UNITED STATES OF AMERICA
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

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PUBLIC HEARING

IN THE MATTER OF:	:	
	:	
LOWERING MINERS' EXPOSURE	:	DOCKET NO.
TO RESPIRABLE CRYSTALLINE	:	MSHA-2023-0001
SILICA AND IMPROVING	:	
RESPIRATORY PROTECTION	:	RIN 1219-AB36
PROPOSED RULE	:	
	:	
	:	

Monday,
August 21, 2023

Denver Federal Center Building 25
Lecture Hall (Room 1866)
West 6th Avenue and Kipling Street
Denver, Colorado

The above-entitled matter came on for hearing pursuant to notice at 9:00 a.m. MDT, Patricia Silvey, Deputy Assistant Secretary for Operations, MSHA, moderating.

PRESENT

PATRICIA SILVEY, Deputy Assistant Secretary for Operations, Mine Safety and Health Administration, Department of Labor
TIMOTHY WATKINS, Deputy Administrator for Mine Safety and Health Enforcement, Department of Labor
MARSHALL ENOS, Regulatory Specialist, Office of Standards, Department of Labor
ROBERT KAHN, Attorney Advisor, Office of the Solicitor, Department of Labor
BRAD MANTEL, Office of the Solicitor, Department of Labor
BINGXIN YU, Chief, Economics Division, Standards Office, Mine Safety and Health Administration, Department of Labor

P-R-O-C-E-E-D-I-N-G-S

9:03 a.m.

MS. SILVEY: My name is Patricia W. Silvey. I am the Deputy Assistant Secretary for Operations at the Mine Safety and Health Administration, U.S. Department of Labor. I will be the moderator of this public hearing.

This is the last public hearing that MSHA is holding to gather testimony, written comment, and other documentary evidence on its proposal, lowering miners' exposure to respirable crystalline silica and improving respiratory protection. On behalf of Christopher Williamson, Assistant Secretary of Labor for MSHA, I'd like to welcome all of you to this public hearing. Let me introduce the other members of the MSHA panel.

To my right, Timothy Watkins, Deputy Administrator, Mine Safety and Health Enforcement. To his right, Marshall Enos, Office of Standards, Regulatory Specialist. And to his right, Robert Kahn, Attorney Advisor, Office of Solicitor. To my left, Bing Yu, the chief economist in the Standards office. And to her left, Brad Mantel who is with the Solicitor's Office, Office of the Solicitor.

As explained in the proposal, crystalline silica, most commonly known as quartz. But you will hear me refer to it as silica mostly. It's found in many types of rock,

including granite, sandstone, limestone, and shale.

As a result, mining operations often expose miners to respirable crystalline silica. Small particles of silica can be inhaled and reach the alveolar region of the lungs, the lower area, where they can accumulate and cause disease. Exposure to silica can cause miners to suffer from chronic, irreversible, and potentially disabling or fatal diseases, including lung diseases like silicosis, progressive massive fibrosis, emphysema, and lung cancer as well as kidney disease.

To better protect the health and safety of the nation's miners, MSHA determined the Agency's silica standard, including respiratory protection requirements must be approved for miners. In the preamble, MSHA requests comments on 43 questions, and I underscore 43 questions. Make sure you look at each and every one, covering various aspects of the proposal.

For example, they cover such things as health effects, preliminary risk analysis, technological feasibility, preliminary regulatory impact analysis, and initial regulatory flexibility analysis, and other issues. We attempted to be descriptive in the questions and ask that in your responses, please be specific and provide your rationale and supporting information and date. Now I'd like to provide an overview of MSHA's proposal.

MSHA proposes to set the permissible exposure limit or PEL for respirable crystalline silica at 50 micrograms per cubic meter of air for a full shift exposure calculated as an eight-hour time-weighted average for all miners, coal and metal/non-metal. The proposed PEL is consistent with the recommended exposure limit of the National Institute for Occupational Safety and Health, or NIOSH, as well as the 2016 standard for the Occupational Safety and Health Administration for general industry, maritime and construction. The proposal will also establish an action level of 25 micrograms per cubic meter of air for a full shift exposure, calculated as an eight-hour time-weighted average.

To meet the proposed PEL, mine operators would have to implement engineering controls, followed by administrative controls in cases where supplemental protection is needed. On to the proposal, use of respirators would be required on a temporary non-routine basis. MSHA's proposal would require exposure monitoring, sampling and quantitative, qualitative evaluations and corrective actions when miner's exposures exceed the proposed PEL.

Mine operators would be required to perform a baseline sampling for each miner who is or may reasonably be expected to be exposed to respirable crystalline

silica. If the baseline sample and another sample or objective data indicate that miner exposures are below the proposed action level, then no additional sampling would be required. If miner exposures are at or above the proposed action level but at or below the proposed PEL, operators would be required to conduct periodic sampling.

Operators would stop sampling when two consecutive sampling results show that miners' exposures are below the proposed action level. Mine operators would be required to immediately take corrective action when a miner's exposure is above the proposed PEL. Once corrective action have been taken, operators would be required to conduct sampling to determine if the corrective action is affected and take additional corrective action until sampling indicate exposures are below the proposed PEL.

Under the proposal, mine operators would also be required to evaluate every six months any changes in production, processes, engineering, or administrative controls or other factors that may result in new or increased silica exposures and to make a record of the evaluation. In other words, that provision is no different than what is required under the existing standards. As mentioned earlier, operators would be required to use respiratory protection as a temporary measure.

Miners must use respirators when working in concentrations of silica above the proposed PEL while controls are being developed and implemented or where it is necessary by the nature of the work involved. And by that, I mean, for example, if a miner happens to be working in a confined space. MSHA proposes to incorporate by reference a voluntary consensus standard, ASTM F 3387-19 entitled Standard Practices for Respiratory Protection.

Under the proposal, operators of metal and non-metal mines would be required to provide periodic medical examinations for miners, including chest x-rays, spirometry, symptom assessment, and occupational history at no cost to the miner. This includes the overview, but as many of you know MSHA held its first hearing on this proposed rule on August 3rd in Arlington, Virginia and a second hearing on August 10th in Beckley, West Virginia. We received a number of comments from a variety of stakeholders, including labor, industry, trade associations and public health organizations.

These stakeholders address many of the provisions in the proposal: comment period, compliance date, sampling protocols, hierarchy of controls, respiratory protection, and medical surveillance. I'm sure that we will hear testimony from you today on these and other aspects of the proposal. With respect to the comments received on the

comment period, MSHA received comments both to extend and not to extend the comment period.

After reviewing the comments, MSHA decided to extend the comment period until September 11th, 2023 in order to provide all interested parties an additional 15 days to develop and submit comments on the proposal. The notice extending the comment period was published in the Federal Register on August 14. Please submit your comments by midnight Eastern Time, Monday, September 11, 2023.

At this time, I'd like to reiterate some information from the proposed rule in order to clarify some points specifically applicable to coal miners. On the MSHA's existing coal mine respirable dust standards, there is no separate standard for silica or quartz. I mentioned earlier I was going to generally refer to it as silica.

As such, MSHA cannot issue a citation for overexposure to silica but rather addresses any respirable coal dust sample with over 5 percent quartz by reducing the coal mine dust standard. The proposed rule sets a separate PEL for silica. Under this proposal for the first time, MSHA would be able to issue citations for overexposure to the proposed silica PEL.

Further, if an operator's sample is above the proposed PEL, the mine operator would be required to take immediate corrective actions to reduce miners' exposure to

below the PEL, make the record of the overexposure which would have to be posted and made available to miners' representatives and re-sampled to ensure that the corrective action is effective and that miners' exposures are, in fact, reduced to at or below the PEL. And if the miners' exposures exceed the PEL, MSHA would issue a citation. MSHA has received comment on the recordkeeping requirement.

Some commenters recommend that exposure records be kept for longer than two years. At this point in the rulemaking process, MSHA is considering to require that when an operator's sample is over the PEL, that operator send the record of that overexposure to the MSHA district manager. This exposure data will allow MSHA to immediately take appropriate enforcement action and provide any necessary compliance assistance to operators.

This proposal would address requirements for mine operator samples. It does not change the way in which MSHA conducts its sampling. MSHA sampling under the proposal would remain the same.

At the two earlier hearings, we received comment and testimony on respiratory protection. Some commenters supported more expanded use of respirators. Others opposed the use of respirators, noting some of the challenges that we listed in the proposal.

And some commenters asked the Agency to define temporary use. That is, for how long would a miner wear a respirator under the proposal. The proposal would require that the operator provide affected miners a respirator in the case of an overexposure and that respirators be worn for temporary, non-routine use.

MSHA intends that temporary use would mean for a limited period of time. That is for a relative short time period. I cannot precisely define temporary as that would depend upon the facts and circumstances surrounding the overexposures as I'm sure some of you would understand.

I want to take a moment now to clarify the proposed respiratory requirements as they would apply to coal mining. Under MSHA's existing standards in the case of a respiratory coal dust overexposure, operators must provide miners with respiratory protection. Miners do not have to wear the respirator.

Under this proposal, for both metal and non-metal, metal/non-metal and coal miners, in case of an overexposure, operators would have to provide, and miners would have to use, and that is wear, respirators for temporary and non-routine use while engineering controls are being developed and implemented. One final point, at both hearings, we heard testimony from miners and miners' advocacy groups criticizing the operators' dust sampling

program -- respirable coal dust sampling program. Let me be clear.

Commenters stated that operators commit fraud, cheat, manipulate samples and retaliate against miners in connection with dust sampling. I am requesting all commenters who provided these comments and others who may be here today or who may read this opening statement to provide specific evidence of fraud in the coal dust sampling program. This evidence could include dates of sampling, names of mines, type of manipulation or fraud and any other information and data to support your claim.

As I stated at the public hearing on 3 August in Arlington, MSHA investigates every hazard complaint. In addition, if MSHA has evidence of operator fraud with respect to dust sampling, MSHA takes appropriate enforcement action. As mentioned earlier, this is the last of three public hearings.

The public hearings are to provide to you, stakeholders and interested parties, an opportunity to present oral statements, written comment and any other information on the proposal. Today's hearing will be conducted in an informal manner. We are here to take your testimony.

We will take all your testimony into consideration as we finalize the silica proposal. Speakers

and other attendees may present information for the record. If you have not already done so, please sign the attendance sheet as you were entering this room so we may have an accurate record of your attendance.

MSHA has posted verbatim transcripts of the Arlington, Virginia and the Beckley, West Virginia hearing at MSHA.gov and regulations.gov. MSHA will make available a verbatim transcript of this public hearing in approximately five days. And this transcript will also be posted on the same website, MSHA.gov and regulations.gov.

If you have a copy of your testimony, please give it to the court reporter so it can be appended to the hearing transcript. Once all preregistered speakers have spoken, we will open the floor to see if any of you wish to speak. If you are here in person, raise your hand.

And for those of you who are participating online, just use the hand icon on your computer. And for those of you who are online presenters, when it's your time, I know you know this. I'm telling you stuff you already know.

Unmute yourself to present your testimony. At this time, we will start with our first speaker. And I'm asking all speakers to please spell your name, first and last name, when you start your presentation so that the court reporter can have an accurate record. And also, if

you wish a copy of the transcript, you can make arrangements directly with the court reporter. At this point, we will have our first speaker who is DJ Schmutz, MSHA Safety Service, Inc.

MR. SCHMUTZ: Thank you, Pat, for that introduction. DJ, D-J, Schmutz, S-C-H-M-U-T-Z. I just have a brief bit of housekeeping real quick.

First, I want to ask, is the purpose of this meeting to have constructive and civil dialogue in order to better improve the standard for health and safety of miners? It's probably a rhetorical question. Do you have any intention of showing any aggression or retribution to those who openly contribute and share contrary expertise differing from what's already written in the proposal?

I only ask because we were audited by EFS again immediately following my visit to Arlington and where I spoke about concerns about the proposed standard. To give context, I'll share in the 2.5 years we've been doing training, we have been audited more than 14 times. We have well documented the positive feedback we've received each time from EFS and from our clients.

We support EFS in auditing us because we believe training is important and we hold ourselves at MSHA Safety Services to a high standard to provide engaging, knowledge-based training. Guess how many times we've been

audited compared to other organizations. I called the local state grant training program in my area to see how many times they've been audited the past five years.

The answer is zero. My concern is that even though we are regularly and thoroughly audited, we were again audited in our training immediately following my comments in Arlington. EFS showed up and said, quote, I was told I had to be here and I had other things planned, end quote.

I want to confirm as professionals working through the appropriate channels that you have no intention in trying to intimidate us or inflict retribution upon my comments. So that's the end of that comment, right. I'm going to jump to the silica standard now.

I want to introduce myself again. My name is DJ Schmutz. I'm the Director of Operations for MSHA Safety Services, Inc. We're a training, safety and IH company focused in the mining space.

Our role at MSHA is to elevate the industry through quality training and support. We are blessed to work with over 250 companies across the U.S. to help them understand their exposures, provide quality training and help their miners go home safe to their families every single day. I'm not getting paid to be here.

I made that point in Arlington. I'm not paid to be here again at this Denver hearing. I am here to support the small mines across the United of America that may or may not know we're having these discussions but that this is going to directly affect them.

And these are the mining companies that will be directly affected by this standard more so than any other group. The proposed standard will dramatically increase industrial hygiene costs for companies. As a company, we will see an increased demand for our services, right?

This is a net positive for us. But why am I here? Because it's going to have a net negative effect on mining and infrastructure of the United States. And that affects all of us.

As part of these discussions over the past couple of weeks, we've heard testimony, testimony about coal leading to black lung and silicosis. And we heard some testimony about 30 year olds getting advanced stages of silicosis. Doctors have added their expertise.

I'm sure we'll hear some about that today, about the growing concern in the Appalachian region. Unions have defended their members. Environmental groups have expressed their concern and shared support, right, for the standard being in place.

These are all worthwhile conversations. I'm not

detracting from that at all. But nobody still is talking about the majority of mining which is metal/non-metal and those with less than 100 employees.

I have found no conclusive data that metal or non-metal mines have lots of leading cases, cases leading to silicosis. No one is citing testimonies of doctors with these case studies, right? We're not talking about metal/non-metal.

All these hearings have been directed to coal. No one is talking about the volcanic region in the northwest United States which has a super high silica concentration yet minimal to no cases of silicosis. No one is talking about FRAC sand being mined in Texas and Wyoming with no real cases of silicosis.

How do these mines compare to others across the United States? Let's talk numbers for a couple of minutes. All these numbers were pulled directly from the proposed standard, by the way.

Small mines, those with less than 100 employees, make up 98 percent of all metal/non-metal mines in the United States, 98 percent. Compare that to coal, right? Coal is less than 9 percent of the mines in the United States.

All these testimonies about silicosis have been from 9 percent of the mines in the United States. What is

this actually going to do? Over the past three weeks, I've been talking to small minute operators, drilling companies, and contractors.

And the question is, is this even going to affect contractors? There's no language at all in there that the current standard addresses contractors. About what the standards are going to do and how to comply, what issues they've had in the past with silicosis.

The answers are all variations of the same thing. They've never had issues. Complying with the new standards is going to be detrimental to their operations in the U.S.

And some of these mines are the only mine in the 80- to 100-mile radius of where they live. In Arlington, I addressed some comments about infrastructure, right? When you have one mine in an 80- or 100-mile radius that supports all the infrastructure, sand and gravel operations for your cement plants for whatever, what's that going to do to costs, to just people in that area, let alone the mining community.

I do have to correct a statement I made in Arlington as it was inaccurate. I said that this would be three to four times -- cost will be three to four times higher for operators of an MSHA estimated. I was wrong. I apologize for that.

I estimate it'll be at least ten times the cost

for these small mine operators versus what MSHA said. And that is just direct cost, right? I'm not even going to go into indirect costs, what that's going to cost for them.

According to the proposed standard, the average size mine in the United States does 3.8 million dollars in annual revenue per mine with roughly 12 percent profit margin. Their expenses are going to be well over 10 percent of the profits. And not that really matters, right?

But that's the ability to provide new safety equipment and new equipment with increased HEPA filtration, capacity, you know all of these other safety events we've talked about. We just had -- unfortunately last week, we just had two more fatalities in mining. This is going to be one of our worst years for fatalities in mining in a long time.

And I think that money can be better served going towards some of those direct hazards that we're seeing right now. In the proposed rule, MSHA noted that this will affect small mines more than any other mining group because they don't have the infrastructure in place in their current status for dust control, right? I'm talking about engineering controls which this standard is written directly for engineering controls, right?

We're talking transfer points. We're talking dust

control methods, right? In the proposal, it said that these small mines are going to have the hardest time meeting these new standards.

Some of these other direct costs, right, are going to be HEPA filtrations for cabs. Some of them may not even have those. They'll have to do aftermarket filters for cabs, transfer point control, belt controls, holding water, wetting roads, IH sampling quarterly for almost every SEG at the mine.

