TRANSCRIPT OF PROCEEDINGS

Proposed Rule on Diesel)
Particulate Matter Exposure)
of Underground Metal and)
Nonmetal Miners)

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U.S. DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

IN THE MATTER OF:)
)
Proposed Rule on Diesel)
Particulate Matter Exposure)
of Underground Metal and)
Nonmetal Miners)

Friday,
January 13, 2006

Marriott Hotel
280 West Jefferson
Louisville, Kentucky

The hearing convened, pursuant to notice at 9:00 a.m.

APPEARANCES:

EDWARD SEXAUER, Moderator
JAMES PETRIE
DORIS CASH
WILLIAM BAUGHMAN
DEBORAH GREEN
GEORGE SASEEN
WILLIAM POMROY

P R O C E E D I N G S

(9:00 a.m.)

MR. SEXAUER: Good morning. My name is Edward Sexauer. I'm Chief of the Regulatory Development Division of the Office of Standards, Regulations and Variances, Mine Safety and Health Administration and I'll be the moderator of today's public hearing. On behalf of David Dye, Acting Assistant Secretary for Mine Safety and Health, I want to welcome all of you here today. In memory of the miners who perished in the past few weeks, let us begin the hearing with a moment of silence.

(Pause.)

MR. SEXAUER: Thank you.

The purpose of this hearing is to obtain input from the public on MSHA's proposed rule published in the Federal Register on September 7, 2005, addressing Diesel Particulate Matter Exposure of Underground Metal and Nonmetal Miners.

Joining me on the hearing panel today is -- to my right is Jim Petrie, who is the District manager of MSHA's Northeastern District for Metal and Nonmetal and Chair of the Diesel Particulate Matter Rulemaking Committee.

On his right is Doris Cash with MSHA's Metal

and Nonmetal Health Division. And William Baughman with the Office of Standards, Regulations and Variances.

On my left is Deborah Green with the Office of the Solicitor for Mine Safety and Health; George Saseen with MSHA's Technical Support Directorate; and Bill Pomroy from MSHA's Metal and Nonmetal North Central District.

Also Carl Lundgren from Office of Standards is in the audience.

Let me reemphasize that our purpose for being here is to obtain your views on the September 7, 2005 proposed rule. This hearing is being held in accordance with Section 101 of the Federal Mine Safety and Health Act of 1977. As is the practice of this Agency, formal rules of evidence will not apply. Therefore, cross-examination of the hearing panel will not be allowed but the hearing panel may explain and clarify provisions of the proposed rule.

Members of the public will not be permitted to cross-examination speakers. Also, as moderator of this public hearing, I reserve the right to limit the amount of time that each speaker is given as well as questions of the hearing panel.

We invite all interested parties to present

their views at this hearing. We will remain in session today until everyone who desires to speak has an opportunity to do so. Also, if you are not signing up to speak today, we would like you to sign -- even if you're not signing up to speak today, we'd like you to sign the general sign-in sheet that's right outside the entrance to the room, so that we can have an accurate record of today's attendance.

We will accept written comments and data at this hearing from any interested party, including those who are not speaking.

You can give written comments on this hearing to me today, or you can send them to MSHA's Office of Standards electronically, by fax, by regular mail, or hand delivery using the address information listed in the Federal Register Proposed Rule.

If you don't have that proposed rule, we have a copy of it, again, just outside the entrance to the room and the addresses are in there.

This is the 4th of four hearings. The other hearings were held on January 5th in Arlington, Virginia; January 9th in Salt Lake City, Utah; January 11 in Kansas City, Missouri.

The post-hearing comment period will end on January 27, 2006.

A transcript of this hearing will be made a part of the record and it will be posted on our web site at www.msha.gov.

Before we begin, I would like to give you some background on the proposed rule we are addressing today.

On January 19, 2001 we published a final rule addressing the health hazards to underground metal and nonmetal miners from exposure to diesel particulate matter, and I'll refer to that as DPM. The rule established new health standards for these miners by requiring, among other things, use of engineering and work practice controls to reduce DPM to prescribed limits. It set an interim and final DPM concentration limit in the underground metal and nonmetal mining environment with staggered effective dates for implementation of the concentration limits. The interim concentration limit of 400tc micrograms pure cubic meter was to become effective on July 20, 2002. The final concentration limit of 160tc micrograms pure cubic meter was scheduled to become effective on January 20, 2006.

