Ms. DUNN. While I can't predispose how we might come out, I think it would be highly unlikely that we would find some of those legacy uses to be able to be recommenced in a safe manner in the United States. There is a reason that they have been dormant and that no one is pursuing them.

Mr. MCEACHIN. And I appreciate your candor. But it still sounds like to me that there is that possibility, no matter how remote.

Ms. DUNN. Under our legal authority we have to do the risk evaluation before we can ban.

Mr. MCEACHIN. You know, I don't think we should allow the possibility of new uses. We should be getting asbestos out of our prod-

ucts and out of our commerce and not offering a pathway back to market uses that we have abandoned decades ago. Was the Significant New Use Rule required by statute or did you do it voluntarily—or did the Agency do it voluntarily?

Ms. DUNN. The Agency undertook it to close the loophole left from the lawsuit that in 1991 where EPA in 1989 tried to ban all of these uses and was unsuccessful through litigation. And so, we have now closed that loophole. We are the first administration to take action in 30 years under TSCA on asbestos.

Mr. McEACHIN. Did you have contacts, or did the Agency have contacts with the chemical industry before the rule was issued?

Ms. DUNN. I did not have contacts. I can't speak to everyone in the agency, but I certainly did not.

Mr. McEACHIN. Will you provide the committee with your office's correspondence with the American Chemistry Council and chemical manufacturers regarding the asbestos Significant New Use Rule?

Ms. DUNN. I understand that we regularly provide documents to Congress, and I will ask our Office of Congressional Affairs to follow up to provide you what you are seeking.

Mr. McEACHIN. Thank you very much. I yield back, Mr. Chairman.

Mr. TONKO. The gentleman yields back.

That concludes our first panel. And we again thank our Assistant Administrator Dunn. Thank you for joining us today.

At this time I ask that staff prepare the witness table so that we may begin our second panel shortly.

Ms. DUNN. Thank you.

Mr. TONKO. Thank you, Administrator.

OK, we will now hear testimony from private sector stakeholders on this legislation. And we have four witnesses on our second panel. And I will introduce those individuals.

We have Ms. Linda Reinstein, Co-founder of Asbestos Disease Awareness Organization.

We have Rebecca, Ms. Rebecca Reindel, Senior Safety and Health Specialist, on behalf of the AFL-CIO.

We have Mr. Walls, first name Michael, Mr. Michael Walls, Vice President of Regulatory and technical Affairs, American Chemistry Council; and Dr. Celeste Monforton, Lecturer, Texas State University, on behalf of the American Public Health Association.

We want to thank our witnesses for joining us today. We look forward to your testimony. And at this time the chair recognizes Ms. Reinstein for her opening statement. Thank you so much, and you have 5 minutes, with no lights.

**STATEMENTS OF LINDA REINSTEIN, CO-FOUNDER, ASBESTOS DISEASE AWARENESS ORGANIZATION; REBECCA REINDEL, SENIOR SAFETY AND HEALTH SPECIALIST, ON BEHALF OF THE AFL-CIO; MICHAEL P. WALLS, VICE PRESIDENT OF REGULATORY AND TECHNICAL AFFAIRS, AMERICAN CHEMISTRY COUNCIL; AND CELESTE MONFORTON, LECTURER, TEXAS STATE UNIVERSITY, ON BEHALF OF THE AMERICAN PUBLIC HEALTH ASSOCIATION**

**STATEMENT OF LINDA REINSTEIN**

Ms. REINSTEIN. Thank you, Chairman Tonko, Ranking Member Shimkus, members of the committee for giving me the honor and the opportunity to testify in support of H.R. 1603, Alan Reinstein Ban Asbestos Now Act, ARBAN. My written testimony has been submitted for the record.

I am neither a lobbyist nor an attorney. I am a mesothelioma widow and the co-founder of the Asbestos Disease Awareness Organization, ADAO, an independent non-profit dedicated to preventing exposure to asbestos to eliminate deadly diseases that it causes. For the fifth time I am testifying on behalf of ADAO, but also your constituents who suffer from or have been silenced by asbestos-caused diseases.

Today's ban assessing legislation hearing is a landmark step forward for public health. And I am honored to have H.R. 1603 named after my husband, but it is really for the hundreds of thousands of Alans who paid a price for this manmade disaster with their lives.

My daughter Emily is sitting to my left. She was just 10 when her father Alan was diagnosed with mesothelioma. He opted for a radical procedure to remove a rib, resect his left lung, strip off his pericardium, and surgically replace his diaphragm in hopes for more time with us. He fought a hard 3-year battle. And, like we know, mesothelioma patients rarely win, he died three years later with Emily and me by his side.

This picture on the table represents my husband and the hundreds of thousands of Americans who died painful, premature, and preventable deaths.

Emily and I are not alone. Each day more than 100 Americans die from mesothelioma, lung, ovarian, laryngeal cancers, asbestosis, and other pleural disease, yet imports continue. Alarmingly, my new research, which you will all have on the back table, has revealed that since the EPA tried to ban asbestos and it was overturned in 1991, one million Americans—one million Americans—have died from these preventable diseases.

This snapshot is only a small piece of time, because you can imagine over the past 100 years how many Americans have died from these preventable diseases.

Think for just one moment not about our family, about the millions of families that have love lost—loved and lost loved ones due to the chemical while our government has done nothing. Thirty years after EPA, actually 30 years after EPA tried to ban asbestos the facts remain irrefutable. All forms of asbestos, including chrysotile, are a known human carcinogen. There is no safe or controlled use of asbestos.

Knowing the unreasonable risk, we have allowed over 300,000 metric tons to be imported and used in the past 28 years. Now, companies recognizing the risk decades ago have actually transitioned to safer and economical substitutes. However, the chlor-alkali industry has refused. Today, Olin Corporation, Occidental Chemical Corporation, Axial/Westlake Corporation are still importing, using, and lobbying, lobbying for an exemption. To be clear, they use chrysotile asbestos diaphragms to produce chlorine and caustic soda, but there are three methods. This is just one.

Our research reveals only 1 percent of their chlorine production is for drinking water, the rest is for industrial chlorine uses. Last year this industry imported 750 metric tons of raw asbestos from Russia and Brazil. Seven hundred and fifty metric tons. Now, there are numerous asbestos exposure pathways from mining, transporting between port to plant, within the plant, and disposal. That is a massive amount of opportunity. It is beyond a glovebox.

EPA risk evaluations are excluding the effects of asbestos that we find, the legacy in our homes, schools, and workplaces. And let me tell you, an impurity 1 percent by weight is not protective. If you have a 100-pound bag of play sand, could you really have a pound of asbestos and have it be legal? As a widow, I say no.

They are also excluding various cancers, which you heard the committee describe: ovarian, laryngeal, asbestosis, other diseases. During the past decade since I have been coming to Washington—actually it is 15 years—asbestos has been the poster child for meaningful TSCA reform. And I agree with Ranking Member Shimkus: I hate asbestos. And the EPA has failed to do their job. We can't wait and hope that EPA with their risk evaluation will lead to a ban while the Agency is failing. And Congress must expeditiously move this bill forward.

I look forward to answering your questions. And thank you for your leadership.

[The prepared statement of Ms. Reinstein follows:]

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**Testimony of Linda Reinstein  
President and Co-founder  
Asbestos Disease Awareness Organization**

**Before the House Committee on Energy and Commerce  
Subcommittee on Environment and Climate Change  
*Ban Asbestos Now: Taking Action to Save Lives and Livelihoods*  
Legislative Hearing on H.R. 1603—Alan Reinstein Ban Asbestos Now Act of 2019  
May 8, 2019**

Thank you Chairman Pallone, Ranking Member Walden, Chairman Tonko, Ranking Member Shimkus, and Members of the Committee for giving me the honor and opportunity to testify in support of H.R. 1603, the Alan Reinstein Ban Asbestos Now Act of 2019 (ARBAN).

We are grateful to the Environment and Climate Change Subcommittee of the U.S. House Energy and Commerce Committee for holding this important hearing on long-overdue legislation to ban asbestos.

Today, I not only represent the Asbestos Disease Awareness Organization (ADAO), but also your constituents who suffer from or have been silenced by asbestos. I am neither a lobbyist nor an attorney. I am a mesothelioma widow and co-founder of ADAO. Watching today from homes throughout the nation are many sufferers from asbestos-related diseases and family members of loved ones who died from asbestos exposure. Alarming, my research for today's testimony reveals that from 1991 to 2017, more than one million Americans died from preventable asbestos-caused diseases. These deaths represent only a snapshot in time; the total number of deaths during the 100+ years of asbestos use is much larger.

For far too long, asbestos ban policy has been often seen as partisan issue; however, that has changed. Since 2005, ADAO has worked with the Senate to draft and unanimously pass the National Asbestos Awareness Week Resolution. As part of the Resolution, the Senate urges the Surgeon General to issue a warning about the dangers of asbestos.

Launched in 2004, ADAO is now the largest independent non-profit organization in the U.S. dedicated to eliminating asbestos-caused diseases. ADAO is far more than an asbestos victims' organization; our cutting-edge research, ongoing product testing, and educational efforts have enabled us to be a leading stakeholder in prevention policy. Through ADAO, I have dedicated my life to preventing asbestos exposure in order to

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eliminate all asbestos-caused diseases. These past fifteen years have taught me that shaping public policy is a glacially slow process. However, today's hearing marks a landmark step forward for public health, our environment, and Americans, as this is the first hearing to ban asbestos since the Senate Committee on Environment and Public Works (EPW) hearing in 2007.

The proposed legislation we are addressing -- the bicameral Alan Reinstein Ban Asbestos Now Act -- will take the following critical steps:

- Ban the importation, manufacture, processing, and distribution of all forms of asbestos and asbestos-containing mixtures and articles within 12 months, including products in which asbestos is present as an impurity;
- Establish a new *Right-to-Know* program to require current importers, processors and distributors to report and disclose to the public how much asbestos is in U.S. commerce, where and how it is used, and who is exposed;
- Require EPA and the Departments of Labor and Health and Human Services to conduct a comprehensive study of risks presented by the presence of asbestos in the millions of residences, businesses, factories, public buildings and schools, where it was used in building construction decades ago; and
- Impose these requirements on the extremely hazardous Libby Amphibole, richterite, winchite, as well as the other six asbestos fibers: chrysotile, actinolite, amosite, anthophyllite, crocidolite, and tremolite.

There are two irrefutable facts that provide a compelling case for this legislation:

- All forms of asbestos, including chrysotile, are carcinogenic to humans.
- There is no safe level of asbestos exposure or no such thing as the controlled use of asbestos.

Because of these facts, only a comprehensive and rapid elimination of all asbestos from US commerce will fully protect public health.

### **SHATTERED FAMILIES**

Today, I want to share my story, not for sympathy but so you can better understand my work. Tragically, my story is far too common.

My husband, Alan, was diagnosed with pleural mesothelioma in 2003. We had never heard of this asbestos-caused cancer, and quickly learned it was incurable. Alan chose to have an extrapleural pneumonectomy—a surgery which removed a rib and his left lung, stripped off his pericardium and surgically replaced his diaphragm. When

mesothelioma attacked Alan's remaining lung, he felt like he was breathing through a pinched straw, every breath, every minute, every day. His oxygen levels became critically low and he was tethered to supplemental oxygen to prolong his life. In 2006, Alan took his last breaths with our then 13-year-old daughter and me by his side. My daughter Emily, who sits behind me today and is now 26, has not only buried her father, but watched the carnage of asbestos-related disease continue.

The photo on the table today is of Alan, but it represents far more than just my husband. This picture represents the thousands of 'Alans' who have died painful, premature and preventable deaths. H.R. 1603 not only honors their memory, it brings us closer to ending the asbestos man-made disaster.

#### **ABOUT ADAO**

In 2004, Doug Larkin and I founded ADAO after both of our loved ones had been diagnosed with mesothelioma, an asbestos-caused disease. As we cared for them, we met other patients and families whose lives were also devastated by asbestos exposure. Each of us had watched the people we cared for succumb to this deadly, yet preventable, disease. From this pain, however, came the courage to organize and begin a journey to advocate for ending asbestos exposure and ensuring that no one else would have to experience the pain we lived through.

ADAO started out as small group and, slowly but surely, grew into a network of around 50,000 individuals as more and more victims, families, scientists, nonprofits, and trade unions joined us in pursuit of our shared goal of eliminating asbestos-related diseases.

ADAO remains dedicated to our core efforts of education, advocacy, and community. Our Science and Prevention Advisory Boards are comprised of world class experts. Their advice ensures that our educational resources and information are scientifically accurate and up to date. As an independent organization, ADAO does not make medical or legal referrals.

#### **OUTLINE OF TESTIMONY**

In the body of my testimony, I will:

- Review the overwhelming evidence of the enormous and continuing toll asbestos has taken on the health and lives of Americans.

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- Document the significant ongoing importation and use of asbestos and asbestos-containing products in the US 30 years after EPA tried to ban asbestos and despite the bans adopted by 60 other countries.
- Demonstrate the failure of the Trump Environmental Protection Agency (EPA) to use the tools in the 2016 amendments to the Toxic Substances Control Act (TSCA) to effectively address the asbestos threat and the need for Congress to enact the comprehensive ban that EPA either cannot or will not put in place on its own.
- Underscore the strengths of the bicameral Alan Reinstein Ban Asbestos Now Act in providing long-overdue protection of public health and finally putting an end to the importation and use of this extremely hazardous substance

### **ASBESTOS IMPACT ON PUBLIC HEALTH**

For over a century, asbestos has been known to cause widespread disease and death, yet imports and use continue in the US.

In a monograph on asbestos published in 2012, the International Agency for Research on Cancer (IARC) found the following cancers in humans to be causally related to asbestos exposure: lung cancer, malignant mesothelioma, ovarian cancer, and cancer of the larynx<sup>1</sup>. There is considerable evidence in the scientific literature of causal associations with gastrointestinal cancers and kidney cancer. Non-malignant diseases are also caused by asbestos. These include asbestosis and asbestos-related pleural thickening. All fiber types in commercial use have been linked causally with each of these diseases and are regulated accordingly by OSHA and other government agencies.

The human cost of this exposure has been horrific and the death toll shocking. From 1991 to 2017, more than one million Americans died from preventable asbestos-caused diseases. These deaths represent only a snapshot in time; the total number of deaths during the 100+ years of asbestos use is much larger.

The economic cost of inaction has been and remains immense. "The economic burden of lung cancer and mesothelioma associated with occupational and para-occupational asbestos exposure is substantial." According to the World Health Organization (WHO) "Asbestos Economic Assessment of Bans and Declining Production and Consumption" report, "The substantial costs associated with the continued use of asbestos potentially outweigh any other economic benefit. The annual global health care costs associated

<sup>1</sup> [https://www.who.int/ipcs/assessment/public\\_health/Elimination\\_asbestos-related\\_diseases\\_EN.pdf](https://www.who.int/ipcs/assessment/public_health/Elimination_asbestos-related_diseases_EN.pdf)

with the health effects of asbestos are estimated to be US\$ 2.4–3.9 billion, excluding the additional costs of pain, suffering and welfare losses.<sup>2</sup>

There is overwhelming consensus in the scientific community that there is no safe level of exposure to asbestos. As noted by WHO:

Bearing in mind that there is no evidence for a threshold for the carcinogenic effect of asbestos, including chrysotile, and that increased cancer risks have been observed in populations exposed to very low levels, the most efficient way to eliminate asbestos-related diseases is to stop using all types of asbestos.<sup>3</sup>

IARC<sup>4</sup>, the Occupational Safety and Health Administration (OSHA)<sup>5</sup>, the Department of Health and Human Services,<sup>6</sup> the National Institute for Occupational Safety and Health (NIOSH)<sup>7</sup>, the World Health Organization (WHO)<sup>8</sup> and a number of other regulatory and public health bodies recognized asbestos as a human carcinogen decades ago.

Despite the elimination of many asbestos products due to corporate liability, the death toll from asbestos exposure remains alarmingly high. At the 14th Annual Asbestos Disease Awareness Conference in Washington D.C. in 2018, Dr. Jukka Takala DSc, MSc, BSc, President of the International Commission of Occupational Health (ICOH) and colleagues, reported a shocking increase in previous estimates of asbestos-related deaths, underscoring the escalating and critical need for action by EPA. According to the recently published study entitled "*Global Asbestos Disaster*", asbestos-related diseases cause 39,275 deaths in the United States annually—more than double the previous estimates of 15,000 per year.<sup>9</sup>

Asbestos fibers can become respirable when asbestos-containing materials and products are disturbed or become friable. The primary route of asbestos entry into the body is inhalation; however, fibers can also be ingested.<sup>10</sup> OSHA has three standards to protect workers from the hazards of asbestos in the workplace: General Industry, Shipyards, and Construction. However, OSHA has recognized that these standards do

<sup>2</sup> [http://www.euro.who.int/\\_data/assets/pdf\\_file/0009/341757/Asbestos\\_EN\\_WEB\\_reduced.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0009/341757/Asbestos_EN_WEB_reduced.pdf?ua=1)

<sup>3</sup> [https://www.who.int/ipcs/assessment/public\\_health/chrysotile\\_asbestos\\_summary.pdf](https://www.who.int/ipcs/assessment/public_health/chrysotile_asbestos_summary.pdf)

<sup>4</sup> <http://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C.pdf>.

<sup>5</sup> <https://www.osha.gov/laws-regs/federalregister/1994-08-10>

<sup>6</sup> <https://ntp.niehs.nih.gov/ntp/roc/content/profiles/asbestos.pdf>

<sup>7</sup> <https://www.cdc.gov/niosh/docs/2011-159/pdfs/2011-159.pdf>

<sup>8</sup> <https://monographs.iarc.fr/wp-content/uploads/2018/06/mono100C-11.pdf>

<sup>9</sup> <http://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C.pdf>.

<sup>10</sup> <https://www.atsdr.cdc.gov/csem/csem.asp?csem=29&po=6>

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not eliminate significant risks to workers. Despite arguments by industry, the OSHA standards cannot take the place of a ban.<sup>11</sup>

A 2013 study by NIOSH of firefighters in three cities added further evidence of the causal link between asbestos and malignant mesothelioma. The researchers wrote: "[t]he population of firefighters in the study had a rate of mesothelioma two times greater than the rate in the U.S. population as a whole" and that "it was likely that the[se] findings were associated with exposure to asbestos, a known cause of mesothelioma."<sup>12</sup>

According to the National Institute of Health, work-related asbestos exposure is responsible for the vast majority of asbestos-caused deaths. No substance in history has posed a greater threat to the health of workers. The danger extends beyond manufacturing plants—firefighters and school teachers are among the workers at highest risk for asbestos exposure and related diseases. Asbestos fibers can be carried home on the workers' clothing, skin, and hair, thus exposing their family members to non-occupational asbestos exposure.

#### **HISTORICAL AND CURRENT ASBESTOS MINING, IMPORTATION AND USE IN THE U.S. AND THE SCALE OF HUMAN EXPOSURE**

For over 100 years, the exposure of Americans to asbestos has been massive in scale. According to the U.S. Geological Survey (USGS):

- From 1900 to today, the U.S. has consumed more than 31 million metric tons of asbestos;
- From 1991 to 2002, the U.S. has mined 111,420 metric tons of asbestos until the last domestic mine closed in 2002;
- From 1991 to 2018 the EPA has allowed 280,325 metric tons of asbestos to be imported.

We believed in the late 1980s that EPA was on a path to impose comprehensive restrictions on asbestos. In 1989, the Agency issued a rule under section 6(a) of TSCA prohibiting the manufacture, importation, processing or distribution in commerce of asbestos in almost all products based on a determination that asbestos presented an "unreasonable risk of injury" under TSCA section 6.<sup>13</sup> However, despite the comprehensive risk analysis supporting the rule, the Fifth Circuit Court of Appeals

<sup>11</sup> <https://www.osha.gov/Publications/OSHA3507.pdf>

<sup>12</sup> <https://www.cdc.gov/niosh/updates/upd-10-17-13.html>

<sup>13</sup> <https://www.epa.gov/asbestos/asbestos-ban-and-phase-out-federal-register-notices>

overturned the ban in 1991, following an industry challenge, for reasons unrelated to the dangers of asbestos.<sup>14</sup>

As a result, while over 60 countries, including Canada, have banned asbestos, the U.S. has yet to prohibit asbestos importation and most forms of its use.<sup>15</sup> The consequence has been that asbestos importation and use have continued virtually without restriction in the U.S. for the last 30 years. In fact, asbestos imports have recently surged—primarily from Russia and Brazil. These imports consist of raw asbestos that is used by the chlorine manufacturing industry and several asbestos-containing products.<sup>16</sup>

***Continued Raw Chrysotile Asbestos Importation and Chlor-Alkali Industry in the U.S.***

According to the USGS, "The chlor-alkali industry, which uses asbestos to manufacture semipermeable diaphragms that prevent chlorine generated at the anode of an electrolytic cell from reacting with sodium hydroxide generated at the cathode, accounted for 100% of asbestos mineral consumption in 2018, based on bill of lading information obtained from a commercial trade database."

Globally, the three main technologies for producing chlorine are: the non-asbestos membrane cell process which is the most widely used method used in Europe (66%); the mercury cell process which is being phased out worldwide because of the health risk associated with mercury (approx. 17%); and the asbestos diaphragm cell process (used for nearly 14% of installed capacity).<sup>17</sup> An estimated 45% of the chlor-alkali capacity in the U.S. is based on asbestos diaphragm technology. According to EPA and other sources, there are three domestic companies (Olin Corporation, Occidental Chemical and Axiall/Westlake Corporation) that own a total of 15 chlor-alkali plants that continue to fabricate and use asbestos (chrysotile)-containing semipermeable diaphragms onsite.<sup>18</sup>

Based on ADAO's research, at least 50% of the chlorine produced in the U.S. is used to make polyvinyl chloride (PVC). Less than 1% of chlorine production is used for drinking water decontamination.

<sup>14</sup> <https://law.justia.com/cases/federal/appellate-courts/F2/947/1201/153685/>

<sup>15</sup> [http://www.ibasecretariat.org/alpha\\_ban\\_list.php](http://www.ibasecretariat.org/alpha_ban_list.php)

<sup>16</sup> <https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/atoms/files/mcs-2019-asbes.pdf>

<sup>17</sup> <http://www.eurochlor.org/the-chlorine-universe/how-is-chlorine-produced/the-diaphragm-cell-process.aspx>

<sup>18</sup> [https://www.epa.gov/sites/production/files/2018-06/documents/asbestos\\_problem\\_formulation\\_05-31-18.pdf](https://www.epa.gov/sites/production/files/2018-06/documents/asbestos_problem_formulation_05-31-18.pdf)

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Asbestos imports by the chlor-alkali industry have surged in the last few years. In a recently issued report, the USGS found that in 2018, their imports totaled 750 metric tons of raw chrysotile asbestos, which was twice the amount originally estimated by USGS.<sup>19</sup> The ports of entry for raw chrysotile asbestos are: Houston, Texas; New Orleans, Louisiana; Norfolk, Virginia; Port Everglades, Florida; Savannah, Georgia; and Newark, New Jersey.

The handling of asbestos by this industry creates risks of dangerous exposure at several stages: during the unloading of ships, the transport of asbestos from ports of entry to manufacturing sites, the transfer of asbestos from trains or trucks to user facilities, the production and maintenance operations at chlor-alkali plants, removal and replacement of used diaphragms, and the on- and off-site disposal of asbestos waste.

According to research conducted for ADAO, over 20 landfills receive asbestos waste from diaphragm chlor-alkali plants. Although most of the asbestos waste collected for landfills begins as wet filter cake, asbestos dries quickly, and many landfills are located in very windy places, like Wichita, Kansas—increasing the risk of friability and exposure.

Alternatives to the asbestos diaphragm process account for the bulk of chlor-alkali production worldwide and offer distinct advantages. According to a 2014 European Union (EU) report,<sup>20</sup> non-asbestos diaphragms have the economic benefits of "reduced operating costs due to lower cell voltage; reduced cell renewal costs due to longer lifetimes of the diaphragms and steel cathodes (fewer shutdowns lead to less corrosion); and, reduced waste handling and disposal costs due to asbestos-free materials." At the time of its 1989 ban, EPA provided an exemption for chlor-alkali plants but said it expected these plants would convert to non-asbestos technologies within five years. During the past 30 years, several facilities in the U.S. and globally have converted to non-asbestos methods.

#### ***Importation of Asbestos-Containing Products***

Chlor-alkali production is not the only source of asbestos exposure in the US. USGS reports an "unknown" quantity of asbestos was imported in asbestos-containing products, including asbestos-containing brake materials, rubber sheets for gaskets, tile, wallpaper, and potentially in asbestos-cement pipe and contaminated knitted fabrics.<sup>21</sup>

<sup>19</sup> <https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/atoms/files/mcs-2019-asbes.pdf>

<sup>20</sup> [http://eippcb.jrc.ec.europa.eu/reference/BREF/CAK\\_BREF\\_102014.pdf](http://eippcb.jrc.ec.europa.eu/reference/BREF/CAK_BREF_102014.pdf)

<sup>21</sup> <https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/atoms/files/mcs-2019-asbes.pdf>

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Independent research, including by ADAO, has found that asbestos-containing consumer products—including children's toys—are still in commerce today. These products are putting both workers and consumers at risk. We lack meaningful information about the amounts of asbestos these products contain, how they're used, and the nature and extent of ongoing exposures for which they are responsible.

Since 1996, USGS has confirmed that "Numerous materials substitute for asbestos." Because of these substitutes, current asbestos-containing products being imported into the US can be eliminated.<sup>22</sup>

It is very alarming that in 2018, the US imported 51 tons of asbestos yarn and thread. It is urgent that Customs records be used to find out where in the country these products are used, how they are used, whether the imported products carried required OSHA warning labeling of asbestos hazards, and what occupational and environmental hazards arise from the product manufacture and end product use.

#### ***Asbestos Contamination of Consumer Products***

Asbestos contamination has been detected in numerous consumer products:

- In 2000, the *Seattle Post Intelligencer* confirmed that asbestos had been found in crayons.<sup>23</sup>
- In 2007, the ADAO's product testing confirmed asbestos in five consumer products, including a child's toy.<sup>24</sup>
- In 2015, the Environmental Working Group's (EWG) product testing confirmed four brands of crayons contained asbestos, all of them manufactured in China: Amscan Crayons, Disney Mickey Mouse Clubhouse 10 Jumbo Crayons, Nickelodeon Teenage Mutant Ninja Turtle Crayons, and Saban's Power Rangers Super Megaforce 10 Jumbo Crayons.<sup>25</sup>
- In 2018, U.S. Public Interest Research Group tested six kinds of crayons from various brands. Green Playskool crayons tremolite asbestos fibers.<sup>26</sup>

<sup>22</sup> <https://s3-us-west-2.amazonaws.com/prd-wret/assets/palladium/production/mineral-pubs/asbestos/asbesmcs96.pdf>

<sup>23</sup> <https://www.cpsc.gov/PageFiles/108033/crayons.pdf>

<sup>24</sup> <https://www.asbestosdiseaseawareness.org/archives/364>

<sup>25</sup> <https://www.ewg.org/enviroblog/2015/07/asbestos-your-children-s-toys>

<sup>26</sup> [https://uspirg.org/sites/pirg/files/reports/Copy%20of%20USP\\_Toxics-report\\_Fall2018\\_PRINTv1b.pdf](https://uspirg.org/sites/pirg/files/reports/Copy%20of%20USP_Toxics-report_Fall2018_PRINTv1b.pdf)

Another tragic example of this hidden danger is asbestos-contaminated talc products. The long-popular Johnson & Johnson baby powder<sup>27</sup> has been found to cause ovarian cancer, a known consequence of asbestos exposure. Talc imports into the U.S. are substantial, averaging 656,259,377 pounds per year. While these talc products are not always contaminated with asbestos, the threat of contamination is significant. Asbestos has been found not only in crayons<sup>28</sup> but in make-up products marketed to children and tweens at Claire's<sup>29</sup> and Justice retailers. In fact, in March of 2019, FDA testing confirmed previous reports of asbestos contamination in Claire's makeup.<sup>30</sup>

While FDA has taken action on products within its jurisdiction, the same is not true of EPA. Although EPA is aware of talc products contaminated with asbestos, the agency decided to exclude this exposure from the scope of its risk evaluation. EPA has yet to investigate, identify, and take action against asbestos-containing consumer products such as toys, which are subject to EPA authority.

### **Asbestos Waste**

Asbestos waste—much of which is generated by the chlor-alkali industry—continues to be generated and managed in the U.S. in significant quantities. According to reports submitted for the Toxic Release Inventory (TRI) in 2017, total asbestos releases for 2017 were 20,556,023 pounds, the bulk of which (92.8%) were on-site land releases.<sup>31</sup> Because of limitations in the scope of TRI reporting, the quantity of asbestos waste released to the environment is probably much larger. The movement of asbestos waste in commerce and poor waste management at landfills or manufacturing sites are a significant danger to workers and the public. This risk would be substantially reduced if waste-generating manufacturing operations using asbestos were eliminated.

### **CURRENT ADMINISTRATION'S TSCA IMPLEMENTATION FAILURES**

During the TSCA reform process in 2016, there was bipartisan agreement that asbestos was the poster child for TSCA's failure to protect public health, and that any new law needed to ensure that EPA could finally do its job and ban asbestos. Many in Congress and the public hoped EPA would make use of its new authorities under the 2016

<sup>27</sup> <https://www.reuters.com/investigates/special-report/johnsonandjohnson-cancer/>

<sup>28</sup> <https://uspirg.org/reports/usp/safer-school-supplies-shopping-guide>

<sup>29</sup> <https://www.cnn.com/2017/12/29/health/claires-asbestos-child-makeup/index.html>

<sup>30</sup> <https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-and-susan-mayne-phd-director-center-food-safety-and>

<sup>31</sup> <https://www.epa.gov/trinationalanalysis>

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Lautenberg Chemical Safety Act (LCSA)<sup>32</sup> to quickly reinstate the 1989 asbestos ban. This hope has now been squelched as it has become apparent that EPA will not, or cannot, take responsible and effective steps to address the asbestos threat.

In internal emails provided to ADAO, seventeen career EPA experts have expressed deep concern about EPA's weak and limited efforts to reduce asbestos exposure and risk. These individuals recommended stronger actions—including a complete ban—that EPA management has rejected.

Over twenty thousand public comments were submitted to the EPA docket in support of regulatory action to ban asbestos. Absent from the docket are chemical industry letters in support of a ban without exemptions.

#### ***Asbestos Risk Evaluation Exclusions***

In December 2016, shortly after the passage of the LCSA, EPA selected ten chemicals for initial risk evaluations. Asbestos was among these substances, thereby recognizing its lethal danger to public health. ADAO and many other observers expected that the new law would thus enable EPA to reinstate the comprehensive ban on asbestos use it had imposed in 1989.

However, any expectation that EPA would take meaningful action was dashed by its 2017 scoping document<sup>33</sup> and June 2018 problem formulation<sup>34</sup> for the asbestos risk evaluation. Through a combination of legally indefensible exclusions, loopholes, and deviations from accepted scientific methods, the Agency is on a path to produce an asbestos risk evaluation that ignores important exposure pathways and at-risk populations and reaches grossly misleading and inadequate conclusions about asbestos' ongoing and future dangers to public health.

For example, the risk evaluation excludes ongoing and future use and disposal of "legacy" asbestos products in residences, schools, commercial building and infrastructure—a pervasive source of exposure and risk for millions of workers and consumers throughout the US—on the basis of a groundless assertion that this use and exposure do not comprise "conditions of use" subject to TSCA. This exclusion covers Libby Amphibole, whose presence in the environment because of historical mining activities and in attic insulation installed in millions of homes, poses a serious threat to

<sup>32</sup> <https://www.congress.gov/114/plaws/publ182/PLAW-114publ182.pdf><https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-century-act>

<sup>33</sup> [https://www.epa.gov/sites/production/files/2017-06/documents/asbestos\\_scope\\_06-22-17.pdf](https://www.epa.gov/sites/production/files/2017-06/documents/asbestos_scope_06-22-17.pdf)

<sup>34</sup> [https://www.epa.gov/sites/production/files/2018-06/documents/asbestos\\_problem\\_formulation\\_05-31-18.pdf](https://www.epa.gov/sites/production/files/2018-06/documents/asbestos_problem_formulation_05-31-18.pdf)

health. In recently disclosed emails, EPA career staff from across the Agency expressed deep concern about EPA's refusal to address legacy asbestos:<sup>35</sup>

"Congress did not exempt ongoing, or what [the TSCA office] refers to as "legacy," uses and associated disposals of a chemical substance such as asbestos from the TSCA- required risk evaluation process. [The toxics office] would strip the statutory definition of "conditions of use" of part of its meaning by analyzing only newer asbestos which is currently and prospectively manufactured, processed, or distributed in commerce, while ignoring older asbestos which is currently and prospectively "used" or "disposed of." **Exposure to older asbestos is just as dangerous as exposure to newer asbestos.**" (Emphasis added)

The risk evaluation also excludes harmful forms of asbestos, including Libby amphibole that have been well documented by EPA.<sup>36</sup> In their email, EPA career staff emphasize that "amphiboles from Libby and other asbestos remain in buildings and other products where ongoing uses and eventual disposals create risks for residents and workers, including firefighters."<sup>37</sup> The career staff urge that "all known harmful asbestos fiber types should be included in the definition of asbestos so there may be a complete and thorough evaluation of the risk of exposure to asbestos."<sup>38</sup>

The risk evaluation will likewise fail to consider the risks of asbestos from releases to the environment, notably to our air and soil. These are important pathways for occupational and general population exposure: asbestos fibers are released into ambient air during the maintenance, renovation and demolition of asbestos-containing buildings and large and ever-increasing amounts of asbestos debris enter waste streams from construction and manufacturing. EPA claims that because these pathways are already effectively managed by other laws, they need not be evaluated under TSCA. But as the email from career EPA employees shows in painstaking detail, these other laws are neither comprehensive nor fully protective and cannot be assumed to prevent harmful exposure to asbestos. For example, "gaps in [EPA emission standards for asbestos] along with failures to comply with the regulations means there are potential exposures to asbestos from ambient air within the [Clean Air Act] pathways which should be evaluated by EPA as part of the TSCA requirements."<sup>39</sup>

<sup>35</sup> Email from Richard Mednick, Region 10 Office of Regional Counsel, and 16 other EPA employees to Christina Motillial, Risk Assessment Division, Office of Pollution Prevention and Toxics, Commenting on Problem Formulation for the Risk Evaluation of Asbestos, August 10, 2018 ("EPA Problem Formulation Email")

<sup>36</sup> <https://www.epa.gov/asbestos/protect-your-family-asbestos-contaminated-vermiculite-insulation>

<sup>37</sup> EPA Problem Formulation Email.