In the proposal, you estimate that about 40 percent of the mine sites and jobs across the U.S. will be over the new action limit. I don't think that's accurate. According to my sampling data, my thousands of sampling point data, it's going to be closer to 75 percent of all jobs will have to be sampled quarterly and most employees.

And the question is for a lot of these small mines, they don't have any engineering controls for transfer point. How much does a dust control system cost from a transfer point? I'm not going to answer that question.

But then we can go to indirect costs, right? Almost no profit for the operators, that doesn't matter, right, because safety has no bounds. But ultimately, it's going to be easier for a lot of operators to shut down than to comply with the new standard, right?

A couple of citations and they will shut down. And so what's that going to do, right? We still have our infrastructure needs. We're going to be buying -- instead of buying locally, we're going to be buying from metropolitan areas and we're going to be outsourcing from other countries which don't have any safety controls in place.

You're buying gravel and aggregates and stuff from Mexico or China, right? We know what happens in those places. We have issues hiring new miners, right?

We already have a net negative amount of miners, have need for new miners. Who wants to go work at a mine site when you have to get a chest x-ray before starting work? A couple operators brought this up.

Mining companies across the U.S. are already thousands of miners short with no end in sight. What are we saying to those potential future employees, you're going to die doing this job, so we got to get some pictures of your lungs, when those operators have never, ever had anybody get a case of silicosis that work for them. When we take a holistic look at mining in general, in coal, almost everybody knows somebody that has black lung, especially from the Appalachian region.

Outside of that region, we don't know anybody with silicosis in the metal/non-metal mining industries.

I'll give you for an instance. I lived in an area of the country where you have the largest natural deposits of trona or soda ash.

They've been mining in some of those mines for over 70 years, right, well before MSHA came into existence. These mines get cited for respirable dust pretty frequently and for silica exposure. They are dusty. They can definitely probably do better. Not really pertinent in this conversation.

How many cases of silicosis you think they've had over the years? Zero. And they've had well over 10,000 miners roll through there. And I'm going to estimate it's probably going to be closer to 20 or 25,000 minutes rolled through there in 70 years of those large mines.

I recognize this isn't empirical data in its current form. I'm getting personal experience and testimony to work with over 270 sites across the U.S. Guess what I found when I was researching cases of silicosis and mining the U.S. outside of coal.

Nothing, no data anywhere except for calculated data based on exposures in other countries. There are reports, calculations, but no modern data to see where we're really at. When writing and implementing these standards, broad sweeping strokes are not the answer.

We have to look at all aspects of what the

standard is going to do, little to no benefit for the metal/non-metal mining space. Why would we risk the critical infrastructure in the U.S. and all these little mines that are providing quality jobs for many in small towns across America? What would have the greatest effect is let's put a standard in place for coal looks like PEL 60.

We're all on board with that except for maybe some of those coal guys. And let's keep the current standard where it's at. Let's enforce it like we've been doing for the past two and a half years, right, with impact inspections and other things.

The risk is not there for metal/non-metal. Exposures are higher than you think. And then your data shows exposures are higher and cases are still almost nonexistent. We're ready for the standard to stay where it is in metal/non-metal. Thank you.

MS. SILVEY: Thank you. I have a few comments and I have a few questions.

MR. SCHMUTZ: Okay.

MS. SILVEY: First, I'm going to ask you a question. This is just a threshold question, and I'm going to go through some specific comment --

MR. SCHMUTZ: Okay.

MS. SILVEY: -- and some more questions. Do you

support the PEL of 50? That's a yes or no answer.

MR. SCHMUTZ: Yes.

MS. SILVEY: Okay. All right. So that -- okay. I got my answer. Let me move on.

MR. SCHMUTZ: Okay.

MS. SILVEY: I'm going to go back to how you started, to when you started.

MR. SCHMUTZ: Okay.

MS. SILVEY: I have no idea why you were audited by EFS. That's news to me. Do you know anything about that? Now, that's an organization under MSHA. But I have no idea. I would say that there's no nexus to your speaking at the Arlington public -- I would say that, I could be dead wrong -- at the Arlington public hearing --

(Simultaneous speaking.)

MR. SCHMUTZ: Okay. When they showed up --

MS. SILVEY: -- and you being audited.

MR. SCHMUTZ: When they showed up, they said, I have other plans for today. But I was told I had to be here to audit you guys.

MS. SILVEY: That may be what they said. I'm saying to you I would think that there was no nexus. But I'm going to go back and look into that. What date were you audited?

MR. SCHMUTZ: Let's see. It was on Wednesday, the

Wednesday following the Arlington speaking.

MS. SILVEY: Okay. Arlington here was on --

MR. SCHMUTZ: That would've been in the 9th, August 9th.

MS. SILVEY: Yeah, because it was on a Thursday.

MR. SCHMUTZ: Yeah, the 3rd, yeah.

MS. SILVEY: And so who exactly -- well, let's talk. I'll talk --

MR. SCHMUTZ: We'll talk offline.

MS. SILVEY: -- offline about that because I don't want to put anybody on the. But I'm thinking that there was no nexus. But --

MR. SCHMUTZ: It was entirely too suspicious to not make a corollary relationship on my side.

MS. SILVEY: I hear you, in your mind. And so we've gotten comments on both sides supporting this proposal and totally -- not totally because you just said you support the PEL. And that was going to lead into --

(Simultaneous speaking.)

MS. SILVEY: That was on me to -- that's right. You said it. One of my other comments for metal/non-metal. It just so happens we look at overexposures to the extent that our inspectors get to a particular mine, metal/non-metal mine, or a particular coal mine.

We look at the overexposures every week. And this

past week, and I'm talking metal/non-metal now. And I'm talking for everybody in here who represents the metal/non-metal industry because quite honestly that's where our regulatory economic analysis show some of the greatest benefits.

And I say that the numbers speak for themselves. But we saw exposure at one mine. I'm not calling the names of any mines. That's not, I don't have to do that. But we saw exposures in excess of 500 microgram of silica. That's a lot.

MR. SCHMUTZ: That's a lot.

MS. SILVEY: And you agree.

MR. SCHMUTZ: Yeah.

MS. SILVEY: And something has to be done.

MR. SCHMUTZ: Let's hold them to 100 micrograms. That's what I'm saying. Let's hold them to the current standard, right? They're over the current standard.

MS. SILVEY: You said you supported 50.

MR. SCHMUTZ: I said that.

MS. SILVEY: I got you to say that. So that's on the record. You reported that. Everybody in this room heard that. So let's move on.

Now my next question, when we talk about -- see, that's the thing rulemaking is as opposed to, for example, an adjudicatory item. Rulemaking is a rule of general

applicability. It applies to all my operators equally. And so when you talk about some, some operators out there may fit into the category that you proffered to me, to our panel.

And for those, then if their exposures are under 25, they won't have anything further to do. Or as you said, the one operator, some of the mining operations, you represented, that took thousands and thousands of samples and had no silicosis. What I do want to ask is, if you would submit some of your data to us, some of your cost estimates if you could. At one point, you said that 75 percent of all -- you estimate that under our proposal 75 percent of all jobs would have to be sampled.

MR. SCHMUTZ: Correct. And that goes back to my comments in Arlington. Remember when I talked about the job descriptions you guys were sampling, the SEGs that you all were sampling. Our haul truck drivers, not conveyor belt operators, right, which have an overexposure of 11.2 percent compared to the 2.2 percent.

MS. SILVEY: Okay. Well, if you would submit this data so we can compare to what we have. But I would like you to review the health effects as well as the risk assessment in support of this rule. And that talks indeed about why we are doing this rule of general applicability.

It does talk about the health effects of silica.

And if one were to ask me, that operator had that in excess of 500 micrograms, that's almost akin to an acute exposure. I mean, you need to take that miner out of that right away.

MR. SCHMUTZ: Agreed.

MS. SILVEY: So --

MR. SCHMUTZ: I'm not going to argue with that.

MS. SILVEY: And when you started, you said it would dramatically increase the industrial hygiene cost. Now you're saying that was good for you because you were in that vision.

MR. SCHMUTZ: Yeah.

MS. SILVEY: But in all of your comments where you said you believe that the proposal would directly increase cost, we would like it if you would submit specifics.

MR. SCHMUTZ: We have been submitting specifics.

MS. SILVEY: I say to people who are providing comment and testimony. We take general comments and testimony. But the more specific you are with your rationale and supporting data, that will be more useful to us.

And I hope that if some people have seen some of MSHA's proposal as follows, some of MSHA's rulemaking and have seen some of their proposals, how we started out with the proposal and how we ended up with the final rule. You

would indeed see that rulemaking is meant to be what rulemaking is meant to be. And that is to take into consideration notice and comment. And that's exactly why we are here today.

MR. SCHMUTZ: That's what we hope for in this process, right, that you will take into consideration because we're working with mine operators across the U.S. to make quality comments with actual data, what this is going to cost them so that they can get that in there and you guys can take that into consideration.

MS. SILVEY: And I said my last statement so I can disabuse. In the hope of disabusing you from your -- and you did ask for an answer from me of your rhetorical comment of how you started. And I knew you meant that with some sarcasm, and that's kind of how I took it.

And that's fine. But we do want specifics where you talked about the conclusions that you think the impact. If you would give us specifics relative to those impacts.

MR. SCHMUTZ: That's the plan.

MS. SILVEY: Do you have anything?

MR. WATKINS: I've just got one clarifying question. Maybe I missed the nexus. You mentioned that 75 percent of the samples you expect to be --

MR. SCHMUTZ: Above the action level.

MR. WATKINS: -- above the action level?

MR. SCHMUTZ: Correct.

MR. WATKINS: Above the action level or above the PEL?

MR. SCHMUTZ: Above the action level.

MR. WATKINS: Okay. What percentage do you think would be above the PEL?

MR. SCHMUTZ: The beginning, when it first rolls out, or afterwards, right? Probably 35 to 40 percent above the PEL.

MR. WATKINS: Okay. But yet, you say there's no evidence of the need to have a rule change?

MR. SCHMUTZ: Show me the cases of silica because we work with 270 mine sites. I know of three people who've had silicosis. Two work in the coal mines and one worked at a silica mine that has an issue with overexposures, right?

You talk about overexposures. They have issues with that. And we've been working with them for years to get their exposures down which they've done. And they've had a case. That's all that I know of.

MR. WATKINS: Okay. Thank you.

MS. SILVEY: Anybody else? Okay. Thank you.

MR. SCHMUTZ: Thank you. Thank you for your time.

MS. SILVEY: Our next speaker is Lee Travis,

Vulcan Materials. Our next speaker I'm told is virtual. Lee Travis, Vulcan Materials.

MR. TRAVIS: Yes, ma'am. And can everyone hear me?

MR. WATKINS: Yes.

MR. TRAVIS: Again, my name is Lee, L-E-E, Travis, T-R-A-V-I-S. Good morning to the panel. I am speaking here today on behalf of the National Stone, Sand & Gravel Association, of which I am a member of the Occupational Health and Safety Committee. I am the manager of Occupational Health Services for Vulcan Materials Company, where I am responsible for all aspects of Vulcan's occupational health program. I have a master's degree in public health and industrial hygiene, 25 years of experience and a board-certified safety professional.

I'd like to first thank you for the opportunity to share our industry's comments, and I also want the community and administration to know that they're participating in an important political -- and the importance of protecting our miners from the hazards of the private sector.

The NSSGA and its members look forward to participating via written comment on the proposed rule. But directly, the industry group felt that certain concerns would be best shared through the hearing process. It is understood that MSHA has developed the proposed

rule, as Assistant Secretary Chris Williamson recently stated at the last stakeholders meeting, in consideration of both OSHA's promulgated respirable crystalline silica rules and the existing industry standards overall.

In review of the proposed rule, the NSSGA also considers the existing legislation mentioned as well as industrial hygiene, or IH, best practices and guidelines and realistic feasibility of workplace practices within the industry. I would like to address two main subjects today in brief.

Quantitative exposure monitoring and medical surveillance. So let's begin with quantitative exposure monitoring, and specifically baseline sampling. According to the proposed rule, baseline sampling is required to be completed for any miners reasonably expected to be exposed to respirable silica at any level within 300 days of the final rule's publication.

Vulcan Materials Company currently has 242 mines with approximately 6,000 production employees serving 22 states, the District of Columbia, and the U.S. Virgin Islands. We've been conducting industrial hygiene sampling since 1980. We've collected tens of thousands of samples across all of our mining locations and characterized those exposures for the different jobs and similar exposure groups at our facilities.

As written, the proposed baseline sampling language would create the requirement to collect an additional 6,000 samples within nine months of the rule's promulgation, which will create an extreme time constraint to getting the sampling completed. The mining industry, along with Vulcan, will struggle to meet this requirement. Vulcan has an established occupational health and industrial hygiene program and we do not currently have the staff or the industrial hygiene sampling equipment to comply with the proposed language. Other member companies with limited resources will face an extreme burden to comply.

And if there's not enough qualified and trained professionals to conduct the sampling, the exposure sampling, and not enough of them will have the sampling equipment currently in the market. In addition, the sampling media and lab capacity to do the number of proposed analyses is limited, and turnaround times for media and sampling results are going to be delayed.

Based on our sampling experience, the proposed baseline sampling requirement is not necessary for our operations. We already have the objective exposure data to properly characterize our employee exposures in accordance with the accepted industrial hygiene practices to ensure miners are protected. Being able to use this objective

data in lieu of additional baseline sampling will allow Vulcan, along with other member companies that already have baseline data, to continue to focus on areas of potential concern versus selecting baseline data for concerns that have been previously objectively identified.

So in summary, of the comments on baseline sampling, the baseline sampling requirement in the proposed rule is unnecessary to protect miners' health in a company that already characterized exposures, and in fact distracts time and sampling resources from miners and SEGs for which the existing data suggest that the sampling should be corrected.

In addition, allowing companies to use their existing objective exposure data collected, categorized in similar exposure groups, or SEGs, will allow for realistic monitoring programs where true risk is identified and can be properly controlled rather than a one-size-fits-all-approach to sampling that diverts limited resources. For reference, the American Industrial Hygiene Association strategy for assessing and managing occupational exposures outlines and strongly emphasizes the accepted best practices of establishing SEGs.

OSHA established the use of SEGs in their Table 1 for the construction industry respirable silica rule. Table 1 lists 18 common construction tasks and equipment

used where there is increased potential exposure to silica. The table describes the engineering controls, work practices, and respiratory protection necessary for each task. The tasks listed are specific, and if a company can fully and properly implement the exposure controls listed, then they are not required to determine the silica exposure for the employees who did the task.

However, if the exposure controls are not followed for the particular task, then industrial sampling is required. The table was data proven by NIOSH and OSHA to be effective at consistently protecting the worker below the proposed -- or below OSHA's established action limit.

However, if the exposure, an example of such an SEG in our industry would include haul truck(phonetic) operators, loader operators, and control room operators where the cabin or room is protected, by specified engineering controls, that are proven to reduce exposure to respirable silica. For members of the mining community, who do not already have objective baseline exposure data, adopting language similar to OSHA's respirable silica rule baseline requirements should be strongly considered. As referenced, OSHA requires the employer to asses the exposure of the employee who is or may reasonably be expected to be exposed to respirable crystalline silica at

or above the action level by establishing a marker, i.e. an action level, for when baseline sampling is required.

This will accomplish the goal that MSHA and the industry have for protecting miners without the unneeded burden of sampling miners that have no reasonable expectation of being overexposed to respirable silica. There are several concerns with the proposed baseline sampling overall and NSSGA plans to provide written comment to those.

But for the initial time we have today, the NSSGA would like to recommend the consideration of the following: the use of more specified language when identifying miners who will participate in baseline monitoring to those at actual or potential risk for exposure above the action level, similar to OSHA's rules.

More specific language that defines the use of similar exposure groups, consideration of either a Table 1 or more specific language around tasks associated with specific engineering controls to be included into the rule, and the use of past sampling data outside of the prior year as an example of objective data to meet the baseline exposure requirements.

Moving on to the medical surveillance, risk-based programs. Vulcan continues to address modern health through our ongoing medical surveillance program and,

based on previous experiences, there are concerns with the MSHA proposal related to medical surveillance.

The proposed language specifies that medical surveillance be conducted within 30 days of hire. Since the pandemic, this has been extremely difficult to achieve due to clinics routinely being understaffed and qualified personnel to administer the tests. As examples, when prospective miners are sent to the clinics, they may wait for extended periods of time only to be turned away because a qualified technician is not there that day, and in some instances, those prospective miners are asked to drive long distances to reach a clinic that can perform the tests.

In rural areas, where many mining operations are located, occupational medical clinics aren't capable of administering the required testing or maintaining staff with required certifications. In addition to getting the proper testing completed, whenever the testing is completed, the interpretation of those results poses another obstacle for mine operators.

Under the proposed rule, operators will have to contract with quality B readers who are in short supply. By asking mine operators to test every new hire regardless of job duties and potential exposure to respirable silica will put undue stress on an otherwise struggling

occupational medical clinic system. The 30-day requirement for medical surveillance testing for all new miners is just not feasible in the current environment and will cost compliance issues outside the mine operator's control.