On January 29, 2001, several mining trade associations and individual mine operators challenged the final rule. The United Steelworkers of America

intervened in the case, which is now pending in the U.S. Court of Appeals for the District of Columbia Circuit. The parties agreed to resolve their differences through settlement negotiations with us and we delayed the effective date of certain provisions of the standard.

On July 5, 2001, as a result of Phase 1 settlement negotiations, we published a final rule on February 27, 2002, addressing tagging and engines.

Phase 2 of the settlement agreement was finalized on July 15, 2002 as a written agreement. Under the agreement, the interim concentration limit of 400tc micrograms per cubic meter became effective on July 20, 2002. We afforded mine operators one year to develop and implement good-faith compliance strategies to meet the interim concentration limit, and we agreed to provide compliance assistance during this one year period. We also agreed to propose rulemaking on several other disputed provisions of the 2001 final rule. The legal challenge to the rule was stayed pending completion of additional rulemaking.

On September 25, 2002, we published an Advance Notice of Proposed Rulemaking (ANPRM). We note din the ANPRM that the scope of the rulemaking was limited to the terms of the Second Partial

Settlement Agreement and we posed a series of questions to the mining community related to the 2001 final rule. We also stated our intent to propose a rule to revise the surrogate for the interim and final concentration limits and to propose a DPM control scheme similar to that included in our longstanding hierarchy of controls used in our air quality standards for metal and nonmetal mines.

In addition, we stated that we would consider technological and economic feasibility for the underground metal and nonmetal mining industry to comply with revised interim and final DPM limits. We determined at that time that some mine operators had begun to implement control technology on their underground diesel-powered equipment. Therefore, we requested relevant information on experiences with availability of control technology, installation of control technology, effectiveness of control technology to reduce DPM levels, and cost implications of compliance with the 2001 final rule.

On July 20, 2003, we began full enforcement of the interim concentration limit of 400tc micrograms per cubic meter. Our enforcement policy was also based on the terms of the second partial settlement agreement and includes the use of elemental carbon, or

EC, as an analyte to ensure that a citation based on the 400tc concentration limit is valid and not the result of interferences. The policy was discussed with the DPM litigants and stakeholders on July 17, 2003.

In response to our publication of the ANPRM, some commenters recommended that we propose separate rulemakings for revising the interim and final concentration limits to give us an opportunity to gather further information to establish a final DPM limit, particularly regarding feasibility. In the subsequent notice of proposed rulemaking (NPRM) published on August 14, 2003, we concurred with these commenters and notified the public in the NPRM that we would propose a separate rulemaking to amend the existing final concentration limit of 160tc micrograms per cubic meter. We also requested comments on an appropriate final DPM limit and solicited additional information on feasibility. The proposed rule also addressed the interim concentration limit by proposing a comparable Permissible Exposure Limit, or PEL, of 308 micrograms per cubic meter based on the elemental carbon surrogate and included a number of other provisions.

On June 6, 2005, we published the final rule

revising the interim concentration limit. This rule changed the interim concentration limit of 400 micrograms per cubic meter measured by TC to a comparable PEL of 308 microgram per cubic meter measured by EC. The rule requires our longstanding hierarchy of controls that is used for other exposure based health standards at metal and nonmetal mines, but it also retains the prohibition on rotation of miners for compliance. Furthermore, the rule, among other things, requires us to consider economic as well as technological feasibility in determining if operators qualify for an extension of time in which to meet the final DPM limit, and deletes the requirement for a control plan.

Currently, the following provisions of the DPM standard are effective. 57.5060(a), establishing the interim PEL of 308 micrograms of EC per cubic meter of air which is comparable in effect to 400 micrograms of TC per cubic meter of air; 57.5060(d), addressing control requirements; 5060(e), prohibiting rotation of miners for compliance with the DPM standard; 5061, compliance determinations; 5065, fueling practices; 5066, maintenance standards; 5067, engines; 5070, miner training; 5071, exposure monitoring; and 5075, diesel particulate records.

On September 7, 2005, we proposed a rule to phase in the final DPM limit because we are concerned that there may be feasibility issues for some mines to meet that limit by January 20, 2006. Accordingly, we proposed a five year phase in period and noted our intent to initiate a separate rulemaking to convert the final DPM limit from a total carbon limit to an elemental carbon, or EC limit. We set hearing dates and a deadline for receiving comments on the September 7, 2005 proposed rule with the expectation that we would complete the rulemaking to phase in the final DPM limit before January 20, 2006.