<sup>38</sup> Id.

<sup>39</sup> EPA Problem Formulation Email

In addition, the only asbestos health effects EPA will consider in its evaluation are lung cancer and mesothelioma. Yet the email from career staff emphasizes that "[t]here are other significant lethal and non-lethal harms from asbestos exposures, including asbestosis and other respiratory ailments, ovarian cancer, colorectal cancer, and cancers of the stomach, esophagus, larynx and pharynx."<sup>40</sup> These additional harms should be included if there is to be a comprehensive evaluation of the risks from exposure to asbestos."

Finally, the problem formulation excludes the risks presented by releases of asbestos during fires, terrorist actions such as the 9/11 World Trade Center attack, and extreme weather events. EPA refuses to designate firefighters as a "potentially exposed or susceptible subpopulation" requiring special protection under TSCA. Yet, as noted above, a 2013 study by NIOSH found that firefighters were diagnosed with mesothelioma at twice the rate as the U.S. population due to asbestos exposure.

ADAO and other groups have commented on these deficiencies in the risk evaluation but we have no confidence that EPA will reconsider the path it is on.

#### ***Asbestos Significant New Use Rule (SNUR)***

EPA has touted its recent Significant New Use Rule (SNUR)<sup>41</sup> for certain discontinued asbestos-containing products as a meaningful action to reduce asbestos risks. However, the SNUR is a limited step which falls far short of meaningfully protecting public health.

The SNUR is NOT a ban on asbestos and in fact leaves the door open to imports and use of the listed obsolete products. It only requires companies to notify EPA if they plan to reintroduce one of these products and imposes no direct restrictions on them.<sup>42</sup> A ban on all asbestos imports and uses would go far beyond the SNUR and provide assurance that asbestos exposure will be permanently eliminated.

As the email from career EPA experts emphasizes:<sup>43</sup>

"opening the door to new uses of asbestos is not an economically-wise or health-protective idea. . . . and "[r]ather than allow for (even with restrictions) any new uses for asbestos, **EPA should seek to ban all new uses of asbestos because the extreme harm from this chemical substance outweighs any**

<sup>40</sup> Id.

<sup>41</sup> <https://www.regulations.gov/document?D=EPA-HQ-OPPT-2018-0159-5897>

<sup>42</sup> <https://www.epa.gov/asbestos/list-uses-covered-under-april-2019-final-rule-restrictions-discontinued-uses-asbestos>

<sup>43</sup> Email from Richard Mednick, Region 10 Office of Regional Counsel, and 16 other EPA employees to Robert Courtnage, National Program Chemicals Division, Office of Pollution Prevention and Toxics, Commenting on Proposed Asbestos Significant New Use Rule, August 10, 2018 ("EPA SNUR Email")

**benefit - and because there are adequate alternatives to asbestos."**  
(Emphasis added).

In addition to EPA career staff's opposition to the SNUR, there are nearly 20,000 public comments in opposition to the SNUR that have been submitted into the EPA docket.<sup>44</sup>

Under the SNUR, EPA can decide to take no action after a company has provided notice of its plans to reintroduce one of the listed products. If EPA takes no action, the manufacture and sale of the discontinued product could resume without restriction. There is no guarantee EPA will in fact restrict any of these products if they return to the marketplace. EPA has reviewed many other chemicals under the provisions of TSCA on which the SNUR is based and concluded that they are "unlikely to present an unreasonable risk of injury" even though EPA scientists have identified the potential for serious risks to human health. This may happen for asbestos.

EPA easily could have included these 19 obsolete products, such as Arc Chutes, in its ongoing TSCA asbestos risk evaluation, leading to a determination that they present an unreasonable risk of injury, as EPA in fact concluded in its 1989 rule. Based on this determination, the Agency would then have been obligated to restrict these products under TSCA section 6(a) to the extent necessary to eliminate their risks, which would likely have required it to permanently and unconditionally ban them from U.S. commerce. Indeed, the final SNUR further weakens the scope of section 6 evaluation and regulation by adding two additional products, asbestos cement and woven fabric, which EPA and USGS previously identified as being imported into the U.S. and were initially within the scope of the asbestos risk evaluation.

EPA apparently believes that it lacks authority under TSCA to evaluate and restrict products not currently in U.S. commerce, even though many are being manufactured in other countries and could be foreseeably imported into the US in the future. This unnecessary and unjustified limitation on EPA's regulatory powers effectively removes from section 6 demonstrably unsafe products that should be declared to present an unreasonable risk and permanently banned from U.S. commerce and leaves them only subject to the weak and uncertain protections of a SNUR.

#### ***The Asbestos Information Void Under EPA Reporting Rules***

The EPA problem formulation identified a number of asbestos products that EPA believed were in use but, with limited exceptions, the Agency provided virtually no information about the quantities of asbestos contained in these products, the volumes in

<sup>44</sup> <https://www.regulations.gov/docket?D=EPA-HQ-OPPT-2018-0159>

which they are produced or imported, the sites where they are used and the number of exposed individuals. The problem formulation acknowledged these limitations, saying that "[i]t is important to note that the import volume of products containing asbestos is not known" and that "[c]onsumer exposures will be difficult to evaluate since the quantities of these products that still might be imported into the United States is not known."<sup>45</sup>

TSCA requires a careful evaluation of chemical exposure in assessing risks: section 6(b)(4)(F) of the law directs EPA to consider "the likely duration, intensity, frequency, and number of exposures under the conditions of use of the chemical substance." This understanding of potential exposure is essential in determining the nature and magnitude of the risk to an exposed population—and is particularly critical for asbestos, which can cause lethal effects to workers or consumers following a brief exposure at low doses.

Yet EPA not only acknowledged its lack of basic information on asbestos exposure in the problem formulation, but actually exempted asbestos from its Chemical Data Reporting (CDR) rule because it is a "naturally occurring substance."<sup>46</sup> This loophole in the rule has resulted in a troubling and wholly avoidable lack of reliable information about who is importing asbestos and in what quantities, where and how asbestos is being used in the US, and who is being exposed and how that exposure is occurring. As a consequence, the public is not adequately informed about the risks that asbestos presents to health in the U.S., and EPA itself lacks the basic information required for a complete and informed risk evaluation that assures that unsafe asbestos uses are removed from commerce.

Because of this inaction, American consumers have been left in the dark about asbestos and its whereabouts, which makes it impossible to identify or mitigate the risk of exposure. The absence of this life-saving information is what motivated ADAO to petition the EPA in the fall of 2018 to require reporting by importers and users of asbestos and asbestos-containing products under TSCA. EPA denied this petition in December.<sup>47</sup> ADAO and other groups are currently challenging the petition denial in federal district court. Earlier this year, attorneys general for 14 states and the District of Columbia joined ADAO in petitioning for asbestos reporting. However, on April 30, 2019, EPA denied the state petition as well.<sup>48</sup>

<sup>45</sup>[https://www.epa.gov/sites/production/files/2018-06/documents/asbestos\\_problem\\_formulation\\_05-31-18.pdf](https://www.epa.gov/sites/production/files/2018-06/documents/asbestos_problem_formulation_05-31-18.pdf)

<sup>46</sup><https://www.asbestosdiseaseawareness.org/wp-content/uploads/2018/09/ADAO-Asbestos-CDR-petition-all.pdf>

<sup>47</sup><https://www.federalregister.gov/documents/2019/02/12/2019-01533/asbestos-tsca-section-21-petition-reasons-for-agency-response>

<sup>48</sup><https://oag.ca.gov/news/press-releases/attorney-general-becerra-files-petition-calling-epa-issue-new-rule-eliminating>

***Weak AHERA Enforcement: A Threat to Teachers and Students***

As a mother and mesothelioma widow, I am deeply concerned with the report of the EPA Office of Inspector General (OIG) that confirms, "Asbestos exposure risk is higher in children because they are more active, breathe at higher rates and through the mouth, and spend more time closer to the floor where asbestos fibers can accumulate."<sup>49</sup>

Schools represent an important source of exposure to legacy asbestos. The release of asbestos into school buildings as a result of poorly performed repairs, remodeling, and renovation of these buildings is a serious and ongoing threat to teachers, workers and children themselves. EPA is not only failing to address this threat in its risk evaluation but is abdicating its responsibility to enforce the Asbestos Hazard Emergency Response Act<sup>50</sup> (AHERA), which Congress passed in 1984 for the very purpose of preventing unsafe exposure to asbestos in schools.

AHERA is part of TSCA and is within the jurisdiction of the Office of Chemical Safety and Pollution Prevention (OCSPP). While the states have frontline obligations to implement AHERA, EPA performs a critical oversight role by inspecting schools and evaluating school district compliance. Thus, it is disturbing that the recent OIG report found that, even though the EPA was responsible for conducting AHERA compliance inspections for the majority of states, its inspections were far fewer than by the states. The report also cited evidence that many districts had poor management programs and were putting teachers and students at risk. OIG emphasized that the "[a]sbestos exposure risk is higher in children because they are more active, breathe at higher rates and through the mouth, and spend more time closer to the floor where asbestos fibers can accumulate."<sup>51</sup> The email from career EPA asbestos experts emphasizes that "EPA no longer funds administration of the Asbestos Hazard Emergency Response Act (AHERA) requirements for asbestos in schools, so this exposure pathway should be evaluated [under TSCA]."<sup>52</sup>

**HOW THE ARBAN LEGISLATION WOULD PROTECT THE HEALTH OF AMERICANS**

<sup>49</sup><https://www.epa.gov/office-inspector-general/report-epa-needs-re-evaluate-its-compliance-monitoring-priorities>

<sup>50</sup> <https://www.epa.gov/asbestos/asbestos-laws-and-regulations#ahera>

<sup>51</sup> [https://www.epa.gov/sites/production/files/2018-09/documents/\\_epaolg\\_20180917-18-p-0270\\_glance.pdf](https://www.epa.gov/sites/production/files/2018-09/documents/_epaolg_20180917-18-p-0270_glance.pdf)

<sup>52</sup> "EPA Problem Formulation Email"

In the face of EPA inaction, strong legislation expeditiously banning asbestos once and for all is essential. The Alan Reinstein Ban Asbestos Now Act of 2019 would achieve this goal.

ARBAN is endorsed by AFL-CIO, American Public Health Association (APHA); Center for Environmental Health; Collegium Ramazzini; Environmental Health Strategy Center; Environmental Information Association (EIA); Environmental Working Group (EWG); Global Ban Asbestos Network (GBAN); International Association of Heat and Frost Insulators and Allied Workers (HFIAW); International Association of Fire Fighters (IAFF); Less Cancer; Natural Resources Defense Council (NRDC); Safer Chemicals, Healthy Families (SCHF); Toxic-Free Future; United States Public Interest Research Groups (U.S. PIRG); and internationally, Associação Brasileira dos Expostos ao Amianto (ABREA).

There are nearly 150,000 signatures on a petition<sup>53</sup> in support of EPA banning asbestos without loopholes or exemptions. Here are several key compelling reasons why this important legislation should be expeditiously enacted:

- ***All mining, importation, use, and distribution in commerce of asbestos and products containing asbestos will be prohibited without exemptions or exclusions.***

Although Congress gave EPA stronger authority under the 2016 TSCA amendments, its actions on asbestos have been weak and disappointing. The Agency has repeatedly missed opportunities to conduct health-protective risk evaluation, instead opting for the toothless SNUR provisions of TSCA over effective regulation under section 6. The evidence is now clear: Congress needs to act expeditiously so that all asbestos and asbestos-containing products are banned from commerce. EPA has demonstrated that it will not ban asbestos on its own.

- ***A complete and immediate asbestos ban will not harm the economy, cause job losses or disadvantage U.S. companies.***

Three companies in the chlor-alkali industry account for nearly 100% of U.S. raw asbestos imports. However, an asbestos-free membrane process is in use at many other chlor-alkali plants in the U.S., Japan, and Europe, which can be cost-effectively adopted by the few producers who have retained the outdated asbestos diaphragm process.

<sup>53</sup> <http://bit.ly/EPABanAsbestosPetition>

Other asbestos-containing products entering the U.S., like sheet gaskets for use in chemical production (e.g., titanium dioxide production), brake blocks used in oil drilling equipment, aftermarket automotive brakes/linings and other vehicle friction products, and other gaskets all have cost-effective asbestos-free alternatives—many of which are produced in the U.S. these products can be eliminated without additional costs or disruption to U.S. users.

- ***A complete ban is the only effective way to prevent more death and disease from asbestos.***

Experts agree that there is no safe level of exposure to asbestos. OSHA standards do not provide full protection to exposed workers and OSHA recognizes that its workplace limits do not eliminate the risk of cancer.<sup>54</sup> EPA decided that a sweeping ban on nearly all asbestos use was needed 30 years ago to eliminate unreasonable risks but a court blocked the EPA ban at the behest of industry. It is time for Congress to finally finish the job and ban this deadly substance

- ***The ban will prohibit asbestos-containing products in commerce.***

Asbestos has been found in talc-based products, such as Johnson & Johnson Baby Powder, which are widely sold to consumers. Asbestos has also been detected in crayons, children's toys and makeup. There is no justification for allowing these products to be sold to American consumers.

- ***The ban applies to all types of asbestos, including the non-asbestiform varieties of winchite and richterite, which are referred to as "Libby Amphibole."***

During its investigations at the Libby mine, EPA obtained over 80,000 vermiculite concentrate shipping invoices from W.R. Grace for the period that the company owned the mine (1964–1990). An analysis of EPA's summary of these invoices indicated that a total of approximately 6,109,000 tons of vermiculite concentrate were shipped to 245 sites across the country.<sup>55</sup>

W.R. Grace processed an estimated 200,000 tons of vermiculite from the Libby mine each year until the mine finally ceased operations in 1990. Mining and processing of vermiculite containing this form of asbestos in Libby, Montana

<sup>54</sup> <https://www.osha.gov/Publications/OSHA3507.pdf>

<sup>55</sup> [https://www.atsdr.cdc.gov/asbestos/sites/national\\_map/Summary\\_Report\\_102908.pdf](https://www.atsdr.cdc.gov/asbestos/sites/national_map/Summary_Report_102908.pdf)

Reinstein Testimony for the "Ban Asbestos Now: Taking Action to Save Lives and Livelihoods" Legislative Hearing

caused widespread death and disease, resulting in EPA declaring a public health emergency in this small town in 2008. For decades, vermiculite mined in Libby was used throughout the U.S. to produce Zonolite attic insulation, which is estimated to be in as many as 35 million U.S. homes, buildings, and offices.<sup>56</sup> ARBAN will assure that Libby amphibole is never again mined and processed in the U.S. and Zonolite insulation is never installed again in U.S. homes.<sup>57</sup>

- ***The bill will require industry to disclose all imports of raw asbestos and asbestos-containing products and identify how they are used.***

EPA chemical reporting rules now exempt asbestos and the Agency has denied two petitions to use its TSCA authority to require asbestos reporting. The bill would fill this gap by mandating "Right to Know" reports that provide essential information to EPA and the public about how, where and in what amounts asbestos and asbestos-containing products are being imported and used, and who is being exposed. This information is critical to protect the public until the ban takes effect and to make sure that the ban can be effectively enforced. EPA would be required to make the reports available to the public and summarize all the data so the public has a full picture of asbestos exposure and risk.

- ***The bill will take a big step forward in understanding and reducing the risks of "legacy" asbestos installed in millions of homes, schools and businesses across the U.S.***

EPA has refused to evaluate legacy asbestos in its risk evaluation. However, a wide range of asbestos-containing products—including attic and wall insulation, pipes and boilers, floor tiles, gaskets, roofing, shingles and siding and brake pads and linings—were distributed in commerce during the middle of the 20<sup>th</sup> century. Although sales started declining in the 1980s, these products were heavily used over several decades in constructing homes, schools, apartments, public buildings, offices, stores, and factories, remaining in place in millions of structures across the country. Much of this asbestos is in friable form and can be released into the air when disturbed. Other products can release asbestos if broken or torn apart during construction or repair activities or collection and removal of construction debris.

<sup>56</sup> <https://www.usgs.gov/news/usgs-scientists-develop-new-tool-determine-if-vermiculite-insulation-contains-asbestos>

<sup>57</sup> [https://www.atsdr.cdc.gov/asbestos/sites/national\\_map/Summary\\_Report\\_102908.pdf](https://www.atsdr.cdc.gov/asbestos/sites/national_map/Summary_Report_102908.pdf)

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No study of legacy asbestos exposure has been conducted in the last 35 years despite the ongoing contribution of this exposure to asbestos-related disease and death. There is a compelling need to update our understanding of the prevalence of legacy asbestos and the magnitude of exposure and risk it poses to the American public. Based on this understanding, we then need to examine the adequacy of current management practices and how we can strengthen our laws, programs, and policies to better protect the millions of people at risk from the dangers of legacy asbestos.

Under the bill, the federal government will conduct a comprehensive study of the presence of asbestos in buildings, the number of people exposed and levels of exposure and the resulting threats to public health. The study will recommend ways to strengthen current laws, policies and requirements to increase public health protection. Whether or not EPA ultimately addresses legacy asbestos in its risk evaluation, the study will be invaluable in supporting additional public health protections.

We appreciate the Committee's leadership in holding this hearing and welcome the support that many House members have voiced for this vital legislation. On behalf of ADAO and the thousands of American families that have lost loved ones to this lethal carcinogen, the workers, their families, and the public who are continually exposed, and the hundreds of thousands who have lost their lives due to this lethal carcinogen, we urge that H.R. 1603 be passed without delay to end the asbestos man-made disaster.

Thank you for your commitment to public health and to protecting Americans.

Sincerely,  
Linda Reinstein  
President and Co-founder  
Asbestos Disease Awareness Organization

Mr. TONKO. Thank you, Ms. Reinstein, for your very compelling testimony.

Ms. Reindel, you are recognized for 5 minutes, please.

#### STATEMENT OF REBECCA REINDEL

Ms. REINDEL. Chairman Tonko, Ranking Member Shimkus and members of the committee, I appreciate the opportunity to testify today on behalf of the AFL-CIO on this legislation to ban asbestos. My full written testimony has been submitted to the committee for the record.

The AFL-CIO is a federation of 55 national and international unions. And we represent more than 12.5 million union members who work side by side millions of non-unionized workers. Over the last four decades, the AFL-CIO and our affiliated unions have acted to protect workers from the hazards of asbestos exposure through the development and implementation of asbestos regulations and legislation. We strongly support this Federal legislation to ban asbestos, H.R. 1603. WE applaud the efforts of Representative Bonamici and this committee to champion and guide this legislation in the House, and the effort of Senator Merkley to initiate similar legislation in the Senate.

Asbestos is the poster child of the historical failure under the original Toxic Substances Control Act: to protect people from a chemical known to have serious health effects at very low levels of exposure and known to be extremely difficult to control over its long lifespan. In the development of the 2016 bipartisan Frank Lautenberg Act no one doubted its aim to fix the law to ban asbestos indefinitely, definitively.

But we are here today because EPA has not used that new authority and responsibility, and we are here to further amend that law to finally protect working people and to save lives. One of the worst things about asbestos is that most people think it is no longer a problem in the United States, when in fact it is the most significant and devastating occupational health disaster that has lasted over a century in this country. Hundreds of thousands have died.

One of the worst—Sorry. The number of asbestos-related deaths that continue today are worst than experts in the 1980s projected them to be now, tens of thousands each year. The number of mesothelioma cases in 2017 is actually the highest number of the data that is pulled since 1999.

Especially troubling, we are seeing workers under the age of 55 with significant levels of asbestos disease and are dying. And those are workers who have entered the job market after the 1980s and after asbestos regulations were adopted.

An insulator in Chicago started in the trade in 1993 and was screened in 2016. He recently died at the age of 45 with elevated levels of asbestos fibers in his lungs.

The legacy of asbestos, unfortunately, is very much with us, and we are passing it on to the next generation. As other industrialized countries are realizing the magnitude of these continuing exposures and disease from legacy asbestos, the asbestos installed 40 to 70 years ago, they are not only banning asbestos from commerce, they are also conducting national assessments to understand where

it is, how much of it there is, and they are developing strategic plans to safely remove it and dispose of it. But in the United States, we don't really know that information.

And if we don't know, we can't control exposures to it. Workers don't know if they are repairing or installing something located next to asbestos material. They don't know if they are replacing flooring containing asbestos. The last time the United States has profiled the scope of the asbestos problem was in the 1980s despite its widespread existence throughout facilities all over the country, in refineries, in powerhouses, in schools, in hospitals, in steel factories, and in other structures. That material installed decades ago, is now falling apart and being disturbed.

As asbestos ages and weathers different conditions such as moisture, vibration, it deteriorates and it becomes friable over time, which puts those working near it at much higher risk. The worst occupational exposures tend to be in construction, abatement, renovation, routine maintenance work, and custodial activities. But because there is no safe level of exposure to asbestos, any worker performing activities near asbestos is at risk.

In its 1994 asbestos standard, OSHA recognized and fully acknowledged that under the standard workers exposed continued to be at significant risk of asbestos disease. Instead of banning all uses of asbestos and conducting a full assessment to understand the real magnitude and the real impact of the problem, EPA recently created a mechanism for the Agency to actually approve new uses of asbestos. They have misled the public by telling us that they are strengthening regulation of asbestos.

The legislation here today is so important. It bans future uses of asbestos without loopholes, and it begins the very difficult and critical work of controlling the problem in front of us, the deadly consequences of legacy uses. OSHA cannot do this. EPA has not done this. We urge the committee and Congress to move forward without delay and enact this legislating bill.

Thank you. I am happy to answer any questions.

[The prepared statement of Ms. Reindel follows:]

**Testimony of Rebecca L. Reindel, MS, MPH  
Senior Safety and Health Specialist  
American Federal of Labor and Congress of Industrial Organizations**

**Before the House Committee on Energy and Commerce's  
Subcommittee on Environment and Climate Change  
*Ban Asbestos Now: Taking Action to Save Lives and Livelihoods*  
Legislative Hearing on H.R. 1603—Alan Reinstein Ban Asbestos Now Act of 2019  
May 8, 2019**

Chairman Tonko, Ranking Member Shimkus and members of the committee, I appreciate the opportunity to testify today on behalf of the AFL-CIO on legislation to ban asbestos.

The AFL-CIO is a federation of 55 national and international unions and we represent more than 12.5 million working people in their workplaces. Our unions represent workers in a broad range of industries including construction, education, emergency response, manufacturing, healthcare, transportation, utilities, retail and service, and others; in private and public sectors; in stationary and mobile workplaces. They work side-by-side millions of non-unionized workers. Hundreds of thousands of these workers have been exposed to asbestos and continue to become ill and die from asbestos exposure.

The AFL-CIO strongly supports this federal legislation to ban asbestos. We applaud the efforts of Representative Suzanne Bonamici and this committee to champion and guide the asbestos ban legislation in the House of Representatives and the efforts of Senator Jeff Merkley to initiate similar legislative efforts in the Senate.

Over the last four decades, the AFL-CIO and our affiliated unions have acted to protect workers from the hazards of asbestos exposure through the development and implementation of asbestos regulations and legislation, including OSHA regulations, EPA regulations, legislative efforts to compensate asbestos victims for their diseases, and the recently amended Toxic Substances Control Act—the Frank R. Lautenberg Chemical Safety for the 21st Century Act—as well as the 1986 International Labor Organization Convention on Asbestos and the successful efforts at the 2006 ILO Conference to adopt a resolution calling for elimination of the future use of asbestos worldwide.<sup>1</sup>

Asbestos is the poster child of the historical failure under the original Toxic Substance Control Act to protect people from a chemical known to have serious health effects at low levels of exposure and known to be extremely difficult to control exposures over its long lifespan. But that law was updated in 2016, with clear intention by Congress to prevent exposure to asbestos and create a pathway for banning this dangerous substance. This legislation to further amend that law and specifically address asbestos will finally protect working people and save lives.

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<sup>1</sup> International Labor Organization. Resolution Concerning Asbestos, 2006.  
[http://www.ilo.org/safework/info/standards-and-instruments/WCMS\\_108556/lang-en/index.htm](http://www.ilo.org/safework/info/standards-and-instruments/WCMS_108556/lang-en/index.htm).

The magnitude of the asbestos disease problem is enormous and totally unacceptable.

Since 1999, more than 50,000 people died from mesothelioma and nearly 25,000 people died from asbestosis.<sup>2</sup> These numbers do not include other asbestos-related diseases such as cancers of the lung, larynx, ovary, pharynx, stomach, colorectum, and non-cancer effects like respiratory and immune effects.<sup>3,4</sup> The number of deaths from asbestos-related lung cancer or other asbestos-related cancers are expected to be six to 10 times greater than the number of deaths from mesothelioma.<sup>5</sup>

The number of deaths that continue today from mesothelioma and asbestosis are significant and alarming, especially considering the protections put in place over the years. Historical disease estimates for the present day are now underestimates of the real problem. The numbers of asbestos-related diseases in 2017 are worse than they were projected to be in the 1980s. Nicholson, et al, estimated that in 2017 there would be 2,082 total deaths from mesothelioma, 2,108 total deaths from all asbestos-related lung cancer, 564 deaths from all asbestos-related gastrointestinal and other cancers, and 4,754 deaths from all asbestos-related cancer in selected occupations and industries.<sup>6</sup> These estimates were developed because the authors expected the installation use of “legacy” asbestos to result in serious health effects in the future. According to CDC’s Wide-ranging ONline Data for Epidemiologic Research (WONDER) database, 2,882 people died from mesothelioma and 1,102 people died from asbestosis in 2017.<sup>7</sup> This is an increase in mesothelioma deaths from 2016, when there were 2,707 mesothelioma deaths and 2,138 asbestosis deaths. Given the proportion of lung cancer deaths to mesothelioma deaths, the estimated number of asbestos-related lung cancer deaths in 2017 would be 12,492 to 28,820—well in excess of the projections and certainly alarming.<sup>8</sup> Noticeably, the number of mesothelioma and asbestosis deaths among women is relatively unchanged or has even spiked in recent years.

The largest extent of the asbestos-related disease burden is a result of occupational exposures. Workers are exposed to asbestos at all stages of its life cycle and often at the highest exposure levels; and they are a conduit for bringing asbestos home to their families via clothing, equipment, skin and hair.

<sup>2</sup> Center for Disease Control and Prevention. Wide-ranging ONline Data for Epidemiologic Research <https://wonder.cdc.gov/>.

<sup>3</sup> International Agency for Research on Cancer. Asbestos (Chrysotile, Amosite, Crocidolite, Tremolite, Actinolite, Anthophyllite) Monograph, updated in 2018. <https://monographs.iarc.fr/wp-content/uploads/2018/06/mono100C-11.pdf>.

<sup>4</sup> Environmental Protection Agency. “Restrictions on Discontinued Uses of Asbestos; Significant New Use Rule.” 84 Fed. Reg. 80 (April 25, 2019).

<sup>5</sup> Furuya S, Odgerel C, Takahashi K, David A, Takala J. “Global Asbestos Disaster.” *Int J Environ Res Public Health*. 2018. 15: 1000.

<sup>6</sup> Nicholson WJ, Perkel G, Selikoff IJ. “Occupational Exposure to Asbestos: Population at Risk and Projected Mortality—1980-2030.” *Am J Ind Med* 3:259-311 (1982).

<sup>7</sup> Center for Disease Control and Prevention. Wide-ranging ONline Data for Epidemiologic Research <https://wonder.cdc.gov/>.

<sup>8</sup> Furuya S, Odgerel C, Takahashi K, David A, Takala J. “Global Asbestos Disaster.” *Int J Environ Res Public Health*. 2018. 15: 1000.

The CDC and other surveillance data show that a new generation of workers have significant levels of asbestos disease and death, notably workers 55 and younger, who would have entered the job market in the 1980s and later, after asbestos regulations were adopted. Results from the Chicago Insulators Union Early Detection Lung Cancer Screening Program show that 47% of those insulators who started work in the 1980s have asbestos pleural disease; many were under 50 years old.<sup>9</sup> An insulator in Chicago who started the trade in 1993 was screened in 2016. He recently died at the age of 45 with elevated levels of asbestos fibers in his lungs. Clinic data also show workers in their 40s appearing with asbestos-related disease.<sup>10</sup>

Occupational exposures like asbestos extend beyond the workplace. For decades, family members of asbestos-exposed workers have been adversely affected by asbestos fibers transferred directly from the workplace to the home. Given the notable deaths from mesothelioma and asbestosis among women, it also is deeply concerning that asbestos fibers transfer through the placenta and may be responsible for stillborn deaths, affecting a very young generation as well. A 1996 study identified the presence of short and thin asbestos fibers in stillborn infants compared to live born infants, and their positive association with working mothers.<sup>11</sup>

#### Regulation and control of asbestos is not enough.

Early regulation of asbestos is out of date and does not reflect the magnitude of the current and future asbestos-related disease problem.

Immediately following the passage of the Occupational Safety and Health Act, in 1971, the AFL-CIO's Industrial Union Department petitioned OSHA to take emergency action to regulate asbestos. In response to that petition, the Department of Labor issued an emergency standard on asbestos—the first standard under the new OSH Act—in December 1971. But that standard, and the subsequent permanent rule, failed to adequately protect workers. So our efforts to reduce asbestos exposures continued through the 1970s, 1980s and 1990s, repeatedly seeking stricter control measures through petitions, legislation and court action. The unions' efforts led to the current OSHA asbestos standard that sets a permissible limit of 0.1 fibers per cubic centimeter (f/cc), issued in 1994.

While OSHA regulates some areas of occupational use of asbestos, it does not address the full extent of the problem, in several major ways:

- Early OSHA regulations left workers at significant risk, but could not further reduce the permissible exposure limit because of restrictions on the limit of detection capabilities (i.e., the technical methods at the time could not reliably test below the permissible

<sup>9</sup> Johnson TM. Continuing Asbestos Exposures and Disease: Major Refineries and Industrial Facilities, 1980-2018. White Paper Re: Chicago Insulators Union. August 2018. Available at:

<https://www.regulations.gov/document?D=EPA-HQ-OPPT-2018-0210-0102>.

<sup>10</sup> Association of Occupational and Environmental Clinics. Submission to EPA. Available at:

<https://www.regulations.gov/document?D=EPA-HQ-OPPT-2016-0736-0476>.

<sup>11</sup> Haque AK, Vrazel DM, Burau KD, Cooper SP, Downs T. "Is there transplacental transfer of asbestos? A study of 40 stillborn infants." *Pediatr Pathol Lab Med*. 1996 Nov-Dec;16(6):877-92.

exposure limit of 0.1 f/cc). The agency discussed this in their preamble to the 1994 final asbestos standard.<sup>12</sup>

- Many large, older, industrial facilities have not complied and do not comply with the OSHA asbestos regulation.
- Many workers in the U.S. are not covered by the Occupational Safety and Health Act. Currently, 8 million public sector workers, including many firefighters and teachers; 15 million self-employed workers including independent contractors, day laborers and temporary workers; 350,000 workers in the mining industry; and many agricultural workers on small farms are not afforded safety and health protections under the OSH Act.
- Even where OSHA has coverage, OSHA is staffed with so few resources that it would take federal OSHA 165 years to visit every workplace in the U.S. once.<sup>13</sup>
- OSHA's standard-setting process has become unduly burdensome and lengthy, and the agency is not under strict timelines to establish protections from chemicals. OSHA's system for addressing toxic substances is broken. The Trump administration has removed all chemical regulatory activity for OSHA in the near future.

Existing EPA statutes on asbestos have gaps in occupational coverage, gaps in effectiveness of requirements, inadequate enforcement and the agency's capacity may not have kept pace with the increase in asbestos removal and disposal. Through its passage of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, Congress recognized the benefit of broad EPA protection for workers. Lawmakers recognized that OSHA 1) cannot regulate, enforce or compel data from manufacturers, 2) cannot ban a chemical, and 3) has not required substitution with a safer chemical or process, but that EPA can take all of these actions. But EPA has indicated it will not act and continues to endanger the lives of workers and the public. The agency has failed to scope the asbestos problem adequately and meaningfully—it has ignored “legacy uses, associated disposal, and legacy disposal” of asbestos—and has failed to issue requirements that provide comprehensive protection against asbestos.

In EPA's most recent effort to address a limited number of asbestos exposures through a Significant New Use Rule, EPA misleads the public and opens a pathway for the U.S. to be a major source of asbestos production and use once again. In its rule, EPA considers a significant new use of asbestos as any use “initiated prior to August 25, 1989, for which manufacturing and processing are no longer ongoing in the United States,” because these uses were previously banned (temporarily). Through this SNUR mechanism, EPA would be notified when raw asbestos and asbestos-containing articles manufactured or processed in other countries are imported into the U.S., or when asbestos-containing materials are produced here in the U.S. and that EPA could allow these uses. The very issuance of this rule is a declaration by the agency that some uses of asbestos are safe, as well as an indication the agency refuses to use its authority to ban this dangerous substance.

This is totally contrary to the intent of Congress under LSCA and the direction taken by most of the industrialized world. To date, 65 countries have moved to ban asbestos.<sup>14</sup> The recent passage

<sup>12</sup> Occupational Safety and Health Administration. Final asbestos standard and preamble. 29 C.F.R. § 1910.1001 1994; 29 C.F.R. § 1915.1001 1994; 29 C.F.R. § 1926.58 1994.

<sup>13</sup> AFL-CIO. “Death on the Job: The Toll of Neglect.” 28<sup>th</sup> edition, 2019. Available at: <https://aflcio.org/dotj>.