Consideration should be given to aligning medical surveillance programs on a risk-based approach that accepts existing legislation that has been established as protective to the workforce.

In summary, the requirements to provide medical surveillance should be risk-based. As it's in the OSHA standard, mine operators should only be required to offer medical surveillance to miners who are exposed to silica like the OSHA standard which requires that medical surveillance be offered to those exposed to the action level 30 or more days a year. Also, mine operators need more time within which to offer the medical surveillance. Thirty days is not practical for reasons I mentioned before.

As with the recommendations put forth regarding sampling, this approach would also serve to better allocate limited resources toward miners who need it most.

In closing , NSSGA and its members look forward to continue support MSHA in the development of this key legislative rule. We appreciate the time given to here to initially discuss concerns over monitoring and medical

surveillance and we look forward to participating in the written comments activities . As always, we're also available for queries, conversations, and other information we can provide. Again, thank you very much for your time today.

MS. SILVEY: Okay. Thank you. I just have one comment of you, a question. And I sort of made -- you may have said it and I may have missed it. But with respect to your comments on the baseline sampling, not necessary to protect miner's health.

And yet, you talk about how much sampling that you all do conduct. And maybe you provided it, but did you provide an alternative in lieu of --

MR. TRAVIS: I'm sorry, Pat. You cut out at the very beginning. Can you repeat that?

MS. SILVEY: Did you provide an alternative in lieu of baseline sampling? Did you, during your testimony, provide an alternative to us in lieu of doing baseline sampling? You said it was not necessary.

MR. TRAVIS: Yes, ma'am. That's, I guess, the specific context of allowing prior sampling data in as an example of objective data. Currently, the examples given in the preamble exclude prior sampling data outside of the year prior; so we're saying allow mine operators that have been doing the right thing before and sampling their

employees to be able to include their objective data and their past sampling results as an example of objective data which is completely in line with what is accepted by OSHA and, I guess, as an example of objective data and the current OSHA regulations --

(Simultaneous speaking.)

MS. SILVEY: And so what do you all use right now? I gather that you have a medical surveillance program. You do a lot of sampling. What do you all use for your baseline sample now?

MR. TRAVIS: Well, again, like I said, Vulcan's been conducting industrial hygiene sampling since 1980, so we've collected enough data to where we can categorize those exposures into similar exposure groups. And then we use statistical analysis to further analyze that data to see where they fit in to exposure categories and then design sampling programs around that.

So, the use of SEGs is -- another a big reason why we're a proponent for metal nonmetal in general to be able to use SEGs so that you can focus that sampling effort where it truly needs -- where the risks truly would be for a mine operator. So, in baseline sampling you would -- in our experience, we have a list of jobs that, based on our extensive sampling experience, have a potential to be over-exposed, so when we make an acquisition or we open

a new mine and we go to work, we will collect the data on those specific jobs and tasks to make sure that they fall in line with our SEGs that we've created for the rest of the company and go from there. Does that answer your question?

MS. SILVEY: Sort of. But I'd ask you to end your -- I'd ask you a question that, to provide to us specific clarifying comments of your comments as to exactly how you perform baseline sampling now. What do you use? And I gather you use some kind of statistical grouping.

I understand what you're saying. But I'm asking you to please provide exactly how you know what your baseline sampling is for all of your mines. And maybe you just know it by occupation. Maybe that's what you're telling me. But if you would do that.

MR. TRAVIS: Yes, ma'am.

MS. SILVEY: Okay.

MR. TRAVIS: Yes, ma'am.

MS. SILVEY: Thank you. Thank you. Our next speaker is Richard Brown, Sorptive Minerals Institute.

MR. BROWN: I have a presentation that should pop up here in a moment.

Would you back that up to slide 1?

MS. SILVEY: Are we ready?

MR. BROWN: That is slide 1. All we need to do is

remove the view of myself and other people that are listening in from the screen so everybody can see it. There we go.

Good morning. I'm Richard Brown, and I am here on behalf of the Sorptive Minerals Institute or SMI. I'm pleased to have this opportunity today to present SMI's comments on MSHA's proposed rulemaking on lowering miner's exposure to respirable crystalline silica and improving respiratory protection. Next slide.

SMI is the national trade association representing the manufacturers and marketers of products made from absorbent or sorptive clay minerals. Founded in 1970, SMI represents an industry whose products are made from absorbent or sorptive clay minerals and are used daily by millions of people around the world and thousands of commercial, industrial, and consumer applications such as cat litter, animal feed additives, cosmetics, and environmental sealants to name but a few. Importantly, SMI also serves as the scientific research arm of the sorptive clay industry. Next slide.

Through its technical committee, SMI has been heavily involved in science-based crystalline silica research since 1988. Focusing on understanding the nature and health effects of the silica species in the sorptive clays mined and sold by SMI member companies. Throughout

this time, SMI has freely shared its research in public scientific conferences in the U.S., Germany, the Netherlands, and South Africa.

In 1999, this research led to issuance of a safe use determination or SUD by the California Office of Health Hazard Assessment under Proposition 65 for exposures to airborne respirable crystalline silica from sorptive mineral-based pet litter. In 2008, SMI published two companion research papers in the peer reviewed international journal, Inhalation Toxicology. The first paper discussed the results of in vivo testing conducted by the Fraunhofer Institute in Hanover, Germany, while the second was a detailed study characterizing the physical and chemical nature of the samples used in those studies.

While neither paper has been referenced by MSHA, both are important to MSHA's rulemaking process. Next slide. In partnership with the National Center for Earth and Environmental Nanotechnology Infrastructure at Virginia Tech, known as NANOEARTH, SMI has continued its research focused on defining the physical chemical characteristics of quartz from sorptive clays. This had generated unpublished research in 2010, 2017, 2018, and 2020 which is now in preparation for publication in a peer reviewed scientific journal. Next slide.

My testimony today will focus on the unique

characteristics of crystalline silica in sorptive clays and how those well-documented unique characteristics impact its potential toxicity and potential for adverse health effects for those who work with these materials. In the proposed rule, MSHA cites OSHA's 2013 review of the literature of health effects of occupational exposure to respirable crystalline silica and acknowledges the important role that the surface of crystalline silica particles plays in producing disease, noting that, and I quote, any factor that influences or modifies these physical characteristics may alter the toxicity of respirable crystalline silica, close quote. Despite this, MSHA has not addressed this subject in its proposed rule.

In order to make a proper rulemaking determination, MSHA must address and fully consider the issue of the surface characteristics of the crystalline silica it intends to regulate and how they relate to silica toxicology. With this in mind, the primary purpose of this presentation is to discuss the unique nature of the crystalline silica and sorptive clays and the critical role played by the surface of quartz in sorptive clays in determining toxicology. Next slide. Silica contained in sorptive clays may be present as opal, an amorphous or non-crystalline silica hydrate, or as the crystalline silica polymorph quartz.

Opal and other amorphous forms of silica are appropriately not covered by MSHA's proposed rule. This is consistent with the long recognized absence of health risk associated with exposure to amorphous silica. However, a portion of the quartz present in sorptive clays is of respirable size and will be subject to MSHA's proposed rule.

It is MSHA's inclusion of respirable quartz and sorptive clays that is of specific concern to SMI. Next slide. Recognizing that many of you may not have a familiarity with geology or mineralogy, I hope you will bear with me while I provide a little background. First, crystalline silica and sorptive clays occurs only in the form of quartz.

Most commonly, the quartz in sorptive clays form authigenically, that is, along with clay and other accessory minerals by in situ precipitation of volcanic ash that fell into and was dissolved by salty water. An example of this is the formation of the bentonite clay found in Wyoming. Alternatively, quartz may be residual or left over from in situ weathering of parent rock by hydrothermal groundwater in the process of forming clay.

Or it may be detrital, having been washed in from a distant location and co-deposited with volcanic ash which was later altered to clay. Regardless of origin,

however, the quartz in sorptive clays used in our industry is geologically ancient. Having been in intimate contact with the clay in which it occurs for about 10 million to 110 million years depending upon the deposit. Next slide.

Because sorptive clays are destroyed by temperatures over about 500 degrees Centigrade or 930 degrees Fahrenheit, we can be absolutely certain that the crystalline silica they contain has never been subjected to the very high temperatures that are required to create Cristobalite or Tridymite. Regardless of origin, the quartz in sorptive clays is different in a critical respect from the forms of crystalline silica that cause respiratory disease and which MSHA proposes to regulate. The surface of the quartz grains in sorptive clays has been in chemical equilibrium with the clay matrix in which the quartz resides from the time the clay rock was formed many millions of years ago until it was removed from the ground to be processed into clay products.

The quartz grains in sorptive clays are precluded by amorphous and crystalline aluminosilica from the matrix in which they reside. The inclusion may also consist of adventitious metal ions, especially aluminum, magnesium, and iron. Next slide. Could you go back a slide? Thank you.

The concept of occlusion of quartz and quartz

surfaces by aluminosilicates has been proposed in several studies not referenced by MSHA. In 1996, Odom studied the physical and chemical nature of quartz particles in powered and granular clay products as well as dust samples collected in duplicate with MSHA sampling. From four sodium bentonite plants in Wyoming and South Dakota, three calcium bentonite plants in Oklahoma, Alabama, and Mississippi, two Fuller's Earth plants in Illinois and Tennessee, and one Ball Clay plant in Kentucky.

And used scanning electron microscope or SEM with energy dispersing spectroscopy, EDS, in his study. He reported that no free silica minerals that he observed in any of the samples using these methods initially. Only after the dust samples were digested in hot acid using NIOSH Method 7106 to remove what he termed clay encapsulation was the presence of the quartz confirmed in all of the dust samples. Gocmez et al. in 2001 used x-ray diffraction or XRD and SEM to determine the difference between naturally occurring quartz in ball clays and freshly ground quartz.

They found that no free silica particles can be identified by SEM and ball clays and that all quartz particles in ball clays were enclosed by Kaolinite clay particles. They also found surface microstructure and crystallinity index of the two materials was sufficiently

different to cause them to conclude freshly ground quartz is not representative of all types of quartz in nature. Wendlandt et al. in 2007 analyzed hundreds of quartz grains from bentonite and found that coatings of the clay mineral montmorillonite on these grains were ubiquitous on all the grains.

The coatings covered the entire surface of the grains regardless of grain size. And the coatings were resistant to removal using chemical dispersants, acids, or industrial processing. And the authors concluded in this study that clay coating had the potential to mitigate quartz toxicity in the lung. Next slide.

In unpublished research conducted for SMI, Hochella and Muryama of Virginia Tech, 2010, found occluded quartz from bentonite to be composed of multiple minute silicon dioxide crystals which as a group were occluded by amorphous silicate and minor amounts of calcium, magnesium, and iron. This slide shows a pair of extraordinary transmission electron microscope photomicrographs of a representative quartz particle from bentonite. The chemical nature of the core and exterior of the particle is determined by EDS, is also shown confirming that the core is quartz and the exterior material surrounding it is aluminosilicate.

In the dark field image on the right, the quartz

core or the particle can clearly be seen along with its surrounding aluminosilicate occlusion. Next slide. The transmission electron microscope photomicrographs on this slide show a portion of the occluded surface of a single quartz particle from bentonite. The high resolution TEM photomicrograph on the right clearly shows the highly crystalline quartz core in the amorphous aluminosilicate clay layer near the particle surface.

The observable lattice fringes in the core are indicative of specific crystal planes of the core material. Critically, Hochella and Muryama confirm that the aluminosilicate surface is connected to the quartz core at an atomic level and is not merely a coating but actually chemically and physically an intrinsic part of the quartz particle itself. They also show that the quartz core is not exposed but rather completely occluded by the aluminum silicate surface material. Next slide.

This point bears reemphasis. For sorptive clays, the aluminosilicate occlusion is chemically and physically an intrinsic part of the quartz particle itself. And the quartz core of the particle is completely enveloped by the aluminosilicate occlusion. Next slide.

More recently, in research being prepared for publication, Berti, 2017 and 2018, evaluated numerous quartz grains from four different bentonite deposits in

Wyoming. This included the quartz from bentonite reported in Creutzenberg et al., 2008, and Miles, et al., 2008, which I had previously mentioned, neither of which was referenced by MSHA. These deposits spanned a distance of 250 miles and a geologic time frame of about three million years.

Berti used TEM coupled with EDS to create color maps of quartz grains which clearly show a location of atoms of different elements. In the slide, red dots represent silicon atoms and green dots represent aluminum atoms. Here we can clearly see areas of high concentration of silicon atoms representing the silicon dioxide of a quartz core of these particles.

The areas with high concentrations of aluminum represent aluminosilicate, indicating the location of the aluminosilicate occlusion layer. It should be understood that these micrographs are two dimensional slices of three dimensional particles, and so do not represent in and of themselves the entirety of the particle. Next slide.

In 2020, Cantando, also doing research for SMI, using the same methods as Berti, evaluated the crushed DQ12 quartz used by Creutzenberg et al. in their 2008 rat installation study. This color EDS map shows only the high concentrations of silicon atoms present in this DQ12 particle indicative quartz. No aluminum atoms are shown

because none were found. Next slide.

There are three crystalline silica polymorphs known to cause human health hazard. Non-occluded fractured quartz, Cristobalite, and Tridymite. These offending species occur as single crystal particles having a high degree of crystallinity and with a pure silicon dioxide surface. When fractured, they have high energy surfaces capable of generating free radicals.

These surfaces are produced by specific industrial circumstances such as sandblasting and crushing, cutting, and grinding stone and concrete which fractures and breaks the silica particles into respirable size. Next slide. The SEM photomicrographs in this slide illustrate the obvious morphological differences between naturally occurring geologically ancient occluded quartz from bentonite, commercially manufactured DQ12 and Min-U-Sil 5 quartz used in toxicology studies, and the occupationally generated quartz from a South African gold mine. The sharply angular nature and clean surfaces of the manufactured and occupationally generated quartz can clearly be seen on the right.

This contrasts dramatically with a highly irregular aluminosilicate covered surface of the quartz from bentonite seen on the left. Next slide. The TEM EDS color map shown in this slide clearly illustrates the

difference between quartz from bentonite and DQ12 crushed quartz used by Creutzenberg et al. in 2008 rat study. The lack of any aluminosilicate occlusion atoms on the DQ12 crushed quarts compared to the very obvious aluminosilicate layer of occlusion atoms on the quartz from bentonite distinguishes these materials as uniquely different.

This very fundamental difference must be recognized by MSHA as it finalizes its crystalline silica rulemaking. Next slide. The stability of the occluded surfaces of a quartz from bentonite was evaluated as part of the Creutzenberg study. The instilled DQ12 and occluded quartz were recaptured from rat lungs at the end of the 90-day test period and cleaned the biological materials using low temperature plasma ashing.

These SEM photomicrographs show the morphology of the crushed DQ12 reference quartz and the occluded quartz from bentonite before, on the left side, and after, on the right side, installation. No significant morphological changes occurred in either material. Particle diameter distribution and particle mass distribution were also determined with no significant differences noted for either material.

This shows that the occluded surface on quartz from bentonite clay remained intact throughout the 90-day

test period while inside rat lungs and in contact with lung fluids. Next slide.

In its proposed rule, MSHA cites only one study by Castranova et al., 1996, where the toxicity of freshly fractured silica or alpha quartz was compared to that of aged fractured silica in a rat installation or inhalation study. Here, the quartz was jet milled and then stored for two months to create the age fraction while freshly milled quartz was then used for the freshly fractured fraction.

The authors found that the freshly fractured silica caused a much greater toxic inflammatory pulmonary reaction than did the aged silica, although the two-month old aged silica still retains significant toxicity. Next slide. Numerous other studies exist dating back at least into the early 1990s that show the effect of aging on the toxicity of fractured silica. All of these studies show a decline in toxicity over a relatively short period of time towards the aged silica, periods of time of days, weeks, months, even years.

None of the studies cited here use fractured silica older than a few months, however. Next slide. When it comes to crystalline silica, aged is a very relative term. In citing a paper by Soutar et al., 2004, that was used by OSHA in its 2016 rulemaking, and in agreeing with OSHA's conclusion, MSHA acknowledges that aged quartz

derived from dirt bands in coal scenes and accompanied by clay minerals does not have the same toxic potential of freshly fractured quartz from massive sandstone in a Scottish coal mine. Next slide.

MS. SILVEY: Before you leave that page --

MR. BROWN: Certainly.

MS. SILVEY: -- that's page 21. It's that last bullet. I'm assuming instead of log term, that was supposed to be long term.

MR. BROWN: I apologize for the typographical error.

MS. SILVEY: Is that right?

MR. BROWN: Yes.

MS. SILVEY: I just want to make sure.

MR. BROWN: Yes.

MS. SILVEY: And then, since I've already interrupted you and we have all your slides to put in the record. And I get your point. Is there any way you think you can summarize?

MR. BROWN: If you would permit me, there are several important points to come up, all covering -- all specifically covering the concept of what it is about crystalline silica particles that actually creates the underlying hazard that MSHA has not addressed.