After publication of the September 7, 2005 proposed rule, we received a request from the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, or USW, for more time to comment on the proposed rule. The USW explained that Hurricane Katrina had placed demands on their resources that prevented them from participating effectively in the rulemaking under the current schedule for hearings and comments. We recognize the USW's need to devote resources to respond to the aftermath of Hurricane Katrina and the impact that would have on their participation under the

established timetable. We also received a request from the National Stone, Sand and Gravel Association, NSSGA, for additional time to comment on the proposed rule and for an additional public hearing in Arlington, Virginia. Accordingly, due to the requests from the USW and NSSGA, we published a notice on September 19, 2005 that changed the public hearing dates from September 2005, to January 2006 and extended the public comment period from October 14, 2005 to January 27, 2006.

In addition, on September 19, 2005 we published a notice in the Federal Register temporarily delaying the applicability date for 57.5660(d) published in the Federal Register on January 19, 2001 from January 20, 2006 to May 20, 2006, to provide sufficient time to complete the September 7, 2005 proposal.

At this time Jim Petrie, chairman of the Diesel Particulate Committee, will present an overview of the proposed rule and after Jim's presentation I'll begin calling speakers.

MR. PETRIE: Thank you, Ed.

This proposal is fairly narrow in scope. It would revise the effective date of the final diesel particulate matter limit and delete the existing

provision that restricts newer mines from applying for extensions of time for meeting the final limit.

Additionally, we request public comments on a number of significant issues, including the appropriateness of including in our final rule, a provision for the medical evaluation of miners required to wear respirators and the transfer of miners who are unable to wear them.

And, the appropriate factor for converting the final limit from total carbon to elemental carbon. Although, MSHA will address this in separate rulemaking.

Regarding revising the effective date of the final DPM limit, the proposed rule would gradually phase in the 2001 DPM final concentration limit of 160 micrograms of total carbon per cubic meter of air over a year of five years until the final limit of 160 micrograms is reached in January 2011.

The current interim limit of 308 micrograms of elemental carbon will remain in effect until May 20th, 2006. Thereafter, the first phased in final limit, which would the same as the current interim limit of 308 elemental carbon, would be effective until January 20th, 2007.

The final limit would be reduced each year

through January 20th, 2011 as follows:

On January 2007, it would be reduced to 350 micrograms of total carbon; January 2008, 300; January 2009, 250; January 2010, 200; January 2011, 160 total carbon.

The preamble to the proposed rule includes extensive discussion on MSHA's 2001 assumptions regarding technological feasibility, our current concerns and tentative beliefs which question these assumptions, implementation issues with available control technology, and our proposed assessment of the availability of alternative control technologies.

MSHA requested that commenters address these and issues related to the scope of the proposed rule.

Regarding limitations on extensions of time for meeting the final limit, the proposal would delete 5060(c)(3)(i). The 2001 rule restricted MSHA from granting extensions to a mine operator if the diesel powered equipment was not used in the mine prior to October 29th, 1998.

This was because diesel powered equipment prior to the date of the notice of the proposed rulemaking could experience compliance difficulties relating to such factors as the basic mine design, use of older equipment with high DPM emissions and other

factors.

Also, we believe that mines opening after October 29th, 1998 would be using equipment with cleaner engines that would have less difficulty meeting the final concentration limit.

Presently, MSHA believes that this restriction is unnecessary since applications for extensions are voluntary and the test for granting an extension is similar to that of enforcing the existing 57.5060(d) for the hierarchy of controls.

The preamble discussion clarifies that we will begin to consider granting extensions due to technological or economic constraints for the initial final PEL of 308 micrograms of elemental carbon in January 2006. And that's been extended now to May 20th, 2006.

MSHA requested comments on the effects of deleting the requirement to number of miners effected if the provision were eliminating and whether the elimination would result in a reduction in health protection for miners.

Regarding medical evaluation and transfer, specific comments are requested on whether the final rule should provide for medical evaluation of miners who must wear respirators and transfer of those miners

who are deemed medically unable to wear them.

In the preamble to the proposed rule, MSHA included a specific example of regulatory language that could be included in a final rule and requested extensive comments regarding the following issues.