<sup>14</sup> International Ban Asbestos Secretariat. [http://ibasecretariat.org/alpha\\_ban\\_list.php](http://ibasecretariat.org/alpha_ban_list.php).

of LSCA did not intend to invite—or even encourage—a resurgence of asbestos manufacturing, processing or distribution to the U.S. under certain conditions of government approval. The U.S. is moving in the wrong direction. By allowing new and previous uses, we will see another resurgence of disease in a few decades. It is time to ban this dangerous substance, without exception or loopholes.

Legacy uses of asbestos result in ongoing exposures to asbestos, not legacy exposures.

In the U.S., asbestos is widespread throughout refineries, power houses, steel factories, schools, utilities and many other buildings. It is in worse condition than it was in the 1980s due to deterioration and weathering over time, which means exposures are worse under certain conditions and the need to remove it is more urgent. With time, asbestos installed 40 years ago only becomes more friable and endangers workers who must either intentionally or unintentionally disturb it.<sup>15</sup>

Most occupational uses of legacy asbestos involve tasks where workers are:

- Installing, maintenance, repairing or otherwise making adjustments to non-asbestos containing material (ductwork, electrical, plumbing and mechanical systems) located near existing asbestos material;
- Installing, maintenance, repairing or otherwise making adjustments to asbestos material itself;
- Removing and disposing of asbestos-containing material;
- General work activity around fallen asbestos material on the floor and throughout facilities; and
- Activity related to accidental release of asbestos during building work, disasters and other events that are reasonably foreseeable.

The number of workers being exposed is enormous. In 1982, Nicholson, et al estimated the number of construction insulators in 1980 to be 37,630; and 27,527 workers potentially exposed to asbestos between 1940 and 1979, 7,505 in the construction trades.<sup>16</sup> By the late 1980s, these numbers grew. In its 1994 preamble, OSHA estimated that 683,670 workers were exposed to asbestos during manufacturing, auto repair and ship repair (Table 2) and that between 1,578,006 and 5,751,586 workers were exposed to asbestos during new construction, abatement, renovation, routine maintenance work and custodial activities (Table 3).<sup>17</sup> Previous submissions

<sup>15</sup> Australian Government. Asbestos Safety and Eradication Agency. "National Strategic Plan for Asbestos Management and Awareness 2014–18" (2015) <https://www.asbestosafety.gov.au/research-publications/national-strategic-plan-asbestos-management-and-awareness>.

<sup>16</sup> Nicholson WJ, Perkel G, Selikoff IJ. "Occupational Exposure to Asbestos: Population at Risk and Projected Mortality—1980-2030." *Am J Ind Med* 3:259-311 (1982).

<sup>17</sup> Occupational Safety and Health Administration. Final asbestos standard and preamble, 29 C.F.R. § 1910.1001 1994; 29 C.F.R. § 1915.1001 1994; 29 C.F.R. § 1926.58 1994.

to EPA from several unions document exposure to asbestos under deteriorating conditions and accidental release of asbestos in school buildings during regular work activities.<sup>18,19</sup>

According to OSHA's 1986 Regulatory Impact and Regulatory Flexibility Analysis, which was centrally relied upon in OSHA's preamble to the 1994 revised asbestos standard, the industries primarily affected by asbestos exposures are manufacturing, service and repair and construction [begins page II-7 and details follow; tables II-8 through II-15].<sup>20</sup> The industry profiles of tasks and exposures in the documents above are the most comprehensive assessment of occupational exposures that exist. Since then, there has been no attempt to understand where asbestos is today, its condition and the tasks associated with occupational exposure.

The job tasks involving asbestos have changed little since the 1980s; the same types of work are performed by workers daily and are the primary sources of occupational contact and exposure with asbestos. In 2015, a more narrow examination of OSHA exposure monitoring data from recent years revealed many industry profile similarities: High asbestos exposures were measured in the categories "building construction-general contractors and operative builders," "heavy construction, except building construction-contractors," "construction-special trade contractors," "petroleum refining and related industries" and others.<sup>21</sup> These OSHA inspection data show that asbestos exposures have decreased since the bulk of asbestos was installed, but exposure levels are still significant, and often much higher than OSHA's permissible exposure limit of 0.1 f/cc. In FY 2018, federal OSHA reported 304 violations of its asbestos standards, the majority of them in the construction industry.<sup>22</sup>

As disposal of asbestos increases, more workers are exposed to asbestos. Even though consumption of asbestos in the U.S. has slowed since the partial asbestos bans issued in the 1970s, the disposal rate of asbestos actually has increased. According to the Toxics Release Inventory onsite and offsite reported disposal data, disposal of friable asbestos steadily increased from 8.7 million pounds in 2009 to 20.5 million pounds in 2017.<sup>23</sup> Two severe limitations of this data are 1) it does not include key industries where asbestos is still installed and disturbed (including construction), and 2) it only reports friable asbestos, even though it is well known and documented that non-friable asbestos becomes friable with time and other conditions (such as moisture and other weathering). Both of these factors increase the amount of asbestos needing to be discarded.

<sup>18</sup> Johnson TM. Continuing Asbestos Exposures and Disease: Major Refineries and Industrial Facilities, 1980-2018. White Paper Re: Chicago Insulators. August 2018. Available at: <https://www.regulations.gov/document?D=EPA-HQ-OPPT-2018-0210-0102>.

<sup>19</sup> Long J. United Federation of Teachers. Available at: <https://www.regulations.gov/document?D=EPA-HQ-OPPT-2016-0736-0477>.

<sup>20</sup> OSHA. Regulatory Impact and Regulatory Flexibility Analysis. 1986.

<sup>21</sup> Cowan DM, Cheng TJ, Ground M, Sahmel J, Varughese A, Madi AK. "Analysis of workplace compliance measurements of asbestos by the U.S. Occupational Safety and Health Administration (1984-2011). Regul Toxicol Pharmacol. 72: 615-629 (2015).

<sup>22</sup> Occupational Safety and Health Administration. Industry Profile for an OSHA Standard, search results for 1910.1001 and 9126.1101. Available at: <https://www.osha.gov/pls/imis/industryprofile.html>.

<sup>23</sup> Environmental Protection Agency. Toxics Release Inventory, 2009-2016. [https://iaspub.epa.gov/triexplorer/tri\\_release.chemical](https://iaspub.epa.gov/triexplorer/tri_release.chemical).

Many authorities, such as the International Labor Organization, have declared no safe level of asbestos exposure and have called for bans on all uses of the chemical and protective remediation requirements to eliminate existing asbestos in buildings today.<sup>24</sup> Other industrialized nations that have ignored legacy-associated exposures to asbestos have finally decided to act. According to a recent study, 652 Australians died from mesothelioma in 2012 and more than 25,000 Australians are expected to die from mesothelioma over the next 40 years.<sup>25,26</sup> To address asbestos in the built environment, the Australian government published a comprehensive framework, “National Strategic Plan for Asbestos Management and Awareness 2014–18.”<sup>27</sup> This document outlines a plan for assessing current asbestos in place in Australia. The World Health Organization states clearly that eliminating asbestos-related diseases should take place through:

- a. recognizing that the most efficient way to eliminate asbestos-related diseases is to stop the use of all types of asbestos;
- b. replacing asbestos with safer substitutes and developing economic and technological mechanisms to stimulate its replacement;
- c. taking measures to prevent exposure to asbestos in place and during asbestos removal (abatement), and;
- d. improving early diagnosis, treatment, social and medical rehabilitation of asbestos-related diseases and establishing registries of people with past and/or current exposures to asbestos.<sup>28</sup>

The last time the U.S. profiled the occupational scope of the asbestos problem was in the 1980s. The only way to know where asbestos is located throughout the country, putting workers and the public at risk through ongoing exposures, is to conduct a comprehensive evaluation as described in Section 3 of the legislation. This study will provide updated information on the number of buildings where asbestos is present, an estimate of the amount of asbestos present, the number of individuals potentially exposed and the conditions and operations that create the greatest potential for exposure. This information is necessary to assess the risk from ongoing asbestos exposure and the sufficiency of existing regulations in protecting the public and workers from such exposure. The study will provide recommendations on additional measures that may be required to reduce or eliminate risk to health, which may include mandatory building inspections and inventorying the presence of asbestos, mandatory removal of asbestos or other measures to limit exposure.

<sup>24</sup> International Labour Organization. Resolution Concerning Asbestos, 2006.

[http://www.ilo.org/safework/info/standards-and-instruments/WCMS\\_108556/lang-en/index.htm](http://www.ilo.org/safework/info/standards-and-instruments/WCMS_108556/lang-en/index.htm).

<sup>25</sup> Australian Mesothelioma Registry. (2014). 3rd Annual Report – Mesothelioma in Australia 2013. Retrieved from <http://www.mesothelioma-australia.com/publications-and-data/publications>.

<sup>26</sup> Olsen, Nola J Franklin, P, Reid, A, de Klerk, N, Threlfai, T, Shilkin, K, Musk, B (2012), ‘Increasing incidence of malignant mesothelioma after exposure to asbestos during home maintenance and renovation’, The Medical Journal of Australia, vol. 195, no. 5.

<sup>27</sup> Australian Government. Asbestos Safety and Eradication Agency. “National Strategic Plan for Asbestos Management and Awareness 2014–18” (2015) <https://www.asbestosafety.gov.au/research-publications/national-strategic-plan-asbestos-management-and-awareness>.

<sup>28</sup> World Health Organization. International Programme on Chemical Safety: Asbestos. [http://www.who.int/ipcs/assessment/public\\_health/asbestos/en/](http://www.who.int/ipcs/assessment/public_health/asbestos/en/).

Millions of workers have been exposed to asbestos in the U.S. and are still being exposed today. Early regulatory and legislative efforts reduced but did not eliminate the significant burden of asbestos-related disease. The only way to stop this epidemic is to stop the introduction of asbestos into the stream of commerce as quickly as possible, and to conduct an assessment of the presence and full extent of exposure and risk associated with asbestos already in buildings today in order to determine what additional regulatory measures or other interventions are needed to reduce the ongoing risk from asbestos exposure. To date, EPA has totally failed to take action to stop the future use of asbestos or address exposure to legacy asbestos. This legislation will once and for all address the ongoing crisis of asbestos exposure and disease and protect the public and workers from this deadly hazard. The AFL-CIO urges the committee and the Congress to move without delay to enact this lifesaving bill.

Mr. TONKO. Ms. Reindel, thank you.

We now move to Mr. Michael Walls. You are recognized, sir, for 5 minutes.

#### STATEMENT OF MICHAEL P. WALLS

Mr. WALLS. Chairman Tonko, Ranking Member Shimkus, and members of the subcommittee, good morning. I am Mike Walls, the Vice President for Regulatory and Technical Affairs at the American Chemistry Council. I was the chemical industry's principal technical representative in the discussions that resulted in the 2016 amendments to the Toxic Substances Control Act. And I am here today to reinforce our industry's commitment to full and effective implementation of those amendments.

Now, the 2016 amendments were a significant bipartisan achievement. In those amendments Congress established a process to reinforce public confidence in EPA's management and assessment of new and existing chemicals. The amendments require the Agency to have sufficient information to make an affirmative regulatory decision on chemicals in an open and transparent way. And a key element of those amendments was a requirement that EPA systematically evaluate the risks of high priority substances and regulate their uses when necessary, subject to strict deadlines for action.

Now, you have already heard that in December 2016, EPA identified asbestos as one of the first ten substances undergoing evaluation. You know that the assessment is supposed to come forward for public comment later this year, that EPA expects to meet its deadline in December of this year. Under the terms of the 2016 amendments, EPA must take into account both the hazards and the risks of exposure under specific conditions of use.

EPA cannot consider costs and benefits in the evaluation of those risks. But once it identifies unreasonable risk, EPA must then regulate to ensure that any unreasonable risks are managed appropriately.

Now, our industry is committed to effective and efficient implementation of the 2016 amendments. In part, that commitment is reflected in the fact that ACC member companies provided information to EPA specific to the use of asbestos in chlorine production. This included information on the transportation, use, and disposal information in that condition of use, including exposure information. Our companies' use of asbestos in the production of chlorine is highly regulated and controlled to prevent exposures to humans in the environment.

This includes a specific National Emissions Standard for Hazardous Air Pollutants, or NESHP, under the Clean Air Act. You have already heard today that one-third of total United States production of chlorine and sodium hydroxide relies on closed-system chrysotile asbestos diaphragms cells. Those cells separate chlorine from its co-product sodium hydroxide while remaining, while ensuring that those substances are contained in the cell.

Human exposures are prevented by the rigorous use of personal protective equipment, as well as appropriate engineering controls, routine maintenance, and rigorous training. Federal regulations also govern the disposal of spent asbestos diaphragms.

Now, chlorine is essential to ensuring access to safe drinking water for millions of American families. It also enables life-saving healthcare and pharmaceutical products, energy resources like solar panels and wind turbines, and much more. A blanket ban that includes the chlor-alkali industry's use of asbestos would have, in our view, a significant impact on the supply of chlorine. That in turn will jeopardize public health and increase prices for a wide range of vital consumer and industrial goods.

I want to be absolutely clear that ACC believes that EPA's ongoing risk evaluation of asbestos properly covers the use of asbestos in chlorine production. In our view, that use is and will continue to be appropriately controlled to ensure that it does not pose an unreasonable risk.

Now, in 1989, EPA recognized that a ban on the use of asbestos in chlorine production was not appropriate. ACC opposes H.R. 1603 because it would set an unfortunate precedent for legislating risk management actions on substances subject to TSCA. We believe that EPA must be given the chance to complete its ongoing assessment. We believe that the system Congress approved in 2016 must be given a chance to work.

Imposition of a blanket ban on asbestos use without the benefit of EPA's risk evaluation, and without the benefit of information on appropriate risk management measures undermines the process that was the basis for Congress's bipartisan agreement in 2016.

Thank you very much for the opportunity to provide this testimony. I look forward to your questions.

[The prepared statement of Mr. Walls follows:]



Written Statement of  
Michael P. Walls  
Vice President, Regulatory and Technical Affairs American Chemistry Council

Before the  
U.S. House of Representatives  
House Committee on Energy and Commerce's  
Subcommittee on Environment and Climate Change  
Regarding a Hearing Titled  
*"Ban Asbestos Now: Taking Action to Save Lives and Livelihoods"*  
May 8, 2019

American Chemistry Council  
700 2nd Street, N.E.  
Washington, D.C. 20002

**TESTIMONY OF MICHAEL P. WALLS  
ON BEHALF OF THE  
AMERICAN CHEMISTRY COUNCIL**

Chairman Tonko, Ranking Member Shimkus, and members of the Subcommittee: I am Mike Walls, the Vice President for Regulatory and Technical Affairs at the American Chemistry Council. I was the chemical industry's principal technical representative in the discussions that resulted in the 2016 amendments to the Toxic Substances Control Act (TSCA). I am here today to reinforce our industry's commitment to the full and effective implementation of the 2016 TSCA amendments.

Passage of the 2016 amendments to TSCA was an overwhelmingly bipartisan achievement. In those amendments, Congress established a process to reinforce public confidence in EPA's assessment of new and existing chemicals, requiring that the Agency have sufficient information to make an affirmative regulatory decision on chemicals, in an open and transparent way. A key element of the amendments was a requirement that EPA systematically evaluate the risks of high priority chemicals and regulate their uses when necessary, subject to strict deadlines for action.

In December 2016, EPA designated asbestos as one of the first 10 chemicals for risk evaluation under the 2016 amendments. The draft of that assessment is expected to be released for public comment later this year. The deadline for the final assessment is December 2019, unless extended for no more than 6 months. Under the terms of the 2016 amendments, EPA must conduct a risk evaluation, taking into account both hazards and the risks of exposures under specific conditions of use. EPA must then regulate to ensure that any unreasonable risks to human health or the environment are managed appropriately.

The commitment our industry has to the effective and efficient implementation of the 2016 amendments is, in part, reflected in the fact that ACC member companies have provided EPA with information specific to asbestos use in chlor-alkali production. That information includes information on the transportation, use, and disposal of asbestos in that condition of use, including exposure information. ACC member companies' use of asbestos in the production of chlorine is highly regulated, and controlled to prevent exposures to humans and the environment. The requirements include a specific National Emissions Standard for Hazardous Air Pollutants (NESHAP) rule.

One-third of total U.S. production of chlorine and sodium hydroxide relies upon closed-system chrysotile asbestos diaphragms cells that separate the chlorine from the sodium hydroxide while remaining contained in the cell. Human exposures are prevented by the rigorous use of personal protective equipment (PPE), as well as appropriate engineering controls, maintenance, and rigorous training. Federal regulations mandate specific requirements for the disposal of spent asbestos diaphragms.

Chlorine is essential to ensuring access to safe drinking water for millions of American families, lifesaving healthcare and pharmaceutical products, energy resources like solar panels and wind turbines, and much more. A blanket ban that includes the chlor-alkali industry's use of asbestos

would have a significant impact on the supply of chlorine, which could in turn jeopardize public health and increase prices for a wide range of vital consumer goods.

To be clear, ACC believes that EPA's ongoing risk evaluation properly includes the use of asbestos in chlorine production. In our view, however, that use is and will continue to be appropriately controlled to ensure that it does not pose an unreasonable risk to human health or the environment. Notably, in 1989 EPA recognized that a ban on the use of asbestos in chlorine production was not appropriate given the strong regulation and comprehensive handling procedures applied in the industry.

ACC opposes H.R. 1603 because it would set an unfortunate precedent for legislating risk management actions on substances subject to TSCA. Imposition of a blanket ban on asbestos use without the benefit of EPA's anticipated risk evaluation, and without the benefit of information on risk management measures appropriate to conditions of use like chlorine production, undermines the process that was the basis of Congress' bipartisan agreement in 2016.

Thank you for the opportunity to provide this testimony. I look forward to your questions.

Mr. TONKO. Thank you, Mr. Walls.

And, finally, we will hear from Dr. Monforton. You are recognized for 5 minutes, please.

#### STATEMENT OF CELESTE MONFORTON

Dr. MONFORTON. Thank you, Chairman Tonko, Ranking Member Shimkus, and members of the subcommittee. I am Dr. Celeste Monforton. I am a lecturer at Texas State University. I have a doctorate and a master's in public health, and I have worked in this field for nearly three decades, including at OSHA, and MSHA, and the Department of Labor. I am testifying today on behalf of the American Public Health Association. And I currently serve on the association's Action Board.

I ask my written statement and attachments be included in the record.

APHA's mission is to improve the health of the public and to achieve equity in health status. Accomplishing these goals requires focus and attention on numerous social determinants of health, including exposure to toxic substances in the outdoors, in schools, in homes, and in workplaces.

A decade ago APHA called for a complete ban on asbestos. We have remained steadfast in this position, and it is the reason that APHA strongly supports H.R. 1603. There is no debate in the public health community that asbestos is a carcinogen and there is no safe level of exposure.

The comprehensive ban required under 1603 is on very strong scientific foundation. APHA applauded passage of the Lautenberg Chemical Safety Act and the decision by the Obama administration to chose asbestos as one of the first ten chemicals subject to risk evaluation. EPA's recent decisions, however, call into question the current Administration's willingness and ability to address the threat that asbestos poses to the public health.

In its Scoping Document and Problem Formulation EPA has essentially put a stake in the ground about what they will consider in their risk evaluation. These decisions include:

Excluding cancers that are associated with asbestos exposure, including of the larynx, pharynx, ovaries, as well as pleural disease;

Excluding the exposure to asbestos-containing materials in the buildings;

Excluding exposure to asbestos in air, soil and water, including disposal of asbestos-containing waste.

With respect to the reporting requirements and the analysis that the bill calls for with EPA, Labor Department, and HHS it is critically important because we cannot prevent asbestos-related cancers if we don't have accurate data on where it is located, what condition it is in, how it is handled and disposed, and how many people are exposed to it.

We also don't know who is importing asbestos, where it is being shipped, and where it ends up. H.R. 1603 will help to fill the significant information gap by requiring EPA and other agencies to assemble data to answer these questions. The bill embraces the fundamental principle of the public's right to know and will provide the information necessary to develop protective risk management plans.

Asbestos is a potent carcinogen. More than 60 countries have banned asbestos because they recognize its grave risk to public health. It is long past the United States to do the same. Cancer takes a physical and emotional toll on a patient and their family. Cancer has economic consequences, more than \$80 billion in direct medical care costs along. Add to that the lost time from school and work, productivity, travel, and all the other expenses that go along with having a serious illness. Preventing cancer makes economic sense.

On a personal note, at age 49 I developed cancer that had already spread to my lymph nodes. I lost more than a year of my life undergoing treatment. Cancer is scary. Like many cancer patients I wondered, how could this have been prevented? For so many cancers we don't know the answer, we don't know the cause. But for asbestos-related cancer, for mesothelioma that killed Alan Reinstein, it is lethal. And we know exactly how to prevent asbestos-related cancers: eliminating exposure to asbestos. And that doesn't mean continuing to import it and claims that it can be handled safely.

It is for this reason that APHA supports strong and comprehensive legislation that will ban asbestos, address the risks for the millions of metric tons of asbestos that is in buildings, homes, schools, and other structures, and assures the public's right to know. H.R. 1603 accomplishes these goals, and APHA wholeheartedly supports it.

Thank you.

[The prepared statement of Dr. Monforton follows:]



**Testimony of Celeste Monforton, DrPH, MPH  
on behalf of the American Public Health Association on the  
Alan Reinstein Ban Asbestos Now Act of 2019 (H.R. 1603)  
before the Subcommittee on Environment and Climate Change  
House Committee on Energy and Commerce  
U.S. House of Representatives**

May 8, 2019

I would like to thank Chairman Tonko, Ranking Member Shimkus, and members of the subcommittee for the opportunity to testify before you today on this important public health issue.

I am Dr. Celeste Monforton, a lecturer in the Department of Health and Human Performance at Texas State University and a professorial lecturer in the Department of Environmental and Occupational Health at the Milken Institute School of Public Health at George Washington University. I have a doctorate of public health, and have worked in this field for nearly three decades, including at the Occupational Safety and Health Administration (OSHA) and the Mine Safety and Health Administration (MSHA). I am a fellow in the Collegium Ramazzini.

I am testifying today on behalf of the American Public Health Association (APHA), a diverse community of public health professionals that champions the health of all people and all communities. We speak out for public health issues and policies backed by science. We are the only organization that combines a nearly 150-year perspective, a broad-based membership and the ability to influence policy to improve the public's health. I currently serve on the association's Action Board.

APHA's mission is to improve the health of the public and achieve equity in health status. Our vision is to create the healthiest nation in one generation. Accomplishing these goals requires focus and action on numerous social determinants of health. These determinants include exposure to toxic substances in schools, homes, workplaces, and the natural environment.

Consistent with our public health commitment, a decade ago, APHA called for a complete ban on the manufacture, sale, export, and import of asbestos and asbestos-containing products.<sup>1</sup> We have remained steadfast in this position and it is the reason why APHA strongly supports H.R. 1603, the Alan Reinstein Ban Asbestos Now Act of 2019. We note that the Montana Public

Health Association and the Georgia Public Health Association have also prepared letters of support for H.R. 1603.

### *Asbestos Causes Cancer*

Evidence of the causal association between asbestos exposure and cancer was documented in the 1960's by British, Italian, South African, and American physicians.<sup>2</sup> There is no debate in the public health community that asbestos is a carcinogen and there is overwhelming consensus that there is no safe level of exposure to asbestos.<sup>3,4,5,6</sup>

The Occupational Safety and Health Administration's very first regulatory action to address any toxic substance was an emergency standard on asbestos adopted in 1971. OSHA has revised its asbestos standard several times, noting in the agency's words "the undisputed grave consequences from exposure to asbestos fibers."<sup>7</sup>

In 1986, OSHA took steps to further reduce the risk of cancer for workers who are exposed to asbestos. The agency punctuated its decision to adopt a more protective standard with this statement:

"OSHA is aware of no instance in which exposure to a toxic substance has more clearly demonstrated detrimental health effects on humans than has asbestos exposure."<sup>8</sup>

The agency conceded, however, that given the statutory constraints of the Occupational Safety and Health Act with respect to economic and technological feasibility, an estimated 7 workers per 1,000 would develop cancer even at the new, lower exposure limit.<sup>9</sup> In other words, OSHA acknowledged that its standard would not prevent asbestos-exposed workers from developing cancer.

Today the scientific community has much more evidence of the cancer risk associated with asbestos exposure. Asbestos causes mesothelioma. Asbestos causes cancer of the lung, larynx, and ovary. Exposure to asbestos is also strongly associated with cancer of the pharynx, stomach, and colorectum.<sup>3</sup>

Because of its potency, the World Health Organization states:

Bearing in mind that there is no evidence for a threshold for the carcinogenic effect of asbestos, including chrysotile, and that increased cancer risks have been observed in populations exposed to very low levels, the most efficient way to eliminate asbestos-related diseases is to stop using all types of asbestos.<sup>5</sup>

The comprehensive ban required under H.R. 1603 is on a very strong scientific foundation. Asbestos poses a grave risk to public health. There is absolutely no justification for any person or company to manufacture, import, process, or distribute in commerce asbestos or any mixture or article containing asbestos. We are pleased that H.R. 1603 contains no exemptions or exceptions

and would eliminate all importation, processing and use within 12 months. Protection of public health requires nothing less.

#### *Current Administration on Asbestos*

APHA applauded passage in 2016 of the Frank R. Lautenberg Chemical Safety for the 21st Century Act (LCSA). When signing the bill into law, President Barack Obama emphasized its importance by noting EPA's previous failure to ban asbestos and reinforcing that the LCSA would ensure that it finally would do so. We were encouraged when the Obama Administration chose asbestos as one of the first 10 chemicals subject to initial risk evaluations under the new law.

However, the steps taken by EPA to address asbestos under the LCSA are of grave concern to us. The agency's decisions to-date call into question EPA's willingness and ability to protect public health. In the Scoping Document (2017) and Problem Formulation Document (2018) for the asbestos risk evaluation, EPA chose approaches that will result in an incomplete and inadequate assessment of the threat asbestos poses to public health. These include:

- (1) a decision to exclude from its risk evaluation cancers of the larynx, pharynx, ovary, stomach and colorectum, and asbestosis, which are all causally associated with asbestos exposure;
- (2) a determination that asbestos-containing materials in buildings (i.e., schools, commercial facilities, infrastructure and schools) are not required to be assessed. EPA refers to these materials as "legacy asbestos" as if harm to them is a matter of the past. This is contrary to what we know about how firefighters, school children, educators, DIYers, workers and others are currently exposed to asbestos fibers and the risk of serious health effects because of these exposures.
- (3) a determination that the risk evaluation will not address exposures in the ambient environment, specifically air, soil or water. For example, EPA does not intend to address exposure to asbestos from air releases during building renovation or demolition, or from the disposal of asbestos waste from ongoing manufacturing operations. The agency incorrectly asserts that these exposures are adequately addressed by other statutes (e.g., AHERA, Clean Air Act, Clean Water Act). It is well known that programs under these statutes are not providing full protection against asbestos exposures; and
- (4) a failure to consider contamination of talc-based consumer products with asbestos, a problem well-documented in children's crayons, toys, and cosmetics.

#### *Significant New Use Rule on Asbestos*

APHA is troubled by EPA's adoption of a Significant New Use Rule (SNUR) on asbestos. The SNUR is not a ban, and merely requires notification to the agency before several obsolete

asbestos products are reintroduced into U.S. commerce.<sup>10</sup> The SNUR makes no finding that these products are unsafe and it does not commit EPA to ban them if these products are returned to the marketplace. EPA is leaving the door open to the importation and use of old products that we know -- and EPA determined in 1989 -- put people at risk of asbestos-related disease. It would be far better for EPA to include these products in their risk evaluation and then ban them. Instead, the agency excluded them from its risk evaluation to make them subject to the SNUR.

In short, we have simply lost confidence in EPA's ability or desire to take comprehensive and effective action on asbestos. Rather than wait any longer, Congress should step in and get the job done. H.R. 1603 would impose the broad and expeditious ban that APHA believes is essential. It would cover asbestos-contaminated products, including the Libby amphibole, as well as raw asbestos and all asbestos containing products. H.R. 1603 should become law as soon as possible.

#### ***Chemical Reporting Rule Must Include Asbestos***

A key component of a health risk assessment is having the best available data in order to make sound public health decisions. The cancer risk associated with asbestos exposure makes a precautionary risk assessment especially vital. Yet EPA's Chemical Data Reporting (CDR) rule exempts asbestos from the reporting requirements that apply to thousands of chemicals.

In September 2018, APHA joined with other groups to petition EPA to require asbestos reporting under TSCA. EPA denied the petition and we are now suing EPA in federal court. In January 2019, the Attorneys General of 14 states and the District of Columbia also sent a petition to EPA on the same matter. They emphasize that EPA's interpretation of the CDR

“...deprive the agency of crucial information regarding asbestos exposure pathways necessary for the agency to fulfill its statutory mandate...”<sup>11</sup>

Section 2 of H.R. 1603 will help to fill this significant data gap because it will require the reporting by importers and users of asbestos and asbestos-containing products.

When reporting is implemented, the public will have information available to answer questions such as:

- What products contain asbestos and how much?
- How many people are exposed to specific asbestos-containing products?
- Who is importing asbestos-containing products?
- Where are asbestos-containing products being shipped?

Moreover, EPA and other public health agencies need this data in order to make informed risk evaluation and risk management decisions.

The asbestos reporting requirement in H.R. 1603 is a critically important part of the legislation. APHA supports it without qualification.

***Report to Congress on the Asbestos***

In addition to the asbestos-containing products still being imported, families and communities have inherited asbestos in their homes, schools, commercial buildings and workplaces. It is, in part, because of this “legacy asbestos” that incidence rates of cancer in U.S. firefighters that are twice as high as the general public.<sup>12</sup> EPA has refused to address asbestos in the built environment in its risk evaluation and we hope that the courts will reverse this unsound interpretation of the law.

However the court rules, we need a robust quantitative assessment of the presence of asbestos in residential, commercial, public, and school buildings. We cannot protect the public, especially children, from exposure to asbestos, if we don’t have accurate data on where it is located, what condition it is in, how many people are exposed and how it is handled and disposed.

We commend the bill’s sponsors for requiring the EPA, the Departments of Health and Human Services and the Department of Labor to assemble and analyze data to answer these and related questions. The report required under Section 3 of H.R. 1603 will provide the information necessary to develop protective risk management plans. We request that the Committee stipulate in its report language that the assessment be considered a public health investigation and conducted as such.

***Inspector General Report on the Asbestos Hazard Emergency Response Act***

A recent investigation by the EPA’s Office of the Inspector General (OIG) reinforces the need for the report described in Section 3.<sup>13</sup> The OIG reported that EPA was failing its responsibility to enforce the Asbestos Hazard Emergency Response Act (AHERA).

EPA is responsible for monitoring compliance with AHERA in 29 states and the District of Columbia. The OIG reported that between FY 2012 through 2016 some EPA regional offices conducted zero or very few inspections to monitor compliance with AHERA. During this five year time period, not a single inspection occurred in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. In Iowa, Kansas, Missouri and Nebraska, only six inspections were conducted in that five-year period. The OIG reported that in five of EPA’s 10 regions the agency only conducts AHERA inspections when they receive a tip or complaint.

“Without compliance inspections,” the OIG wrote, “EPA cannot know whether schools pose an actual risk of asbestos exposure to students and personnel.”<sup>13</sup>

President Ronald Reagan signed AHERA into law in 1986. At the time, Congress estimated that 15 million students and 1.4 million school employees were at risk of exposure to asbestos in schools. AHERA required all public and private non-profit schools (Kindergarten through 12<sup>th</sup> grade) to conduct an initial inspection to identify any asbestos containing materials (ACM). Schools with ACM are required to inspect their buildings every three years to evaluate the condition of the ACM. The institutions (or applicable local education agencies) are required to

develop written asbestos management plans and perform asbestos response actions in order to prevent or reduce asbestos hazards.

AHERA was a well-crafted and forward-thinking law. Its authors recognized that non-friable ACM in buildings will degrade with age and normal wear-and-tear. ACM that was not friable one year, could become friable in the future, creating the situation in which asbestos fibers are released into the school environment and into the community.

With the passage of AHERA in 1986 and the updated OSHA standard that same year, asbestos exposure to the public and workers was receiving much needed attention. Workers received comprehensive training on how to identify and remediate ACM. Tens of thousands of these skilled, trained laborers had union jobs in the asbestos abatement industry. A serious public health problem was being addressed and better controlled.

By the late 1990's, however, focus on asbestos waned. Some in the asbestos abatement industry shifted to non-union contractors who were performing smaller remediation projects. This shift in the workforce had consequences. Previously, union workers in the building trades often knew someone who suffered from an asbestos-related disease, like their grandfather, an uncle, or journeyman. There was an appreciation for the serious risk associated with asbestos exposure. Without these personal experiences, it was more difficult for workers to grasp the magnitude of potential harm. This workforce transition also contributed to inadequate safety training and workers reluctant to speak up if contractors were cutting corners. At the same time, EPA and OSHA were conducting few asbestos-related inspections, and school districts seemed to view asbestos as a problem of the past that already had been addressed. In fact, it is a chronic serious public health problem.

AHERA is intended to mitigate and eliminate asbestos exposure in schools, but as noted by the recent OIG report, enforcement of the law is poor because

“EPA regions have either completely disinvested from or significantly reduced resources to the AHERA program.”<sup>13</sup>

Safeguards are more uneven and less protective for building structures that contain asbestos but are not schools. A thorough examination of this large and continuing source of exposure to asbestos in the built environment is long overdue. APHA strongly endorses Section 3 of H.R.1603 for mandating it.

Each year, an estimated 39,000 people in the U.S. die from asbestos-related cancer and lung disease.<sup>14</sup> The five-year relative survival rate for pleural mesothelioma is less than 10 percent.<sup>15</sup> The only known cause of this cancer is exposure to asbestos, and a diagnosis of this disease is a death sentence for nearly all patients with it. Cancer takes an emotional and physical toll on the individual and their family. Cancer also has a significant financial impact, with more than \$80 billion alone in direct medical care each year.<sup>16</sup> Preventing cancer makes economic sense.