MS. SILVEY: Okay. I'm just going to say or if you

could go directly to those, if you don't mind.

MS. McMAHON: Ms. Silvey? I don't know if you all can hear me. I'm sorry to interrupt. Can you hear me, Ms. Silvey?

MS. SILVEY: I do. You are who?

MS. McMAHON: I'm Kate McMahon. I'm also registered. I'm counsel to SMI. I'm registered as number nine. But I will forego my time and in fact was planning on doing that anyway to make sure that Mr. Brown has enough time to address this.

We have done our very level best to succinctly summarize the perfectly important science behind our analysis.

MS. SILVEY: I understand. I hear you. Okay. I hear you. So you will yield your time you are saying?

MS. McMAHON: I will yield my time to Mr. Brown, that's right.

MS. SILVEY: Okay. All right.

MS. McMAHON: I think it's important that you all have the opportunity to hear this. I know it's, I know it's pretty in the weeds science, but it's critically important to the evaluation that MSHA's gonna do with this clay material that is extremely different than the quartz that the Agency's been looking at.

MS. SILVEY: If you would, I still would ask if

you could find a track to get to those points that you said are important points.

I think I know what you are saying already. But if you would, I would allow you to get to those if you could --

MR. BROWN: I will attempt to be --

MS. SILVEY: Thank you.

MR. BROWN: -- a bit more succinct, yes. So the quartz particles and sorptive clays are geologically ancient, having been created 10 to 110 million years ago when the clay in which they reside was formed.

These particles have surfaces that have not been fractured and have been in chemical equilibrium with the clay since it formed.

For the purpose of regulation under the proposed rules, MSHA must acknowledge the unique geologically ancient surface of the quartz in sorptive clays and segregate this quartz from the freshly fractured and extremely young aged silica, which it likely proposes to regulate. The distinction in the time frame is simply too significant to be ignored.

Next slide. A number of important studies for assessing health effects to exposure to occluded quartz in the sorptive clay industry were not considered by MSHA.

For example in Geh, et al., 2006, human

fibroblasts were exposed in vitro to relatively high concentrations of bentonite containing varying level of quartz, with the difference in the presence and types of transition metals. And the authors found only very low level of genotoxicity.

The findings of the recent animal study like Creutzenberg, et al., were consistent with those of Geh.

Next slide. So speaking to the toxicity of occluded quartz, this study by Creutzenberg, in this study the installation study in the rats found that quartz with occluded surfaces was substantially less toxic to rats, after intratracheal instillation with follow-up up to 90 days,than DQ12 crushed quartz.A significant effort was made to extract the quartz from bentonite so that the surface characteristics were not modified and could be compared directly with the DQ12.

This study provided sound evidence that cytotoxicity and inflammation were significantly less severe in animals dosed with occluded quartz from bentonite when compared to DQ12.

The graphs of key indicator tests shown here revealed that the DQ12, the red line, induced persistent, highly progressive and inflammatory responses and significant tissue damage over the 90-day test period, while the response to occluded quartz at the same dose,

the green line, was modest, non-progressive and not significantly above the saline control group, the blue line.

The results show that despite the very high dose used to guaranty an inflammatory response, the response from occluded quartz is much different and far less potent than that of crushed DQ12 quartz and much more similar to the saline control.

It is important to note that the DQ12 used in this stud was crushed 30 years before it was instilled in animals. This is far older than the aged quartz used in the study cited by MSHA or by OSHA.

So we can only speculate based upon the data provided in the studies that I have cited before by OSHA if MSHA and OSHA's aged and freshly fractured quartz had been tested here, the response in each of these key indicator tests would likely have been far greater than that for the 30-year-old DQ12.

This is the real time frame of reference in which the response to the geologically ancient occluded quartz must be viewed.

Next slide. In 2023, this year, the review of published animal testing research done by Poland, et al., and apparently not considered by MSHA, found that respirable crystalline silica, RCS, and synthetic

amorphous silica, SAS, can cause very similar short-term or acute pulmonary inflammatory responses while long-term chronic pathological outcomes for these materials are very different.

The graph on the left plots severe inflammatory biomarkers following test animal inhalation of respirable crystalline silica and shows the inflammatory response was highly progressive throughout the test group.

The graph on the right plots the same biomarkers following test animal inhalation of synthetic amorphous silica and shows that after the expected initial inflammatory response, the inflammation proceeded to resolve through the rest of the test period and was decidedly non-progressive.

It is of particular note that Poland's biomarker profiles for both the respirable crystalline silica and synthetic amorphous silica, are nearly identical to the biomarker response profiles obtained by Creutzenberg for DQ12, cross-quartz and occluded quartz from bentonite.

The biomarkers for both the synthetic amorphous silica and the occluded quartz from bentonite resolved to near baseline levels although this happened more quickly within about three days for the quartz from bentonite.

Poland stated that this differential response shows that the persistence of inflammation beyond the

initial response to silica deposition is a critical factor in the development of pathologies which could indicate health impairment. And they suggested that the level of inflammation at the end of the subacute exposure in the absence of tissue pathologies is a relatively poor predictor of chronic target organ toxicity and that the resolution of cellular inflammatory response should be considered in any evaluation of toxicity.

They stated that taking such an acute endpoint without incorporating resolution may lead to a false sense of equivalency between particles that induce a transient cellular response that rapidly resolves and that which causes lung pathology.

This could be concerning where such acute potency estimates are used for grouping as it may result in materials with similar acute yet very different inflammatory profiles over time being labeled as equivalent.

These findings have direct bearing on MSHA's determination of the appropriateness of regulating quartz from sorptive clays in the same fashion as the freshly fractured and aged silica it intends to regulate.

Next slide. Worker exposure in the sorptive clay industry has not been extensively studied due to the lack of observed health effects in the industry.

A NIOSH representative cohort study by Waxweiler in 1988 studied worker mortality at a sorptive clay mine and processing facility in South Georgia. They found a significant deficit of non-malignant respiratory disease and no excess non-malignant respiratory disease regardless of presumed dust level and induced latency period or duration of employment. In other words, they found nothing.

Several reviews of worker exposures to crystalline silica have also recognized the lack of silicosis risk amongst clay workers with exposure to clay dust, including exposures to Fullers earth, bentonite, montmorillonite and Attapulgite. And SMI will provide these studies to MSHA as part of its written comments.

Next slide. So why is crystalline silica a health hazard? MSHA has cited a large number of studies which document significant adverse effects on humans after exposure to crystalline silica in industrial settings.

Despite noting that surface characteristics play an important role in how crystalline silica causes tissue damage and that any factor that influences or modifies these characteristics may alter the toxicity of respirable crystalline silica by affecting the mechanistic process, MSHA has only referenced two of the hundreds of papers that have been published on this subject over the past 50

years. And MSHA has not used the findings it has cited to provide guidance so the type of crystalline silica that is the true cause of the human health hazard can be specifically regulated.

Next slide. Many researchers have published on the relationship between the surface characteristics of crystalline silica particles and particle toxicology over the past 50 years. One particularly well-known and prolific researcher in this area, Bice Fubini from the University of Turin Italy has published at least 40 papers on this subject since 1987, none of which have been cited by MSHA.

MS. SILVEY: Excuse me, sir. I see where you have a number of studies. I have a copy of the presentation. And we are going to look at those. And that's why I was asking earlier. And we have --

MR. BROWN: Let me jump if I may --

MS. SILVEY: Yes, please. I ask again.

MR. BROWN: So Fubini has been an important researcher in this field studying the effect of surface characteristics on toxicology for crystalline silica for a long time. And MSHA needs to look at that research to get a better understanding of what that relationship is.

A student of Fubini who about seven years ago started publishing and had published previously as a co-

author with Fubini, Christina Pavan also at the University of Turin, has published some extraordinarily important research recently that I will briefly tell you about because it is critical that MSHA incorporate this -- understand and incorporate this --

MS. SILVEY: We will look at your entire presentation.

MR. BROWN: I understand that.

MS. SILVEY: I promise you that.

MR. BROWN: I understand that. But this is critical.

MS. SILVEY: Okay. If you could --

MR. BROWN: And this is the focus.

MS. SILVEY: If you could expedite.

MR. BROWN: I will do that.

MS. SILVEY: Thank you.

MR. BROWN: So in 2000 --

MS. McMAHON: Ms. Silvey. I'm sorry. I just want to recognize that the slides and the studies are going to be in the record, of course. But Mr. Brown is here and flew to Denver to be able to talk to you and explain based on his extensive knowledge what he's found.

We are trying our best to succinctly but importantly provide that information to you. It does seem a little bit -- but the fact that it takes some time to

explain, I don't think means it should be given short shrift.

MR. BROWN: Could you move forward to Slide 33? There we go.

So in 2019, Pavan published a -- Pavan authored a paper reporting on the findings of the workshop on silica toxicity that had been held that year. She was the lead author of a group of 17 researchers in this field who were co-authors.

The workshop concluded that the pathogenic activity of silica was variable and dependent on the physical and chemical features of the particles. That crystallinity and the capacity to generate free radicals are now recognized and relevant features to silica toxicity. That the surface of particles plays an

important role in silica toxicity. And then while surface chemical features such as the presence of silanols and siloxanes, two particular features, and the configuration of the silica surface can trigger toxic responses, yet still that point was not clearly understood.

Next slide. So this paper is particularly important for MSHA to take notice of because of the reference section attached to it. In that reference section, there are 66 papers that are focused on this

topic by 60 lead authors.

And MSHA has only cited two of the papers that fall in that reference section, and one is the IARC 1997 monograph.

So at a minimum MSHA must evaluate this body of research and use it to help guide its crystalline silica rulemaking. This research is fundamental to understanding why the hazard even exists and what causes the hazard that we're so focused on outcomes for.

Next slide. In 2020, Pavan in the first of what other researchers in this area actually called seminal papers presented results that revealed the critical toxicological role played by a new family of silanols they termed nearly free silanols or NFS's. Importantly, they showed that the localized density of these silanols and not their total amount or average density was what determined the toxic activity of silica dusts.

They stated that surface NFS emerged as the elusive element that reconciles the enigmatic inflammatory responses observed with both crystalline silica and some amorphous silica in several experimental studies.

Next slide. They found that both crystalline and amorphous silica exist as part of a continuum of forms having variable toxicity but that it was all dependent upon the presence of these surface NFS's.

Next slide. Now that brings us to 2023 and a paper that was published in January of this year by Pavan. Pavan was able to demonstrate that differences in crystal packing of the crystalline silica polymorphs creates different silanol networks on particle surfaces, which are characterized by different amounts of NFS's.

Of critical importance, they showed that overall the specific family of NFS's is responsible for the membranolytic activity of all crystalline silica polymorphs.

Next slide. Importantly, they found that the amount of NFS's present on silica particles could be modulated by thermal treatments. And this allowed them to establish and confirm that silica membranolytic activity was positively correlated with the concentration of NFS's for all crystalline silica polymorphs.

So they have suggested that membranolytic activity is NFS mediated for all silica polymorphs. And they concluded their findings -- they concluded that their findings contributed to the molecular understanding of the toxicity mechanism for silica-based minerals and might be helpful for predicting and controlling the hazard associated to quartz and cristobalite, which are included in the IARC classification of human carcinogens.

This is why this is so critical and so

fundamental because it now explains the causative agent for what we see long after as the human health hazard. This is where it starts. This recognition of this is fundamental to the proper regulation of the offending materials.

Next slide. Next slide. To summarize, geologically ancient occluded quartz from sorptive clays is demonstrably different from freshly fractured quartz and MSHA's aged quartz that are known to cause health hazards.

Physically, it has an inseparable aluminosilicate surface. Chemically, the surface is not crystalline silica dioxide but aluminosilicate. Toxicologically, it is significantly less toxic than crushed referenced quartz, which is far older than MSHA's -- the crushed reference quartz that we use, which was far older than MSHA's aged or freshly fractured quartz, and it does not produce progressive disease.

MSHA currently regulates other silica species such as opal differently than quartz. Based upon this precedent and the substantial differences between occluded quartz from sorptive clays and fractured quartz that is known to cause human health hazards, occluded quartz from sorptive clays should be treated similarly to the treatment of amorphous silica rather than crystalline

silica.

There simply is not scientific support for regulating quartz from sorptive clays in the same fashion as the crystalline silica MSHA is correctly concerned about and is proposing to regulate.

Next slide. The Sorptive Minerals Institute thanks MSHA for this opportunity to present testimony on MSHA's proposed rule on lowering miners' exposure to respirable crystalline silica and improving respiratory protection.

A list of references that are important to the understanding of the role of the surface characteristics of crystalline silica particles and what they play in determining their toxicology, which MSHA has not cited, will be provided in SMI's written comments.

That concludes my remarks, and I would welcome any questions that you might have.

MS. SILVEY: Sorry. Let me ask you something. For whom does Pavan work?

MR. BROWN: She is a professor at the University of Turin in Italy.

MS. SILVEY: The university of what?

MR. BROWN: Turin, T-U-R-I-N, in Italy.

MS. SILVEY: Well, even professors, I know this, sometimes they do research for something or something or

some.

MR. BROWN: So Dr. Fubini and Dr. Pavan to the best of my knowledge are independent researchers. And they maintain that independence because both of them are working in a field that is to them critically important. And they are doing fundamental work to elicit what the important characteristics are that lead to toxicology for quartz.

MS. SILVEY: Okay.

MR. BROWN: They are not related to any company --

MS. SILVEY: Okay.

MR. BROWN: -- at all.

MS. SILVEY: Okay. And the only other thing I have to ask you is so with respect to your conclusion, how did OSHA, in its 2016 rule, treat occluded quartz from sorptive clays?

MR. BROWN: OSHA?

MS. SILVEY: Yes.

MR. BROWN: After hearing virtually all of what I presented today not the more recent --

(Simultaneous speaking.)

MS. SILVEY: I understand. They couldn't have. It was 2016. Right.

MR. BROWN: And they found that they did not have information that said that quartz from sorptive clays

should be regulated in the same fashion that other quartz was being regulated. And they excluded sorptive clays from the lower PEL and the lower action limit.

MS. SILVEY: Okay. So they excluded from the action level but not from the PEL.

MR. BROWN: No, they excluded us --

MS. McMAHON: No.

MR. BROWN: They excluded us from both the PEL -- the lowered PEL and the lowered action limit. So the sorptive clay industry remains under the original PEL and the original action limit that OSHA had.

MS. SILVEY: Yeah, I didn't clarify that.

(Simultaneous speaking.)

MS. SILVEY: I understand.

MS. McMAHON: -- they've been exempted from the whole silica standard that OSHA promulgated in 2016, not just the action level and the PEL but the entire standard itself.

MS. SILVEY: Okay. And anyway, I was just asking you because I can find that out in any event.

MR. BROWN: Of course.

MS. SILVEY: And I should have known that but since you were here, I thought I would ask you. Okay. All right. Thank you. That's all I had.

MR. BROWN: Would anyone else have any questions?

MS. SILVEY: No. Okay. Should we take a break? Everybody who wants a break, raise your hand. We are going to take a break. Ten minutes, back in 10 minutes.

(Whereupon, the above-entitled matter went off the record at 10:52 a.m. and resumed at 11:08 a.m.)

MS. SILVEY: At this time, we will resume the Mine Safety and Health Administration public hearing on the proposed silica rule. Our next speaker is John Ulizio, National Stone, Sand and Gravel. And as long as I've known him, I might have mispronounced your name so forgive me. So John? I think he was -- was he speaking virtually?

PARTICIPANT: Virtually, yes.

MS. SILVEY: Speaking virtually. Okay. If John is not online, at this point, we will proceed to the next speaker and maybe come back to him. The next speaker is Everett Burgess, Granite Construction, and he is in person.

MR. BURGESS: In person. Good morning, Ms. Silvey. Panel.

MS. SILVEY: Good morning, sir.

MR. BURGESS: I just have a few brief comments to make.

MS. SILVEY: Take your time.

MR. BURGESS: Thank you. My name is Everett, E-V-E-R-E-T-T, Burgess, B-U-R-G-E-S-S.

I am a miner. I have been involved in mining all of my adult life. First, as an exploration drill helper, equipment operator and for the last 35 years a mine safety professional.

Protecting the health and safety of the miner is paramount. Not only for MSHA but for the mine operators as well. Reducing miners' exposure to respirable silica is a worthwhile effort that we can all agree upon.

Not too many would disagree that the current PEL is potentially too high and can be effectively lowered as OSHA has done. With that in mind, though, we find the proposed rule from MSHA for respirable silica to be overreaching and burdensome to excess.

First off, and I know it's been said, metal non-metal mines are not coal mines. There are huge differences in the commodities that we mine as well as the methods and the mining hazards that are presented. So that's pretty basic.

So the other thing in your proposal is that each miner that could potentially be exposed, which is every miner, really, has to be monitored within the first six months. That comes with a huge financial cost of time, resources, and can be prohibitive especially to a small mine.