Whether the final rule should contain provisions for medical evaluation and transfer of miners;

Whether the mine operators should be required to notify the District Manager of the health professional's evaluation and that the miner will be transferred;

Whether MSHA should include in the rule a specific time frame for transferring the miner;

Whether the mine operators should have to maintain a record of the medical evaluation and, if so, for how long should the record be maintained;

Whether the provision include protection of medical confidentiality;

Cost to the mine operator for implementing such a requirement and other relevant information and data.

Regarding development and appropriate conversion factor, MSHA will initial separate rulemaking to determine what the correct total carbon

to elemental carbon conversation factor will be for the phased in final limits.

In the interim, MSHA wants your comments on data for establishing an appropriate conversation factor and a time period for the phase in of the final limit, technological implementation issues and the cost and benefits of the rule.

Also, we are interested in your views on any other scientific approaches for converting the existing total carbon limit to an appropriate elemental carbon limit.

If MSHA does not complete the rulemaking to convert the final limits before January 20th, 2007, the Agency is considering using the current 1.3 conversion factor that we used to establish the interim diesel particulate limit of 308 elemental carbon to convert the phased in final DPM total carbon limits to elemental carbon equivalents.

Regarding economic feasibility, MSHA stated in the preamble to the proposed rule that the Agency intended to use the entire rulemaking record supporting the 2001 final rule and the new information gathered during the recent rulemaking to promulgate the new interim PEL.

This data suggests that few mines would

experience economic feasibility problems in meeting the interim limit. However, MSHA is interested in gathering more information on economic feasibility implications. And especially in light of recent technological developments leading the Agency to propose a phased in approach to meeting the ultimate final limit of 160 micrograms.

MR. SEXAUER: Thank you, Jim. There's a lot of information in those opening remarks. I notice that some of you were jotting down notes as we were speaking. I'll just point out to you that we're going to be posting this -- a transcript of this hearing on the -- on our web page, probably in about a week, as soon as we can get it processed.

So that if you would care to go back and review or look for anything that was said during the hearing, you can find it in there.

In addition, the proposed rule and preamble that's on the desk outside, contains much of this information in the opening remarks. In particular I'll point out that with respect to the standards that are currently in effect, you can find those listed in the September 7, 2005 proposed rule document on page 53281, in the bottom of the right hand column.

I will now call the speakers. When I call

you to speak, please come to the speaker's table and begin your presentation by identifying yourself and your affiliation, for the record. And if you have a prepared statement or supporting documents you care to leave with us, you can either give that to me or the Reporter at the conclusion of your remarks.

Our first speaker will be Brian Peters.

I'll ask you to state your name and spell it and your organization, please.

MR. PETERS: Okay. My name is Brian, B-R-I-A-N, Peters, P-E-T-E-R-S, with Mulzer, M-U-L-Z-E-R, Crush Stone, Inc. I am the environmental health and safety manager for Mulzer Crush Stone.

Mulzer Crush Stone operates several above-ground stone quarries. We have recently started an underground operation. We only have one underground mining operation, employing four fulltime miners at this point. We've been turned underground for less than 60 days. So my comments are rather brief and in that setting.

From that standpoint, our first comment we'd like to make is that we believe that the health and safety of all of our miners is very important. We believe diesel particulate matter is an important issue. We believe it's something that needs to be

addressed, needs to be monitored, and needs to be managed on an appropriate basis.

We also believe that the elemental carbon limit of 308 should be adopted as a permanent rule at this point. We do not believe that MSHA has proven with sound science that anything beyond that at this point is proven to be just.

We also have had some issues, being a new start-up mine, with the economic feasibility of looking out forward and saying we -- this is what we need to do to meet a lower limit. First of all, right now it's a moving target for us. We don't know where it's at, which has been somewhat confusing. And we don't know, without any data on our end, what we need to do to get there.

Currently we have one piece of diesel equipment running in the mine and that is a loader. It is running with a tier 2 engine, but it was somewhat burdensome for us to go out and find a tier 2 engine loader to try to start up a new mine. Most of our equipment that we're running on our above-ground operations, in fact all but this one loader, are not running with tier 1 and tier 2 -- or with tier 2 engines. So we had to specifically go out and find a piece of equipment to turn underground with, which

there again led to some financial burdens.

When you're looking at starting up a new mine and the fiscal challenges of that and whether it's feasible to start an underground mine or not, trying to come up with that newer, more expensive piece of equipment, is a little hard to do.