Today we are stuck with the legacy of more than 31 million metric tons of asbestos that was used in housing and buildings. It is imperative that the U.S. address this risk to public health.

Asbestos is a potent carcinogen. There is no safe level of exposure to it. More than 60 countries have banned asbestos because they recognize its grave risk to public health. It is long past time for the U.S. to prohibit any person or company to manufacture, import, process, or distribute in commerce asbestos or any mixture or article containing asbestos.

In conclusion, APHA supports strong and comprehensive legislation to remove asbestos expeditiously from commerce in the U.S., assure the public is informed about sources of exposure to asbestos, and address the serious and poorly managed threat from legacy asbestos. H.R. 1603 accomplishes these goals and we wholeheartedly support it.

### **ATTACHMENTS**

- (1) American Public Health Association (APHA) letter dated March 19, 2019 in support of H.R. 1603.
- (2) American Public Health Association Policy Statement: Elimination of Asbestos.
- (3) Georgia Public Health Association letter of support for H.R. 1603.
- (4) Montana Public Health Association letter support for H.R. 1603.
- (5) Collegium Ramazzini. (2015). The Global Health Dimensions of Asbestos and Asbestos-related Diseases.
- (6) APHA. Comments to EPA dated August 10, 2018 in response to 83 Fed. Reg. 26922 on agency's proposed Significant New Use Rule for asbestos.
- (7) APHA. Comments to EPA dated March 13, 2017 in response to 81 Fed. Reg. 91929 on agency's "Scoping Document" on asbestos.

### **ENDNOTES**

- <sup>1</sup> APHA (2009). Policy Statement 20096: "Elimination of Asbestos." <https://bit.ly/2GUqU7W>
- <sup>2</sup> Collegium Ramazzini. Call for an international ban on asbestos: statement update, 2004. [http://www.collegiumramazzini.org/download/11\\_EleventhCRStatement\(2004\).pdf](http://www.collegiumramazzini.org/download/11_EleventhCRStatement(2004).pdf)
- <sup>3</sup> IARC (2012) IARC Monographs—Arsenic, Metals, Fibres, and Dusts, Volume 100 C. A Reviews of Human Carcinogens. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. International Agency for Research on Cancer, World Health Organization. <http://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C.pdf>
- <sup>4</sup> World Health Organization (2014). Chrysotile Asbestos. [http://www.who.int/ipcs/assessment/public\\_health/chrysotile\\_asbestos\\_summary.pdf](http://www.who.int/ipcs/assessment/public_health/chrysotile_asbestos_summary.pdf)
- <sup>5</sup> National Institute for Occupational Safety and Health. (2017) Current Intelligence Bulletin 68: Chemical Carcinogen Policy. Cincinnati, OH: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, DHHS (NIOSH) Publication No. 2017-100.
- <sup>6</sup> Collegium Ramazzini. (2015). The Global Health Dimensions of Asbestos and Asbestos-related Diseases. [http://www.collegiumramazzini.org/download/18\\_EighteenthCRStatement\(2015\).pdf](http://www.collegiumramazzini.org/download/18_EighteenthCRStatement(2015).pdf)
- <sup>7</sup> Occupational Safety and Health Administration. Standard for exposure to asbestos dust. 37 Fed. Reg. 11318 (June 7, 1972), 11318.

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<sup>8</sup> Occupational Safety and Health Administration. Occupational exposure to asbestos, tremolite, anthophyllite, and actinolite; final rule. 51 *Fed. Reg.* 22612 (June 20, 1986) 22615.

<sup>9</sup> Occupational Safety and Health Administration. Occupational exposure to asbestos, tremolite, anthophyllite, and actinolite; final rule. 51 *Fed. Reg.* 22612 (June 20, 1986) 22647.

<sup>10</sup> As noted in the May 8, 2019 testimony submitted for this hearing by the Asbestos Disease Awareness Organization, “EPA easily could have included these obsolete products in its ongoing TSCA asbestos risk evaluation, leading to a conclusion that they present an unreasonable risk of injury, as EPA in fact concluded in its 1989 rule. Based on this determination, the Agency would then have been obligated to restrict these products under TSCA section 6(a) to the extent necessary to eliminate their risks, which would likely have required it to permanently and unconditionally ban them from U.S. commerce.”

<sup>11</sup> Petition of the Commonwealths of Massachusetts and Pennsylvania, the States of California, Connecticut, Hawaii, Maine, Maryland, Minnesota, New Jersey, New York, Oregon, Rhode Island, Vermont, and Washington, and the District of Columbia under Section 21(a) of TSCA for EPA to issue an asbestos reporting rule to require reporting under TSCA Section 8(a) of information on asbestos manufacturing, importing, processing, distribution in commerce, use and disposal, dated January 31, 2019. <https://bit.ly/2J0Foa1> Accessed May 5, 2019.

<sup>12</sup> Daniels RD, Kubale TL, et al. Mortality and cancer incidence in a pooled cohort of US firefighters from San Francisco, Chicago and Philadelphia (1950-2009). *Occup Environ Med.* 2014 Jun;71(6):388-97.

<sup>13</sup> U.S. EPA, Office of the Inspector General. EPA needs to re-evaluate its compliance monitoring priorities for minimizing asbestos risks in schools. Report No. 18-P-0270, September 17, 2018.

<sup>14</sup> Furuya S, Chimed-Ochir O, Takahashi K, et al. Global asbestos disaster. *Int J Environ Res Public Health.* 2018 May 16;15(5).

<sup>15</sup> American Cancer Society. Survival Rates for Mesothelioma (based on data from the National Cancer Institute’s Surveillance, Epidemiology, and End Results Program for cases diagnosed between 2008 and 2014 (most recent data available.)) <https://bit.ly/2VCLmnn> Accessed May 3, 2019.

<sup>16</sup> American Cancer Society. Economic Impact of Cancer (based on data from the Agency for Healthcare Research and Quality), last revised January 8, 2018. <https://www.cancer.org/cancer/cancer-basics/economic-impact-of-cancer.html> Accessed May 4, 2019.

Mr. TONKO. Thank you, Dr. Monforton. And thank you to all of our panelists for your presentations.

That concludes our witnesses' opening statements for our second panel. We now move to member questions. And I will recognize myself for 5 minutes for questions.

Mr. Walls, I asked this of Administrator Dunn, but I certainly want to get your thoughts. Over 60 other countries have managed to ban asbestos. I believe they are still able to treat their water and find safer alternatives for many other uses. Do you see any reason why the United States could not be able to transition away from asbestos-containing materials?

Mr. WALLS. If your question, Mr. Tonko, is with respect to the chlor-alkali's industry's transition away from asbestos, we certainly know that there are alternatives to asbestos diaphragm cells. But there are no drop-in replacements for those uses.

We are talking about a transition time that is significant, that would cost hundreds of millions of dollars. And it is true that in other countries they use other technologies. We even use some of those alternative technologies here in the United States, but it is not a simple matter of dropping in an alternative, switching the plant back on, and being able to produce.

Under the bill as it has been presented, it imposes an immediate one-year ban—an immediate ban one year after enactment on all uses of asbestos. That would essentially create a significant shortage of chlorine in the United States market. It would eliminate 36 percent of United States chlorine in the market. The industry cannot respond in any time frame like that.

Mr. TONKO. What would be a reasonable time frame by which to respond?

Mr. WALLS. I think it would depend on the particular facility in question, Mr. Tonko. When you are talking, you know, planning, the engineering, permitting, construction, testing, you know, before you start it, before you can start up a facility safely, et cetera, it would be a significant number of years.

Mr. TONKO. I want to ask Dr. Monforton and the other two witnesses if they have thoughts on alternatives?

Ms. MONFORTON. We do know that other countries have used alternatives. I actually have, I think, in my testimony information about one of 75 plants, only one of 75 plants in the European Union use chlorine in their—or use asbestos diaphragms in their chlorine production. Japan has banned asbestos, France, in specifically in the chlor-alkali industry.

So it is obviously something we can do.

And from the Public Health Association's position, and we certainly know how important clean drinking water is, and that chlorine is used in it, and we need chlorine as part of residual at the end of the process but that that can be done without using asbestos diaphragms.

Mr. TONKO. Ms. Reinstein and Ms. Reindel, any thoughts on alternatives and perhaps how effectively and quickly others have moved—

Ms. REINSTEIN. Thank you, Chairman Tonko.

Mr. TONKO [continuing]. To those alternatives?

Ms. REINSTEIN. I would like to respond to that on two points. The chlor-alkali industry has had 30 years since they got an exemption to embrace new technology and follow Europe to use membranes. And, obviously, mercury has been phased out.

Other countries can do it. I was recently on a call, and I don't want to name the actual chlor-alkali producer, they said they can make a transition in five years. Other countries have done it within three. Why not start? USGS states that the chlor-alkali industry is stockpiling asbestos now. Seven hundred and fifty metric tons in one year is outrageous.

Mr. TONKO. Ms. Reindel?

Ms. REINDEL. I don't have a comment on that.

Mr. TONKO. Are you recommending they should start now, Ms. Reinstein?

Ms. REINSTEIN. I think for the health of their workers, their industry, and the nation it would be unconscionable. I have to say as I flew in last night, I was shocked to read Mr. Walls' testimony, they actually—they wrote—they oppose H.R. 1603. So, we are sitting at a table having a conversation knowing that ACC goes flat out to say they oppose banning asbestos, or the bill as written.

Mr. TONKO. Yes?

Mr. WALLS. Mr. Tonko, I think I need a chance to respond to that.

We have been very clear that ACC's opposition to H.R. 1603 is exactly focused on the chlor-alkali's industry's—the impact on the chlor-alkali industry and the supply of chlorine in this nation. We certainly are not opposing a ban for all other uses of asbestos. And I just want to make that clear.

Mr. TONKO. Well, I heard the hundreds of millions that it would cost, and I also heard the billions it will cost for those who have been impacted by illness.

I have used all my time, so I will now yield to the leading Republican of the subcommittee, Mr. Shimkus, for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman.

For Mr. Walls, and it is on the same topic of chlorine and the issues. My understanding is that the diaphragm production technology accounts for 50 percent of all chlorine production in the United States, and that 72 percent of that diaphragm production technology comes from asbestos diaphragms.

Is that correct, 36 percent of all chlorine production in the United States would need to be replaced if this bill becomes law?

Mr. WALLS. Yes.

Mr. SHIMKUS. What are the practical effects in the short term from this law?

Mr. WALLS. Well, I think the most significant effects would be a ban on asbestos would eliminate 36 percent of the volume of chlorine in the United States market in the short term. Because chlorine is not traded because of its properties, et cetera, it is not—we don't ship chlorine across the ocean, for example, there are no opportunities to meet the reduction in volume by imports. Production of chlorine derivatives would also be reduced, and the imports of those derivatives would be increased.

The United States is also a net exporter of caustic soda, sodium hydroxide, which is the co-product of chlorine. Every time you

make a ton of chlorine you get 1.1 tons of sodium hydroxide. Eliminating caustic production will eliminate the trade surplus we currently have in that good and encourage more imports of it.

So, we have done a study. We believe that the direct economic impacts would be a total of direct, indirect, and payroll-induced effects of 155,000 jobs, \$9.7 billion in payroll, and \$63 billion in United States economic output.

Mr. SHIMKUS. The non-asbestos diaphragm technology that could be more widely deployed to replace it is comprised of four polymer fibers or commonly known as PFAS compound; is that correct?

Mr. WALLS. Yes. That is one of the alternatives.

Mr. SHIMKUS. And we will be talking about PFAS next week I guess; right?

If non-asbestos diaphragm technology isn't used as a replacement, there is a mercury-cell based technology, and a membrane cell technology. Are these drop-in replacements?

Mr. WALLS. No. Mercury cell technology is being phased out. Very little, if any, of United States production is produced with mercury cells.

There is no currently available drop-in technology for asbestos diaphragms.

Mr. SHIMKUS. And I was talking to some colleagues on this, it is not like replacing, we are not talking, like, replacing a coffee filter? I mean, we are—

Mr. WALLS. No. These are typically—so, just to explain the process, from the time this imported asbestos arrives in a container. That container is sealed, the asbestos within it is packaged in roughly 40-pound plastic packages put on a pallet. The pallet is wrapped in very heavy-duty plastic. The container is sealed and cannot be opened until it is at the facility and under conditions in which the expose—potential exposures to asbestos can be controlled.

The asbestos is wet deposited with complete protective equipment for the workers in an environment where exposures to the air are minimized.

So, what happened is these—this asbestos is wet deposited onto a frame. And when it is dried, before it is put into the—to the cell itself, this is essentially non-friable asbestos. It is in a matrix and bound in that matrix.

Mr. SHIMKUS. Going back just to the 36 percent, do Canada and Mexico produce enough chlorine to replace the 36 percent that could get lost if this became an immediate law and there would be an immediate ban?

Mr. WALLS. No, Canada and Mexico's chlorine production are typically used for their domestic purposes. They don't have the excess supplies to be able to replace that in the United States market.

Mr. SHIMKUS. If not these countries, where else might we seek importation from?

Mr. WALLS. Again, in elemental chlorine you would not see imports. You would see an increase in chlorine derivative, imports of chlorine derivatives. And those could come from any country. China has ramped up product—China, among others, has ramped up production of those products.

Mr. SHIMKUS. Well, thank you. This is a tough committee to be on. We are trying to balance public health. And we get it right every now and then. Sometimes we don't, and sometimes in litigation and lawsuits, like this issue, took the work and unraveled it again.

I would encourage those following this hearing to try to get this out of our commercial use. And the industries that are part of the ACC, which I am a pretty good fan of, as everyone knows, that they look for other opportunities that would make our lives a lot easier.

And, Emily, you have a very brave mom. And thank you for your service, too.

Mr. TONKO. The gentleman yields back.

I believe Dr. Monforton wanted to respond to something she had heard?

Ms. MONFORTON. Yes. So, Ranking Member Shimkus, I really appreciate you saying that we really want to get it out. And maybe we can figure out what the economic impact would be and what the timeline would be. But I think that really not having asbestos imported to our country is very, very important.

With respect to asbestos in the chlor-alkali industry being handled safely, I think we have to think about where the asbestos comes from. You know, coming from Brazil, coming from Russia, we should have no confidence that the workers that are mining, and milling, and processing, and shipping are being protected from asbestos. And United States companies have a responsibility that if they are going to be importing a potent carcinogen, you know, they can't just dismiss those exposures.

And then, in addition, you know, one can set up all kinds of policies and procedures to try to ensure that the asbestos, you know, doesn't—the bags don't break, or when you are inserting it into the closed system. But there are so many opportunities for the exposures to occur. And on the hierarchy of controls, the very best way to protect health is to eliminate the exposure.

Mr. TONKO. Thank you so much.

We now recognize the gentleman from Missouri, Mr. Long, for 5 minutes, please.

Mr. LONG. Thank you, Mr. Chairman.

Ms. Monforton is it?

Ms. MONFORTON. Yes.

Mr. LONG. You don't have to answer this if you don't want to, but you said that you had a cancer. Can you share what type that was? And like I said, if you don't want to, that is fine.

Ms. MONFORTON. No, I am happy to. I had Stage 3 breast cancer.

Mr. LONG. OK.

Ms. MONFORTON. And I have no risk factors in my family. Very healthy. I don't have any, you know, I am not overweight, I exercise. All the only things they can tell us to do to prevent cancer, but nothing about exposure.

And when we have exposure to carcinogens and we know what they do to people, you know, that should be the low hanging fruit for us.

Mr. LONG. Right, right. Cancer is near and dear to my heart. Our youngest daughter had lymphoma and she is fully recovered five

years later here after all the chemo and everything. I do a lot of work with St. Jude Children's Research Hospital.

Ms. MONFORTON. Excellent.

Mr. LONG. So I am just always, you know, a little curious as to, you know, what types and what is causing what.

So, we had an earlier meeting today with Francis Collins of NIH. And that is like, you know, sitting down with the master.

Ms. MONFORTON. Brilliant, yes. Brilliant.

Mr. LONG. So, yes, yes. So, but anyway, thank you.

Mr. Walls, Mr. Shimkus was asking you kind of a line of questions I was interested in. I mean, it used to be illegal to import LNG—I mean to export LNG, liquified natural gas, out of this country. There was a law against it. We couldn't do it. This committee fixed that a couple years ago. We are able to export.

You say we don't import chlorine. Is it—is there not a demand for it? I mean, if there was, I mean, if we quit manufacturing could we not import chlorine?

Mr. WALLS. We could. But because of the properties inherent in chlorine and the method of transportation, the logical export countries of origin for chlorine would be Canada and Mexico. And they don't have the capacity to meet the excess, what would then be the diminished United States demand.

Mr. LONG. I just got back from a trip with the Agricultural Committee to Brazil. And they didn't have the capacity to produce soybeans that China wanted. But guess what, they are ramping up. So I was just curious if, you know, there was a market from Canada and Mexico for chlorine—

Mr. WALLS. Right.

Mr. LONG [continuing]. If they would not ramp up and be able to?

Mr. WALLS. I think they would attempt to. But, again, I think the properties of chlorine are such that you wouldn't see elemental chlorine imported, you would see products made from chlorine being the principal subject of increased trade.

Mr. LONG. You are getting above my pay grade now.

Mr. WALLS. We wouldn't, in other words, we wouldn't be making those products here in the United States. They would be manufactured elsewhere and imported into the United States.

Mr. LONG. H.R. 16—Mr. Walls, sticking with you there—H.R. 1603 requires anyone who in the three years prior to enactment and one year after it manufactured, imported, processed or distributed even an incidental amount of asbestos to report this to the EPA. How do you quantify an incidental amount of asbestos? And how likely is it that all entities subjected to the requirements can maintain records to show the amount of asbestos used or produced so they can accurately report it? Again, they have to go back three years.

Mr. WALLS. Well, Mr. Long, I would assume that EPA would set that, would set a standard. I think we heard testimony from Ms. Dunn before on what the current EPA limit is.

My concern would be the reach-back for three years. I don't believe that companies or establishments across the country are keeping those records. I think it was noted earlier that even potting soil would be subject to the reporting requirements of this bill.

I am not sure that every garden shop in America has been keeping records on trace amounts of asbestos for the last three years and would be prepared to report it to EPA.

Mr. LONG. OK. As far as the bill requires the reports be released to the public, are there any concerns about confidential business information or personal things being disclosed through that process?

Mr. WALLS. Yes, perhaps. And it is an uncertainty raised by the drafting of the bill. The bill amends TSCA, which does contain strong confidential business information protections. And it is not clear whether those provisions would be overridden by this bill.

There is a simple legal principle that legislation later in time trumps the earlier in time statute, so we would have to have a better understanding of what the intention and impact would be.

Mr. LONG. OK. And I just want to thank all of you individually for being here today and testifying, and Emily. And it is, you know, things like this are just hard to deal with. And any time someone loses their life to whatever it is that was preventable is, you know, not, not acceptable.

I yield back.

Ms. BLUNT ROCHESTER [presiding]. I would like to recognize myself for 5 minutes. And I want to focus on Section 3 of the bill because I think it is so important.

We heard from EPA on the first panel that they are focusing their attention on ongoing uses of asbestos and excluding so-called legacy asbestos from their consideration. We should ban ongoing uses of asbestos, but we must also do more to address the toxic legacy of asbestos still installed in buildings across the country.

And I am going to start my questioning with Ms. Reindel. How are the members, how are your members impacted by so-called legacy asbestos, the asbestos that was already installed?

Ms. REINDEL. Thank you for the question.

We have a variety of members, not just our members and also other workers who work alongside of our members, ranges from, I mean it is really—I mean workers who are working near asbestos. The insulators' union did a report recently out of Chicago. They have an early screening, lung cancer screening protection program. And they reported that about 50 percent of workers who started work in 1980s or later are showing up with asbestos-related pleural disease.

These members are, you know, they are the ones putting up insulation, working near existing insulation. So even though the products used now might not have asbestos in them, they are working near asbestos that is deteriorating, that is getting wet, that is falling apart, that is crumbling, it is falling on plant floors. You are seeing this in schools. You are seeing this in demolition of buildings.

There have been reports from some of our teachers' unions that in schools, you know, buffing and polishing asbestos-containing floors disrupts asbestos. Any kind of maintenance work, kids playing basketball in a gymnasium rattles it.

So, when you have, when you have asbestos that is 50 years old it is going to start falling apart. The stuff doesn't last forever, and it exposes a lot of workers.

Ms. BLUNT ROCHESTER. And, you know, under Section 3, EPA would have 18 months to prepare and submit a congressional support addressing the presence of asbestos in residential, commercial, industrial, public, and school buildings, along with an assessment of the human health risks from that asbestos. How would this report help your members?

Ms. REINDEL. Yes, this report is necessary. There has been no profile of where asbestos is and its conditions since the 1980s. We don't know—we know what asbestos does to people, and we know how people are being exposed roughly. But we don't know where it is in order to do anything about it.

We need a complete assessment in order to actually address the problem, in order to assess the risks and development recommendations as to what we can actually do about that. And those recommendations can include a variety of things, but that is something that report would have to come out with.

Ms. BLUNT ROCHESTER. And, Ms. Reinstein, first I send my heart to you. I also lost my husband, and I know coming to Congress has given me my joy and my purpose back, so I thank you for what you are doing for the American people. And maybe you could spend a moment talking about just the impact on families and on your husband.

Ms. REINSTEIN. I am sorry for your loss, too.

When I speak for myself, I really speak for the hundreds of thousands of others. For those of us who have buried, cared for, buried a loved one it is a measurable pain. We look at calendars, we look at empty chairs, we look at father-daughter dances, and those have changed forever.

I feel that 15 years of my work in Congress we have made significant progress. You should be so proud, this is the first legislative ban asbestos hearing I have ever attended in the House. And I think it fuels our fight, like your member from Missouri said, but most importantly I guarantee you there are people around the world watching this hearing today and applauding you as House members for moving this forward.

Ms. BLUNT ROCHESTER. Thank you.

Ms. REINSTEIN. So, there is no rewind button, but we can go forward together. I hope it is a bipartisan movement forward. We need that desperately.

Ms. BLUNT ROCHESTER. Thank you so much for sharing that. Thank you so much.

And I am going to close with a question to Dr. Monforton about just the public health aspect of this and the impact?

Ms. MONFORTON. So, the key principle of public health is protecting people's health. And having information about what those exposures are and knowing how to prevent them is what our work is about in really saving lives.

Ms. BLUNT ROCHESTER. Thank you so much. And now I would like to thank all of our witnesses for joining us at today's historic hearing.

I remind Members that pursuant to committee rules they have ten business days to submit additional questions for the record to be answered by our witnesses. I ask each witness to respond promptly to any such questions that you may receive.

And at this time the subcommittee—and at this time I request unanimous consent to enter the following documents into the record. These are the following documents: A statement of support from Representative Bonamici, one of the lead sponsors of H.R. 1603; a letter of support from the International Association of Firefighters; New York Times article published this morning titled “EPA Leaders Disregard Agency’s Experts in Issuing Asbestos Rule Memos Show”; A New York Times article published in August 2018, titled “EPA Staff Objected to Agency’s New Rules on Asbestos Use Internal Emails Show;” A letter from the National Association of Home Builders; A letter from the Chlorine Institute; A letter from the American Alliance for Innovation; A letter from the National Rural Water Association; A letter from the National Demolition Association; A letter from the American Waterworks Association.

Without objection, so ordered.

[Material submitted for inclusion in the record follows:]

Ms. BLUNT ROCHESTER. OK, and let’s see, and at this time the subcommittee is adjourned.

[Whereupon, at 12:37 p.m., the subcommittee was adjourned.]



I

116TH CONGRESS  
1ST SESSION

# H. R. 1603

To amend the Toxic Substances Control Act to prohibit the manufacture, processing, and distribution in commerce of asbestos and asbestos-containing mixtures and articles, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MARCH 7, 2019

Ms. BONAMICI (for herself, Mr. PALLONE, Ms. SLOTKIN, Mr. TONKO, Mr. POCAN, Mr. COHEN, Mr. HUFFMAN, Mrs. DINGELL, Ms. SCHAKOWSKY, Mr. KENNEDY, Mr. RASKIN, Mr. MCNERNEY, Ms. BLUNT ROCHESTER, Ms. BARRAGÁN, Mr. SOTO, Ms. ESHOO, Ms. MCCOLLUM, Mr. BLUMENAUER, Mr. TED LIEU of California, Ms. CLARKE of New York, Ms. VELÁZQUEZ, Ms. SÁNCHEZ, Mr. DEFazio, Ms. NORTON, Mr. MCGOVERN, Mr. JOHNSON of Georgia, and Mr. SCHRADER) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committee on Education and Labor, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To amend the Toxic Substances Control Act to prohibit the manufacture, processing, and distribution in commerce of asbestos and asbestos-containing mixtures and articles, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2       This Act may be cited as the “Alan Reinstein Ban  
3 Asbestos Now Act of 2019”.

4 **SEC. 2. ASBESTOS BAN AND REPORTING.**

5       Section 6 of the Toxic Substances Control Act (15  
6 U.S.C. 2605) is amended by adding at the end the fol-  
7 lowing:

8       “(k) ASBESTOS.—

9           “(1) PROHIBITION OF MANUFACTURE, PROC-  
10       ESSING, AND DISTRIBUTION IN COMMERCE.—Effec-  
11       tive one year after the date of enactment of this sub-  
12       section, no person may manufacture, process, or dis-  
13       tribute in commerce asbestos or any mixture or arti-  
14       cle containing asbestos.

15           “(2) EXEMPTION FOR NATIONAL SECURITY  
16       REASONS.—

17           “(A) IN GENERAL.—The President may,  
18       upon application, grant any person an exemp-  
19       tion from the prohibition under paragraph (1)  
20       once for the manufacture, processing, or dis-  
21       tribution in commerce of asbestos or any mix-  
22       ture or article containing asbestos only if the  
23       President determines that—

24           “(i) the manufacture, processing, or  
25       distribution in commerce of asbestos or  
26       any mixture or article containing asbestos

1 by the person is necessary to protect the  
2 national security interests of the United  
3 States; and

4 “(ii) no feasible alternative to the  
5 manufacture, processing, or distribution in  
6 commerce of asbestos or any mixture or  
7 article containing asbestos exists for the  
8 intended use.

9 “(B) DURATION.—

10 “(i) IN GENERAL.—The period of an  
11 exemption granted under subparagraph  
12 (A) shall not exceed 3 years.

13 “(ii) EXTENSION.—The President  
14 may, in accordance with subparagraph (A),  
15 extend an exemption granted under such  
16 subparagraph once, for a period not to ex-  
17 ceed 3 years.

18 “(C) TERMS AND CONDITIONS.—An ex-  
19 emption granted under this paragraph (includ-  
20 ing an extension thereof) shall include such  
21 terms and conditions as are necessary to  
22 achieve maximum practicable reduction in expo-  
23 sure to asbestos.

24 “(D) PUBLICATION.—

1 “(i) APPLICATIONS.—Not later than  
2 30 days after receipt of an application for  
3 an exemption under this paragraph (in-  
4 cluding an extension thereof), the Presi-  
5 dent shall publish the application in the  
6 Federal Register.

7 “(ii) EXEMPTIONS.—Not later than  
8 30 days after granting an exemption under  
9 this paragraph (including an extension  
10 thereof), the President shall publish in the  
11 Federal Register notice of the exemption  
12 and the terms and conditions included  
13 under subparagraph (B).

14 “(E) APPLICATION OF WAIVER AUTHOR-  
15 ITY.—Notwithstanding section 22, the Adminis-  
16 trator may not issue a waiver under such sec-  
17 tion with respect to asbestos.

18 “(3) REPORTS.—

19 “(A) TIMING AND COVERAGE.—

20 “(i) PREVIOUS ACTION.—Not later  
21 than 120 days after the date of enactment  
22 of this subsection, any person who has  
23 manufactured, processed, or distributed in  
24 commerce asbestos or any mixture or arti-  
25 cle containing asbestos in the 36 months

1 preceding such date of enactment shall  
2 submit to the Administrator a report de-  
3 scribed in subparagraph (B).

4 “(ii) LATER ACTION.—Any person  
5 manufacturing, processing, or distributing  
6 in commerce asbestos or any mixture or  
7 article containing asbestos during the pe-  
8 riod that begins on the date of enactment  
9 of this subsection and ends on the date on  
10 which the prohibition under paragraph (1)  
11 takes effect shall submit to the Adminis-  
12 trator a report described in subparagraph  
13 (B) not later than 60 days after—

14 “(I) the date of enactment of this  
15 subsection, for any person who has  
16 manufactured, processed, or distrib-  
17 uted in commerce asbestos or any  
18 mixture or article containing asbestos  
19 before such date of enactment; or

20 “(II) the date on which the per-  
21 son initiates any such manufacture,  
22 processing, or distribution in com-  
23 merce, for any person initiating such  
24 manufacturing, processing, or dis-

1           tribution in commerce on or after  
2           such date of enactment.

3           “(iii) REPORTS DURING EXEMPTED  
4           PERIOD.—Any person granted an exemp-  
5           tion under paragraph (2) shall submit to  
6           the Administrator a report described in  
7           subparagraph (B) not later than 27  
8           months after—

9                     “(I) the exemption is granted;  
10                    and

11                   “(II) the exemption is extended,  
12                   if applicable.

13           “(B) CONTENTS.—Each report submitted  
14           under subparagraph (A) shall include—

15                   “(i) the name and address of the per-  
16                   son submitting the report;

17                   “(ii) the name, title, and contact in-  
18                   formation of an authorized representative  
19                   of the person submitting the report;

20                   “(iii) the location of the facility or fa-  
21                   cilities where the manufacture, processing,  
22                   or distribution in commerce of asbestos or  
23                   mixtures or articles containing asbestos  
24                   has occurred, or will occur, during the re-  
25                   porting period;

1 “(iv) a description of the manufac-  
2 ture, processing, or distribution activity  
3 during the reporting period of the person  
4 submitting the report, and the intended  
5 and known uses of asbestos and each mix-  
6 ture or article containing asbestos by that  
7 person and all other persons to whom the  
8 asbestos, mixture, or article is sold or oth-  
9 erwise distributed in commerce;

10 “(v) the amount of asbestos, and the  
11 amount and concentration of asbestos in  
12 any mixture or article containing asbestos,  
13 that is manufactured, processed, or distrib-  
14 uted in commerce, or expected to be manu-  
15 factured, processed, or distributed in com-  
16 merce, by the person during the reporting  
17 period;

18 “(vi) reasonable estimates of the  
19 amount of asbestos to be disposed of as a  
20 result of the reported manufacture, proc-  
21 essing, or distribution activities, and the  
22 manner of such disposal; and

23 “(vii) reasonable estimates of—

24 “(I) the number of individuals  
25 who, as a result of the reported manu-

1           facture, processing, and distribution  
2           activities—

3                   “(aa) have been exposed to  
4                   asbestos or mixtures or articles  
5                   containing asbestos; and

6                   “(bb) will be so exposed; and

7                   “(II) the nature, duration, fre-  
8                   quency, and levels of any such expo-  
9                   sure.

10           “(C) REPORTING PERIOD.—For purposes  
11           of subparagraph (B), the reporting period for a  
12           report submitted under—

13                   “(i) subparagraph (A)(i) shall be the  
14                   period that begins on the date that is 36  
15                   months prior to the date of enactment of  
16                   this subsection and ends on the date of en-  
17                   actment of this subsection;

18                   “(ii) subparagraph (A)(ii) shall be the  
19                   period that begins on the date of enact-  
20                   ment of this subsection and ends on the  
21                   date on which the prohibition under para-  
22                   graph (1) takes effect;

23                   “(iii) subparagraph (A)(iii)(I) shall be  
24                   the period that begins on the date on  
25                   which an exemption is granted under para-

1 graph (2) and ends on the date such ex-  
2 emption expires (not including an exten-  
3 sion thereof); and

4 “(iv) subparagraph (A)(iii)(II) shall  
5 be the period that begins on the date on  
6 which an exemption is extended under  
7 paragraph (2) and ends on the date such  
8 extension expires.

9 “(D) REPORTING FORMS AND INSTRUC-  
10 TIONS.—Not later than 30 days after the date  
11 of the enactment of this subsection, the Admin-  
12 istrator shall publish a notice in the Federal  
13 Register that provides instructions for reporting  
14 under this paragraph and a form or forms for  
15 use by persons submitting reports under this  
16 paragraph.

17 “(E) AVAILABILITY.—Not later than 3  
18 months after a report is submitted under sub-  
19 paragraph (A), the Administrator shall make  
20 such report available to the public.

21 “(F) SUMMARY AND ANALYSIS.—Not later  
22 than 180 days after a report is submitted under  
23 subparagraph (A), the Administrator shall  
24 make available to the public a summary and

1 analysis of the information such report con-  
2 tains.

3 “(4) DEFINITIONS.—In this subsection:

4 “(A) ASBESTOS.—The term ‘asbestos’  
5 means—

6 “(i) the asbestiform varieties of  
7 chrysotile, actinolite, amosite,  
8 anthophyllite, crocidolite, richterite,  
9 winchite, and tremolite; and

10 “(ii) the non-asbestiform varieties of  
11 richterite and winchite.

12 “(B) DISTRIBUTE IN COMMERCE.—The  
13 terms ‘distribute in commerce’ and ‘distribution  
14 in commerce’ have the meaning given the terms  
15 in section 3(5), but, notwithstanding such sec-  
16 tion 3(5), do not include, with respect to asbes-  
17 tos—

18 “(i) end-use of a mixture or article  
19 containing asbestos and installed in a  
20 building or other structure before the date  
21 of enactment of this subsection; or

22 “(ii) distribution of a mixture or arti-  
23 cle containing asbestos solely for the pur-  
24 pose of disposal of the mixture or article in

1 compliance with applicable Federal, State,  
2 and local requirements.

3 “(C) MIXTURE OR ARTICLE CONTAINING  
4 ASBESTOS.—The term ‘mixture or article con-  
5 taining asbestos’ includes a mixture or article in  
6 which asbestos is present as an impurity.”.