Why wouldn't we do that by the job title or the

task that they perform to consider who needs to be monitored? Many jobs or tasks have little to no exposure like wet plant operators, equipment operators and those kinds of things.

Also, and it's been mentioned, that the lab capacity is limited and with this timeline that's going to be an issue. Why no Table 1 like OSHA uses? Many jobs or tasks, again, have little to no exposure and modern equipment with enclosed cabs, climate controlled filtration, offer adequate protection when they're properly maintained. Those could be listed in Table 1.

MSHA has the accumulated data to know and should know where those exposure levels are, where those potentials are and where they do and do not exist as we do.

Not allowing previous sampling data older than 12 months, so many companies such as mine, and I've heard it before too, have a lot of historical data from sampling over many years with that historical knowledge of exposure levels for different jobs, equipment, locations, et cetera. And we currently use this information in our decision-making on where to focus our resources for our monitoring. Again, MSHA has been monitoring as well. They know where that's at.

Miner rotation not being an acceptable

administrative control. Reduction of exposure time has always been an important and effective means of exposure control. We talk about hearing all of these things, rotating people in and out and reducing that time that they spend in a potentially hazardous atmosphere.

Semi-annual evaluation. It's another expensive burden that takes time and effort from important tasks of everyday implementation of safety and health programs. To add to that, it is rare for our mining and processing to change. We do the same thing over and over day in and day out, even annual evaluations might be too much if you're not making changes, which we generally do not.

Recordkeeping. You have a silica control program, corrective action plans, lab results, medical records, et cetera, et cetera, et cetera. All of this takes time and resources to complete and maintain. It can be cost prohibitive especially, again, for the small operators.

Posting these records for 31 days also incurs some time and effort and exposes the operators to citations and civil penalties for making simple mistakes, I forgot to put this up, you know, whatever the case may be.

Respiratory protection. Prohibition of the use of N95 respirators. N95 respirators are an effective means to safely and comfortably filter dust particles. I think we

were even told it filters viruses, too, not quite, but I think so.

Where engineering controls are infeasible or ineffective, proper respirators should be allowed as long as they have the appropriate protection factor as OSHA does in their Table 1 and so on.

The requirement for full face -- and my understanding is that if you must wear a respirator during the time that the engineering controls are being put in place, being implemented, that you must wear a full face or half mask HEPA P100 for the full shift regardless of your exposure potential. Shouldn't that be changed if they're not being exposed at the time, only for dusty work? I may be wrong, but that's the way I read it.

Individuals wearing such respirators for such long periods are at health risk issues such as heat illness, dermatological issues and fatigue. Wearing a respirator all day is tough.

Medical surveillance. Providing all miners with medical exams is cost prohibitive and unnecessary. Now it says those potentially exposed to silica, but then they pretty much say everybody can be potentially exposed to silica so it's all miners.

Allowing only NIOSH certified clinics to conduct medical exams, why is that? There are a very limited

number of these facilities, and they are simply not available in many parts of the country, especially rural areas where most mining takes place.

As a contractor, this is another question, and I heard somebody else bring it up before, as a contractor performs work on mine sites only periodically, we'll work on Part 48 sites, occasionally, right? Employees will be placed on medical surveillance even when they are intermittently, rarely working at the mine and therefore defined as miners? How does that work for us, for the contractors that might perform work on mine sites. It is not really defined in the proposal.

Following OSHA's lead only miners shown to have prolonged exposure over the action level or who must use respiratory protection for extended periods honestly should be the candidates for the medical surveillance.

So there was one other thing that I caught in there. And I'm going to quote from your sampling methods. MSHA proposes to incorporate by reference ISO 7708:1995, which is the international consensus standard that defines sampling conventions for particle size fractions used in assessing possible health effects of airborne particles in the workplace and ambient environment.

Mine operators could use any type of sampling device they wish for respirable crystalline silica

sampling as long as it is designed to meet the characteristics for respirable particle size selective samplers that conform to ISO 7708:1995 standard and, where appropriate, meets MSHA permissibility requirements. But then MSHA goes on to state that only cyclone type samplers would meet MSHA's specifications for collecting samples.

There are certain issues with cyclone type samplers. The primary issue is if the sampler becomes inverted, the rejected material from the catch pod may be deposited back onto the filter media providing falsely elevated silica exposure level during analysis.

Miners may perform many tasks during their shift and some of which may cause movement of the sampler, including that inversion. This disruption is unlikely to be noted or reported by the miner.

Over the past several years, my company has been using the PPI, parallel particle impactor, type samplers without any issues and without concern of the sampler being inverted and contaminating the sample.

There is no reason to believe that this technology is inadequate. In fact, the question has been raised to OSHA regarding the use of the PPIs, which meet ISO 7708:1995 standard, and OSHA's response is this, and I quote.

"In its final rule for respirable crystalline

silica, OSHA noted in addition to cyclone samplers, personal impactors are available for use at flow rates from 2 to 8 liters per minute that have been shown to conform closely to the ISO/CEN convention. Therefore, a PPI, or any sampling device that meets the ISO/CEN particle size selective criteria for respirable dust samplers would be acceptable for respirable crystalline silica sampling by employers, even if it is not mentioned as an acceptable sample in Appendix A to the silica standards."

They work better. And we don't have to worry about them being inverted.

I work for a large company, Granite Construction, where we adopted the OSHA rule on respirable crystalline silica when it was implemented a few years ago. We adopted that rule across the board at our OSHA regulated construction sites, at our asphalt and concrete plants as well as our MSHA regulated mine sites. We're already onboard.

Why not have MSHA's rule more closely aligned with OSHA's rule thereby reducing confusion for those of us who must comply with both of them?

While Granite has good resources, they are not unlimited. And we have found that keeping up with the current OSHA rule can be challenging at times, even with

the great assistance of our insurance carrier.

This proposed rule adds even more restrictive and costly layers of regulation going beyond OSHA's rule and will create a much greater degree of burden, both financial and in resources, resources and finances that many operators simply cannot obtain and will effectively kill our ability to conduct business.

Additionally, the 45 day, now 60 day, thank you for the 15 more days, comment period for such a large and intricate proposed rule -- I've heard a lot of that today -- is completely too brief a time to study, I think, and digest and prepare appropriate and well-informed comments. We would respectfully request an additional 60 days to the comment period. Thank you.

MS. SILVEY: Thank you. I have a few. I am figuring them out.

MR. BURGESS: Okay.

MS. SILVEY: So let me first go to Table 1. That's not where I was going to start. And you've got some construction sites to which you have in place Table 1.

MR. BURGESS: Yes, ma'am.

MS. SILVEY: And you said you have some concrete plants. Are those your only mines, concrete plants?

MR. BURGESS: Yeah, we have a few concrete batch plants that we use on construction sites for primarily

white paving, like roadways, yeah.

MS. SILVEY: I guess, what I was going to ask you, the first question I'm going to ask you is on your construction sites, where you have Table 1 in place, now you said to me you have adopted Table 1 at both OSHA and MSHA.

MR. BURGESS: Yes. We've adopted the OSHA standard.

MS. SILVEY: OSHA, that's right, the OSHA standard. Okay.

MR. BURGESS: Yes, yes.

MS. SILVEY: But let's say -- let's talk about OSHA Table 1.

MR. BURGESS: Mm-hmm.

MS. SILVEY: How much sampling do you do there?

MR. BURGESS: At our mine sites or at the OSHA sites?

MS. SILVEY: No, at your -- at the construction sites.

MR. BURGESS: So we try to -- because the construction sites move, right, they finish the job.

MS. SILVEY: I know.

MR. BURGESS: They move on.

MS. SILVEY: I know that.

MR. BURGESS: We try to schedule those. And we

work with our insurance carrier, who provides an industrial hygienist to come out and assist us. I couldn't say exactly how much, but we try to hit each type of work, like, every other year and sometimes every year depending upon where we are at and what we have going.

It's really difficult to schedule those things, you know, unless it's a project that's ongoing, right?

Our mine sites, however is we do some of our internal, and we do -- our insurance carrier comes out every other year, right? So they do -- and then every other year sampling.

MS. SILVEY: Every other what?

MR. BURGESS: Year.

MS. SILVEY: Okay.

MR. BURGESS: We have a lot of sites. And so it's really hard to keep up with that.

MS. SILVEY: Okay. I'm intrigued by Table 1.

MR. BURGESS: Mm-hmm.

MS. SILVEY: That's why I asked you how much sampling do you do because honestly I don't have to tell you that if you are in compliance with Table 1 then there's the presumption that you are in compliance with the PEL.

MR. BURGESS: For those activities that are listed in Table 1, yes.

MS. SILVEY: For those activities, right, I should have added for those activities.

MR. BURGESS: Yes, ma'am.

MS. SILVEY: Now take a metal non-metal site and take the title of a miner who is a laborer, a mobile miner. They've got some mobile miner. And they may do five or six tasks in one day.

MR. BURGESS: That's true.

MS. SILVEY: And one of those tasks may be grinding, which may be a task under Table 1 or some other -- give me another one, another one under Table 1. But then they may go off and do another two that are not under Table 1.

MR. BURGESS: Mm-hmm.

MS. SILVEY: It's very likely at a metal mine/non-metal mine that that would happen.

MR. BURGESS: For a laborer, yes, ma'am.

MS. SILVEY: Laborer.

MR. BURGESS: Mm-hmm.

MS. SILVEY: Right. So I guess I'm just throwing that out there. And I'm wondering how that would logistically work. That's what I'm saying.

MR. BURGESS: For a laborer, it would be very difficult. However, for an equipment operator, it wouldn't be so difficult. For a plant operator, it would not be so

difficult because they are inside of a confined area, filtration, climate control.

MS. SILVEY: You took -- that's a good segue to my next point. Some of our high exposures have been, as you said, with those equipment operators -- operating what?

Some of them have been -- you know why? But now you did -- I did add on, I wrote down the equipment operators. But you added the most significant point, property maintained.

MR. BURGESS: Yes, ma'am.

MS. SILVEY: We found though where some of the highest exposures, they were not properly maintained. They had leaking valves, name some of those things they had.

MR. WATKINS: You got seals, gaskets --

MS. SILVEY: Seals.

MR. BURGESS: Yeah, door seals and such.

MS. SILVEY: And they had seals pushing out then. And we had some of the high silica exposures with those. Now theoretically, if you had those under Table 1 --

MR. BURGESS: Mm-hmm.

MS. SILVEY: -- I'm just saying that would be the presumption that they would be miners in that category would be under the PEL. So I am just -- all I'm doing is suggesting to you what we're finding -- and I'm talking about now it was our inspectors. And obviously you all

know -- I know some of you absolutely know because you probably get tired of seeing us. You know the frequency with which we come out to the mine sites.

MR. BURGESS: Mm-hmm.

MS. SILVEY: So I just -- I kind of put that out there for everybody to think about.

MR. BURGESS: We are required under other regulations to maintain those things as well, correct?

MS. SILVEY: That's true. But, you know, the point that I am making is that they are not maintained.

MR. BURGESS: That's another citation.

MS. SILVEY: Under another standard.

MR. BURGESS: That's a different area.

MS. SILVEY: Under another standard, you are required to maintain.

MR. BURGESS: That's right.

MS. SILVEY: That's absolutely true. Under the medical surveillance program, and I've heard this from a number of people, it would be cost prohibitive. Would you be specific in terms of giving us some of the -- at least if you can't give us the grand total of all the costs that are associated with the medical surveillance program, some of the costs that you see that would make it cost prohibitive?

MR. BURGESS: Currently, we do not perform

physicals on everybody.

MS. SILVEY: Yeah, but if you would provide that, I'm saying, in your --

MR. BURGESS: Oh, I would have to go look that up and see what it costs, but I do know there is substantial costs associated with it.

MS. SILVEY: Yeah. But see that's what I am telling everybody. When you say cost prohibitive and give it to me as a conclusionary statement, I would like for us to look at it. And it is to be persuasive to us, if you would be specific and provide specific data or specific information to back it up, even if it is only one aspect of the cost for the medical surveillance. That's all I'm asking.

MR. BURGESS: Okay.

MS. SILVEY: And I understand what you were talking about with respect to the sampler. And, you know, I've got to do a little side bar here.

And I thought -- I just want to make sure that -- but I think I know what you were talking about. You said not enough NIOSH facilities. We do not require NIOSH approved facilities just so everybody -- under the proposal. So everybody understands that. But I think maybe you were referring to the NIOSH B readers who have to read the x-rays.

MR. BURGESS: And there may be an issue with that as well.

MS. SILVEY: And maybe you were talking about there is not enough NIOSH B readers, NIOSH approved B readers.

MR. BURGESS: I don't know for certain, but, yeah, it could be. But I would think there is probably not one of them in every clinic as well.

MS. SILVEY: Yeah, I said, maybe that's your reference because I heard not enough NIOSH facilities, but I think that because the proposed rule doesn't require NIOSH approved facilities, but it does --

MR. BURGESS: I understand.

MS. SILVEY: -- require that the x-ray be read by a NIOSH B read -- approved B reader.

MR. BURGESS: That may be where the --

MS. SILVEY: That may be what your reference was to. And also you mentioned about the lab capacity. So the same question I asked on the cost for the medical surveillance. If you could provide specifics when you say there is not enough lab capacity to do it within this timeline, to do all your sampling.

MR. BURGESS: My thoughts there were that every mine in the country would be submitting samples all at once, and right now it takes several weeks to get your

samples analyzed. I can't imagine --

MS. SILVEY: I know, but see you were telling me things that you were thinking. And I could say to you, I'm thinking that this is going to happen. But I'm asking you for us to take it into consideration, as we design a final rule, if you could provide specifics. And if everybody and anybody in here has the same comment or the same concern, I ask you the same thing.

And remember now, this rule requires that you sample not every miner, but a representative sample, a fraction, a representative, same thing, a representative fraction of miners who may reasonably be expected to be exposed to silica. So it's a representative fraction of the miners who are performing that same task, generally that same task so you know that. Anybody have any --

MR. WATKINS: No. Are you going to mention --

MS. SILVEY: Okay. That's all I have. Thank you. Thank you.

MR. BURGESS: Did you want a copy of this?

MS. SILVEY: Yes. Thank you. He'll have more after --

MR. BURGESS: Thank you very much.

MS. SILVEY: Thank you. Our next speaker is Ryan Langton, PCA, also known as Portland Cement.

MR. LANGTON: Good morning.

MS. SILVEY: Good morning.

MR. LANGTON: Thanks for being here. My name is Ryan, R-Y-A-N, Langton, L-A-N-G-T-O-N. And it's still morning, right, so good morning.

Good morning. My name is Ryan Langton, and I'm speaking here today on behalf of the Portland Cement Association, of which I am a current member and past chair for the Occupational Health and Safety Committee.

I am also the Director of Health and Safety for Cement operations at CEMEX. I am a certified industrial hygienist and a certified safety professional and have worked in health and safety in the construction materials and mining industry for nearly 20 years.

I would like to first thank you all for the opportunity to share with the administration our industry's open comments and would also like to congratulate the administration on the development of this anticipated and important proposed rule. We all agree on the importance of purposefully protecting our mining workforces from the hazards of respirable silica.

The PCA and its members look forward to participating via written comment on the proposed rule, but directly the industry group felt that certain concerns would be best shared early through the hearing process.

We understand that MSHA has developed the

proposed rule as Assistant Secretary Chris Williamson recently stated at the last stakeholder meeting, in consideration of OSHA's promulgated respirable silica rule and the existing MSHA standard.

In reviewing the proposed rule, PCA also considers the existing standards mentioned as well as industrial hygiene, best practices and guidelines and realistic feasibility of workplace practices within the industry.

I would like to address four main subjects today in brief. First, the timeline for commenting and implementation issues, secondly, on quantitative exposure monitoring, thirdly, medical surveillance and then lastly on personal protective equipment.

With regard to the timeline issues while OSHA's respirable silica rules were not implemented for the mining community, PCA members must comply with the OSHA requirements because cement terminals are subject to general industry standards. Some members also use them as best practice references in mining operations.

When OSHA first proposed its respirable silica rule in 2013, the administration allowed five months of comment period plus three weeks of public hearings. This was followed by a 47-day extension.

When MSHA proposed its respirable coal dust rule,

the initial comment period was October 19, 2010 through February 28, 2011. MSHA gave two extensions and the comments were due on May 31, 2011.

PCA recognizes that comments from both general industry silica rule and coal dust rule lend themselves to addressing some comments during MSHA's rulemaking process. PCA and its members also believe important differences exist from the OSHA rules, in particular to merit careful comparison and review.

Additionally, there are certainly companies in the mining industry not familiar with the OSHA rules and will therefore have a steep learning and review period.

PCA and its members believe that the 45-day comment period and the 15-day extension that was offered on August 10th is insufficient for the industry to gather, vet, then review data, compile results and then communicate comments back to MSHA.

PCA requests that the review and comment period be extended another 45 days to align more with past rulemaking review periods.

Speaking of full compliance requirements, when OSHA issued its respirable silica standards, the agency allowed an extended and phased-in two year period for general compliance with all provisions, except medical surveillance, which was based on exposure level. OSHA gave

more time for industry to comply with the medical surveillance provision.

Another example of a regulation phased into compliance is the enacted beryllium standard which allowed a year and a half implementation and an additional two years for implementing engineering controls.

Even MSHA's respirable coal mine dust rule allowed for a phased approach and an 18-month implementation period for revised monitoring and sampling programs with the reduced standard effective 24 months after the effective date.

MSHA has proposed 300 days to complete baseline sampling in the silica proposal. This may not be feasible for many operators when we consider how many operators there are and how many sites each operator actively works.

For instance, within CEMEX, there are over 50 active MSHA regulated sites. And as the proposal currently stands, our interpretation is that we will complete baselines that involve two different sampling days for each site.

We also rent equipment as many other companies do and will have to compete for equipment, media, professional resources and timely analysis from the labs.

From experience, we saw such equipment challenges and analysis delays after the final OSHA silica standard

was implemented. PCA and its members recommend that MSHA consider similar phase-in timelines with both the OSHA silica rule and the MSHA coal dust rule.

With regards to quantitative exposure monitoring, according to the proposed rule, baseline sampling is required to be completed for any miner who is reasonably expected to be exposed to respirable silica at any level.

Language in OSHA's respirable silica rule requires the employer to assess the exposure of each employee who is or may reasonably be expected to be exposed to respirable silica at or above the action level.

The substantial language difference is important in that accepted IH practice recognizes creating similar exposure groups that specify individuals who may be at risk for exposure and those who are not at risk. It calls for exposure monitoring that focuses on health risks for an individual.

For reference, the American Industrial Hygiene Association's strategy for assessing and managing occupational exposures outlines these accepted best practices.

Some SEGs are included in OSHA's Table 1 for the construction sector's silica rule for job positions or tasks that when prescriptive engineering controls are in place, where data proven by NIOSH and OSHA to be

consistently effective at protecting the worker below the action level.

An example of such, an SEG in the cement industry would be haul truck operators and control room operators where the cabin or room is protected by specified engineering controls that would be checked by MSHA's inspectors.

In addition, miners may work at multiple job positions or tasks throughout a shift or work week. Along these lines, PCA would recommend consideration of firstly including a subparagraph in 60.12 or other appropriate location that allows similar exposure groups to be used while conducting baseline sampling.

PCA will draft language for consideration and submit during the public comment period.

Secondly, inserting guidance into Subparagraph 60.11 or other appropriate location that is like OSHA's Table 1 to assist mine operators and MSHA field inspectors in choosing feasible and consistent engineering controls.

Let's talk about objective data. The proposed rule lists sources for objective data that can supplement baseline sampling and be used to comply with the exposure monitoring provision.

PCA strongly supports including these alternative methods to achieve compliance with baseline and other

types of sampling. Many members implement existing monitoring programs using this valuable data, which has helped the industry understand where overexposures are and where PPE may be necessary.

Currently, as the proposed rule reads, only internal monitoring conducted within the last 12 months meets the definition of objective data. PCA supports the use of past monitoring results beyond the 12 months conducted by operators and also supports the use of objective data from industry-wide surveys to assist operators in complying with the baseline sampling requirements.

Specifically, PCA is planning an inhalation exposure survey to detect the level of respirable crystalline silica among similar exposure groups of cement manufacturing employees and will submit the results to MSHA either as part of our public comment or after the publication of the final rule in the Federal Register.

Medical surveillance, risk-based programs, unlike that which is included in OSHA's respirable silica standard, the beryllium standard and other similar standards that include medical surveillance such as the one established for lead, MSHA's proposed does not tie medical surveillance to exposure risk.

All these listed OSHA rules initiate medical

surveillance when the worker is or is reasonably expected to be exposed at or above the action level for more than 30 days in a year.

This is consistent with sound science and is significantly more manageable than requiring medical evaluations for all miners regardless of identified exposure risk levels.

PCA requests that consideration be given to aligning medical surveillance programs with a risk-based approach. PCA will elaborate on this issue in its comments.

Finally, personal protective equipment. NIOSH has long been the gold standard for identification of and recommendations for respiratory protection. MSHA references NIOSH's documents in the Agency's inspector guides, existing regulations and in the proposed rule.

The current edition of the NIOSH Pocket Guide to Chemical Hazards Section for respirable crystalline silica identifies the recommended respiratory protection to be any particulate respirator equipped with an N95, R95 or P95 filter including N95, R95 and P95 filtering face pieces, except quarter mask respirators. The following filters may be used N99, R99, P99, N100, R100, P100.

MSHA's proposed rule allows only the 100 series filters. This is a change to the surface mining industry

that uses N95s consistently and constantly as advised by NIOSH for many years.

MSHA states it believes air purifying respirators with the highest efficiency NIOSH classifications for particulate protection are most suitable in protecting miners from occupational exposure to respirable crystalline silica.

According to NIOSH, N95 respirators protect surface miner's health. PCA therefore respectfully requests that the requirement for use of high efficiency filters be revised to allow for NIOSH recommended respirators based on the published NIOSH studies and recommendations to date that recognize proper protection and support the continued use of the N95 filters.

In closing, I reiterate that PCA and its members look forward to continuing to assist MSHA in developing this key rule. We appreciate the time given here to discuss our initial concerns about time frame, monitoring, medical surveillance and PPE and look forward to participating by submitting written comments.

Finally, given the extensive and complicated nature of the proposed rule, we need more time in the comment period to provide meaningful and valuable feedback. And we again respectfully urge the Agency to extend the comment period by another 45 days.

As always, we are available for queries, conversations and any information we can provide. Thank you very much for your time.

MS. SILVEY: I just want to say, as I've said to others, that, you know, you all are sampling a representative fraction under this proposed rule, not everybody, not every miner. I'm just reiterating that, the sample requirement is for a representative fraction.

But then I want to go to Table 1. I know some of your operations. And I would like it, when you all give your additional comments for the record, that you would provide an example of how Table 1 would operate real time at one of your facilities.

And I should have asked that for the National Stone, Sand, and Gravel Association, too, if your member is still listening to the hearing. And I think it was Vulcan Materials who is also a member of the National Stone, Sand, and Gravel. So, Vulcan Materials, Lee Travis.

But I'm asking, if anybody representing the National Stone, Sand, and Gravel Association is listening, that when you all send in the comment, we would like Table 1.

Then, the mining industry, it's a little different from the construction industry, as you all know. And we would like, MSHA would like you to provide us with

information and data on how, in Table 1, how you perceive that a Table 1-type situation would operate in real time at one of your facilities, one or more of your plants at your mines.

For all of those who are suggesting that we include Table 1, if you would do that? Because, as you know, what happens under Table 1, if you are doing that particular task, the employee, but the employee has to be doing that particular task, and the employer has those specified controls in place and/or respiratory protection, if necessary, then there is a presumption that the employer is under the PEL.

But we would like it if you would provide us how you think Table 1 would operate in the mining setting. If you could do that for us, we would appreciate it.

We understand what you're saying with respect to medical surveillance and all your other comments. We understood.

Okay. Thank you.

The next speaker is Jeremy Hua, National Jewish Health.

And Jeremy is here, and you know, I had told somebody she would be here, Dr. Cecile Rose, but give her our best --

MR. HUA: Will do.

MS. SILVEY: -- when you go back to National Jewish Health.

MR. HUA: Thank you for the opportunity to speak here today.

My name is Jeremy Hua, J-E-R-E-M-Y H-U-A. I am an occupational lung doctor and faculty member in the Department of Medicine at National Jewish Health in Denver, Colorado.

In this position, I evaluate and treat miners with severe lung disease from exposure to mine dust. I'm also a doctor for the Miners Clinic Program at National Jewish Health, which is a medical screening program funded by the U.S. Health Resources and Services Administration. Our program has clinics in Colorado, Arizona, and Wyoming.

Besides medical screening, the Miners Clinic helps educate miners about their lung disease and counsel miners about federal benefits programs.

The Medical Director at the Miners Clinic, Dr. Cecile Rose, spelled C-E-C-I-L-[E] R-O-S-E, has been a leader in protecting miners for over three decades. She's, unfortunately, unable to be at this hearing. However, I speak today on behalf of Dr. Rose and all of the Miners Clinic team, three of whom are here with me today.

I also speak on behalf of the thousands of miners who have undergone medical screening in the Miners Clinic

Program over the last two decades, especially those who have died from silica-related diseases.

We'll be submitting more extensive written comments detailing our responses to the MSHA Silica Rule proposal, but I would like to highlight a few specific points.

First, we support the proposed Silica Permissible Exposure Limit of 50 micrograms per cubic meter, which aligns with the OSHA's 2016 Silica Standard and the NIOSH recommended limits.

The higher PEL of 100 micrograms placed workers at greater risk for preventable and irreversible illness. A lower PEL will help assure that American miners are better protected from devastating diseases.

Second, the proposed rule falls short by not specifying how long mine operators are given to implement corrective action if mine samplings shows levels above the PEL. There needs to be explicit guidance on the timeline that operators have to reduce silica dust to safer levels before mandating the reduce or stop production and/or face penalties. Leaving the duration and the penalties unspecified provides little incentive for mine operators to protect the health of the miners they employ.

Third, much has already been said about respirators. And I would like to reiterate concerns

highlighted by other clinicians with experience caring for miners, along with international organizations, such as the American Thoracic Society, who have provided testimony during these hearings.

We know and agree that engineering controls are substantially more effective than personal protective equipment for protecting miners from silica dust exposure. Requiring that miners continue to breathe dusty air for an unspecified length of time with nothing but a respirator is irresponsible.

I am not a miner, but I was an intensive care unit doctor throughout the COVID pandemic. And I cannot stress how personally difficult it was for my colleagues and for myself to wear a respirator through a single workday, even though we worked in well-lit, quiet, air-conditioned hospitals, spending much of our time sitting at computers or evaluating patients.

I urge anyone who believes that miners are adequately protected as long as they are given a respirator to try it out themselves. Try wearing a respirator in the summer heat, such as today, while just pulling your weeds in your backyard, let alone while working in a mine for an 8- to 12-hour shift. Respirators should not be relied on, especially for "temporary and non-routine work" for unspecified lengths of time.

Fourth, we applaud efforts to provide medical surveillance for metal and non-metal miners. That would more closely align with current screening guidelines for coal miners.

The medical science suggests that miners exposed to silica should be provided medical screening due to the potential for rapid progression of silicosis. Screening should be similar to that provided through the NIOSH Coal Workers Health Surveillance Program for Coal Miners. Metal and non-metal miners should not be treated differently.

And finally, to that point, there have been questions raised by groups at these hearings about how scientific literature focused on metal and non-metal miners does not highlight an increased risk for silicosis, unlike Appalachian coal miners, for example.

But I would remind all of the stakeholders that one of the reasons NIOSH and other research groups have been able to detect rising rates of severe lung disease in coal miners is because of programs like the Coal Workers Health Surveillance Program and other federally-funded medical screening clinics.

We have a saying in the medical field, which is, if you don't take a temperature, you can't find a fever. Without these data, we are blind and we are almost certainly failing to detect the real disease burden and

impact on the health of metal and non-metal miners.

Over the more than two decades of the Miners Clinic Program at National Jewish Health, thousands of miners have volunteered to undergo medical screening, including hundreds of metal and non-metal miners. A recent review of our clinic data shows that chest x-rays detected pneumoconiosis or dust-related lung disease in a quarter -- I'll repeat that -- chest x-rays detected pneumoconiosis or dust-related lung disease in a quarter of the metal and non-metal miners in our screening clinic. And our clinic represents only a small sample of workers in the metal and non-metal industry.

But without widespread, regular, high-quality medical screening and analysis of the findings, it is impossible to know how many metal and non-metal miners have irreversible, work-related lung disease. Accountability is important.

And using the data to help provide a safe haven for those who have developed lung disease is essential with medical removal protection options similar to Part 90 status for coal miners.

And to that end, I would ask one final thing. For those of you who may oppose these measures, please imagine your son or your daughter, or your sister or your brother. Imagine them walking out the front door tomorrow morning

for their first day of work as a miner. And ask yourself whether you would find their risk for irreversible, lifelong lung disease acceptable.

Thank you for the opportunity to speak here today.

MS. SILVEY: Yes. You trailed off at the end of your last statement. And what did you say?

MR. HUA: I will just say, ask yourself whether you find their risk for irreversible, lifelong lung disease acceptable.

MS. SILVEY: Thank you.

MR. HUA: Thank you.

MS. SILVEY: I want to just clarify two points.

And by the way, I've said this in other hearings. I would like to say that we appreciate the work of the National Jewish Health with respect to the Coal Miner X-ray Surveillance Program, and as I like to add, the healthcare, generally, that's provided to miners, coal miners, because sometimes that's the only healthcare they get -- from your program.

MR. HUA: Thank you for those comments, and I say thank you --

MS. SILVEY: And we do appreciate that.

With respect to corrective action -- and that's an important point in this rule -- note there are two

kinds of corrective action.

One with respect to the operator sampling program. And if the operator happens to sample, and that sample result is above the PEL, the operator has to take immediate corrective action.

Now, the proposed rule doesn't specify what "immediate" is, but, as I said at another hearing, "immediate" would take all the same meaning it has in Webster's Dictionary. And, I mean, if something is immediate, it means it has a certain urgency to it, immediacy to it.

And I would say that a lot of reasonable operators know that, if they take a sample, and the sample comes back above the PEL, that they need to take immediate corrective action to get that exposure below the PEL. And that is develop and implement additional engineering controls to do that. And that corrective action needs to be immediate.

Now, there's another kind of corrective action if the MSHA inspector happens to come. We're talking two different corrective actions. And if our inspector happens to take an MSHA sample, and that sample comes back above the PEL, then the inspector issues a citation and gives a reasonable time for abatement, in accordance with the statute.

And that reasonable time for abatement, and I was saying at another hearing, I can't say precisely what that time is. That depends on the facts and circumstances and conditions of that mine, of that situation. But what I can say is that, if it were a situation like that one we saw last week in excess of 500 micrograms of silica, the inspector is not going to give a long time for abatement, is he -- or she?

MR. HUA: No.

MS. SILVEY: No. So, that's what I can say. And I'd like to make sure everybody understands those two different types.

And I did clarify in my opening statement that, when the inspector comes in, and the operator is also required on the operator sample to record that overexposure, and that if the MSHA inspector looks at that record, that MSHA inspector can issue a citation, based on that overexposure.

So, I just kind of wanted to make sure those two things were clear. Okay.

MR. HUA: Thank you, Ms. Silvey.

MS. SILVEY: Okay. Thank you.

And next on our list, we have Kathryn McMahon, virtual, with Conn Maciel Carey -- I assume a law firm. But she spoke earlier and said that she had ceded her

time, unless there was anything else you wanted to say.

Okay. And our next speaker will be Marshal Cummings, United Steel Workers.

MR. CUMMINGS: Good morning.

My name is Marshal Cummings, M-A-R-S-H-A-L C-U-M-M-I-N-G-S. I'm with the United Steel Workers, Local 13214. I'm a Chief Steward, a Safety Committeeman, Miners' Rep, as well as, recently, having completed the train-the-trainer course put on by MSHA and paid for by my local union.

My most important titles, however, are husband and father. I work at a trona mine in southwest Wyoming. I was supposed to present with another Miners' Rep from my Local, but out of fear of retaliation, as well as frustration, he decided not to testify today.

Thank you for the privilege to speak today.

Being the predominant labor union in North American metal and non-metal mining, representing approximately 20,000 miners in the United States, the United Steel Workers appreciate the work that MSHA has done to develop a proposed rule on silica to reduce our exposure.

Our union is supportive of the proposed rule for miners who are, or may be reasonably expected to be, exposed to respirable silica, and we believe the rule can

be improved upon. However, we should not let perfection stand in the way of progress, as all miners need this rule now.

I worked in trona for 17 years. My first day of work in a trona mine was five days before I walked at high school graduation. I worked at my current employer for 13 years -- two years underground, 11 years on the surface.

I was first notified that I was exposed to high levels of silica while working underground cleaning belt spillage on a scoop in 2011. I never heard a level of exposure, nor am I aware of any practice limiting exposures today.

I've been in the service since 2012. I worked in a coal-fired powerhouse to supply steam to various plants, as well as generating electricity, for the last 11 years.

Coal dust revealed itself to be an issue early in my powerhouse career. I expressed my concerns to the immediate supervisor, hoping this would take care of the issue. It did not. I exploited this concern up the corporate ladder, and still no improvements.

Coal dust became such a concern to my coworkers and myself, on multiple occasions we stopped the job and every crew member placed their locks on the system in solidarity, refusing to expose ourselves to this hazard.

The MSHA hotline has been called several times,

and high negligence as well as S&S citations have been given, but, then, reduced after the company fought them.

These violations resulted in a root-cause analysis meeting. At the conclusion of this meeting, the union was of the understanding considerable resources would be put into the dust issue; procedures would be written and expected to be followed when extreme dust presented itself, as well as existing dust suppression that had been neglected to be maintained and made a priority.