7 **SEC. 3. LEGACY ASBESTOS: REPORT AND RECOMMENDA-**  
8 **TIONS.**

9 (a) REPORT.—Not later than 18 months after the  
10 date of the enactment of this Act, the Administrator of  
11 the Environmental Protection Agency, in consultation  
12 with the Secretary of Health and Human Services and the  
13 Secretary of Labor, shall prepare and submit to Congress  
14 a report assessing—

15 (1) the presence of asbestos in residential, com-  
16 mercial, industrial, public, and school buildings; and

17 (2) the extent of exposure and risk to human  
18 health associated with the asbestos present in such  
19 buildings from all commercial, industrial, and con-  
20 sumer activities that may result in asbestos expo-  
21 sure.

22 (b) CONTENTS.—The report required under sub-  
23 section (a) shall be based upon the best available informa-  
24 tion, and information that can feasibly be obtained

1 through surveys or other means, and shall provide the fol-  
2 lowing:

3 (1) An estimate of the number of residential,  
4 commercial, industrial, public, and school buildings  
5 where asbestos is present.

6 (2) An estimate of the amount of asbestos in  
7 such buildings and the portion of such asbestos that  
8 is friable.

9 (3) A description of the types of building com-  
10 ponents and systems containing asbestos in such  
11 buildings and the categories of mixtures and articles  
12 containing asbestos that are present, such as ther-  
13 mal insulation, roofing materials, asbestos cement  
14 pipe, and asbestos cement sheet.

15 (4) For each category of building, an estimate  
16 of the number of people potentially exposed to asbes-  
17 tos, the conditions and activities with the greatest  
18 potential for exposure, and estimates of the levels of  
19 exposure.

20 (5) A description of the role of handling, main-  
21 tenance, and construction practices in creating expo-  
22 sure to asbestos and the impact of building aging on  
23 the potential for asbestos exposure.

24 (6) An estimate of the amount of asbestos  
25 waste generated from building renovation, repair,

1 and demolition for each of the last 5 years and the  
2 procedures that are utilized for the handling, trans-  
3 port, and disposal of such waste.

4 (c) RECOMMENDATIONS.—

5 (1) IN GENERAL.—The report submitted under  
6 subsection (a) shall contain—

7 (A) an assessment of the sufficiency of ex-  
8 isting statutes, regulations, policies, and pro-  
9 grams, implemented by the Environmental Pro-  
10 tection Agency, the Department of Labor, and  
11 other agencies, in protecting against exposures  
12 to legacy asbestos; and

13 (B) recommendations for modifications or  
14 additions to such statutes, regulations, policies,  
15 and programs, as necessary to reduce or elimi-  
16 nate risks to human health.

17 (2) INCLUSIONS.—Recommendations under  
18 paragraph (1)(B) may include recommendations for  
19 new, additional, or modified statutes, regulations,  
20 policies, or programs for—

21 (A) the inspection of buildings to deter-  
22 mine the presence and condition of asbestos;

23 (B) inventorying the presence and condi-  
24 tion of asbestos in buildings;

25 (C) removal of asbestos from buildings;

1 (D) handling asbestos during building  
2 maintenance, repair, demolition, and other com-  
3 mercial and industrial activities with the poten-  
4 tial for asbestos exposure; and

5 (E) disposal of asbestos-containing waste  
6 and debris.

7 (d) EFFECT ON EXISTING LAW.—Compliance with  
8 this section shall not relieve the Administrator of the Envi-  
9 ronmental Protection Agency, the Secretary of Health and  
10 Human Services, or the Secretary of Labor, of any other  
11 obligation arising under this Act or any other law.

12 (e) DEFINITION OF ASBESTOS.—In this section, the  
13 term “asbestos” means—

14 (1) the asbestiform varieties of chrysotile, actin-  
15 olite, amosite, anthophyllite, crocidolite, richterite,  
16 winchite, and tremolite; and

17 (2) the non-asbestiform varieties of richterite  
18 and winchite.

○

Energy and Commerce Environment and Climate Change Subcommittee Hearing  
 “Ban Asbestos Now: Taking Action to Save Livelihood and Lives”  
 Rep. Suzanne Bonamici Statement for the Record  
 May 8, 2019

Chairman Pallone, Chairman Tonko, Ranking Member Walden, and Ranking Member Shimkus, thank you for holding this hearing on H.R. 1603, the Alan Reinstein Ban Asbestos Now Act. I introduced this legislation to amend the Toxic Substances Control Act (TSCA) to ban the importation, manufacture, processing, and distribution of asbestos and materials containing asbestos. Simply put, this bill will save lives.

It is estimated that asbestos-related diseases kill nearly 40,000 people in the United States every year. Despite these startling numbers, the majority of Americans don’t know that asbestos and asbestos-containing materials are still being imported and produced in this country, and most people don’t know that workers and communities still face a deadly risk from asbestos. In 2016, under the leadership of this Committee, Congress passed the Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act to strengthen the management of dangerous chemicals under TSCA. Unfortunately, the Trump Administration has failed to take meaningful steps available under TSCA to protect Americans from asbestos, and legislative action is needed to ban this deadly fiber once and for all.

H.R. 1603 takes important steps to protect communities and workers from asbestos. First, it explicitly bans the importation, manufacture, processing, or distribution in commerce of asbestos twelve months after enactment. The bill also requires reporting of all importation, manufacturing, processing, or distribution in commerce that takes place in the three years preceding the bill’s enactment, and in the year between enactment and implementation of the ban. The bill provides a limited exemption for national security purposes, which can be granted for three years with a single three-year extension.

The bill also works to address the important issue of legacy asbestos. Because asbestos is a durable, fireproof fiber, it was used for decades in materials for houses, schools, and other commercial buildings. It can be found nearly everywhere - from insulation to flooring to paint. As asbestos fibers break down through natural processes or during demolition of buildings, the fibers are released into the air and can be inhaled and digested by humans. Tragically, it is not just workers with frequent exposure who are at risk - the fiber can attach to their clothing or hair and travel with them, endangering their friends, spouses, and children. The Alan Reinstein Ban Asbestos Now Act requires that the EPA, in conjunction with the Department of Labor and the Department of Health and Human Services, undertake a nationwide survey of the prevalence of legacy asbestos and make recommendations to Congress for how to remove and dispose of asbestos and asbestos-containing waste and debris.

I am grateful for Chairman Pallone’s leadership in holding this hearing, and for his steadfast commitment to providing strong protections for workers and communities across the country.



# INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS®

HAROLD A. SCHAIBERGER  
General President

EDWARD A. KELLY  
General Secretary-Treasurer

May 7, 2019

The Honorable Paul Tonko  
Chairman  
Environment and Climate Change  
Subcommittee  
US House of Representatives  
Washington, DC 20515

The Honorable John Shimkus  
Ranking Member  
Environment and Climate Change  
Subcommittee  
US House of Representatives  
Washington, DC 20515

Dear Chairman Tonko and Ranking Member Shimkus,

On behalf of the 316,000 professional fire fighters and emergency medical responders of the International Association of Fire Fighters (IAFF) currently serving our nation, I am writing in support of H.R. 1603, the "Alan Reinstein Ban Asbestos Now Act of 2019."

As you know, fire fighters face a higher risk of asbestos exposure than the general population due to asbestos becoming airborne when disturbed or damaged by fire. Asbestos exposures occur as fire fighters enter burning buildings, extinguish fires, and open walls and ceilings to check for fire extension. These activities are daily occurrences accounting for thousands of fire fighter exposures. Asbestos fibers can remain on the turnout gear and station clothing, and spread to apparatus cabs and fire stations. Fire fighters can inhale large amounts of these microscopic fibers, and unknowingly increase their risk of developing an asbestos-related disease such as Mesothelioma, Lung Cancer, and Asbestosis. It is worth noting that a multi-year study identified fire fighters suffering from mesothelioma at a rate that is 200% greater than the U.S. population as a whole. However, Asbestosis and Mesothelioma are preventable diseases by eliminating the occurrences of exposure.

The Alan Reinstein Ban Asbestos Now Act raises exposure prevention to a new level by prohibiting the inclusion of asbestos fibers in common building materials and construction products, such as flooring and ceiling tiles, roofing, cement, textured coatings, fiberboard, and insulation. Simply put, banning asbestos and asbestos-laden products today will result in healthier and safer fire fighters tomorrow. With your support, the adverse and harmful health impacts of this poison will be eliminated.

Again, the IAFF urges you to support H.R. 1603, and I thank you for your support of our nation's fire fighters and your leadership on this important issue.

Sincerely,

Harold A. Schaitberger  
General President

**The New York Times*****E.P.A. Leaders Disregarded  
Agency's Experts in Issuing Asbestos  
Rule, Memos Show***

By Lisa Friedman

May 8, 2019

Want climate news in your inbox? Sign up here for **Climate Fwd**, our email newsletter.

WASHINGTON — Senior officials at the Environmental Protection Agency disregarded the advice of their own scientists and lawyers in April when the agency issued a rule that restricted but did not ban asbestos, according to two internal memos.

Because of its fiber strength and resistance to heat, asbestos has long been used in insulation and construction materials. It is also a known carcinogen. Last month's rule kept open a way for manufacturers to adopt new uses for asbestos, or return to certain older uses, but only with E.P.A. approval.

Andrew Wheeler, the E.P.A. administrator, said when the rule was issued that it would significantly strengthen public health protections. But in the memos, dated Aug. 10, more than a dozen of E.P.A.'s own experts urged the agency to ban asbestos outright, as do most other industrialized nations.

"Rather than allow for (even with restrictions) any new uses for asbestos, E.P.A. should seek to ban all new uses of asbestos because the extreme harm from this chemical substance outweighs any benefit — and because there are adequate alternatives to asbestos," staff members wrote.

Michael Abboud, an E.P.A. spokesman, declined to address why the Trump administration had acted against the advice of the agency's in-house experts, saying in a statement, "We don't comment on deliberative intra-agency comments." He referred The New York Times to the agency's news release about the rule.

Asbestos production in the United States stopped in 2002 but it is still imported to produce chemicals used in manufacturing items like household bleach, bulletproof vests and electrical insulation. Inhaling asbestos fibers, even in small amounts, is the primary cause of a cancer called malignant mesothelioma.

5/8/2019

E.P.A. Leaders Disregarded Agency's Experts in Issuing Asbestos Rule, Memos Show - The New York Times



Andrew Wheeler, the E.P.A. chief, in Philadelphia in February.  
Matt Rourke/Associated Press

Mike Walls, vice president of regulatory and technical affairs at the American Chemistry Council, an industry trade group, said his organization objected to any effort to impose a ban before the completion of a separate, congressionally mandated evaluation of asbestos. The conclusions of that review, due by December, could help determine if there will be further regulation or a ban.

He said the industries that still used asbestos in the United States operated under strict safety regulations. "The risks of asbestos can be managed," Mr. Walls said. "We ought not to be imposing regulation simply on the basis of hazard."

The internal memos show that E.P.A. staff members considered the agency's review process and the rule itself seriously flawed. They were first obtained by the Asbestos Disease Awareness Organization, an advocacy group, and shared with The New York Times. Their authenticity was confirmed by people inside the E.P.A.

Specifically, agency experts criticized the evaluation for studying only six fibers of asbestos, a scientific approach they said was "decades old," and said the process had disregarded other fiber types that are known to be harmful. They also criticized the review for considering only lung cancer and mesothelioma as possible harmful effects of asbestos exposure.

Of greatest concern, they wrote, was the fact that the evaluation excluded the so-called legacy effects from the mishandling of asbestos. For example, the staff members pointed to a \$45 million cleanup of a former Marine barracks in Oregon that was contaminated with asbestos when old

5/8/2019

E.P.A. Leaders Disregarded Agency's Experts in Issuing Asbestos Rule, Memos Show - The New York Times

buildings were improperly demolished.

"Regulated industries contact E.P.A. when they have been surprised to find out that their buildings and other facilities were constructed with asbestos, when they had been assuming asbestos had been banned a long time before. If asbestos was banned, then these surprises would not continue to take place," the staff members wrote.

On Wednesday the E.P.A. assistant administrator for chemical safety, Alexandra Dunn, will testify before the House Energy and Commerce Committee against legislation that aims to ban asbestos.

For more news on climate and the environment, follow @NYTClimate on Twitter.

Lisa Friedman reports on climate and environmental policy in Washington. A former editor at Climatewire, she has covered nine international climate talks. @LFFriedman



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**The New York Times**


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## ***E.P.A. Staff Objected to Agency's New Rules on Asbestos Use, Internal Emails Show***

By **Lisa Friedman**

Aug. 10, 2018

Want climate news in your inbox? Sign up for our **Climate Fwd:** newsletter.

WASHINGTON — Top officials at the Environmental Protection Agency pushed through a measure to review applications for using asbestos in consumer products, and did so over the objections of E.P.A.'s in-house scientists and lawyers, internal agency emails show.

The clash over the proposal exposes the tensions within the E.P.A. over the Trump administration's efforts to roll back environmental rules and rewrite other regulations that industries have long fought.

Asbestos, a naturally occurring mineral and known carcinogen, was once common in insulation and fireproofing materials, but today most developed countries ban it. The United States still allows limited use in products including gaskets, roofing materials and sealants.

The proposed new rule would create a new process for regulating uses of asbestos, something the E.P.A. is obliged to do under a 2016 amendment to a toxic substances law.

The E.P.A. says it is toughening oversight. However, the way its new rule is written has spawned a spirited debate over whether it will actually make it easier for asbestos to come back into more widespread use. Consumer groups say the agency should be looking for ways to prohibit asbestos entirely.

"The new approach raises significant concerns about the potential health impacts," wrote Sharon Cooperstein, an E.P.A. policy analyst, in one of the emails. She, along with a veteran E.P.A. scientist and a longtime agency attorney, said the proposal as designed left open the possibility that businesses could start using asbestos in some cases without getting the government's assessment, putting the public at risk.

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5/8/2019

E.P.A. Staff Objected to Agency's New Rules on Asbestos Use, Internal Emails Show - The New York Times

The asbestos plan, which was introduced with little fanfare in June, stems from the E.P.A.'s responsibility to regulate chemicals under the Toxic Substances Control Act and fulfill an Obama-era amendment that requires the agency to regularly re-evaluate the harmfulness of toxic materials. Asbestos is the most prominent of the current batch of substances the E.P.A. is deciding how best to regulate in the future.

Andrew R. Wheeler, E.P.A.'s acting administrator, said the E.P.A.'s plan would make it more difficult to use asbestos in products. The E.P.A., he wrote on Twitter, "is proposing a new rule that would allow for the restriction of asbestos manufacturing and processing of new uses of asbestos."

The Trump administration has made government deregulation — of environmental rules, banking guidelines and myriad other regulatory areas — a centerpiece of its policy agenda, and the E.P.A. has been at the forefront of the effort. In recent weeks the agency detailed one of its most significant efforts, a major weakening of federal auto-emissions regulations.

The United States tried to ban asbestos use in the 1970s, but that effort was overturned by the federal courts in 1991. However the ruling did retain a ban on new uses of asbestos. Because of that (and the potential legal liability), use of asbestos declined in the United States.

Attorney General Maura Healey of Massachusetts is leading an effort among Democratic state attorneys to fight the asbestos plan, calling it a threat to human health. Exposure to asbestos has been linked to lung cancer, mesothelioma and other ailments.

"In recent years, tens of thousands have died from mesothelioma and other diseases caused by exposure to asbestos and other dangerous chemicals," she said. "If the Trump administration's erosion of federal chemical safety rules continues, it will endanger our communities and the health of all Americans."

The United States no longer mines or manufactures asbestos. Until recently, Brazil had been the source of about 95 percent of all asbestos used in America, according to the E.P.A., but last year that country banned its manufacture and sale. Since then, Russia has stepped in as a supplier.

One Russian producer recently signaled enthusiasm for the American market. Last month, the Russian firm Uralasbest posted on Facebook an image of its asbestos packaging that featured President Trump's face along with the words: "Approved by Donald Trump, 45th president of the United States." The company is one of the world's largest producers and sellers of asbestos.

Uralasbest did not respond to a request for comment.

The new E.P.A. proposal is called a "significant new-use rule" that sets out the guidelines for what types of asbestos uses the federal government considers risky enough to evaluate and perhaps restrict or ban.

5/8/2019

E.P.A. Staff Objected to Agency's New Rules on Asbestos Use, Internal Emails Show - The New York Times

The internal E.P.A. emails indicate that, this year, top E.P.A. officials sought a last-minute change in the language of the rule.

"Upper management asked us to take a different approach," wrote Robert T. Courtnage, an associate chief in E.P.A.'s Office of Pollution Prevention and Toxics, in an April 25 email sent to 13 members of an agency group working on the then-forthcoming proposal. Specifically: Rather than call for all new uses of asbestos to come before the E.P.A. for a risk review, the rule would include just 15 specific uses that would trigger a federal assessment.

The list of 15 included a number of specific and relatively common uses for asbestos, including as separators in fuel cells and batteries and as a component in vinyl-asbestos floor tile and high-grade electrical paper.

Mr. Courtnage in his email did not identify who had sought the change. He and other E.P.A. officials who wrote the emails did not respond to requests for comment.

Critics of the rule argue that limiting the review to 15 uses means other potential uses would avoid examination.

"This is presuming there's nothing under the sun you could ever do with asbestos other than these 15 things," said Betsy Southerland, former director of the E.P.A.'s office of science and technology, in an interview. Ms. Southerland resigned from E.P.A. last year over the Trump administration's leadership of the agency and is working on opposing the asbestos rule and others for the Environmental Protection Network, a group of agency alumni.

Narrowing the list to 15 potential uses took E.P.A. scientists and lawyers by surprise, the emails indicate. Three staff members argued in the emails that the agency could not anticipate all future uses of asbestos, and therefore risked letting some uses take place without being weighed for safety risks.

Under the E.P.A.'s approach, if the agency "failed to correctly anticipate some other new use, then it seems to me that the manufacture of such a product would not be subject to" the new-use rule, wrote Susan Fairchild, an environmental scientist who has worked at the agency since 1991.

"Asbestos is an extremely dangerous substance with no safe exposure amount," Mark Seltzer, an attorney who has been with E.P.A. more than a decade, noted in another email.

A spokesman for the E.P.A., James Hewitt, said the emails indicated staff and other members of the working group on asbestos "did not fully understand the proposal being developed."

In a telephone interview this week, Nancy B. Beck, the E.P.A.'s deputy assistant administrator in the agency's chemical safety office, said the rules would to restrict and perhaps even ban some uses of asbestos where no means of doing so currently exist. "Obviously someone out there thinks we are increasing exposure to asbestos when we are doing the opposite," she said.

5/8/2019

E.P.A. Staff Objected to Agency's New Rules on Asbestos Use, Internal Emails Show - The New York Times

The E.P.A. has set a Friday deadline for the public to comment on the asbestos rule, which it intends to finalize this year.

Before joining the E.P.A. Ms. Beck served as an executive at the American Chemistry Council, the chemical industry's main trade association. (An E.P.A. spokeswoman also noted that Ms. Beck also previously worked for the Washington State Department of Health and served in the Office of Management and Budget under two former presidents, George W. Bush and Barack Obama.)

The American Chemistry Council has not weighed in directly on the proposed asbestos rule.

Ms. Beck said that, since there is no ban on asbestos, no regulatory process currently exists to stop a company that chooses to put it in something like flooring or roofing materials. But under the rule, some of those ways of employing asbestos — which had over the decades become less common — would now be considered a significant new use. That will force companies to notify the E.P.A. and face an evaluate the risks.

"If you want to put asbestos in flooring materials you have to come to us first and we have to do a thorough risk evaluation and approve it," she said. "Or we simply prohibit it."

Asked why the rule specified 15 uses instead of applying to all prospective uses, Ms. Beck said the agency was confident it had included all foreseeable uses of asbestos. "We think we have identified all of the potential possible uses that are out there and could come back into manufacturing," Ms. Beck said. "The universe is covered."

For more climate and environment news, follow @NYTClimate on Twitter.

A version of this article appears in print on Aug. 11, 2018, on Page B1 of the New York edition with the headline: E.P.A. Emails Reveal Clash Over Asbestos





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May 7, 2019

The Honorable Paul Tonko  
Chairman  
House Subcommittee on  
Environment and Climate Change  
2369 Rayburn House Office Building  
Washington, DC 20515

The Honorable John Shimkus  
Ranking Member  
House Subcommittee on  
Environment and Climate Change  
2217 Rayburn House Office Building  
Washington, DC 20515

Dear Chairman Tonko, Ranking Member Shimkus:

On behalf of the approximately 140,000 members of the National Association of Home Builders (NAHB), I would like to urge you to postpone congressional action on H.R. 1603, the "Alan Reinstein Ban Asbestos Now Act of 2019," until the Environmental Protection Agency (EPA) has successfully completed its risk evaluation of asbestos as required by the "2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act."

As builders and remodelers, our members care about the safety of building material products we install in our customers' homes, including minimizing potential exposure risks to harmful chemicals during the demolition, renovation, and construction process to our customers and workers. Our members take every precaution in preventing building materials containing asbestos from being used in residential housing.

In 2016, the "Frank R. Lautenberg Chemical Safety for the 21st Century Act" was signed into law amending the Toxic Substances Control Act (TSCA) and establishing a series of new responsibilities. A key amendment was the requirement for EPA to conduct risk evaluations for a specific category of chemicals that are already in commerce. In 2017, EPA published a list of the ten chemicals that initially would be subject to the chemical risk evaluation process. Amongst those chemicals is asbestos, a mineral fiber that occurs naturally in rock and soil. To complete the risk analysis, EPA must detail the hazards, exposures, conditions of use, and the potentially exposed or susceptible subpopulations of the chemical at issue. The draft assessments are expected to be released later this year for public comment.

NAHB believes EPA should have the opportunity to carry out its required risk assessment before Congress takes any action on H.R. 1603. Because this assessment will take a comprehensive look at all aspects of asbestos, presumably including existing federal regulations governing the removal or demolition of asbestos-containing materials, such as the Clean Air Act's National Emission Standard for Hazardous Air Pollutants (NESHAP) and worker protection requirements that are governed by the Occupational Safety and Health Administration, we believe the results of the analysis will help address many of the issues within the proposed legislation.

For these reasons, Congress must allow the EPA to conclude its required TSCA risk evaluation before taking any action. Thank you for considering our views on this important matter.

Sincerely,

James W. Tobin III



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Ranking Member Greg Walden  
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 Washington, DC 20515

Congressman Paul Tonko  
 2369 Rayburn House Office Building  
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Congressman John Shimkus  
 2217 Rayburn House Office Building  
 Washington, DC 20515

May 7, 2019

Dear Chairman Pallone and Ranking Member Walden:

The Chlorine Institute (CI or the Institute) is a 190-member, not-for-profit trade association of chlor-alkali producers worldwide, as well as chlorine packagers, distributors, users, and suppliers. CI exists to support the chlor-alkali in advancing safe, secure, environmentally compatible, and sustainable production, distribution and use of its mission chemicals.<sup>1</sup> The Institute's members account for approximately 91 percent of the total chlorine production capacity in the U.S. The Institute's mission chemicals are used throughout the U.S. economy and are key to the protection of public health.

#### Asbestos Use in Chlorine Production

The chlorine production process is an electrochemical process where electricity flows through salt water (also referred to as brine). The electrical energy splits the salt (chemical formula NaCl), separating the sodium ions (Na<sup>+</sup>) from the chloride (Cl<sup>-</sup>) ions. Those ions, along with the water present, then quickly react to form chlorine gas (Cl<sub>2</sub>), sodium hydroxide (NaOH), and hydrogen gas (H<sub>2</sub>). The equipment used to contain this process must have a unique mix of characteristics due to the nature of the chemistry. Chrysotile asbestos is used to separate chlorine produced in the anolyte compartment from the hydroxide and hydrogen in the catholyte compartment of a diaphragm cell. Asbestos is an ideal substance to provide this barrier because of its mechanical strength, chemical resistance to both acids and bases, low electrical resistance, and a physical structure that minimizes back flow. The asbestos provides a key barrier with long cycles in service. A schematic of a diaphragm cell is shown and also available in *Chlorine Institute Pamphlet 137* Guidelines: Asbestos Handling for the Chlor-Alkali Industry (enclosure).

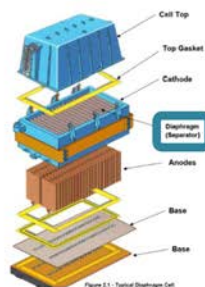


Figure 2.1 - Typical Diaphragm Cell

<sup>1</sup> CI's mission chemicals: chlorine, sodium and potassium hydroxides, sodium hypochlorite, the distribution of vinyl chloride monomer (VCM), and the distribution and use of hydrogen chloride.

### Impacts on Domestic Capacity and Public Health

Within the United States, there are 44 large chlorine production facilities and approximately a quarter of those facilities use asbestos in the process. Many of those are facilities that produce the largest volumes; asbestos-using facilities account for just over 42% of domestic capacity. A loss of this capacity would have a dramatic impact on availability and likely incur significant costs. Changing to non-asbestos technology would require major modifications of existing equipment and cause downstream changes that would permanently affect operations.

Chlorine is used directly as a gas in water treatment and as a raw material to produce sodium hypochlorite (bleach) which then also disinfects water for drinking and treats wastewater. It is also used as an intermediate or raw material in the production of 88% of pharmaceuticals. Chlorine further supports the healthcare sector as it is used to make sterile packaging, surface cleaning compounds, medical equipment and electronic instruments, among other products. For the military and law enforcement, chlorine is used to produce bullet-proof vests, shatter-resistant glass, and helmets. Everyday Americans benefit from chlorine in commerce as it is used to produce solar panels, computer and electronics components like semiconductors, and even neoprene wet suits for recreational activities.

### Safe Handling of Asbestos

The Chlorine Institute publishes industry guidance, called pamphlets, which are generally updated every five years. *Pamphlet 137* Guidelines: Asbestos Handling for the Chlor-Alkali Industry was updated in June 2018 and contains guidance on how to safely handle asbestos, including personal protective equipment, receiving, storage, diaphragm depositing (i.e. removing spent asbestos and applying new asbestos), housekeeping, exposure monitoring, and more. *Pamphlet 137* repeatedly emphasizes (in sections 3.1.5, 4.4, and 5.5) the use of wet cleaning, wet handling, and wetting of outer packaging when working with asbestos in addition to personal protective equipment because “wet fibers do not float in the air as easily as dry fibers<sup>2</sup>,” and are less likely to be inhaled. *Pamphlet 137* has existed for decades and has been updated regularly with the latest best practices since then. Additionally, Chlorine Institute members annually sign the Member Safety and Security Commitment (enclosure), committing to audit their facilities and implement recommendations within CI’s pamphlets, including *Pamphlet 137*.

It should also be noted that in addition to *Pamphlet 137*, DOT, EPA and OSHA already have in place protective environmental<sup>3,4</sup>, health<sup>5</sup>, transportation<sup>6</sup>, and disposal<sup>2,4</sup> standards that regulate the chlor-alkali industry’s use of asbestos. In 1989, the EPA did not support a ban of asbestos in chlorine production processes because, in the EPA’s words, “[e]xposure to asbestos during the life cycle of this product is limited because the product is generally fabricated on site, used saturated with solution, and disposed of

<sup>2</sup> Consumer Product Safety Commission - <https://www.cpsc.gov/safety-education/safety-guides/home/asbestos-home>

<sup>3</sup> National Emission Standards for Asbestos, National Emission Standards for Hazardous Pollutants, 40 CFR Part 61 Subpart F.

<sup>4</sup> Safe Drinking Water Act, 42 USC 300f and Clean Water Act 33 USC 1251

<sup>5</sup> Asbestos, Toxic and Hazardous Substances, Occupational Safety and Health Standards, 29 CFR Section 1910.1001

<sup>6</sup> DOT Regulations for Shipping, Packaging and Labeling under 49 CFR Parts 171, 173

while wet. Asbestos is not prone to be released into the ambient air during stages after product fabrication.... EPA does not believe a ban is appropriate for this product category<sup>7</sup>." The standards and controls have tightened since this 1989 determination. As governed by OSHA, National Emission Standards for Asbestos, National Emission Standards for Hazardous Pollutants (NESHAP) and other regulatory standards, the life cycle of asbestos in the chlor-alkali industry is managed in a closely controlled process designed to prevent exposures to workers and the public. Engineering controls, personal protective equipment (PPE), employee training, medical surveillance, and personal monitoring are all used to ensure safety and meet regulatory requirements.

The Chlorine Institute has appreciated the opportunity to comment on EPA's risk evaluation and the defined process in which the evaluation is occurring, as outlined in the 2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act (the "Act"). We hope EPA can continue its risk evaluation efforts unimpeded as intended under the Act<sup>8</sup>.

Thank you for this opportunity to discuss the chlorine's industry unwavering commitment to safety and its contributions to society.

Best Regards,



Robyn Brooks | Vice President - Health, Environment, Safety and Security

Enclosures:

- [Member Safety and Security Commitment](#)
- [Pamphlet 137\) Guidelines: Asbestos Handling for the Chlor-Alkali Industry](#)

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<sup>7</sup> July 12, 1989 Federal Register, page 43 - <https://www.epa.gov/sites/production/files/documents/nps57f.pdf>

<sup>8</sup> Pursuant to the Toxic Substances Control Act (TSCA) § 6(b)(4)(A), the EPA is also separately conducting a risk evaluation of imported raw bulk chrysotile asbestos for the fabrication of diaphragms for use in chlorine and sodium hydroxide production.

**Exhibit 1****The Chlorine Institute****Member Safety and Security Commitment for 2019**

As Chlorine Institute members or prospective members, who produce, distribute or use chlorine, we:

1. Promote and demonstrate safety and security in the production, distribution, and use of chlorine in accordance with the Chlorine Institute's mission;
2. Comply with all relevant regulations;
3. Implement and comply with the Institute's Policy on Chlorine Safety and Security Stewardship including timely incident, injury, and safety performance reporting with the ultimate goal of eliminating all chlorine incidents;
4. Perform annual safety and security audits, and emission and hazard evaluations of our operations;
5. As chlorine suppliers, we assure that each chlorine customer has a risk management program in place for the proper handling of chlorine including a documented training program and an emergency response plan, and that:
  - a. Bulk chlorine (tank trucks or larger) customers comply with the Bulk Chlorine Customer Safety and Security Checklist or a comparable document or have a process in place to timely correct any deficiencies; and
  - b. Packaged chlorine (100 pounds or larger) customers comply with the Packaged Chlorine Customer Safety and Security Checklist or a comparable document or have a process in place to timely correct any deficiencies;
6. As chlorine users, we work with our chlorine suppliers to ensure that we are in compliance with the Chlorine Customers Generic Safety and Security Checklist or comparable documents developed by our suppliers in accord with the above timelines;
7. Minimize and mitigate the effects of any release to ensure that a timely and appropriate response is made at the scene of any transportation and/or storage and handling incident involving chlorine;
8. Conduct periodic test drills of a comprehensive, in-house emergency response plan at all locations where we produce, store, handle or use chlorine; and
9. Work with local officials to establish and maintain effective emergency response plans for their communities.

     *Check only if exceptions to items 5 and/or 6 are noted on the next page.*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Company

Revised and approved by the Board of Directors on October 13, 2013.



THE CHLORINE INSTITUTE

# Pamphlet 137

*Guidelines: Asbestos  
Handling for the Chlor -  
Alkali Industry*

*Edition 7, Revision 1*



June 2018



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## 1. INTRODUCTION

### 1.1 SCOPE

This pamphlet has been developed by the Chlorine Institute to assist member companies in the continued safe handling and disposal of asbestos.

The safety and health of workers and of the general public in dealing with possible airborne emissions and their protection from hazards associated with asbestos are of paramount concern.

The pamphlet addresses safe asbestos handling procedures for the chlor-alkali industry. Cited examples may not be universally accepted and do not represent the only safe method of handling asbestos.

The pamphlet deals primarily with North American requirements and references U.S. Federal and some Canadian requirements that are in effect at the publication date. Additional federal, state and local, as well as foreign requirements may impose different or additional obligations. All users are urged to keep abreast of all governmental requirements concerning asbestos.

For purposes of this publication, the OSHA General Industry Asbestos Standard, 29 CFR 1910.1001, is applicable to U.S. chlor-alkali cell renewal operations. In the chlor-alkali industry, consideration should be given not only to how asbestos is handled relative to the production of chlorine and caustic in diaphragm cells, but also the potential for asbestos or asbestos containing materials to be present in other areas. Such things to consider may include asbestos gaskets, past construction practices, and insulating techniques. OSHA's construction industry standard (29 CFR 1926.1101) may also be triggered.

This CI pamphlet summarizes information found in the reference documents. It is not a primer on everything an employer needs to know, but a reminder of some requirements. A thorough review of governmental requirements should be conducted periodically and compared with performance practices to assure compliance.

### 1.2 CHLORINE INSTITUTE STEWARDSHIP PROGRAM

The Chlorine Institute exists to support the chlor-alkali industry and serve the public by fostering continuous improvements to safety and the protection of human health and the environment connected with the production, distribution and use of chlorine, sodium and potassium hydroxides, and sodium hypochlorite; and the distribution and use of hydrogen chloride. This support extends to giving continued attention to the security of chlorine handling operations.

Chlorine Institute members are committed to adopting CI's safety and stewardship initiatives, including pamphlets, checklists, and incident sharing, that will assist members in achieving measurable improvement. For more information on the Institute's stewardship program, visit CI's website at [www.chlorineinstitute.org](http://www.chlorineinstitute.org).