Myself and the union brothers had alerted MSHA of the issue, resulting in the citations, and volunteered to compose a presentation on the hazards of coal dust and deliver it to all employees in our Department. That's what's on the screen.

Only two frontline leaders and one representative from Safety have sat in on this presentation. No one above that on the company's side has.

When I delivered this presentation, I had videos of hazards we have encountered. In order to embed them in the presentation, I posted them on a private YouTube channel.

After the Safety representative, who I believe has good intentions, brought the hazards up to management, he was instructed to make me take the videos off YouTube

or I could face discipline up to termination. Nothing from management on the hazards identified.

If we could flip through these really quick, I'll tell you when to stop.

So, next. Keep going.

Next. This is me demonstrating that pneumoconiosis, like the gentleman spoke before me, is on the rise. We should be more strict now that we have more knowledge.

Keep going, please. Next slide.

This is talking about pneumoconiosis.

Next slide. This is where I want it to be.

The union has put on a sticker campaign to raise awareness and let employees know who are new to the area that there's a real danger, not only respirable, but explosive. These are the stickers that the union paid for and we handed out. I've handed out about 400 of them, and hopefully, I can get the rest to pass them out to everybody.

This has not solved the issue, nor brought significant improvement. Last Monday night, extreme dust again presented itself, due to lack of suppression and collection. Again, a coworker shut the job down and alerted MSHA of the conditions.

The MSHA inspector conveyed to my union brother

that, due to there being no float dust standard and the fact that he didn't specify it was a safety and health issue or an explosive issue, he couldn't issue any citations. This investigation is ongoing,

Under direction from union leadership, we are encouraged to work with the company on not only this, but all matters concerning safety and health before escalating to the MSHA hotline.

How long can we in good conscience expect to expose our union brothers and sisters to this health and safety issue? The answer is: no longer.

After 11 years of working with the company and getting nowhere, as Chief Steward, I filed two grievances that are displayed on the PowerPoint now.

This is the first one that is a grievance that stemmed from a study that the company put on, where employees working in the cold pressure are exposed to 150 micrograms per cubic meter of respirable silica. And since there's nothing really I can do about it, this is the avenue that we're taking now.

If we can go to the next slide, please?

Next slide again.

Next slide, please.

Next slide, please.

Next slide, please.

This is a video of coffee creamer on the right that's just a puff that explodes. I don't think it will play.

Go to the next slide, please.

Next slide, please.

This is the slide where in my original presentation I had embedded the YouTube videos that I was instructed to take down. You can only watch them if you're on the company internet because I posted them in a file on there. If you would like to see them, I do have them saved after.

Next slide, please.

This is the only hazard I could -- or the only standard I could find, and I couldn't find it until I did the train-the-trainer class with representatives from MSHA. One of the instructors showed me this. So, I put it into the presentation.

In the videos, you can see that there is an ignition source and there is definitely the potential to have multiple fatalities at our place.

Next slide, please.

This is the second grievance I was talking about. It's a sample that was conducted by the company that reveals that, at the bottom right in the table is either an explosive go or no-go. The explosive was a go. But

since we're in metal/non-metal trona, there is not the same standards that coal has. So, MSHA's hands are tied and we'll see where the grievance process goes this way.

To get my hands on these two samples, I drafted a Request for Information and I had difficulties getting them from us. I had to request once. The deadline wasn't met. I had to get union leadership involved. My union president went up there and said, "How far do we have to go to get this?" HR, then, responded that we can see what we're exposed to. So, that's I contracted these.

Like I said, both requests had exceeded the dates on the request to be handed to us. I asked for the MSHA-approved plan going forward. That's to keep our workers safe. They have lapsed on both deadlines that I requested, and instead of trying to go through the National Labor Relations Board, I had union leadership; he's meeting with HR trying to discuss it, and hopefully, we can get involved with a plan to go forward.

I went over the grievances.

The explosive environment is due to the lack of suppression and collection. There is not enough PPE in the world that will save any of us from an explosion that is a potential hazard.

The second grievance, like I said, is pertaining to silica that is over 150 micrograms per cubic meter,

three times the proposed limit that we are discussing today.

If companies will not provide miners with a safe working environment, I hope and expect MSHA will.

My union excused me from work today; paid my wages, and is reimbursing me for 12 hours of drive time, as well as a hotel room for my family and me, just so I could give you my testimony today. I hope that speaks volumes as to the stance the United Steel Workers has taken on this issue.

In my PowerPoint presentation, I briefly flipped through a slide pertaining to a hierarchy of controls that was shown.

Will you go to the next slide, please?

I'm sure you're all familiar with it. Not only am I here presenting my reasons for why we need to implement this new standard, I'm asking we do it through the hierarchy of controls.

In today's America companies will not do what is best for its employees' safety and health. They will only do the minimum required of that and which has least affected their bottom line. If it's cheaper to buy everyone a mask and fit-test them once a year, they will do just that.

I'm here asking that we do this the right way.

PPE is one way to reduce exposure, but we must not race to the bottom of the hierarchy. We must not rely on PPE. That is the least effective of all the controls available to us. We all know not everyone is going to wear a cumbersome, hot, invasive mask, like the doctor just spoke to.

There are technologies available to us that would drastically reduce our workers' risk and exposure to silica in America. We must act now to set the standards that will most protect our workers immediately, as well as far into the future.

I have shown you the steps we have taken with the support of the United Steel Workers -- over a decade of work. We've tried and tried to keep our health and safety of the utmost importance.

The Miners Act of 1977 states, "Congress declares that the first priority and concern of all in the coal or other mining industry must be the health and safety of its most precious resource -- the miner."

At the beginning of my presentation, I was establishing my credibility by listing my titles. I ended with my most important being husband and father.

Saturday, I watched my oldest of three play his first football game. It was one of the proudest moments of my life. I work with him on my days off, just the two of

us on the field. I had an undefeated state champion season. I would love to be able to do that with his children someday, but it may be too late for me.

My exposure to respirable dust may have already taken from my later health in life. My grandfather just last month hiked up a canyon he was responsible for his Forest Service agent duties on his 90th birthday. It may be too late for me to follow in his footsteps.

Silica may cause silicosis in a matter of days. It is a carcinogen. Silica is a silent and invisible killer.

Unless we protect our miners with strong provisions through a medical surveillance program, we will not know the damage that we've already been handed.

I've displayed all I've done in this fight for miners' health and safety.

Aw, I just messed it up.

Anyways, all the work I've done has not reached an acceptable place for me. With the stroke of a pen, all of you can do that for us.

In closing, our union thanks MSHA for considering these and other comments on the need for a new respirable silica standard. We urge MSHA to act quickly to propose its standard to protect all miners.

Thank you for your time.

MS. SILVEY: Thank you.

And we did hear from the Steel Workers in Beckley.

I just have a couple of comments.

That 150 micrograms, and you said nothing you can do about that. But there is a PEL in metal/non-metal of about 100 micrograms. So, did MSHA know about it? Was that communicated to MSHA, that exposure of 150 micrograms?

MR. CUMMINGS: I have not communicated that MSHA because the person who has been championing the fight, that didn't come today, did, and I'm unaware of where that has ended up as far as any citations issued or anything along those lines.

MS. SILVEY: Okay. So, you don't know about whether MSHA knows about that?

MR. CUMMINGS: All I know -- I don't know if MSHA knows. I know that the company said, before they take another sample, they would like to implement some sort of collection and suppression or other controls --

MS. SILVEY: Yes.

MR. CUMMINGS: -- to try to get us under control.

MS. SILVEY: Okay. Okay. We'll follow up on that.

The second thing I was just going to ask you, and I mean, I probably shouldn't; if you want to respond, you can. Have you had any x-ray?

MR. CUMMINGS: When I first got hired on, I got an x-ray, but we've gone away from that. We had an x-ray machine at Medcor which is onsite, and I'm not sure if it's cost or what has led to that no longer being in practice where I work--

MS. SILVEY: So, you haven't had it, not since you first were hired? Okay.

MR. CUMMINGS: No.

MS. SILVEY: Okay. Thank you. Thank you.

MR. CUMMINGS: Thank you.

MS. SILVEY: Okay.

Our next speaker is Brandon Crum, virtual, United Medical Group.

Is Brandon Crum --

MR. CRUM: I am here. Can you guys hear me?

MS. SILVEY: Yes.

MR. CRUM: My name is Dr. Brandon Crum, B-R-A-N-D-O-N C-R-U-M. And I'm a Board-certified radiologist, a certified B Reader here in a clinic in eastern Kentucky, in Pike County, which is right on the border between Kentucky, Virginia and West Virginia, which most people would say it is central Appalachia, which is one of the worst areas of black lung that we're seeing right now, not only in the United States, but maybe in the world.

To give you a little bit of background of who I

am, I was a fourth-generation miner. Not by choice, I got into some trouble when I was 14. My daddy was the boss, so he put me to work on the outside picking rock, and then, I worked all the summers and the weekends and holidays until I was about 21 years old. But everybody on my mother's side and my dad's side were all miners.

The clinic here in eastern Kentucky is a primary care clinic, but we do a really large amount of black lung evaluation. We have imaged and evaluated thousands of miners over the last decade. And in 2016, this is the clinic that was evaluated and released a report of 60 cases of complicated black lung at this single clinic in 2016 over about an 18-month period.

To kind of put that in perspective, in the decade of the nineties, there was only about 31 cases of complicated black lung that had been reported for the entire decade. So, the 60 cases in 18 months at this one clinic was a significant amount of black lung that we saw here.

Since that time, we are right at 700 cases of complicated black lung here at this clinic. It's not a medical group, and that's individuals that have been imaged at this facility. Not that I read in other states. So, it is a large amount of complicated black lung that we have seen here in central Appalachia.

On top of that, we released a study just a few months ago that showed over 30 percent of our miners continue to progress and worsen after they had left dust exposure and after they had stopped working, which is a significant research project that was held up for some time (audio interference) secondary to COVID.

And on top of that, I have just reviewed an accumulated data from 2022 at this clinic, and that data will just be heard publicly right now in this instance.

And there was a very special group of individuals of miners in this last year. And it was a group or a cohort of 877 individuals, which is a sizable number of miners, and almost all of them had mined coal in central Appalachia. Now, these were not only underground miners, but these were also surface miners, especially things like highwall drillers, individuals that worked preparation plants, around crushers. So, there was a mix of both underground and surface varieties of these individuals.

We also were able to obtain probably the most complete dataset of miners that we have ever performed at this clinic. And we are probably one of, if not the biggest clinic, to evaluate Appalachian miners in the world.

Out of those 877 men, we found 191 cases of complicated black lung. To put that in kind of perspective

for people who may not know, complicated is the worst form of black lung, and most people would consider that the worst, most aggressive occupational lung disease in the world. That was roughly, about a 22 percent complicated rate, which was unheard of, and it's still shocking to have that much complicated disease.

We broke that down even further. And our complicated disease is broken down into A, B, or C complicated. And what that means is that is the size of one or all the pulmonary masses in the lungs or the fibrotic masses that add up to certain measurements with in the lung.

So, A is kind of their least severe; Bs are in the middle, and C is the most severe. And B and C are masses of pure fibrosis which are over 5 centimeters in size, or as big as the entire right upper lung.

Of those 191 individuals, 82, or approximately 43 percent, were B and C complicated disease, meaning they were not just A. They were the most advanced forms of the complicated disease that we saw.

We broke that down even further and evaluated those 191. And of those 191, we had about 23 that had already been evaluated for transplant evaluation. Those 23 individuals have either been evaluated by transplant facilities and were denied or were not candidates, or in

the transplant process, as we speak, or they have already been transplanted. That is a massive amount of individuals that have been transplanted or in the transplant evaluation, as we speak. Currently.

Some of the age groups for these complicated disease on the As, Bs, and Cs, all of our youngest individuals were in their younger 40s. They were diagnosed with this disease, and that's when they were imaged at this clinic. So, they were probably complicated at least years before that. Usually, we were dealing with 44- and 42- and 46-year-olds who were our youngest individuals measured in these three levels of complicated black lung.

Being from central Appalachia, we can talk about all the numbers and percentages, and I think all of those are very, very important. And I applaud MSHA for their effort to address the silica component of this disease. And without a doubt, the silica is a major one of the contributing factors in the severity of this disease that we're seeing.

But there is more of a personal -- and I think the young man that had the courage to come up and talk just before me speaks of that courage and speaks of that importance, to talk about the family and how it affects the young.

You know, our younger miners in their 40s and 30s

have a lot of family that, unfortunately, are hindered or affected by this disease. We have a significant amount of children. We have our older miners that are raising their grandchildren that are significantly affected by this disease in central Appalachia on top of poor communities in general.

These effects on family, we see a lot of individuals that do not go on to college. They do not go away from this area to better themselves and better their communities, because they stay home and they take care of the affected men with this disease. And I think that is a ripple that affects generations, or has affected generations, in this area. So, there is a major family and social component to this disease if you add it on to just the statistics and the number that we talk about.

Having said all that, I seem to disagree with most of my colleagues in the black lung field, and that is for mask usage. And I would like to address that. The men that I evaluate, and especially the men that are still working, I recommend to them to wear a mask. And I recommend for them to wear a mask even within normal PELs.

So, it is, in my opinion, we should use every aspect that we have to ensure a safe environment for these men, including engineering controls and mask usages, especially when they are out of compliance with the silica

standards. But I would go as far as to recommend routine mask usage on our highest-risk individuals.

And our highest-risk individuals, as demonstrated over the last eight years in this clinic, underground are our continuous miner operators, our pinner men or roof bolters, and our haulageindividuals, such as shuttle haulers, pigs, or anybody behind or around that miner.

On the surface, our highest-risk individuals are going to be our high wall drill operators, our auger men, our thin-seam miners. And anybody that's around crushing mechanisms are our highest-risk factors.

And I know. I was in the mines. I was on the table. I know these masks are not great to wear. They can be uncomfortable. They can be hard to breathe through. But I can guarantee you they are not as hard to breathe through as complicated B and C black lung.

So, I would urge that additional, and let me make this comment: properly functioning respiratory protection. I think those masks need to be evaluated if we're going to ask them to wear them and make sure they are properly functioning for these men when they do decide to wear them.

In closing, I would be cautious on allowing operators to sample themselves. If I had all the widows and all the family members of the black lung patients that

are suffering from this disease that have went to transplant or have died from it, and I told them I was leaving it up to the operators to take care of them, I think that would be a very sad group of individuals for me to say that, and there would be little hope in their eyes if that statement was given to them.

I would also like to advance a little bit on health maintenance. That has been discussed today. I've listened to the whole thing today, and the only time that I got to listen to the whole program, but I can tell you 100 percent that the health monitoring and the protection and the health surveillance has been a large asset to our population. Screening individuals, checking chest x-rays, checking pulmonary function tests, without a doubt, in my experience over the last decade has saved people's lives.

We have found people that have complicated disease. We have found people at a higher risk for the disease. We have either got them out of the dust or we have got them to a safer level of dust. And without a doubt, a health-saving proposition is to implement the health maintenance.

We're in a very rural clinic here in eastern Kentucky. We had no problem teaching people to do that kind of testing, and we had no problem reading it and getting it out to the individuals with that kind of

testing even.

In closing, I think the gentleman said it the best. It's the decisions we make -- we should make as if that is our children or our grandchildren going down into these mines or working on the surface. And I think if we do that, then that's the best possible outcomes that we could, hopefully, generate from it.

There's a nice picture of MSHA's mission statement on the website: it's got a miner walking down the road with those two kids and they're holding his hand and we've got an arm around one of them. And unfortunately, those fathers of those kids, we are losing way too many of them here in central Appalachia. And the same problems that are affecting us will, inevitably, spread to the rest of the country if we do not maintain these safe working conditions.

I appreciate you all's time and I appreciate you all listening to me. Thank you very much.

MS. SILVEY: Thank you.

And I have one question before you go. And your comment that you made relative to why you wouldn't -- I can't repeat exactly what you said, but it was something about you wouldn't leave something to operator sampling. Could you tell me the basis of that comment?

MR. CRUM: Well, I think we can just look at the

evidence in central Appalachia here over the last two to three decades and the rates of complicated black lung and the rates of deaths and the rates of transplants. It would be hard group to look and see that they had a good enough record to put the trust in our men and our families for that kind of job or task.

MS. SILVEY: Okay. Because I want to reiterate to everybody that this rule -- I mean, this is a silica rule. And so, this is not a coal dust rule. You all know that. It is coal dust to the extent that -- and I explained all that. But MSHA's sampling program will not change. So, I want to underscore that to everybody.

Thank you very much.

MR. CRUM: Thank you.

MS. SILVEY: Our next commenter is Wes Addington, Appalachian Citizens' Law Center, and he's virtual.

Wes Addington?

MR. ADDINGTON: Yes. Can you hear me?

MS. SILVEY: Okay. Yes.

MR. ADDINGTON: Can you see me?

MS. SILVEY: Yes, we can see you.