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1.3 DEFINITIONS AND ACRONYMS

|                                    |                                                                                                                                                                                                                                                                                         |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approved Respirator                | A respirator approved by the National Institute of Occupational Safety and Health for asbestos use. See 29 CFR 1910.134                                                                                                                                                                 |
| Asbestos                           | OSHA defines asbestos to include chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos and any of these minerals that have been chemically treated and/or altered.                                                                          |
| Asbestos Containing Material (ACM) | Any material containing more than 1% asbestos.                                                                                                                                                                                                                                          |
| Asbestos Standard                  | The Asbestos Standard means the OSHA Asbestos Standard for General Industry, 29 CFR 1910.1001.                                                                                                                                                                                          |
| Aspect Ratio                       | The ratio of the length of the fiber to its width. Usually this is defined as the length to the width, e.g., 3 to 1 or 3:1.                                                                                                                                                             |
| CFR                                | Code of Federal Regulations (U.S.)                                                                                                                                                                                                                                                      |
| DOT                                | Department of Transportation (U.S.)                                                                                                                                                                                                                                                     |
| Excursion Level                    | Same as Excursion Limit. The regulation language uses alternate wording in the various sections.                                                                                                                                                                                        |
| Excursion Limit                    | An OSHA established limit in addition to the PEL-TWA. The regulation requires that no employee be exposed to an airborne concentration of asbestos in excess of 1.0 f/cc as averaged over a sampling period of thirty minutes by the method prescribed in the standard. (Reference 9.1) |
| EPA                                | U.S. Environmental Protection Agency                                                                                                                                                                                                                                                    |
| f/cc                               | fibers per cubic centimeter                                                                                                                                                                                                                                                             |
| FR                                 | U.S. Federal Register                                                                                                                                                                                                                                                                   |
| Friable asbestos                   | Asbestos which can be crumbled, pulverized, or reducible to a powder with hand pressure (29 CFR 1926.1101 Appendix H).                                                                                                                                                                  |
| HEPA                               | High Efficiency Particulate Air filter (99.97% efficient for 0.3 micron particles).                                                                                                                                                                                                     |
| IDLH                               | Immediately Dangerous to Life or Health (NIOSH). No IDLH value has been established for asbestos.                                                                                                                                                                                       |

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|                 |                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NESHAP          | National Emission Standard for Hazardous Air Pollutants                                                                                                                                                                                                                                                                                                                                        |
| NIOSH           | National Institute for Occupational Safety and Health                                                                                                                                                                                                                                                                                                                                          |
| OSHA            | U.S. Occupational Safety and Health Administration of the Department of Labor                                                                                                                                                                                                                                                                                                                  |
| PACM            | Presumed asbestos containing material.                                                                                                                                                                                                                                                                                                                                                         |
| PEL-TWA         | Permissible Exposure Limit–Time Weighted Average. The OSHA regulation requires that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 f/cc of air measured as an eight hour time weighted average (TWA) as measured by the method prescribed in the standard. (Reference 9.1)                                                                                   |
| PCM             | Phase Contrast Microscopy is the method mandated by OSHA (and some states) to determine airborne fiber concentrations in and around areas where asbestos fibers may be concentrated. The method counts all fibers (asbestos and others) which are greater than 5 microns in length and have an aspect ratio equal to or greater than 3:1 (length at least three times greater than the width). |
| PPE             | Personal Protective Equipment                                                                                                                                                                                                                                                                                                                                                                  |
| Regulated areas | Areas where airborne asbestos levels exceed or are likely to exceed the PEL-TWA or Excursion Limit.                                                                                                                                                                                                                                                                                            |
| SDSs            | Safety Data Sheets                                                                                                                                                                                                                                                                                                                                                                             |
| TWA             | Time Weighted Average                                                                                                                                                                                                                                                                                                                                                                          |

#### 1.4 DISCLAIMER

The information in this pamphlet is drawn from sources believed to be reliable. The Institute and its members, jointly and severally, make no guarantee, and assume no liability, in connection with any of this information. Moreover, it should not be assumed that every acceptable procedure is included, or that special circumstances may not warrant modified or additional procedures. The user should be aware that changing technology or regulations may require changes in the recommendations contained herein. Appropriate steps should be taken to ensure that the information is current when used. These recommendations should not be confused with federal, state, provincial, municipal, or insurance requirements, or with national safety codes.

**1.5** APPROVAL

The Institute's Health, Environment, Safety and Security Issue Team approved the 7th edition of this pamphlet on June 7, 2018.

**1.6** REVISIONS

Suggestions for revisions should be submitted to the Secretary of the Institute.

**1.6.1** Significant Revisions in Current Edition

There are no significant revisions to Edition 7 of this pamphlet. Revision 1 contains an additional regulatory reference in section 3.1.8

**1.7** REPRODUCTION

The contents of this pamphlet are not to be copied for publication, in whole or in part, without the prior written approval of the Institute.

**2. ASBESTOS USE IN CHLORINE MANUFACTURING**

Most of the world's chlorine is produced by the electrolysis of brine in diaphragm, mercury and membrane cells. Asbestos is used in many diaphragm cells. Although exposure to asbestos can cause serious adverse health effects, by following safe handling procedures and complying with governmental regulations, asbestos can be handled, used, and disposed of safely. In diaphragm cells, chlorine produced in the anolyte compartment must be kept separate from the alkali metal hydroxide and hydrogen formed in the catholyte compartment. This separation can be accomplished by an asbestos diaphragm.

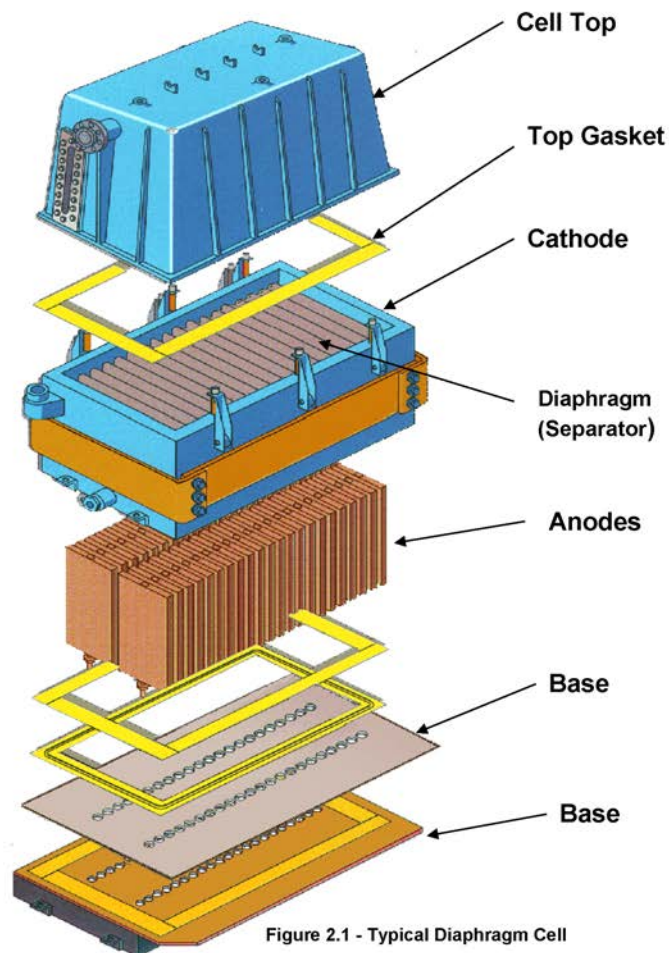
The chlor-alkali industry has used asbestos as a diaphragm separator for over a century and continues to promote safe handling and use of the mineral. The industry developed processes to render the asbestos into non-friable diaphragm forms; exposures are carefully monitored, and handling of dry, friable fibers is minimized.

Saturated brine is fed into the anolyte compartment where the chloride ion is electrolyzed to chlorine. The depleted brine and the cation pass through the diaphragm to the cathode compartment where the alkali metal hydroxide and hydrogen are produced. The diaphragm separates the chlorine which is liberated at the anode from the sodium hydroxide and hydrogen which are produced at the cathode. Figure 2.1 shows a typical diaphragm cell.

The diaphragm material is the key to the successful and safe operation of a diaphragm cell. Essential characteristics include sufficient mechanical strength, high chemical resistance to both acids and bases, low electrical resistance, uniform and consistent deposits on the cathode, appropriate physical structure to permit flow of depleted brine with minimum back-migration of hydroxyl ion, and an acceptable service life.

Asbestos is very well suited as a diaphragm material because it exhibits a highly favorable combination of these characteristics. Chrysotile asbestos, also known as white asbestos, is the form of asbestos used for diaphragms in most areas of the world.

The unique characteristics of asbestos in the chlor-alkali cell environment have long been studied. The deposited fibers on the cathode function more than just a filter media. A gel layer forms in the mat (under proper depositing and operating conditions) and plays a significant role in the performance of the diaphragm, especially in minimizing the back-migration of the hydroxyl ion.



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### 3. REGULATIONS

#### 3.1 UNITED STATES

Reference 9.1 lists various OSHA, EPA, and DOT regulations applicable to asbestos use by the chlor-alkali industry. In addition to these governmental requirements, there may also be state requirements that must be met.

##### 3.1.1 Asbestos Standard (OSHA 29 CFR Part 1910.1001)

The following briefly summarizes the Asbestos Standard, but is not a comprehensive review.

The Asbestos Standard:

- Establishes a PEL of 0.1 f/cc of air as an 8-hour TWA and an excursion limit of 1.0 f/cc as averaged over a thirty-minute sampling period. Fibers are defined as particles five micrometers or longer with a length to width ratio of at least three to one.
- Requires that the analytical test procedure to be utilized is the NIOSH Method 7400. (29 CFR 1910.1001 Appendix A)
- Establishes methods for collecting industrial hygiene monitoring samples, analyzing samples and communicating sample results to employees. The standard also specifies the frequency with which samples must be collected and when increased or decreased sampling may be appropriate. It also permits employees or their designated representative to observe the monitoring.
- Establishes regulated areas where airborne asbestos levels exceed or are likely to exceed the PEL-TWA or Excursion Limit which must be demarcated from the rest of the workplace, have limited access, and require personnel entering the regulated area to wear respiratory protection. Eating, drinking, smoking, using smokeless tobaccos, chewing gum or applying cosmetics are prohibited in any regulated area.
- Prescribes various methods of compliance, including engineering controls and work practice techniques. If the PEL-TWA and/or the excursion limit is exceeded, a written program must be developed to reduce exposure levels to or below the PEL-TWA and to or below the excursion limit by means of engineering and work practice controls, except to the extent that such controls are not feasible. Wherever the feasible engineering controls and work practices that can be instituted are not sufficient to reduce employee exposure to or below the PEL-TWA and/or excursion limit, the employer must use them to reduce employee exposure to the lowest levels achievable by these controls and supplement them by the use of respiratory protection.
- Describes the situations where a respirator must be worn, type of respirator to be worn, requirements of the respiratory protection program, and respirator fit testing.

- Identifies the type of protective work clothing and equipment which must be provided if the PEL-TWA or the excursion level is exceeded, and the appropriate handling, storage, cleaning, replacement and disposal practices for the clothing and equipment.
- Identifies requirements for change rooms, showers and lunchrooms, if the PEL-TWA and/or excursion limit is exceeded.
- Prescribes specifications for warning signs, labels and SDSs. Additionally, for all employees exposed to asbestos at or above the regulatory limits, employee training requirements and frequency of such training are specified.
- Establishes certain housekeeping requirements, including waste disposal.
- Specifies preplacement, annual and termination medical examinations and the transfer of information to the examining physician regarding the Asbestos Standard, employee work duties, exposure levels, personal protective equipment use and previous medical exam results. The Asbestos Standard requires the examining physician to submit a written opinion on each affected employee's ability to perform the identified work duties and to identify limitations the employee should follow. The Asbestos Standard also requires the physician to inform employees of examination results. The medical examination requirements apply to employees exposed at or above the PEL-TWA and/or excursion limit.
- Establishes certain record-keeping requirements regarding exposure measurements, medical surveillance, training and transferring of records.

#### 3.1.2 Hazard Communication Standard (OSHA 29 CFR 1910.1200)

This regulation is commonly known as the Worker Right to Know Law. The purpose of the standard is to ensure that the hazards of chemicals are evaluated and communicated to employees. Asbestos is regulated under OSHA 1910.1200 as a hazardous substance.

#### 3.1.3 Emergency Response to Hazardous Substance Releases (OSHA 29 CFR 1910.120 (HAZWOPER))

This standard is also applicable to the chlor-alkali industry with regard to spill clean-up, waste management and emergency response.

#### 3.1.4 EPA - EPCRA

Asbestos is not regulated under The Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) as an extremely hazardous substance (EHS). There are several sections of the Act that affect facilities that manufacture chlorine utilizing asbestos diaphragm or other technologies.

Section 304: Accidental Release-Emergency Notification (40 CFR Part 355)

Release of a quantity equal to or greater than the federal reportable quantity (RQ) triggers immediate notification to the National Response Center (NRC), and state and local agencies. The federal RQ for asbestos (friable) is one pound.

Section 311: Community Right-to-Know-SDSs or Lists (40 CFR 370)

This section requires submission of SDS forms or a list of regulated chemicals to emergency regulatory agencies if the facility has greater than or equal to threshold quantities at the facility at any time during the year. The threshold quantity for asbestos is 10,000 pounds. This is a one-time report unless the SDS changes.

Section 312: Community Right-to-Know - Chemical Inventory (40 CFR 370.25)

This section requires submission of an annual inventory and locations of hazardous substances to emergency regulatory agencies if the facility has greater than or equal to threshold quantities. The threshold quantity for asbestos is 10,000 pounds.

Section 313: Annual Toxic Chemical Release Inventory (TRI) (40 CFR 372)

This section requires submission of Form R Reports to EPA by June 30 if greater than 10,000 pounds is used during a calendar year. Only releases of asbestos in a friable form are required to be reported as part of the TRI. The threshold quantity for reporting is 0.1 pounds.

3.1.5 EPA - Air (40 CFR Part 61)

Asbestos is a designated hazardous air pollutant under the Clean Air Act and is regulated under the National Emission Standard for Hazardous Air Pollutants (NESHAP). Certain aspects of asbestos waste disposal are addressed in these regulations.

In summary, the regulations [61.144(a)(9)] require an owner/operator of a chlorine manufacturing facility utilizing asbestos diaphragm cell technology to adhere to the following:

- No visible discharge to the outside air.
- Use of specified methods to clean emissions containing asbestos material prior to being emitted. (61.152)
- Deposit all asbestos-containing waste material from chlor-alkali operations at waste disposal sites operated in accordance with regulations and discharge no visible emissions to the outside air during each stage of disposal or use of specified disposal methods.
- Monitoring of emission sources by visual observation on a daily basis.
- Asbestos from chlor-alkali facilities must be adequately wetted and wrapped in leak-tight materials. Containers are used to transport debris. Large pieces may be wrapped in leak-tight materials.

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All containers must be labeled with the OSHA warning label and the generator's name and address. Most states require the use of manifests for asbestos waste transportation.

- Inspection of air cleaning systems on a weekly basis.
- Submit information regarding asbestos emissions, disposal practices, etc. to the EPA.

### 3.1.6 EPA - Water (40 CFR Part 415)

Effluent limitations applicable to the chlor-alkali industry are not specific for asbestos, although there are restrictions on the discharge of suspended solids, in 40 CFR Part 415 Subpart F. These regulations are promulgated under the Clean Water Act.

### 3.1.7 EPA - Toxic Substances Control Act (40 CFR Part 763)

Section 8(a) Inventory Update Rule (40 CFR 710) - This regulation affects manufacturers of asbestos as well as those that may import asbestos.

### 3.1.8 DOT - Hazardous Materials (49 CFR Sub Chapter C)

Regulations promulgated under the Hazardous Materials Transportation Act address commercial shipments of asbestos as well as the transportation of cell parts and waste asbestos containing materials. In summary, the regulations require that asbestos be properly containerized, labeled, marked, loaded, transported, and unloaded in a manner to minimize occupational exposure to airborne asbestos particles.

- Part 171 provides general information of the shipment of hazardous goods.
- Part 172 prescribes the requirements for shipping papers, package marking, labeling and placarding of hazardous goods.
- Part 173.216 defines packaging requirements for asbestos.

## 3.2 CANADA

Under the National Pollutant Release Inventory (NPRI), there are reporting requirements of asbestos emissions or waste transfers.

The Canadian Occupation Health and Safety Regulations, Part X, designates chrysotile as a hazardous substance. It imposes requirements and applies only to government operations and federally regulated entities.

### 3.2.1 Canadian Workplace Standards

Most regulations are vested at the provincial level, therefore a thorough review of provincial requirements is necessary. Exposure limits vary by province and may be dependent on the type of asbestos. For instance, Alberta Regulation 393/88 Chemical Hazard Regulation – Part 3 details the requirements for asbestos handling and is similar to 29 CFR 1910.1001.

### 3.2.2 Canadian Environmental Regulations

When transporting asbestos, disposing of asbestos wastes, or where the potential exists for release of asbestos into the environment, the requirements of federal and provincial regulations must be followed.

### 3.3 MEXICO

The Mexican Occupational Health and Safety regulation NOM-052-SEMARNAT2005 designates chrysotile fibers and friable products as a hazardous waste. It imposes requirements and applies to all industries using asbestos.

In November 2004, the asbestos user industry, represented by IMFI, signed a voluntary agreement with the federal government health organization (COFEPRIS) for asbestos process sanitary control focused to protect people against sanitary risks.

Through this agreement, the asbestos industry and the federal government are committed to the following actions:

- Prepare a Safe Practices Guide for Asbestos Use, which should be compiled by all industry associates of the Mexican Fibre Industries Institute, following international recommendations.
- The federal government (COFEPRIS) must establish the mechanism for compliance verification for the chrysotile asbestos use industry.
- The federal government (COFEPRIS) must establish a certification mechanism in order to recognize the processor or user as a responsible asbestos industry.
- The chrysotile asbestos industry must establish a program to evaluate and improve the process and use and conditions for chrysotile asbestos, considering that the risks can affect workers health when exposed.
- The asbestos using industry must send to the federal government (COFEPRIS) reports of:
  - work environment surveillance and monitoring
  - a workers health control and training program

### 3.3.1 Mexican Workplace Standards

**Regulation NOM-010 STPS –2014** – This regulation describes the health and safety conditions in the workplaces where chrysotile asbestos is handled, transported, processed, or stored as a chemical substance with potential risk for occupational environment. This standard establishes the maximum fibers permissible exposure for chrysotile asbestos form, as amphiboles should no longer be used.

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**Regulation NOM-125-SSA1-1994** – This regulation establishes the sanitary requirements for chrysotile asbestos processing and use. Its compliance is verified by the Mexican Health Secretariat.

3.3.2 Mexican Environmental Regulations

**Regulation NOM-002-SCT-2011** - This regulation establishes the requirements for dangerous materials and wastes land transportation. It describes the classification, labeling and special packing requirements for dangerous substances and material usually transported.

4. CONTROL PROCEDURES

4.1 GENERAL

This section addresses safe handling and disposal practices of asbestos in the chlor-alkali industry. Examples of satisfactory asbestos control practices are only illustrative and should not be construed to have universal applicability or to represent the only available or suitable practices.

4.2 PURCHASING

When asbestos is ordered in bags, purchase orders should require the vendor to have palletized asbestos in bags in the railcar or truck, and cover the palletized bags with shrink-wrap, stretch-wrap or other nonporous material. This procedure minimizes the likelihood of torn bags or loose material and promotes ease of movement.

4.3 RECEIVING

4.3.1 Inspection

The asbestos shipment should be inspected before unloading. If any friable asbestos material is found, it should be cleaned up as discussed in Section 4.5.

4.3.2 Unloading

When moving asbestos to storage, it is important to prevent the puncturing of bags. The unloading operator should have an approved respirator and appropriate protective clothing readily available. Prior to any unloading the unloading personnel need to have been trained per the regulatory requirements.

4.4 STORAGE

An appropriate storage area is an important element of the asbestos handling program and its design should be carefully planned. Ideally, asbestos should be stored in an isolated and enclosed area (e.g., storage room) with restricted access and appropriate OSHA-specified warning signs. If air is recirculated, HEPA filters should be used.

If an access way exists between the asbestos storage area and the major work area of a cell renewal operation, it should have a well-fitted door.

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The door should remain closed at all times and should be marked with appropriate OSHA-specified warning signs. The regulation requires warning signs to include the following information:

- DANGER
- CONTAINS ASBESTOS FIBERS
- MAY CAUSE CANCER
- CAUSES DAMAGE TO LUNGS
- DO NOT BREATHE DUST
- AVOID CREATING DUST

Another means of storage is the "assigned" railroad car or ISO container. The container should be marked with appropriate OSHA-specified warning signs.

The storage area and all other areas should be kept clean and free as practicable of loose asbestos fiber. Wooden pallets should not be allowed to accumulate in the storage area. Any area or surface showing signs of asbestos, whether on floors, walls, or pallets, should be cleaned with a HEPA filter-equipped vacuum cleaner (29 CFR 1910.1001(k)(4)). The asbestos waste, vacuum bag and filter should be enclosed in a labeled, heavy plastic bag or other impervious container and disposed. The asbestos may also be washed into a collection system or wetted down and recovered. Periodic inspections of the storage area are recommended.

#### 4.5 CLEANUP

If broken bags or loose asbestos are evident, the individuals cleaning up the spill must wear approved respirators and suitable protective clothing. Prior to cleanup, the involved personnel need to have been trained per the regulatory requirements. See Section 3.1. Broken bags should be enclosed in a heavy-duty plastic bag. A HEPA filter-equipped vacuum cleaner should be used for cleanup before unloading proceeds. Where possible, water should be used to wash down and collect any loose asbestos. All other individuals should be kept from the area until cleanup is completed. If the spill occurred in an area not used for asbestos, after the cleanup, appropriate measures (e.g., air monitoring, wipe sampling) should be taken to ensure that the asbestos has been removed from this area.

#### 4.6 DIAPHRAGM DEPOSITING AND TREATMENT

Exposure to asbestos can occur when asbestos is being prepared for use in making diaphragms. Damaged bags should be contained before transport to the point of use. A large heavy-duty plastic bag should be used to contain any broken bag during transport. Personnel in direct contact with asbestos should wear an approved respirator and suitable protective clothing.

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Asbestos bag cutting and emptying should be performed under a vacuum vented hood or within an enclosed system. Transferring asbestos into a slurry tank should be performed under a vacuum vented or enclosed system to contain asbestos.

At times, it may be necessary to add asbestos slurry to an operating cell. Spilling the treatment slurry should be prevented to avoid contaminating the work area. Any spillage should be promptly cleaned up.

#### 4.6.1 Sorting and Weighing

Asbestos bags should be opened within a vacuum-vented or enclosed system. Bags should be fully cut and carefully emptied with minimal disturbance of the contents. Bags should never be shaken. Delumping of asbestos and emptying of bags should be done cautiously to prevent asbestos release.

Empty bags should be folded over the cut within a vacuum-vented or enclosed system and be deposited in a closed and labeled container.

When only partial contents of a bag are required, the partially filled bag should be stored within the vacuum-vented hood or enclosed system. If partially filled bags must be moved outside the vacuum-vented hood or enclosed system, they should be resealed and HEPA-vacuumed before moving.

#### 4.6.2 Protective Equipment 29 CFR 1910.1001(h)

Workers involved in the physical handling of asbestos bag transfer and slitting, sorting, weighing and slurry-preparation operations should wear approved NIOSH respirators and suitable protective clothing as discussed in Section 5.4. If friable asbestos fibers are spilled on protective clothing, they should be HEPA-vacuumed prior to removal of the protective clothing.

#### 4.6.3 Housekeeping 29 CFR 1910.1001(k)

There should be no visible asbestos. Neither compressed air blowing nor dry broom sweeping should be used to clean up loose asbestos. Fugitive asbestos fibers should be removed with a HEPA filter-equipped vacuum cleaner or by wet cleaning.

#### 4.6.4 Storage of Completed Diaphragms

Prior to installation in a cell, completed diaphragms should be managed in a manner to prevent asbestos from entering the atmosphere. Care should be taken in storage and handling to ensure that diaphragms are not damaged. Covering of stored diaphragms also may be appropriate.

#### 4.7 PURCHASED AND PRE-DEPOSITED ASBESTOS DIAPHRAGMS

##### 4.7.1 Storage

Purchased predeposited diaphragms should be placed on pallets with protective plastic covering or stored in the cell frame assembly. The properly protected diaphragms should be stored in a designated area.

#### 4.7.2 Shipping, Receiving and Assembly

Predeposited diaphragms should be shipped on pallets with protective plastic covering or in containers designed to hold the diaphragms. Personnel should wear the proper safety equipment, as outlined by their company's PPE policy, when handling diaphragms during shipping, receiving and cell assembly.

### 4.8 SPENT ASBESTOS

#### 4.8.1 Hydro Blast Area

Asbestos diaphragms can be removed by hydro blasting and replaced at some frequency, depending on cell type, brine quality, and other variables.

The hydro blast area should be enclosed, i.e., a separate room or enclosure with shielding to contain asbestos, and have smooth surfaces to prevent asbestos from adhering and drying. The area should also contain a trench system for receiving and carrying away the asbestos and contaminated water to a sump or pit. A sloping concrete floor facilitates drainage. After each use of the hydro blast area or at the end of the workday, all surfaces should be carefully flushed to remove asbestos. Where appropriate, the area can be initially cleaned with a squeegee. Final wash down would then require a minimal quantity of water. PPE for operators should include protective clothing (see Section 5.4). If outer protective gear (e.g., "slicker suit") is needed to protect against water, consideration should be given to the use of disposable suits. If reusable suits are used, they should be washed clean of fibers and inspected prior to reuse. Allowing the suit to dry before reuse allows for any asbestos spilled on the suit to be more visible.

#### 4.8.2 Water Separation

Separation of spent asbestos from the hydro blasting water wash is typically accomplished by gravity settling in separation tanks or filtration, e.g. plate and frame filters.

#### 4.8.3 Landfills

Landfills which accept asbestos wastes are regulated by EPA and have specific recordkeeping requirements. The landfill operator may require the shipper to complete a waste profile prior to accepting such wastes.

## 5. **EMPLOYEE PROTECTION**

### 5.1 GENERAL

Asbestos can cause serious health problems if it is not properly used and handled. Asbestos exposure can cause such diseases as pulmonary asbestosis, carcinoma and pleural mesothelioma. However, quantifying the health risks associated with specific airborne concentrations, fiber types and dimensions, and the chemical composition of the fibers, is an inexact process. In addition, the long latency period between initial exposure and the appearance of disease complicates risk estimates. Consequently, exposure should be kept at or below the PEL-TWA and the excursion limit.

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The Asbestos Standard requires that engineering controls such as exhaust ventilation and dust collection be used to maintain exposures at or below permissible levels. To the extent practicable, the Standard also requires that asbestos be handled in a wet state to prevent the emission of airborne fibers in excess of the PEL-TWA and/or the excursion limit.

Compliance must be achieved by instituting engineering controls and work practices. If such controls and work practices are not feasible, appropriate documentation must be maintained. In that event, the engineering controls and work practices shall be used to reduce exposure to the lowest levels achievable and those controls shall be supplemented by the use of respirators and other PPE.

5.2 WARNING SIGNS AND LABELS: 29 CFR 1910.1001(j)

Warning signs with OSHA-specified language must be displayed at all regulated areas and all approaches to these areas, and at and around disposal sites which contain asbestos waste (See Section 4.4). Some states may also have labeling requirements for tracking/identifying.

The Asbestos Standard (29 CFR 1910.1001(j)(4) requires that warning labels with OSHA-specified language be affixed to all raw materials, mixtures, scrap, waste, debris, etc. containing asbestos, or to asbestos waste containers destined for disposal except where specifically excluded under 29 CFR 1910.1001(j)(6). Exclusions include cases where "asbestos fibers have been modified by a bonding agent, coating, binder, or other material provided that the manufacturer can demonstrate that during any reasonably foreseeable use, handling, storage, disposal, processing, or transportation, no airborne concentrations of fibers of asbestos in excess of the TWA permissible exposure level and/or excursion limit will be released or asbestos is present in a product in concentrations less than 1.0%." States may also have generator identification number requirements.

5.3 RESPIRATORS: 29 CFR 1910.1001(g)

Where their use is required, respirators must be approved by the National Institute for Occupational Safety and Health.

OSHA regulations (Reference 9.1) require employers to establish respiratory protection programs, including choosing the appropriate respirator, training on its use and limitations, medical determination of ability to wear a respirator, and proper maintenance and storage.

Employees must wear approved respirators whenever exposures cannot be effectively reduced by engineering controls and asbestos exceeds or is likely to exceed the PEL-TWA or the excursion limit. The Institute provides information for respiratory protection in Pamphlet 65 (Reference 9.2).

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**5.4 PROTECTIVE CLOTHING: 29 CFR 1910.1001(H)**

Any worker exposed to asbestos in excess of the TWA and/or excursion limit must wear protective clothing such as coveralls (or similar whole body clothing) and head (e.g., hard hat), hand and foot coverings. The protective clothing, which must be provided by the employer, should not contain pockets or side openings.

Employers may prefer to provide disposable coveralls, although reusable ones are permitted. For reusable coveralls, anti-static, cotton polyester fabric of fine weave has proven a satisfactory material.

Once worn, disposable protective clothing should be considered contaminated with asbestos and properly disposed. Reusable clothing, once worn, if contaminated, should be HEPA filter-vacuumed before placing in laundry containers. Clothing must not be shaken, brushed, or air blown.

Soiled protective clothing, whether reusable or disposable, should be placed and stored in closed containers which prevent dispersion of asbestos outside of the container. Contaminated clothing must be transported in sealed, labeled, impermeable bags or other closed, impermeable, labeled containers.

Laundering should be done to prevent release to the ambient air of adhered asbestos fibers. Water-soluble laundry bags may minimize the exposure potential in handling operations.

If contract laundering is used, the employer must inform the contractor, preferably in writing, of the applicable regulations. Contract launderers' facilities should be periodically inspected.

**5.5 CHANGE ROOMS: 29 CFR 1910.141 (D AND E) GENERAL ENVIRONMENTAL CONTROLS**

Employers must provide change rooms and showers for workers who are exposed to asbestos above the TWA and/or excursion limit. Change rooms must not be used for other purposes (e.g., food and drink area, break room, office) and must be equipped with two separate lockers or other containers for each worker to prevent contamination of the worker's street clothes. If disposable clothing is worn, it should be placed in a disposal container and the worker should then enter the shower area.

**6. INDUSTRIAL HYGIENE MONITORING: 29 CFR 1910.1001(D)**

An effective monitoring program identifies employee exposure and aids in developing practices to reduce that exposure.

**6.1 EXPOSURE MONITORING**

The Asbestos Standard requires exposure monitoring whenever there has been a change in the production, process, control equipment, personnel or work practices that may result in new or additional exposures above the TWA permissible exposure limit and/or excursion limit or when the employer has any reason to suspect that a change may result in new or additional exposures above these limits.

In addition, the standard also requires periodic (compliance) exposure monitoring at a frequency not to exceed six months for those employees whose exposures may reasonably be foreseen to exceed the PEL-TWA or the excursion limit.

Reference 9.1 contains a detailed description of the exposure monitoring requirements. All affected facilities should develop an industrial hygiene monitoring program for asbestos and audit it to insure compliance with regulations and company policy.

6.2 EMPLOYEE NOTIFICATION

The affected employee must be notified in writing of any monitoring results within 15 working days of the employer's receipt of the results. If the exposure exceeds the TWA and/or excursion level, written notice must include the corrective action steps necessary to reduce exposure to, or below these levels.

6.3 RECORDS: 29 CFR 1910.1001(M)

Exposure monitoring records must be kept for at least 30 years. Additional requirements for monitoring records are included in the Asbestos Standard and other OSHA Act regulations such as 29 CFR 1910.1020 (Reference 9.1).

7. **MEDICAL SURVEILLANCE: 29 CFR 1910.1001(I)**

The Asbestos Standard requires employers to institute a medical surveillance program for all employees who are or may be exposed to asbestos at or above the TWA and/or excursion level.

7.1 PRE-PLACEMENT EXAMINATIONS

Before an employee is assigned to an occupation where exposure to airborne concentrations of asbestos fibers at or above the TWA and/or excursion limit may occur, a pre-placement medical examination shall be provided or made available by the employer at no cost to the employee. At a minimum, the examination must include:

- medical and work history
- complete physical exam of all systems with emphasis on the respiratory system, the cardiovascular system and digestive tract
- completion of the medical questionnaire in Appendix D of the Asbestos Standard
- a chest roentgenogram (posterior-anterior 14 x 17 inches) (Roentgenograms shall be interpreted and classified only by a B-reader, a board eligible/certified radiologist, or an experienced physician with known expertise in pneumoconiosis according to Appendix E of the OSHA standard.)
- pulmonary function test

## 7.2 PERIODIC EXAMINATION

For employees exposed to asbestos at or above the PEL-TWA or the excursion limit, an annual medical surveillance examination must be made available. It is nearly identical to the preplacement examination except that the frequency of chest X-rays depends on age and years since first exposure and the medical exam is abbreviated.

## 7.3 TERMINATION EXAMINATIONS

Within 30 days before or after termination, the employer must make available a medical examination to workers exposed to asbestos at or above the TWA and/or excursion limit. If the employee received the OSHA-designated examination within the past year, a termination examination is not required.

## 7.4 PHYSICIAN'S INVOLVEMENT

### 7.4.1 Employer Provided Information

The employer must provide to the physician information which includes:

- A copy of the Asbestos Standard and Appendices D and E of the standard
- A description of the affected employee's duties as they relate to the employee's exposure
- The employee's representative exposure level or anticipated exposure level
- A description of any personal protective and respiratory equipment used or to be used
- Information from previous medical examinations of the affected employee that is not otherwise available to the examining physician

### 7.4.2 Physician Provided Information

The employer must obtain from the physician a written, signed opinion which includes the following:

- The physician's opinion as to whether the employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos
- Any recommended limitations on the employee or upon the use of personal protective equipment such as clothing or respirators
- A statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions resulting from asbestos exposure that require further explanation or treatment

- A statement that the employee has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure

#### 7.5 EMPLOYEE NOTIFICATION

The employer must provide a copy of the physician's written opinion to the affected employee within 30 days of its receipt.

#### 7.6 RECORDS

Medical surveillance records must be retained for the duration of the individual's employment plus 30 years.

### 8. **EMPLOYEE TRAINING**

A well-designed and well-conducted employee training program is an essential part of providing a safe work environment. In addition to employees involved in the manufacture of chlor-alkali products, consideration should also be given to the training needs of personnel performing housekeeping activities in areas where asbestos may be present.

#### 8.1 OPERATING INSTRUCTIONS AND INITIAL TRAINING: 29 CFR 1910.1001(J)(7)(II)-(J)(7)(III)(J)

Workers who may be exposed to asbestos at or above PEL-TWA or the excursion level should receive detailed written operating instructions specific to their duties. These instructions should include appropriate procedures for moving and handling asbestos, required PPE and clean-up practices. In particular, training should be provided to include as a minimum:

- The health effects associated with asbestos exposure
- The relationship between smoking and exposure to asbestos, resulting in lung cancer
- The quantity, location, manner of use, release, and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos
- The engineering controls and work practices associated with the employee's job assignment
- The specific procedures implemented to protect employees from exposure to asbestos, such as appropriate work practices, emergency and clean-up procedures, and personal protective equipment to be used
- The purpose, proper use, and limitations of respirators and protective clothing, if appropriate
- The purpose and a description of the medical surveillance program
- The content of the Asbestos Standard, including appendices

- 
- The names, addresses and phone numbers of public health organizations which provide information, materials, and/or conduct programs concerning smoking cessation. The employer may distribute a list of such organizations to comply with this requirement.
  - The requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels

8.2 ASBESTOS AWARENESS TRAINING: 29 CFR 1910.1001(J)(7)(iv)

The employer shall provide, at no cost to employees, an awareness training program for employees who perform housekeeping operations in an area that contains ACM or PACM. An asbestos awareness training course shall at a minimum contain the following elements:

- health effects of asbestos and locations of asbestos in the area
- recognition of ambient asbestos fibers
- requirements in the OSHA Asbestos Standard relating to housekeeping
- proper response to fiber release episodes

Each such employee shall be so trained at least once a year.

8.3 CONTRACTORS

When contract employees may potentially be exposed to asbestos, the contracting company must be informed of the presence and hazards of asbestos, i.e., applicable standards (asbestos, OSHA, EPA, DOT, state). The Institute provides information for assisting facilities in meeting the contractor requirements of the OSHA Process Safety Management rule in Pamphlet 85 (Reference 9.2).

8.4 RECORDS

Employee training records must be maintained for the duration of employment plus one year.

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## 9. REFERENCES

Web links are provided for many references. Most CFRs can be accessed online at the following link: <http://www.gpoaccess.gov/cfr/index.html>

### 9.1 CHLORINE INSTITUTE REFERENCES

The following publications are specifically referenced in CI Pamphlet 137. The latest editions of CI publications may be obtained at <http://www.chlorineinstitute.org>.

| <b>Pamphlet<br/>#</b> | <b><u>Title</u></b>                                                                                                                                                       |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 65                    | <i>Personal Protective Equipment for Chlor-Alkali Chemicals</i> , ed. 6; Pamphlet 65; The Chlorine Institute: Arlington, VA, 2015.                                        |
| 85                    | <i>Recommendations for Prevention of Personnel Injuries for Chlorine Production and Use Facilities</i> , ed. 5; Pamphlet 85; The Chlorine Institute: Arlington, VA, 2010. |

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## 9.2 OSHA REGULATIONS

- 9.2.1 Code of Federal Regulations. Title 29. Part 1910.1001. Office of the Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.2.2 Code of Federal Regulations. Title 29. Part 1910.1200. Office of the Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.2.3 Code of federal Regulations. Title 29. Part 1910.120 (g). Office of the Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.2.4 Code of Federal Regulations. Title 29. Part 1910.134. Office of the Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.2.5 Code of Federal Regulations. Title 29. Part 1910.1020. Office of the Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.2.6 Code of Federal Regulations. Title 29. Part 1910.141. Office of the Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).

## 9.3 EPA REGULATIONS

- 9.3.1 Code of Federal Regulations. Title 40. Parts 301-303, 304, 311-12, 313, 355, 370, 372. Office of Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.3.2 Code of Federal Regulations. Title 40. Part 6, 144 (a) (q). Office of Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.3.3 Code of Federal Regulations. Title 40. Part 415.60 – 415.66. Office of Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.3.4 Code of Federal Regulations. Title 40. Part 710. Office of Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.3.5 Code of Federal Regulations. Title 40. Part 707. Office of Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).
- 9.3.6 Code of Federal Regulations. Title 40. Part 763. Office of Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).

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9.4 DOT REGULATIONS

- 9.4.1 Code of Federal Regulations. Title 49. Sub Chapter C Part 171-173. Office of Federal Register National Archives and Records Administration. U.S. Government Printing Office: Washington, DC, (revised annually).

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**APPENDIX A - CHECKLIST**

This checklist is designed to emphasize major topics for someone who has already read and understood the pamphlet. Taking recommendations from this list without understanding related topics can lead to inappropriate conclusions.

Place a check mark (✓) in the appropriate box below:

| Yes                      | No                       | N/A                      |     |                                                                                                                                                     |                    |
|--------------------------|--------------------------|--------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1.  | Does the facility understand the OSHA, EPA, DOT and any other applicable regulations?                                                               | {3.1 - 3.3}        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2.  | Does the facility have purchasing specifications in place to minimize spillage in shipments?                                                        | {4.2}              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3.  | Does the facility have in place procedures to unload asbestos safely?                                                                               | {4.3 and 4.6}      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4.  | Does the facility have in place procedures to store asbestos safely?                                                                                | {4.4, 4.6 and 4.7} |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5.  | Does the facility have in place procedures to clean up spills?                                                                                      | {4.5}              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6.  | Does the facility have in place procedures to use asbestos safely?                                                                                  | {4.6 and 8.1}      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7.  | Does the facility have in place procedures to handle and dispose of spent asbestos safely?                                                          | {4.8}              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8.  | Does the facility provide appropriate PPE for employees handling asbestos?                                                                          | {5}                |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9.  | Does the facility have in place procedures to perform exposure monitoring and notify employees as required?                                         | {6.1 and 6.2}      |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. | Does the facility have in place procedures to retain exposure monitoring records per the regulatory requirements?                                   | {6.3}              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. | Does the facility have in place procedures to conduct employee medical surveillance and notification for employees per the regulatory requirements? | {7.1-7.5}          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. | Does the facility have in place procedures to retain medical surveillance records per the regulatory requirements?                                  | {7.6}              |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. | Does the facility have in place procedures to train employees including contractors and housekeeping per the regulatory requirements?               | {8.1-8.3}          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. | Does the facility have in place procedures to retain training records per the regulatory requirements?                                              | {8.4}              |

**REMINDER: Users of this checklist should document exceptions to the recommendations contained in this pamphlet.**



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Email: [pubs@CL2.com](mailto:pubs@CL2.com) • Website: [www.chlorineinstitute.org](http://www.chlorineinstitute.org)  
Technical inquiries: [techsvc@cl2.com](mailto:techsvc@cl2.com)

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May 07, 2019

The Honorable John Barrasso  
Chairman  
Committee on Environment and Public Works  
United States Senate  
Washington, D.C. 20510

The Honorable Thomas Carper  
Ranking Member  
Committee on Environment and Public Works  
United States Senate  
Washington, D.C. 20510

The Honorable Frank Pallone Jr.  
Chairman  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, DC 20515

The Honorable Greg Walden  
Ranking Member  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, D.C. 20515

Dear Chairman Barrasso, Ranking Member Carper, Chairman Pallone, and Ranking Member Walden:

We are writing as members of the American Alliance for Innovation (AAI), an alliance of trade associations along the chemistry value chain, to urge you to allow the Environmental Protection Agency to proceed with its risk evaluation of asbestos as required by the 2016 Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act.

Our members represent businesses both large and small in many major sectors of the American economy—including aerospace, agriculture, apparel, automotive, building and construction materials, chemical and raw material production, consumer and industrial goods, distribution, electronics, energy, equipment manufacturers, food and grocery, footwear, healthcare products and medical technology, information technology, mining and metals, paper products, plastics, retail, storage, and travel goods.

We continue to be committed to supporting and complying with the 2016 Lautenberg amendments to the Toxic Substances Control Act (TSCA), which were the result of years of work and negotiations between lawmakers of both parties, as well as extensive engagement by stakeholders from industrial, environmental, public health, animal rights, and labor organizations, including AAI.

Since 2016, EPA has been effectively and efficiently implementing the updated TSCA as Congress envisioned and continues to consistently meet the key deadlines and requirements of the law. One provision was for the agency to select the first 10 chemicals to undergo risk evaluations from the 2014 TSCA Work Plan. Asbestos is one of those chemicals and is currently undergoing a full TSCA risk evaluation. The draft of that evaluation is expected to be released for public comment on time later this year. Additionally, the agency issued a final Significant New Use Rule in April to prohibit discontinued uses of the substance without EPA review.

It is inappropriate for Congress to ban the specific conditions of use of any substance without the benefit of a TSCA risk evaluation and information on appropriate risk management actions. The legislation being considered—H.R. 1603 and S. 717—would undermine the very process that was

the basis for Congress's 2016 amendments to TSCA. We hope your committees, which were instrumental in passage of those amendments, will allow EPA to complete its risk evaluation of asbestos before taking further action.

Thank you for your leadership and your consideration of this important matter. Please let us know if you have any questions.

Sincerely,

American Chemistry Council  
American Coatings Association  
American Forest and Paper Association  
American Fuel and Petrochemical Manufacturers  
American Petroleum Institute  
Fashion Jewelry & Accessories Trade Association  
Industrial Minerals Association – North America  
Institute of Makers of Explosives  
National Association of Chemical Distributors  
National Council of Textile Organizations  
Painting and Decorating Contractors of America  
Pine Chemicals Association  
Plastic Pipe and Fittings Association  
Polyurethane Manufacturers Association  
Single Ply Roofing Industry  
Spray Polyurethane Foam Alliance  
Structural Insulated Panel Association  
The Aluminum Association  
The Chlorine Institute  
The Vinyl Institute  
U.S. Chamber of Commerce



**TO: Subcommittee on Environment and Climate Change of the  
Committee on Energy and Commerce**  
**FROM: National Rural Water Association (contact: Mike Keegan, Analyst)**  
**DATE: May 7, 2019**  
**RE: HR 1603**

---

Thank you for the opportunity to comment on HR 1603, the "Alan Reinstein Ban Asbestos Now Act of 2019" introduced by Representative Bonamici.

Our member utilities have the very important public responsibility of complying with all applicable U.S. Environmental Protection Agency (EPA) regulations and for supplying the public with safe drinking water and sanitation every day.

The National Rural Water Association (NRWA) shares the Committee's goal of eliminating environmental public health risks. Local governments and state governments exist solely to protect and assist their citizens. The provision of safe drinking water is perhaps the most elemental purpose of local government and is generally recognized as one of the most essential public health, public welfare, and civic necessities.

Most all of the country's approximately 50,000 community drinking water systems (typically their local governments) rely on chlorine-based disinfection of the public's drinking water to ensure its safety by preventing microbiological contamination. Chlorine-based disinfection of public drinking water supplies in the early 20th century is often cited as one of the most important public health improvements of all time. Chlorine is added to public drinking water to guard against numerous pathogens including *Escherichia coli* bacteria, *Legionella*, *Giardia lamblia*, *Salmonella* bacteria, *Cryptosporidium*, etc.

We urge the committee to consider the essential need for a reliable and affordable supply of chlorine-based disinfection to allow for safe and affordable public drinking water.

We appreciate the Committee's continued assistance in advancing new funding and administrative policies to help the most economically disadvantaged consumers afford public water. Many stakeholders believe that economically disadvantaged populations are facing a crisis in affording their current water utility bills.

We appreciate the Committee's sensitivity in understanding that any new federal unfunded mandates on local governments can increase the cost of the public's essential drinking water service and force the most economically at-risk consumers (the great majority rely on chlorine-based disinfection) to be unable to afford their water bill or other necessary public health expenditures.

*The National Rural Water Association is the country's largest public drinking water and sanitation supply organization with over 30,000 members. Safe drinking water and sanitation are generally recognized as the most essential public health, public welfare, and civic necessities.*

Most U.S. water utilities (community water systems) regulated by the SDWA are small; over 91% of the country's approximately 50,000 drinking water supplies serve communities with fewer than 10,000 persons. Small and rural communities often have difficulty providing safe, affordable drinking water and sanitation due to limited economies of scale and lack of technical expertise. Similarly, when it comes to providing safe water and compliance with federal unfunded mandates, small and rural communities have a difficult time due to their limited customer base. This is compounded by the fact that small and rural communities often have lower median household incomes and higher water rates compared to larger communities. As a result, the cost of compliance is often dramatically higher per household.

*NRWA is the nonprofit association of the federated state rural water associations with a combined membership of over 30,000 small and rural communities. NRWA is the country's largest water utility association and the largest community-based environmental organization. State Rural Water Associations are non-profit associations governed by elected board members from the membership.*

*The National Rural Water Association is the country's largest public drinking water and sanitation supply organization with over 30,000 members. Safe drinking water and sanitation are generally recognized as the most essential public health, public welfare, and civic necessities.*



May 8, 2019

The Honorable Paul Tonko  
Chairman  
Subcommittee on Environment & Climate Change  
Committee on Energy & Commerce  
House of Representatives  
Washington, DC 20515

The Honorable John Shimkus  
Ranking Member  
Subcommittee on Environment & Climate Change  
Committee on Energy & Commerce  
House of Representatives  
Washington, DC 20515

Dear Chairman Tonko and Ranking Member Shimkus:

On the behalf of the National Demolition Association (NDA), I am writing to submit the following comments on your committee's hearing titled, "Ban Asbestos Now: Taking Action to Save Lives and Livelihood" that will consider H.R. 1603, the "Alan Reinstein Ban Asbestos Now Act of 2019."

The National Demolition Association represents over 500 U.S. and Canadian companies that offer standard demolition services as well as a full range of demolition-related services and products. NDA educates members on the latest advances in equipment and services, provides educational programs and tools to stay abreast of regulatory and safety matters and keeps regulators informed about issues in our industry. NDA also increases public awareness of the economic and societal benefits of demolition.

NDA is firmly committed to ensuring public health along with the safety and protection of workers at all times and takes that responsibility seriously. At present, there are over 100 NDA member companies that participate in the encapsulation, removal, or air monitoring of asbestos. The demolition and wrecking industry is set to generate nearly \$6 billion of revenue in 2019<sup>1</sup>, with the asbestos abatement sector contributing a significant amount to that total. To protect the public and workers, NDA supports the continued implementation of scientifically based laws and regulations implementing the Toxic Substances Control Act and the Frank Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act, including the regulation of asbestos, and already works with federal agencies including the Environmental Protection Agency (EPA).

Regarding H.R. 1603, NDA is supportive of the bill's steps to address the hazards resulting from asbestos exposure. In particular, NDA supports Section 3 of the bill, which requires a report assessing the presence of asbestos in residential, commercial, industrial, public and school buildings, as well as the risk posed to human health from that asbestos. This information is vital for the government and public to understand the prevalence of asbestos currently in the U.S. and how stakeholders including NDA can assist with the mitigation of asbestos hazards. As such, Congress should ensure that this section remains intact.

NDA's commitment to public health and workplace safety has focused recently on collaborating with federal agencies, including the Occupational Safety and Health Administration (OSHA) and EPA. Our association is currently working to reenter a formal Alliance with OSHA and is collaborating with EPA's Office of Brownfields and Land Revitalization. As Congress and federal agencies work to mitigate the hazards from exposure to toxic substances, including asbestos, NDA will continue to be a willing and active participant in this effort.

<sup>1</sup> According to IBISWorld's *Demolition & Wrecking in the US Industry Report*, the market size in the United States will generate \$5.9 billion in revenue in 2019, a 3.7% growth of industry.

Thank you for the opportunity to provide comment on this issue. Please contact Kevin McKenney at [kmckenney@demolitionassociation.com](mailto:kmckenney@demolitionassociation.com) or 202-367-2480 with questions.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Lambert", with a stylized flourish at the end.

Jeff Lambert  
Chief Executive Officer



American Water Works  
Association

*Dedicated to the World's Most Important Resource™*

May 8, 2019

The Honorable Frank Pallone  
Chair  
The Honorable Greg Walden  
Ranking Member  
House Committee on Energy & Commerce

The Honorable Paul Tonko  
Chair  
The Honorable John Shimkus  
Ranking Member  
House Subcommittee on Environment & Climate Change  
2125 Rayburn House Office Building  
Washington, DC 20515

RE: Alan Reinstein Ban Asbestos Now Act of 2019 (H.R. 1603)

Dear Representatives,

I am writing on behalf of the 50,000 members of the American Water Works Association to alert you to a matter which could impair their ability to provide safe, clean and affordable drinking water. AWWA recognizes the hazards posed by asbestos and the need to limit its use to only the most essential applications. Yet, asbestos plays a role in the production of chlorine, an important element of water treatment.

The Subcommittee on Environment and Climate Change of the Committee on Energy and Commerce is holding a hearing, titled, "Ban Asbestos Now: Taking Action to Save Lives and Livelihood" to gather information relevant to H.R. 1603, the "Alan Reinstein Ban Asbestos Now Act of 2019." The American Water Works Association would like the Subcommittee to be aware of the following as it considers H.R. 1603:

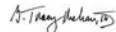
- Based on data reported by the Chlorine Institute, more than forty percent of the chlorine supply in the United States is dependent on production methods that rely on asbestos.

- Chlorine and sodium hypochlorite are critical drinking water and wastewater treatment chemicals and a ban on asbestos would generate supply chain disruptions that would have economic, public health, and environmental consequences.
- Under Section 1441 of the Safe Drinking Water Act, the U.S. Environmental Protection Agency has a responsibility to assure the availability of an adequate supply of chemicals necessary for the treatment of drinking water.

Actions that disrupt the supply of essential water treatment chemicals, particularly abrupt changes in supply, have important impacts on the safety and resiliency of the nation's water supply.

Thank you for your attention, if the Subcommittee members or staff have any questions please feel free to contact me at 202.628.8303 or Tommy Holmes at 202.326.6128.

Best regards,



G. Tracy Mehan, III  
Executive Director -- Government Affairs

Cc: Jennifer McLain, Acting Director, Office of Groundwater and Drinking Water, EPA  
Andrew Sawyers, Director, Office of Wastewater Management, EPA

**Who is AWWA**

*The American Water Works Association (AWWA) is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring the effective management of water. Founded in 1881, the Association is the largest organization of water supply professionals in the world. Our membership includes more than 4,000 utilities that supply roughly 80 percent of the nation's drinking water and treat almost half of the nation's wastewater. Our 50,000-plus total membership represents the full spectrum of the water community: public water and wastewater systems, environmental advocates, scientists, academicians, and others who hold a genuine interest in water, our most important resource. AWWA unites the diverse water community to advance public health, safety, the economy, and the environment.*

Most U.S. water utilities (community water systems) regulated by the SDWA are small; over 91% of the country's approximately 50,000 drinking water supplies serve communities with fewer than 10,000 persons. Small and rural communities often have difficulty providing safe, affordable drinking water and sanitation due to limited economies of scale and lack of technical expertise. Similarly, when it comes to providing safe water and compliance with federal unfunded mandates, small and rural communities have a difficult time due to their limited customer base. This is compounded by the fact that small and rural communities often have lower median household incomes and higher water rates compared to larger communities. As a result, the cost of compliance is often dramatically higher per household.

*NRWA is the nonprofit association of the federated state rural water associations with a combined membership of over 30,000 small and rural communities. NRWA is the country's largest water utility association and the largest community-based environmental organization. State Rural Water Associations are non-profit associations governed by elected board members from the membership.*

*The National Rural Water Association is the country's largest public drinking water and sanitation supply organization with over 30,000 members. Safe drinking water and sanitation are generally recognized as the most essential public health, public welfare, and civic necessities.*

**House Energy and Commerce Committee  
Subcommittee on Environment and Climate Change  
Hearing on  
“Ban Asbestos Now: Taking Action to Save Lives and Livelihoods”  
May 8, 2019**

**The Honorable Alexandra Dunn, Assistant Administrator  
U.S. Environmental Protection Agency**

**The Honorable Frank Pallone, Jr. (D-NJ)**

During the hearing, you were asked about EPA’s interpretation of the term “impurity.” Your response referred to a threshold concentration for impurities. Impurity, as defined in both 40 CFR § 791.3 and 40 CFR § 720.3, is a chemical substance which is unintentionally present with another chemical substance or mixture, with no threshold. It appears that your answer may have been based on the definition of “asbestos-containing material” under asbestos abatement activities as described under TSCA Title II – “any material which contains more than 1 percent asbestos by weight.”

1. Please clarify whether you interpret the term “impurity” to include a threshold concentration.

**RESPONSE:** The term “impurity,” as described in section 2 of H.R. 1603 creating a new TSCA section 6(k)(4)(C), does not include a threshold amount. As such, EPA would have to exercise discretion to determine what counts as an “impurity” in a product.

2. What, if any, risk-based justification can you offer for excluding materials containing just under 1% asbestos by weight from abatement activities? What monitoring is being done to ensure no risk to human health from materials containing just under 1% asbestos by weight?

**RESPONSE:** The 1 percent asbestos by weight threshold, incorporated into the definition of asbestos-containing material set by Congress under the Asbestos Hazard Emergency Response Act (AHERA) or TSCA Title II, is not health-based. Rather, the 1 percent threshold, first adopted under the asbestos National Emission Standards for Hazardous Air Pollutants was based in part on the limit of detection for asbestos analytical methods prior to the passage of TSCA Title II in 1986. Under TSCA Title II, bulk materials containing less than 1 percent asbestos by weight would not be considered asbestos-containing building material and therefore would not require any additional monitoring.

**The Honorable John Shimkus (R-IL)**

1. As part of the exemption provisions in H.R. 1603, the President is required to publish the application for an exemption, as well as any terms and conditions, if granted. In contrast, the existing national defense waiver provisions in section 22 of the Toxic Substances Control Act (TSCA) – the use of which H.R. 1603 prohibits -- allows the Administrator to “omit such publication because the publication itself would be contrary to the interests of national defense.”

- a. Could the provisions in H.R. 1603 result in the release of classified national security-related information regarding the exempted use?

**RESPONSE:** It is unclear what effect H.R. 1603 could have on classified national security-related information regarding an exempted use. Section 2 of H.R. 1603 creates a new TSCA 6(k)(2)(E) that states that the Administrator may not issue a national defense waiver under TSCA section 22. The TSCA section 22 waiver provision allows the Administrator to “omit such publication because the publication itself would be contrary to the interests of national defense.”

While section 2 of H.R. 1603 includes a process for a national defense exemption, it does not allow for the Agency to omit publication of information related to the exemption. H.R. 1603 section 6(k)(2)(D) requires that an application for national defense exemption, and the terms and conditions of a granted exemption be published in the Federal Register.

- b. Does H.R. 1603 include any other exemption provision for non-national security uses that may be deemed in some way essential?

**RESPONSE:** The bill does not include exemption provisions for non-national security uses.

2. The definition of the term “asbestos” in H.R. 1603 is broader than the current statutory definition of asbestos under the Asbestos Emergency Hazard Response Act (TSCA Title II).

- a. Are richterite and winchite appropriate to be grouped together with the other asbestiforms?

**RESPONSE:** Mineralogically, the asbestiform varieties of richterite and winchite could be appropriately grouped together with other asbestiform minerals.

- b. Why did EPA omit adding these two forms to its risk evaluation of asbestos?

**RESPONSE:** Richterite and winchite are minerals that, along with tremolite and other trace minerals make up the “Libby Amphibole” that contaminated vermiculite originating from a mine in Libby, Montana. That vermiculite mine

ceased operations in 1990. Vermiculite containing Libby Amphibole is no longer manufactured or processed for use in the United States and therefore was not included in the risk evaluation under TSCA. However, the Ninth Circuit Court of Appeals recently issued a decision in which the court found that EPA's interpretation of the term "conditions of use" to exclude legacy uses and associated disposals contradicted TSCA and vacated that provision of EPA's Risk Evaluation Rule. EPA is currently evaluating the Court's decision and its impact on the asbestos risk evaluation.

- c. Is it reasonable to expect that without a component percentage or other more specific definition, a single fiber in a commodity may make the item a mixture or article containing asbestos for the purposes of the provisions in H.R. 1603?

**RESPONSE:** Yes, without a component percentage or other more specific definition, EPA would have to exercise discretion to determine whether a single fiber in a product may make the item a mixture or article containing asbestos for the purposes of the provisions in H.R. 1603.

- 3. H.R. 1603 amends section 6 of TSCA, whose operative definitions are "chemical substance" and "mixture." H.R. 1603 uses the term "mixture" but uses the word "asbestos" without stating that for purposes of the bill it is a "chemical substance."

- a. Do you interpret "asbestos" for purposes of the legislation to be a "chemical substance" subject to that meaning in TSCA or something else?

**RESPONSE:** H.R. 1603 is unclear on this point, but it expressly defines "asbestos" without using or cross-referencing the term "chemical substance." Without additional clarity in the bill, this consideration would be subject to further legal analysis and interpretation.

- b. How would the ban apply to uses specifically excluded from the definition of "chemical substance" under TSCA section 3(2)(B), such as pesticides, food, food additives, drugs, cosmetics, or medical devices.

**RESPONSE:** It is unclear how the ban would apply to uses specifically excluded from the definition of "chemical substance" under TSCA. Without additional clarity in the bill, this consideration would be subject to further legal analysis and interpretation.

**The Honorable Cathy McMorris Rodgers (R-WA)**

1. Why does the Agency read the Toxic Substances Control Act (TSCA) to prevent consideration of future risks under section 6 risk evaluations and risk management?

**RESPONSE:** EPA does not interpret TSCA as preventing consideration of future risks. In a TSCA section 6 risk evaluation, the statute requires that EPA evaluate a chemical under its “conditions of use,” defined in the law as the intended, known and reasonably foreseen circumstances of manufacture, processing, distribution in commerce, use and disposal. EPA interprets the mandates under TSCA section 6(a)-(b) to conduct risk evaluations and any corresponding risk management to focus on activities that are intended, known to be occurring, or reasonably foreseen to occur.<sup>1</sup>

2. One of the witnesses on the next panel expressed concerns in her testimony that EPA’s risk evaluation does not address exposures in the ambient environment, specifically air, soil or water.

- a. Why did EPA choose not to include those?

**RESPONSE:** In EPA’s asbestos risk evaluation problem formulation, EPA identified exposure pathways under other environmental statutes, administered by EPA, which adequately assess and effectively manage exposures and for which long-standing regulatory and analytical processes already exist, e.g., the Clean Air Act, the Safe Drinking Water Act, the Clean Water Act, and the Resource Conservation and Recovery Act.<sup>2</sup> In developing the problem formulation, EPA’s Office of Pollution Prevention and Toxics worked closely with the offices within EPA that administer and implement the regulatory programs under these statutes. In some cases, EPA determined that chemicals present in various media pathways, e.g., air, water, and land, fall under the jurisdiction of existing regulatory programs and associated analytical processes carried out under other EPA administered statutes and have been assessed and effectively managed under those programs. EPA believes that the TSCA risk evaluation should focus on those exposure pathways associated with TSCA uses that are not subject to the regulatory regimes discussed above because these pathways are likely to represent the greatest areas of concern to EPA. As a result, EPA does not expect to include in the risk evaluation certain exposure pathways identified in the asbestos problem formulation.

- b. How does TSCA section 9(b) interact with your consideration, including the application of other EPA enforced statutes to address these risks?

**RESPONSE:** TSCA section 9(b) states, generally, that where EPA determines that chemical risks to health or the environment could be eliminated or reduced to a sufficient extent by actions taken under the authorities of another federal law administered by EPA, that EPA will use those other authorities to protect against the risk unless EPA determines it is in the public interest to take action under TSCA. Therefore, EPA has

<sup>1</sup> <https://www.regulations.gov/docket?D=EPA-HQ-OPPT-2016-0654>

<sup>2</sup> [https://www.epa.gov/sites/production/files/2018-06/documents/asbestos\\_problem\\_formulation\\_05-31-18.pdf](https://www.epa.gov/sites/production/files/2018-06/documents/asbestos_problem_formulation_05-31-18.pdf)

discretion to use other authorities administered by the Administrator to address such risks under TSCA section 9(b), pursuant to the authority contained therein.

3. This witness also argued that under the Significant New User Rule finalized by the Agency, new uses of asbestos could become commercialized simply if EPA is notified.
  - a. Doesn't TSCA section 5 prohibit ANY new substance from going into commercial production and sale without EPA first approving it?

**RESPONSE:** TSCA section 5 requires EPA to review notices of new chemical substances and notices of significant new uses of existing chemical substances and to make a determination regarding the risk of the new chemical substance or significant new use before the chemical can be allowed to commercialize. See the answer to question 3.b. below for further details. For EPA to require the review of significant new uses for an existing chemical, such as asbestos, the Agency would need to issue a significant new use rule (SNUR) specific to that existing chemical. EPA issued a SNUR for asbestos on April 25, 2019, which ensures that EPA has an opportunity to evaluate any discontinued use of asbestos before it resumes.<sup>3</sup> In the absence of this SNUR, manufacturing, importing, or processing of asbestos for those uses could have resumed at any time and without prior notice to, and review and regulation, as appropriate to address any unreasonable risk, by EPA. Ongoing uses of existing chemicals are not impacted by SNURs because they are outside the scope of the rule.

TSCA section 5(a)(1) requires persons to submit a significant new use notice (SNUN) to EPA at least 90 days before they manufacture (including import) or process the chemical substance for that use subject to a SNUR (15 U.S.C. 2604(a)(1)(B)(i)). The SNUN obligates EPA to assess risks that may be associated with the significant new use, including risks to potentially exposed or susceptible subpopulations identified as relevant by EPA under the conditions of use; make a determination under the statute; and, if appropriate, regulate the proposed activity before it occurs. In other words, notification to EPA triggers a process that could result in regulation if unreasonable risk is identified, potentially including a ban.

Additionally, under TSCA section 6, new uses of asbestos initiated for the first time after August 25, 1989, were banned under the final rule Asbestos: Manufacture, Importation, Processing, and Distribution in Commerce Prohibitions (54 FR 29460, July 12, 1989) (FRL-3476-2).<sup>4</sup> Those new uses remained banned along with five other uses (corrugated, commercial and specialty papers, rollboard, and flooring felt) after that rule was partially vacated and remanded to EPA by the Fifth Circuit Court of Appeals in 1991.

<sup>3</sup> <https://www.regulations.gov/document?D=EPA-HQ-OPPT-2018-0159-5897>

<sup>4</sup> <https://www.epa.gov/asbestos/asbestos-ban-and-phase-out-federal-register-notices>

- b. For EPA to permit its commercial production, doesn't EPA have to determine the chemical substance's use -- with or without some controls -- does not present an unreasonable risk to health or the environment without regard to cost or other non-risk consideration, including to vulnerable and susceptible populations?

**RESPONSE:** For TSCA section 5 review of new chemical substances and significant new uses of existing chemical substances, the law sets forth five possible determinations under TSCA section 5 with related actions:<sup>5</sup>

- If EPA determines a new chemical substance or significant new use **presents an unreasonable risk** of injury to health or the environment, without consideration of costs or other non-risk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation under the conditions of use, the Agency must take action under TSCA section 5(f) to protect against the unreasonable risk.
- If EPA determines that the available information is **insufficient to allow the Agency to make a reasoned evaluation** of the health and environmental effects of the new chemical substance or significant new use, EPA must issue an order under TSCA section 5(e). A TSCA section 5(e) order prohibits or limits the manufacture, processing, distribution in commerce, use, or disposal to the extent necessary to protect against an unreasonable risk, and may include testing requirements.
- If EPA determines that, in the absence of sufficient information, the manufacture, processing, distribution in commerce, use or disposal of the chemical **may present an unreasonable risk** of injury to health or the environment, without consideration of costs or other non-risk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant to the EPA Administrator, EPA must issue an order under TSCA section 5(e). A TSCA section 5(e) order prohibits or limits the manufacture, processing, distribution in commerce, use, or disposal to the extent necessary to protect against an unreasonable risk, and may include testing requirements.
- If EPA determines that the substance is or will be **produced in substantial quantities and either enters or may enter the environment in substantial quantities or there is or may be significant or substantial exposure** to the substance, EPA must issue an order under TSCA section 5(e). A TSCA section 5(e) order prohibits or limits the manufacture, processing, distribution in commerce, use, or disposal to the extent necessary to protect against an unreasonable risk, and may include testing requirements.
- If EPA determines that a new chemical or significant new use is **not likely to present an unreasonable risk** of injury to health or the environment, without consideration of costs or other non-risk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation under the conditions of use, the Agency will notify the submitter and the submitter may commence manufacture of the chemical or manufacture or processing for a significant new use notwithstanding any remaining portion of the 90

<sup>5</sup> <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/actions-under-tsca-section-5#5f>

day review period. EPA will notify the submitter of its decision and publish its findings in a statement in the Federal Register.

- c. Does TSCA permit EPA to evaluate discontinued uses of a chemical for risk management under existing chemicals provisions in section 6?

**RESPONSE:** TSCA section 6 tasks EPA to prioritize, evaluate risks, and take appropriate action to address unreasonable risks from existing chemical substances. TSCA section 6(b) requires EPA to conduct risk evaluations to determine whether a chemical substance presents an unreasonable risk of injury to health or the environment, without consideration of cost or other non-risk factors, including an unreasonable risk to a potentially exposed or susceptible subpopulation identified as relevant to the risk evaluation by the Administrator, under the conditions of use. TSCA section 3(4) defines the conditions of use as “the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.” A use which is no longer “intended, known, or reasonably foreseen” would not be considered a condition of use for the chemical substance.

- d. Does TSCA section 5 permit EPA to proactively ban a new substance?

**RESPONSE:** In the case of a new chemical substance or a significant new use of an existing chemical substance, when someone submits a pre-manufacture notice or a significant new use notice, respectively, after finding that a chemical substance presents an unreasonable risk to health or the environment, EPA does have the authority under TSCA section 5(f) to: (1) limit the amount of the chemical substance that is manufactured/processed/distributed in commerce or impose other restrictions on the substance via an immediately effective proposed rule under section 6 of TSCA; or (2) issue an order to prohibit or limit the manufacture, processing or distribution in commerce to take effect on the expiration of the applicable review period. EPA can exercise TSCA section 5 regulatory authority, including a ban of a significant new use, but can only ban ongoing uses in commerce under TSCA section 6.