MR. ADDINGTON: Okay. Thank you.

My name is Wes Addington. That's W-E-S A-D-D-I-N-G-T-O-N. I'm the Executive Director of Appalachian Citizens' Law Center, based here in Whitesburg, Kentucky.

For over 22 years, our organization has represented coal miners and their families on mining safety and health issues, including cases for working miners that have been diagnosed with black lung, and for miners' wives' and victims' claims after they had left the industry.

ACLC will be providing specific written comments before the comment period is over. However, today, I would like to focus, more generally, on three things, one of which Dr. Crum just covered pretty extensively, so I won't have to use as much time.

And, No. 1, What is MSHA's mandate here and the history of black lung disease in the United States and how close were we to eradicating the most advanced forms of it.

No. 2, where are we today in the growing amount of disease the coal miners and their families are facing?

And, No. 3, MSHA's proposed rule and what the agency says it will do in response to current and future coal miners and the amount of dust that they will have to breathe.

So, No. 1, what is MSHA's mandate here? Well, the Secretary of Labor made six standards which most adequately assure on the basis of the best available evidence that no miner will suffer material impairment of

health or functional capacity, even if such miner is regularly exposure to the hazards for having dealt with by such standards for the period of his working life.

The law clearly requires that a schedule must be cited, producing the average concentration of respirable dust in the mine atmosphere during each shift for each miner in the act of working is exposed to a level of personal exposure which will prevent new incidences of respiratory disease, and to further develop such disease in any person.

The purpose of the law -- and I did not see this anywhere in the materials with the rule -- the purpose of the law is to provide to the greatest extent possible that working conditions in these underground miners are sufficiently free of respirable coal mining dust concentrations in the mining atmospheres to permit a miner to work underground during his entire working life without incurring any disability from pneumoconiosis or other occupation-related disease.

So, in the face of high rates of black lung disease in the 1960s and early '70s, where did those mandates get us? Well, by the 1990s, the United States of America almost entirely eradicated the worse form of the disease, complicated black lung or progressive massive fibrosis.

And as Dr. Crum noted, during the entirety of the 1990s, the Mine Office's Coal Worker Health Surveillance Program only identified 31 cases of progressive massive fibrosis nationwide. And the cases of simple pneumoconiosis were also very drastically reduced.

So, it comes to the second part of my comments. So, where are we today? Well, Dr. Crum has kind of laid out a good bit of it, especially here in central Appalachia.

Over the last few years, complaints and individual complainants in West Virginia have diagnosed hundreds and hundreds of miners with complicated pneumoconiosis. Researchers have now actually said we're the epicenter of one of the largest industrial medicine disasters that the United States has ever seen. And it also said, "We can think of no other disease in the workplace in United States in which this would be considered acceptable."

And those comments were made right around the time that Dr. Crum described identifying the 60 cases of complicated pneumoconiosis years ago in his clinic. And so, he just laid out for you in the past year information that I just find it's saddening; it's infuriating; it's unbelievable in the year 2023 that this can be happening in the United States of America.

Miners in Category B and Category C pneumoconiosis, you know, we're talking about one-third of their lung is affected and it's just one big area of disease.

We know that in the 1990s we almost never heard of it. It was rare. It's unbelievable. It's, frankly, unbelievable.

So, No. 3, what does MSHA say the proposed rule will do to respond to the out of control problem, but that's totally preventable by wearing masks. Well, a preliminary risk analysis of the rule is that it will reduce coal miners' risk of death due to exposure to silica by 1.7 percent. That's only 63 deaths that are avoided over a 60-year period.

And what that means, according to the MSHA data that's in the preliminary risk analysis, is that many thousands of deaths won't be avoided. MSHA's numbers are 2,202 deaths. So, essentially, the rule will allow, according to MSHA's own data, at least 97 percent of these deaths to continue to occur.

And this minimal reduction in death in the disease isn't even in the same universe of MSHA's mandate to make it so, underground mines are sufficiently free of several coal mine dust concentrations in the mine atmosphere to permit a group of miners to work underground

during years of their entire working life without incurring any disability from pneumoconiosis or any other occupation-related disease, much less the disease so severe that it causes death.

And as we know, by definition, complicated pneumoconiosis, progressive massive fibrosis diagnosis means that the miner is totally disabled due to the disease or that the miner's death was due to pneumoconiosis -- right in the law by definition.

So, I was looking back at some of my comments during the 2011 hearing on the coal dust rule in Prestonsburg, and at that point, I was giving the examples of the very worst cases, you know, the coal miners that we had with complicated black lung, trying to make the point that, with how much dust these miners are breathing, it's so necessary because not only are they developing disease, they're developing very serious disease. And here are a couple of examples we had in our office.

If I did that same thing today, we would be here all day because those numbers are in the triple digits just in my little, nonprofit organization.

So, you can hear the urgency in Dr. Crum's voice, based on his comments. I hope you hear the urgency in my voice. But I can tell you it doesn't compare to anything of what these miners and their families are going through

here in these communities. They're dying and these are very difficult deaths. They breathe a little less, and a little less, and a little less until that's the end, and the family has to watch that happen.

And to say that we're only going to reduce deaths over a 60-year period by a few percentage points, it's just unacceptable.

And just to end here, the sampling like Sam Petsonk mentioned during the hearing in Beckley, there's no really routine sampling set up, operators doing baseline sampling, if that passes muster, they get to decide if they want to do any more sampling, and kind of getting to Ms. Silvey's request about cheating on dust sampling.

While the hearing was going on today, I just pulled up the Courier Journal's story back in 1998 when I was in college, it's a quarter of a century ago. And they interviewed 250 miners, and nearly every miner of that story said the cheating on dust case is common. And I can tell you our clients would say the same thing on the Appalachia. The comments from the miners, effectively, show how common it is. I mean, this is well-known.

And I know you want specifics, and my office has tried to provide those in our written comments, in addition to what is public knowledge already.

One thing I noticed, when this occurred in our story, one of the miners I represented died from black lungs and others are now currently disabled due to it. So, you know, this cheating has very serious implications. And anything we've learned over the years, it is we cannot trust the entire industry to regulate itself, to test itself, and to keep miners out of dusts.

And the numbers that Dr. Crum has stated are so beyond the PEL that, certainly, MSHA can't just rely on the industry to provide that routine sampling, if they decide to do it.

And I'll just close to say that, you know, based on some of the things I've read from the other hearings, some of the things I've heard today, it really seems like this rule really needs to be bifurcated or coupled between coal and metal/non-metal. It just seems that the way it's currently constructed, you're addressing a lot of issues in metal/non-metal, while the real benefit to coal miners and the crisis that they're currently facing here in this part of the country is just not sufficient.

So, like I said, we will provide additional written comments before the comment period is up.

But thank you for allowing me to speak.

MS. SILVEY: Okay. Thank you.

One of the things I want to say, I think this is

the second time I've heard about the benefits ascribed to the reduction in lives prevented for coal miners. But let me say that this rule goes through a review process, as all government rules do.

And we issued a coal dust rule in August of 2014 that fully took effect in 2016. In that, where we wrote the PEL and did a number of -- got rid of averaging and gave a new definition for normal production, and there are a number of things in that improved dust rule. In that improved dust rule, we also computed benefits.

So, therefore, when we did this rule, as we go through two of the same organizations for reviewing, we do not -- you cannot -- let me put it this way: you've got a certain amount of -- you cannot double-count. You cannot count the benefits twice.

And so, that's why the benefits for the reduction in the deaths ascribed to that, those are projected deaths. Our best estimates for the coal miners were fewer than, as you all see, than the ones for metal/non-metal mines. But I wanted to make that clarifying point.

And at this point, is there anybody -- that being everybody on the list -- I'm told we have Michael Parris. Is this right? Are you speaking?

MR. PARRIS: Briefly.

MS. SILVEY: Is it Parris?

MR. PARRIS: It is.

MS. SILVEY: Okay.

MR. PARRIS: My name is Michael Parris, M-I-C-H-A-E-L P-A-R-R-I-S.

Thank you very much for the opportunity to be here today and to provide these comments.

I've submitted written comments late Friday evening. I'm not going to read this into the record, much to the benefit of everybody here. I'll be brief, some quick points.

I believe that the agency should also include in the rule an upper action level. In other words, once a company receives a sample result that's above the PEL, sufficiently above the PEL, that they have to withdraw miners at that point. Whereas, under the current rule, if MSHA issues a citation, there is still not a withdrawal requirement unless the agency also issues either a (b) or a 104(d) citation or order.

And, for instance, you were talking recently or this morning about the miner that received a 500-milligram exposure --

MS. SILVEY: Microgram.

MR. PARRIS: Microgram. Excuse me. Yes.

I would argue that an operator who received a sample result at that level should be required to withdraw

the miners from the affected area until the corrections can be made without having to wait for MSHA to issue a 104(d) or a (b) order. There should be an obligation immediately to withdraw miners, and then, whatever corrective measures are required.

I would not set it at 500 milligrams. I would set it at 100 milligrams for the purpose being that, for one thing, I don't know how easily the agency could sustain a 104(d) citation issued at 100 milligrams, while, on the other hand, under the new regulatory regime, an operator who receives a 100-milligram exposure reading will have done so, ostensibly, after already having done baseline sampling and the additional operator-required sampling, which, if they had received measurements up to the 100 point, they will have already, supposedly, implemented additional controls or perhaps administrative control, whatever, and yet, still are reaching to the 100-milligram level.

All of the increases in black lung, and possibly even silicosis, have been observed under a testing regime that was established as a 100-microgram PEL. If, under the new standard, you're still receiving samples that are 100 micrograms or above, then you really should stop what you're doing and figure out exactly why that is occurring, without miners having to work in that environment and

potentially be exposed to even greater concentrations that are undetected because the excursions are so brief in time.

So, that's the first point. I think that you should make an upper action level of 100 micrograms. That's low, and my expectation would be that that would be very controversial, but I would think that it's a better idea to go ahead and write that into the rule than have to race into court every time you issue a 104(d) citation or order, and run the risk of having the court issue a ruling on the standard that you published.

That 100 microgram is not an unwarrantable failure to comply with the standard or 200 or 300 or 400. Once you start getting those kinds of rules from the Commission or from Commission ALJs, it's going to become very difficult for you guys to enforce withdrawal orders at levels below whatever the court has decided.

Whereas, you can avoid all that controversy simply by writing an upper level into the rule. And when operators are dissatisfied with the basis for that, they have -- what? -- 60 days to go to court to challenge the rule. But, even then, under the severability provisions, they still retain its authority to issue 104(d), 104(b) orders, as appropriate, based on the evidence that the inspector observes at the time. So, in my opinion, you

would be making your enforcement job much simpler to simply put an upper level into the standards themselves.

In regard to how the silica rule is going to be applied to contractors, I'm concerned that contractor employees could end up slipping through the cracks here; and that, if a mine hires contractors for a specific job at a regulated operation, frequently, contractors are engaged for jobs that take five days or less in order to perform. And consequently, the only training that is required, once they come onto the mine site, is hazard training. And hazard training, typically, covers way more hazard training.

That could be inadequate, and operators would tend to require their contractors who come in to obey the law, but I don't know that operators, when they bring contractors in, go the extra mile and confirm that the contractor employees aren't somebody that they just fired three weeks ago or a month ago, or didn't hire, for whatever reasons.

And there has to be some way of assuring that contractor employees who come into an operation and work for less than five days have actually had the training that they need and are actually aware of what their rights are and what the risks are that are associated with the location where they're going to be working and the job

that they're going to be doing while there.

So far as the surveillance program is concerned, 30 days is a pretty short fuse on a new-hire. I've worked in labor employment law since 2000 or so. And one thing that I have observed among industrial worksites is that these jobs aren't for everybody and they can have epic levels of employee turnover.

That's why many of these facilities and employers have a probation period. You know, you work for 90 days. Even if you are subject to a collective bargaining agreement, if you violate particular work rules, or whatever, then you can be fired immediately on the spot. You're gone.

And so, you can have, within the first 90 days of hiring a group of employees, you could have quite a few of those employees simply not be appropriate for working in the high-risk occupation in a dangerous field like mining.

It's not for everybody. You really have to be a fairly mature employee to walk into any mining operation and work responsibly. Because, if you don't, then your irresponsible or inattentive can hurt your fellow workers. And so, there is a certain segment of employee who simply isn't ready for that. And so, typically, they will wash out fairly quickly in the mining environment, whether they just lack the diligence, or whatever, to work safely.

So, if mines and other operations are required to make the extent of scheduling and having medical surveillance for employees who simply are going to wash out within 60 or 90 days, then that's really -- it clogs up the surveillance system, for one thing; plus, you schedule miners for surveillance, and then, by the time the surveillance exams are being done, they're not there anymore or they don't show up for the exam.

I would recommend that the time period for performing the initial medical surveillance would be better at 90 or 120 days. Because, that way, you're doing medical surveillance on people who are going to be working within the conditions for an extended period and you're not imposing upon operators the obligation to perform medical surveillance on employees who simply aren't ready for the responsibilities that attend working in these kind of conditions.

And that's it.

MS. SILVEY: I don't think we got the organization you represent.

MR. PARRIS: I don't represent any organization.

MS. SILVEY: I figured you were going to say that, but --

MR. PARRIS: No, I don't. I mean --

MS. SILVEY: Oh, okay. All right.

MR. PARRIS: I haven't worked in -- I've worked in --

MS. SILVEY: So, anyway, your comments are your own?

MR. PARRIS: Oh, they are my own.

MS. SILVEY: Okay.

MR. PARRIS: Exactly.

MS. SILVEY: That's fine. Thank you.

Okay. Well, I would like to say one thing. And that is that, in the mining community, as you all know, there are contractors and there are contractors, but the contractors that we generally refer to as "independent contractors" with a legal ID number, Part 45 -- I call them "Part 45 independent contractors" -- they are, under the Mine Act, they can also be operators and carry with them the same responsibilities as operators -- responsibilities for training and whatever responsibilities that operators have, these independent contractors can be.

And some operators hire them to do specialty work. I always like to say explosives and blasting. Some hire them to do the mining, the production work, but they are, in the definition of operating, the Mine Act, they are operators.

And in appropriate cases, enforcement actions, we

have cited both the site mine operator -- S-I-T-E, site -- as well as the independent contractors as an operator.

You refer to -- but there are other contractors who come in and they may be delivering something. They may be on the mine site for one or two days, three days, or something. And those are the contractors I think you were talking about when you gave your example.

MR. PARRIS: Actually, no --

MS. SILVEY: Those are the ones that have to have hazard training.

But I want to, before everybody leaves, I want to get it in the record that the Part 45 independent contractors with a legal identification number are considered operators under the Mine Act.

That's all. Thank you.

MR. PARRIS: Thank you.

MS. SILVEY: Our next commenter is -- I think he is here -- Peter Gould, Squire Patton Boggs.

MR. GOULD: Ms. Silvey, am I the last one or are there others?

MS. SILVEY: I don't know.

MR. GOULD: Okay. On the list, though?

MS. SILVEY: We don't -- well, I don't know.

MR. GOULD: Okay.

MS. SILVEY: Do you want to speak now?

MR. GOULD: You know what? I'm going to yield my time, out of respect for everybody else. So, I'll let some others speak, if they would prefer.

MS. SILVEY: Okay. That's up to you.

MR. GOULD: Many of my comments have already been shared, and I'll submit them in writing.

MS. SILVEY: Okay.

MR. GOULD: But thank you.

MS. SILVEY: All right. Is there anybody else in the room who wishes to speak? Anybody online?

Well, that answers your question. You were the last one. I mean, I couldn't tell, because I always ask, "Is there anybody else in the room who wishes to speak?"

So, okay. Going once, twice. If nobody else, either in this room or online, wishes to speak, then I am going to conclude this hearing.

But before I do so, I will say to everybody that MSHA appreciates very much your participation in this hearing today, and for those of you who participated in the prior two hearings. On behalf of Assistant Secretary Williamson, we want you to know that we take a sign of your participation here, that reflects your interest in this important rulemaking.

And it is an important rulemaking. And as we go forward, as we said earlier, the comment period closes

September 11th, and we look forward to those who promised that they would supplement their oral testimony with written comments.

And for those of you who have not given us any written comments yet, but we look forward to receiving those prior on September 11th or prior to September 11th.

Where we have asked for more specific information, and that it be supported with rationale for your position, I want to underscore that. And please provide that, if you will. That type of information is very important to us, as we move forward with the rulemaking.

All information will be posted on MSHA's website, msha.gov, and regulations.gov.

And the transcript of today's hearing will be posted in about five days, as we said earlier.

So, we thank you on behalf of the panel here with me today. We all thank you, and we hope you have a great rest of the day. Thank you very much.

This concludes the public hearing.

(Whereupon, the above-entitled matter went off the record at 1:02 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Lowering Miners' Exposure to Respirable Crystalline Silica

Before: US DOL MSHA

Date: 08-21-23

Place: Denver, Colorado

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate complete record of the proceedings.

Neal R. Gross

Court Reporter