MICHAEL P. WALLS  
VICE PRESIDENT  
REGULATORY & TECHNICAL AFFAIRS

June 24, 2019

Mr. Adam Fischer  
Legislative Clerk  
Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, D.C. 20515

Re: Questions for the Record Dated June 5, 2019

Dear Mr. Fischer:

Attached are my responses to the additional questions for the record following the Subcommittee on Environment and Climate Change May 8, 2019 on a proposed ban on asbestos for all uses, including uses in the chlor-alkali industry.

Please let me know if you have any questions.

Sincerely,

Attachment

cc: Energy and Commerce Committee Chairman Frank Pallone  
Energy and Commerce Committee Ranking Member Greg Walden  
Subcommittee on Environment and Climate Change Chairman Paul Tonko  
Subcommittee on Environment and Climate Change Ranking Member John Shimkus



Mr. Mike Walls  
American Chemistry Council  
Page 1

**Subcommittee on Environment and Climate Change  
Hearing on  
“Ban Asbestos Now: Taking Action to Save Lives and Livelihoods”  
May 8, 2019**

**Mr. Mike Walls, Vice President of Regulatory and Technical Affairs  
American Chemistry Council**

**The Honorable John Shimkus (R-IL)**

1. You provided some brief information on the economic impacts that H.R. 1603 would have on the chlor-alkali industry. Since more than one-third of our nation's domestic chlorine and caustic soda production is predicated on the use of asbestos diaphragm technology, please provide, if available, a more comprehensive economic analysis of the impact of H.R. 1603 if it were to become enacted.

**RESPONSE:** Attachment A summarizes the results of the American Chemistry Council's analysis of the economic impact of a proposed ban on asbestos use in the chlor-alkali industry. As noted in my testimony, we estimate the impact of such a ban to jeopardize more than 155,000 jobs, and \$63 billion in manufacturing output.

Significantly, a ban on asbestos use in chlor-alkali production would materially affect disaster relief, notably where a steady supply of chlorine-based products are necessary for disinfection to protect public health. Attachment B details some of the recent examples where the industry's products have helped aid in recovery from natural disasters.

2. Please provide a full description of the chlor-alkali manufacturing process which uses asbestos diaphragm technology, with an emphasis on explaining the importation, packaging, processing, transportation, handling, use, and disposal of asbestos. Please also describe the human exposure potential in these circumstances and actions taken to limit that exposure potential to asbestos, including required asbestos safety standards, procedures, processes, or equipment.

**RESPONSE:** Attachment C details the asbestos diaphragm technology process, including details on the import, packaging, processing, transportation, handling, use and disposal of asbestos in chlor-alkali manufacturing. The attachment includes a single page summary of the chlor-alkali process controls and protections involving asbestos.

3. Your testimony mentioned a few of the downstream consumer products that would be negatively impacted by H.R. 1603 because they are associated with or rely upon chlorine and caustic soda. Please provide the most comprehensive listing that you have of products known to be dependent on chlorine and caustic soda.

Mr. Mike Walls  
 American Chemistry Council  
 Page 2

**RESPONSE:** Attachment D includes a summary listing of the products that rely on chlorine (the products of the chlorine “tree”). Because caustic soda is a co-product of chlorine –for every unit of chlorine produced, caustic soda is also produced – the material also includes a description of the products that rely on caustic soda (otherwise known as sodium hydroxide).

4. Chlorine-based disinfectants are widely known and commonly used for sanitation purposes and protect public health – something that was talked about in the hearing.

- a. Please provide all known examples of this use.

**RESPONSE:** Attachments B and D address many of the products of chlorine that are used in disinfection and public health protective uses, including chlorine-based disinfectants such as liquid bleach and granular chlorine, as well as pharmaceuticals.

- b. What impact would a significant disruption in domestic chlor-alkali production have on these uses?

**RESPONSE:** As noted in my testimony, a ban on asbestos use in chlor-alkali production would jeopardize over one-third of the nation’s chlorine supply. As detailed in Attachment B, chlorine-based disinfectants protect public health and support important disaster relief functions. Without a reliable and steady supply of chlorine disinfectants would disrupt the availability of these products, especially in the critical circumstances following a natural disaster. As further detailed in Table II of Attachment A, the annual economic benefits of chlorine chemistry in pharmaceutical uses alone is over \$320 billion; while the economic benefit of disinfectant uses is over \$5 billion annually. A ban on asbestos use in chlorine production would put those economic benefits at serious risk.



### Economic Impacts of an Asbestos Ban on the Chlor-Alkali Industry and U.S. Economy

Chlorine and sodium hydroxide ("chlor-alkali") production provides significant economic benefits in the United States. As building block chemicals, they are critical to many industries and products that are essential to multiple economic sectors, including healthcare, energy, agriculture, technology, and more.

**Thirty-six percent** of domestic chlor-alkali production relies on chrysotile asbestos diaphragm technology. Thus, a blanket ban on all uses of asbestos would curtail over one-third of production causing serious and immediate economic consequences. Because of the many downstream uses of chlorine and sodium hydroxide, a reduction in its supply would not only impact the direct chlor-alkali manufacturing jobs, but would ripple across the U.S. economy and jeopardize 155,000 jobs, \$9.74 billion in wages, and \$63.0 billion in output. Table I details these economic impacts.

| TABLE I                 | Employment     | Payroll<br>(\$ bill) | Output<br>(\$ bill) |
|-------------------------|----------------|----------------------|---------------------|
| Direct                  | 18,519         | \$2.00               | \$22.4              |
| Indirect (Supply Chain) | 67,784         | \$4.70               | \$29.1              |
| Payroll-Induced         | 68,956         | \$3.04               | \$11.5              |
| <b>Total</b>            | <b>155,259</b> | <b>\$9.74</b>        | <b>\$63.0</b>       |

*Analysis of upstream economic impacts was done with the IMPLAN model, using industry spending patterns and output-to-labor ratios. **Direct** – Jobs, wages, and output generated from chlor-alkali manufacturing; **Indirect (Supply Chain)** – Jobs, wages, and output created by businesses in the chlor-alkali downstream supply chain; **Payroll-Induced** – Jobs, wages, and output supported by the household spending of wages and salaries of direct and indirect employees.*

Additionally, due to the physical properties of elemental chlorine it can only be shipped by land, limiting imports to Canada and Mexico. In North America, 93 percent of chlorine is produced in the U.S., with Canada and Mexico producing 3 and 4 percent, respectively. The demand for chlorine could not be met by imports. The U.S. is a net exporter of sodium hydroxide; an asbestos ban would eliminate the trade surplus and encourage more imports of caustic soda and its derivatives.

Consumers benefit greatly from chlorine and its downstream products. If chlorine did not exist, consumers would either have to find substitutes when possible, or forgo the product altogether when alternatives do not exist, such as with many pharmaceuticals. Table II details the annual economic benefits to U.S. and Canadian consumers from chlorine chemistry. Full reports that elaborate on these economic benefits can be accessed at <https://www.elementofsurprise.org/resources/>

| TABLE II                     | \$ bill        |
|------------------------------|----------------|
| Pharmaceuticals              | \$180.0        |
| Crop Protection              | \$26.0         |
| Silicon/Silicones            | \$23.0         |
| PVC                          | \$15.0         |
| Water Treatment              | \$10.0         |
| Titanium/Titanium Dioxide    | \$7.7          |
| Fluorocarbons                | \$6.5          |
| Detergents and Disinfectants | \$5.1          |
| Polyurethanes                | \$4.9          |
| <b>Total</b>                 | <b>\$418.7</b> |

Source: IHS Markit



### **Chlorine-Based Disinfectants Protect Public Health and Provide Disaster Relief**

Chlorine-based disinfectants are necessary to protect public health. In 1997, *Life* magazine stated "[t]he filtration of drinking water plus the use of chlorine is probably the most significant public health advancement of the millennium." In addition to drinking water disinfection, chlorine-based disinfectants are key to surface disinfection in healthcare facilities, schools/daycares, restaurants, homes, and more to help prevent the spread of diseases. Also, following a natural disaster, chlorine-based disinfectants assist in safely rebuilding homes and communities.

Some recent real-world examples of the importance of chlorine-based disinfectants occurred after Hurricanes Harvey and Maria battered the U.S. and Puerto Rico in 2017. Once the storms passed, many homes were flooded. The moist environment creates a breeding ground for mold and bacteria, which can pose serious health risks to individuals. Airborne mold spores can be inhaled by people and cause lung infections, permanent neurological issues, and allergies. Bacteria can also cause infections. Chlorine-based disinfectants, such as liquid bleach and granular chlorine, are effective at destroying mold and bacteria and controlling any subsequent regrowth. Thus, these disinfectants are one of the first items needed in the recovery process to decontaminate surfaces. As such, they are highly sought after and can be difficult to obtain after a natural disaster.

To aid in the recovery from Hurricane Harvey and Maria, the Chlorine Chemistry Foundation (CCF), working with safe water partners and volunteers on the ground, provided chlorine-based products to communities most impacted by the hurricanes. After Hurricane Harvey, CCF funded a donation of 18,500 gallons of bleach to Houston, TX. Once the bleach was sent to Houston, the U.S. Conference of Mayors enabled its distribution to the areas that needed it most.

After Hurricane Maria, both Florida and Puerto Rico were in need of chlorine-based disinfectants. CCF funded the donation of over 8,700 gallons of bleach and partnered with World Vision to distribute the bleach in Florida. In Puerto Rico, CCF provided funding for 4,000 pounds of granular chlorine. World Vision enabled the transport of the product to Puerto Rico and Water Engineers for the Americas (WEFTA) distributed the product to communities and trained community leaders on how to use the product safely. Approximately 10,000 people were helped by this effort in Puerto Rico.

Hurricanes and other natural disasters cannot be stopped; however, a steady supply of chlorine-based disinfectants, and dedicated partners that enable their distribution and safe use, can help people impacted by natural disasters recover and rebuild. A ban on chrysotile asbestos for use in the chlor-alkali industry would disrupt over one-third of the domestic supply of chlorine, which in turn would jeopardize the important role chlorine-based disinfectants have in protecting public health during both routine and post-disaster times.



### **Executive Summary**

The use of chrysotile asbestos is key to the manufacture of chlorine and caustic soda in the United States. The chlor-alkali industry recognizes the inherent properties of this mineral, and from its entry into a port in the United States to its ultimate disposal, the management of chrysotile asbestos in the chlor-alkali industry is highly regulated and managed in a closely controlled process.

Chrysotile asbestos arrives in the United States in sealed containers, is stored in controlled areas, processed with dedicated equipment, and disposed of in accordance with Federal, State and local requirements. While a variety of regulations generally cover hazard communication, release reporting, waste management, etc. of chrysotile asbestos, the Federal government has issued two specific rules that govern the safety of workers and the protection of the environment. These are the Occupational Safety and Health Administration's (OSHA) Standard for Toxic and Hazardous Substances, Asbestos (29 CFR § 1910.1001) and the Environmental Protection Agency's (EPA) National Emission Standard for Hazardous Air Pollutants (NESHAP), National Emission Standard for Asbestos (40 CFR § 61.140). Additionally, the industry follows the procedures set forth by Chlorine Institute Pamphlet 137, "Guidelines: Asbestos Handling for the Chlor-Alkali Industry."

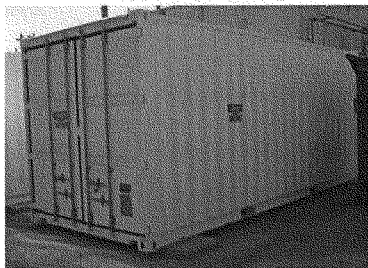
Worker safety is paramount in the management of chrysotile asbestos and nowhere in the chlor-alkali process does a person come into direct contact with dry material while not wearing appropriate personal protective equipment (PPE). We estimate that about 100 workers industry-wide across the United States process chrysotile asbestos on a day-to-day basis. Specific training, PPE and work practices govern how they conduct their work activities. Even though they wear PPE, the workplace is monitored for chrysotile asbestos and employees are afforded specific medical monitoring and surveillance. These activities, coupled with equipment maintenance and management of the workplace environment, form an overall comprehensive chrysotile asbestos management program that is specifically aimed at eliminating any potential exposure to chrysotile asbestos by personnel and the environment.

The following text provides specific information on the management of chrysotile asbestos by the chlor-alkali industry in the United States.

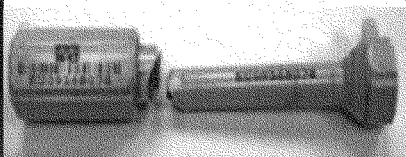
### **Supply Chain**

Chrysotile asbestos is shipped to the United States in 40 kilogram bags. Typically, twenty (20) bags are placed on a pallet. The pallet is covered completely in a heavyweight wrap; it is very durable and similar in thickness to a drum liner. At the port of shipment, the pallets are placed in a shipping container. The shipping container is sealed and protected from accidental or purposeful opening with a heavy duty bolt-type car seal. The car seal can only be removed using a substantial cutting tool like a bolt cutter or similar device.

At the port of entry, the shipping container is removed from the ship and placed on the deck. It is not opened and material is not transloaded to a different trailer or conveyance. The shipping container is marked per Department of Transportation requirements and is transported to a chlor-alkali facility where the pallets and bags will be removed. This process ensures that workers and the ambient environment are protected from an accidental release of material.



Shipping Container



"Bolt-Type" Car Seal

Chlor-alkali facilities will not accept a shipment unless a current Safety Data Sheet is available from the supplier, and moreover, will not accept a damaged shipping container.

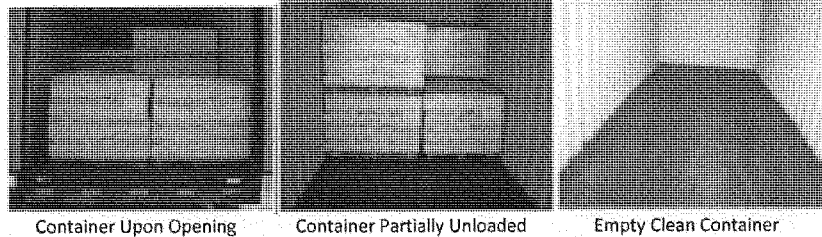
### Material Delivery

Upon delivery to a chlor-alkali facility, the chrysotile asbestos shipping container is inspected before unloading. As with the entire handling experience, strict adherence to process, procedures and housekeeping is followed for container inspection. Once the container has been opened, pallets and bags are inspected. If broken bags or loose chrysotile asbestos is evident, the area is controlled to prevent accidental exposure, the bags are repaired, and the area is barricaded and treated as an area requiring immediate cleanup.

The plastic wrapped pallets are labeled, and as required by OSHA's Hazard Communication and Asbestos Standards contains the following language:

DANGER  
CONTAINS ASBESTOS FIBERS  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
DO NOT BREATHE DUST  
AVOID CREATING DUST

In the event that a container is damaged, port or warehouse personnel must repair the container and manage their remediation activities in conformance with OSHA's Asbestos rules.



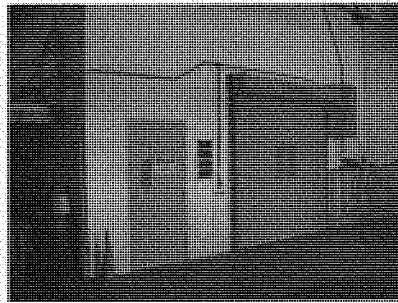
Personnel involved in the cleanup wear specific PPE, including respirators and protective clothing and footwear. Once the shipping container has been emptied, it is inspected and cleaned as necessary.

Any loose chrysotile asbestos is cleaned up using a High-Efficiency Particulate Air (HEPA) filter-equipped vacuum cleaner or is wetted with water and cleaned up before unloading proceeds. Broken bags are placed in an appropriately labeled, heavy-duty plastic bag or they are securely repaired. Individuals not involved in the cleanup are prohibited from entering the area until cleanup is completed.

When moving chrysotile asbestos to its storage location, care is taken to ensure that bags are not punctured. The unloading personnel are trained per regulatory requirements prior to any unloading activity. Personnel moving chrysotile asbestos containers wear specific PPE, including respirators and protective clothing.

### Storage

Chrysotile asbestos is stored in an isolated, enclosed area with restricted access (e.g., a locked building). The area is also provided with signage for awareness of entry only by authorized personnel.



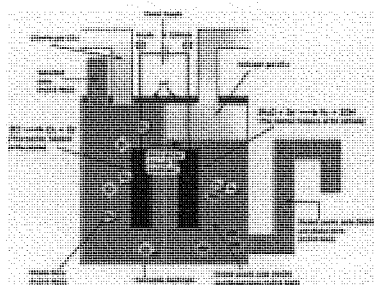
Secure Storage Room - Exterior

The storage area is secure, properly maintained and inspected on a regular basis. The standard for cleanliness is high - any area or surface that exhibits signs of chrysotile asbestos is cleaned with a HEPA

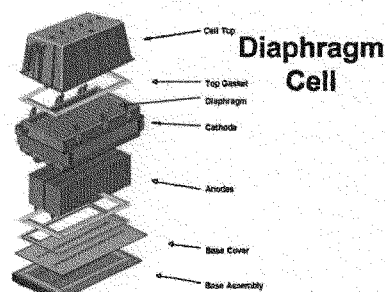
filter-equipped vacuum cleaner or by wetting the fibers and cleaning up the spill. Personnel involved in the cleanup are required to wear specific PPE as stated earlier (respirators, protective clothing, etc.).

### Chrysotile Asbestos Processing

The diaphragm cell chlor-alkali process involves separation of the sodium and chlorine molecules of salt via electricity to produce sodium hydroxide (caustic soda), hydrogen, and chlorine. Specifically, brine (an aqueous solution of salt) is passed through an electric current and sodium hydroxide, hydrogen and chlorine are formed. Key to the diaphragm cell process is the electrolytic cell. It is in this cell that the electrolytic reaction occurs. The cell contains two compartments separated by a permeable diaphragm, which is made mostly of chrysotile asbestos. The diaphragm prevents the reaction of the caustic soda with the chlorine and allows for the separation of both materials for further processing. The use of chrysotile asbestos in the chlor-alkali industry is solely related to its use as a diaphragm in an electrolytic cell and has been safely done for many decades.



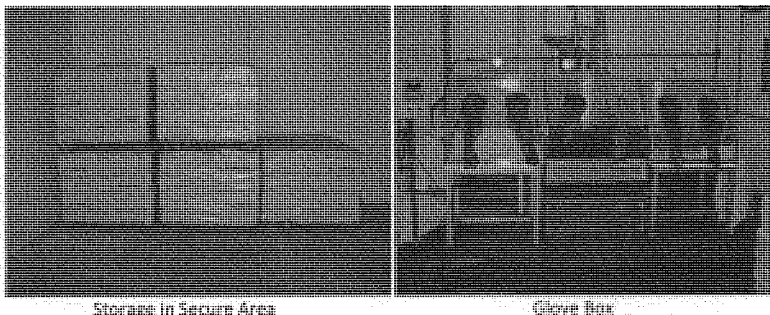
Electrolytic Cell Diagram



Electrolytic Cell Construction

The preparation of diaphragms is key to the electrolytic cell process, and how this is accomplished is tightly controlled. The process involves the following steps:

- **Raw Material Management** - Chrysotile asbestos is only removed from the secure storage area when it is needed for the diaphragm preparation process. The required bags of asbestos are moved to a designated area with limited access. The bags selected to be opened are placed in a glove box or hood prior to being opened.

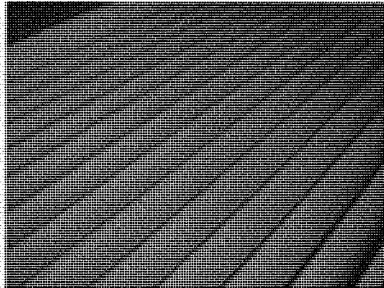


The use of respiratory protection is required to protect the employee in the event of an unforeseen circumstance since the chrysotile asbestos is in a dry state when handled. During these activities, the employees are also required to wear protective clothing.

Empty bags are deposited in a closed and labeled waste container through a port in the glove box. When only partial contents of a bag are required, the partially filled bag is stored within the glove box. If partially filled bags must be moved outside the glove box, they are resealed and HEPA filter equipment-vacuumed before they are moved. Waste containers are likewise sealed and vacuumed prior to removal.

Chrysotile asbestos from the glove box is transferred to a mixing tank via a closed system that is maintained under vacuum. The chrysotile asbestos to be used to create a diaphragm is mixed with a liquid solution of weak caustic soda and salt. The slurry is created in the mixing tank and this process is typically referred to as creating a chrysotile asbestos slurry. At this time, chrysotile asbestos is no longer in the dry form and accordingly is no longer likely to become airborne. Halar® or Teflon™ fibers (e.g., modifier) are added to the chrysotile asbestos slurry in appreciable quantities. This material then co-deposits in the diaphragm and, upon heating in an oven, the Halar® or Teflon™ fibers sinter and fuse to the chrysotile asbestos rendering the diaphragm non-friable. The slurry is then transferred to a depositing tank for diaphragm preparation. Any visible wet chrysotile asbestos in and around the mixing or depositing tanks is removed before it is allowed to dry.

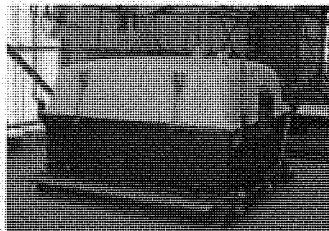
- Diaphragm Preparation - The creation of a diaphragm requires that the chrysotile asbestos slurry be applied to a specifically designed metallic screen or perforated plate. Vacuum is applied so as to allow for uniform application of the slurry across the screen. Once this is complete the slurry-containing mesh is drained and free water removed (chrysotile asbestos is still wet). After this, the screen is placed in an oven to fuse the chrysotile asbestos deposit. During this process, the chrysotile asbestos and modifier slurry hardens and becomes fused on the screen to form a diaphragm. After it has cooled, it is ready for installation in the electrolytic cell.



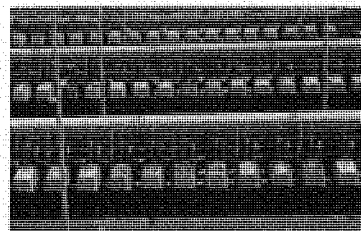
Close Up - Final Electrolytic Cell Diaphragm

The fused diaphragm is hard and the chrysotile asbestos contained in it remains in a non-friable state. The amount of chrysotile asbestos used for each diaphragm is in the range of 50-250 lbs. depending on the cell size. A typical chlor-alkali production plant will use about 5-25 tons per year of chrysotile asbestos depending on cell size and technology.

**Diaphragm Installation** - Once the diaphragms have been created, the deposited screens are inspected, physically joined with another part of the electrolytic cell and sealed. The cell can then be placed in service.



Single Electrolytic Cell



Electrolytic Cell "Circuit"

The process described above occurs in a designated area in the facility and access is restricted. PPE is worn throughout this process by anyone who works in the designated area.

Personnel are required to decontaminate their PPE and equipment to prevent exposure to skin and hair and inhibit the transfer of chrysotile asbestos fibers from designated areas to other areas of the facility. Facilities have procedures in place to prevent contamination of footwear upon building entry and exit. Additional procedures have been established for entry and work in designated areas that contain wet chrysotile asbestos to prevent contamination of skin, clothing, and footwear. These work procedures include decontamination of work clothes and footwear, use of disposable coverings, and controlling access of personnel and visitors wearing personal footwear. Outer clothing and footwear is decontaminated or discarded whenever the employee exits a designated area. Individuals working in such areas are not allowed to keep contaminated work clothing and personal clothing in the same storage area.

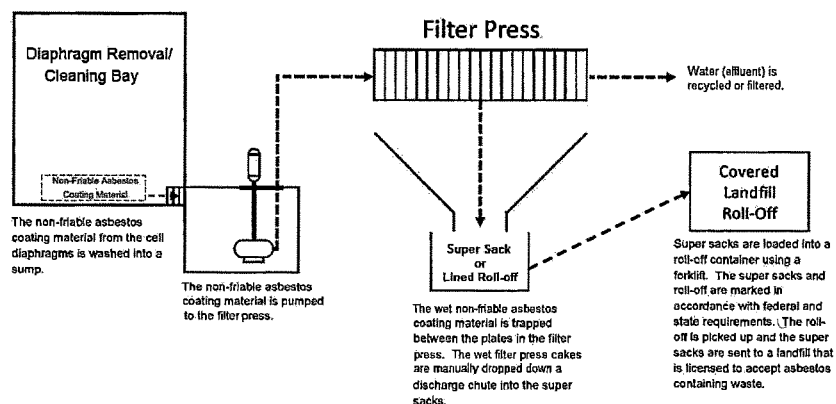
Care is taken to ensure that all surfaces are maintained free of chrysotile asbestos-containing material, debris and accompanying dust. The movement of chrysotile asbestos by mechanical (brush, broom) and pneumatic (compressed air) means is prohibited. Personnel are trained to recognize that dry chrysotile asbestos must not be disturbed and that HEPA filter-equipped vacuums must be used to collect or clean up dry chrysotile asbestos. Wet management methods are allowed if HEPA filter-equipped vacuum or local HEPA exhaust ventilation is not available.

### Management of Diaphragms

Diaphragms may last a year or more before they become inefficient and need to be removed from service. While most of the electrolytic cell parts, including the screen on which the diaphragm is situated, are reusable, the chrysotile asbestos diaphragm itself is not.

In order to reuse the parts of the cell it must be disassembled and the chrysotile asbestos diaphragm must be removed. The diaphragm, which is still hard and fused to the screen, is removed with a hydroblasting apparatus. The cleaning bay is an enclosed area and constructed to minimize potential emissions and allow for effective cleanup. Fluid from the hydroblasting operation is contained.

After each use of the cleaning bay, the work surfaces are flushed and cleaned with water. A filtration system is used to remove chrysotile asbestos from the hydroblasting water prior to discharging the water to the facility's wastewater collection and treatment system. The filtered waste material is stored in properly sealed containment areas prior to disposal.



### Management of Chrysotile Asbestos Wastes

Chrysotile asbestos wastes (chrysotile asbestos separated from the hydroblasting water, containers and bags, chrysotile asbestos contaminated clothing, etc.) are placed in a labeled, plastic lined impervious

container. An approved landfill is used for disposal of chrysotile asbestos wastes in compliance with Federal NESHAP (40 CFR § 61.154) and applicable State regulations for chrysotile asbestos disposal.

### **Chlor-Alkali Process Controls and Protections**

The safety and health of workers is the top priority. In order to safely handle and work with chrysotile asbestos, engineering controls, PPE, training and medical surveillance are used to meet strict OSHA and EPA requirements.

- **Engineering Controls** - According to OSHA, engineering controls implement physical change to the workplace, which eliminates/reduces the hazard of the job/task. When the use of a substance cannot be eliminated or substituted, the use of engineering controls is considered to be the most effective means of controlling workplace hazards. For this reason, the chlor-alkali industry has adopted three significant systems of engineering controls: wet methods, ventilation, and glove boxes (or a similar enclosed system).

Activities that have the potential to generate friable/dry chrysotile asbestos (e.g. diaphragm preparation and cell renewal) are performed using wet methods. When chrysotile asbestos is no longer in the dry form (i.e. wetted), it is no longer likely to become airborne.

Exhaust ventilation or dust collection is used to maintain exposures at or below permissible levels. A typical dry room and the glove box are both under vacuum and routed to a baghouse containing a HEPA filter. The filters in the baghouse meet or exceed OSHA requirements. When vented after the filter, visible emissions monitoring inspections are performed as required by EPA's Asbestos NESHAP.

A glove box is a sealed compartment similar to those which are used in laboratories and allows personnel to use secure gloves and open the bags without actually touching or being in direct contact with the material. The glove box operates under a vacuum to ensure all fibers are contained and vented to a high efficiency filter.

- **Personal Protective Equipment (PPE)** - The engineering controls used by the chlor-alkali industry are sufficient to control chrysotile asbestos emissions. However, employees handling chrysotile asbestos are required to wear PPE as an additional precaution to ensure no exposure. PPE includes respiratory protection, disposable gloves and suits, and appropriate footwear (e.g. rubber boots). Each facility requires the use of protective clothing and decontamination procedures to prevent skin and hair contamination and to prevent the transfer of asbestos fibers from designated areas to other areas of the facility. Based on the results of PPE Hazard Assessments, each plant determines required PPE by task based on OSHA requirements and corporate procedures.
- **Employee Training** - Workers who may be exposed to chrysotile asbestos receive training on appropriate procedures for moving and handling chrysotile asbestos, required PPE, decontamination procedures, and other applicable topics. Training is given initially prior to or at the time of initial assignment to work in designated areas and periodically thereafter, but at least once every three years.
- **Medical Surveillance** - The OSHA Asbestos Standard requires that the employer establish a medical surveillance program for those employees who are or may be exposed to airborne concentrations of fibers of asbestos at or above the time weighted average (TWA) and/or excursion limit. Therefore, all employees who have the potential to work in a designated area are offered medical examinations at the time of placement into the designated area, annually and upon termination of employment.

The medical examination will include height, weight, blood pressure, heart rate, and a physician's written opinion. A health history is completed with each exam with a special emphasis on respiratory, cardiac, and digestive systems as required by OSHA (29 CFR § 1910.1001). A respiratory disease questionnaire is also completed for each exam. Laboratory testing, including a chest roentgenogram (x-ray) and pulmonary function test (PFT), also known as spirometry or lung function test, is required as part of the medical exam.

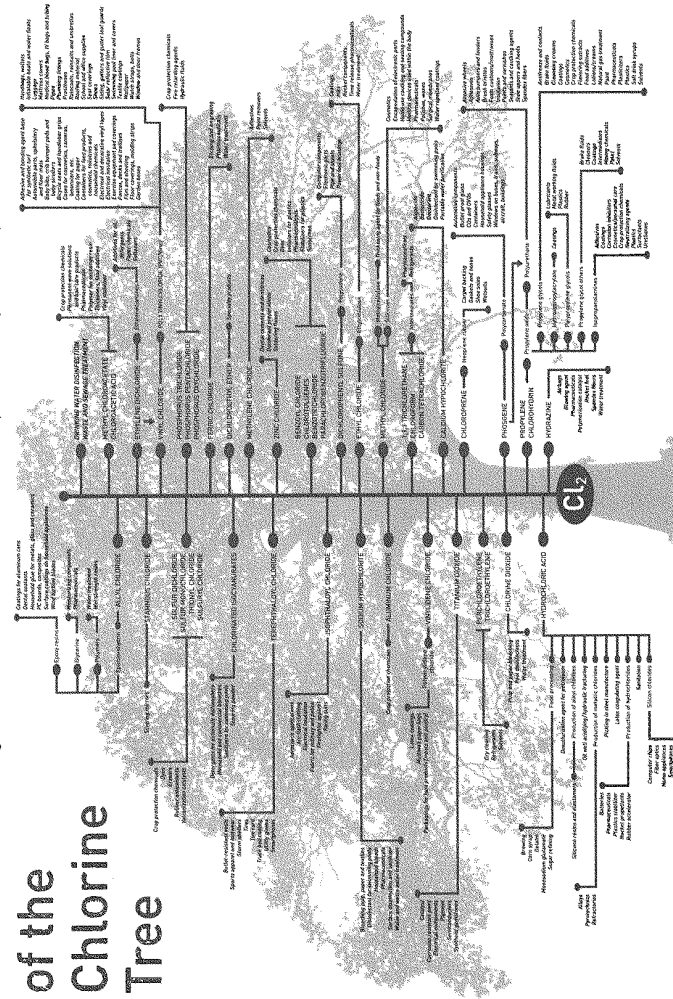
*There are no known instances of chrysotile asbestos-related disease for chlor-alkali industry employees in the United States based on work in designated areas.*

- Personnel Monitoring - Personnel monitoring (eight-hour TWA shift monitoring and specific task monitoring) is conducted to provide quantitative exposure data, verify functionality of engineering controls, determine medical surveillance, define designated areas, and demonstrate compliance with all Federal and State laws and regulations. The monitoring frequency is based on past results, job observations, and planned inspections, and meets all OSHA requirements.

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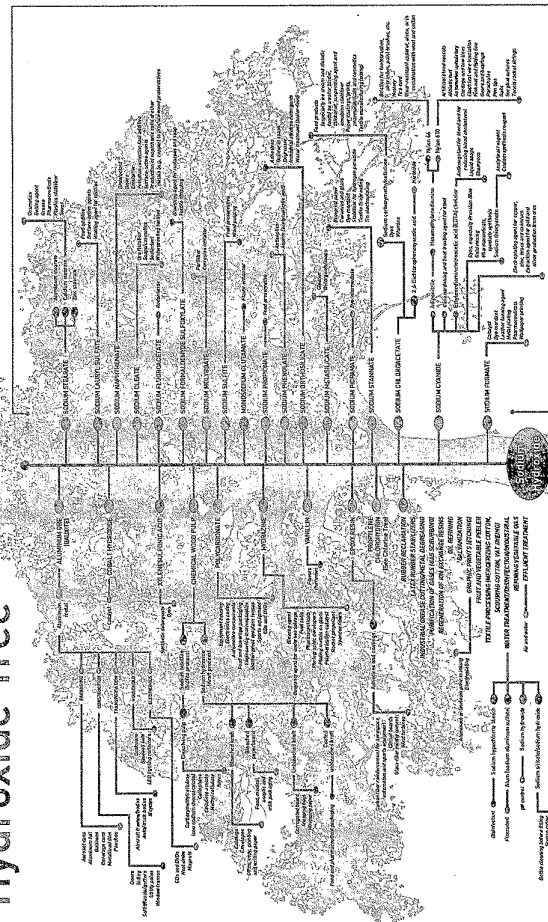
Chlorine is one of the most abundant, naturally occurring chemical elements. It plays a significant role in the manufacture of thousands of products we depend on every day.

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# Products of the Sodium Hydroxide Tree

A co-product of chlorine production, sodium hydroxide is used to help produce a wide range of useful products. It is a key component in many important chemical processes.



\*The term sodium hydroxide is synonymous with caustic soda and alkali.