If the new limits are adopted, we are in favor of the phased in version that is being proposed. We are in favor, as we just heard, of letting new mines have the exception for extensions if needed. And if we -- if the standards are adopted as they are written, we would like to ask -- we haven't heard anything really yet on the margins of errors that are proposed on the standards. You know, if 160tc is the new limit, what is the percent margin of error if it's going to be allowed.

We believe that MSHA in its compliance monitoring at site, based on what we've seen on other industrial hygiene standards, struggles with accurate monitoring, with accurate calibrating of their machinery and equipment on other issues. And we believe that would fall with diesel particulate matter also and would like to know more about what the proposed margins of error on that are.

And that's all I have for comments.

MR. SEXAUER: There will be a few questions for you, I believe. Jim?

MR. PETRIE: Yeah, just a few questions, Brian.

Do you have any kind of a medical evaluation program for respirator wearers? I know you just have a new underground mine, but have you adopted anything like that or carried it over from the surface operation?

MR. PETERS: For the underground there is nothing at this point. We don't have anybody wearing respirators underground, so therefore no program.

In our above-ground operations, if an employee wears a respirator, we do the PFT monitoring, the fit testing, the medical evaluation. We have that program in place for our other operations. We have no need of it yet for underground.

MR. PETRIE: Thanks, that all I have for right now.

MR. SEXAUER: Okay.

MR. PETRIE: Well, one other question. Has MSHA sampled your underground mine yet and, if so, have the results come back?

MR. PETERS: They have not sampled for DPM.

MR. PETRIE: Thank you.

MR. SEXAUER: Doris.

MS. CASH: Yes. You said you did do fit testing for your employees on the surface. Just as a matter of information, specifically on the fit testing program, is that something that's done annually or just as needed?

MR. PETERS: It's done on an as needed basis.

MS. CASH: And just so that it -- to clarify on the margin of error as we've -- we did discuss in the preamble that MSHA would be developing an error factor for each of the final limits, if we adopted the phased in appropriate, just as we developed an error factor that takes into account the sampling error of the equipment and of the laboratory method itself, for our interim limit and we posted that information on our web site. We would be doing that also for any final limits that are adopted.

MR. SEXAUER: Jim?

MR. PETRIE: When you've developed your mine, do you plan to have it mechanically ventilated or will it be natural ventilation?

MR. PETERS: We have a two-entrance mine and there is mechanical ventilation already in place.

MR. PETRIE: Okay, thank you.

MR. SEXAUER: George?

MR. SASEEN: Brian, what size if the loader that you have underground?

MR. PETERS: I don't know the size of that loader.

MR. SASEEN: And you don't know the horsepower of the engine or the model?

MR. PETERS: It's in the medium range of -- when you look at your -- of your different ratings of the small, medium and the large, it fell into that medium range. I don't know the size of it off hand or the horsepower.

MR. SASEEN: Okay. Would you be willing to supply that information to us?

MR. PETERS: Yes. Yes.

MR. SASEEN: Okay, thank you.

MR. SEXAUER: Bill?

MR. POMROY: Yeah, Brian --

MR. PETERS: Maybe we should ask Bill that question, we've talked about that.

MR. POMROY: Just a couple more questions about your equipment. You have a loader underground.

MR. PETERS: Yes.

MR. POMROY: You don't have a scaler, you don't have a --

MR. PETERS: We are using our loader as the scaler. We are using an electric drill and we are using a man-basket on an electric lift for loading powder.

MR. POMROY: Are you using the loader sort of as a load haul dump to bring the stone all the way out of the mine then?

MR. PETERS: Yes. Right now that's only about 60 feet.

MR. POMROY: Yeah. Do you know what kind of fuel you're using?

MR. PETERS: We are using diesel fuel. It is meeting the less than five sulfur content.

MR. POMROY: Do you know if it's number 1 or number 2?

MR. PETERS: It's number 2 I believe. I know it is not soil base or water based emulsion fuel. And to that question, I think that were in the as proposed questions, none of our above-ground operations use the soil or the water emulsion fuel also.

MR. SEXAUER: Jim?

MR. PETRIE: Brian, does the loader have an environmental cab?

MR. PETERS: Yes, it does.

MR. PETRIE: And are there any employees outside the loader on the ground in the mine currently?

MR. PETERS: During different operations there are employees outside of the loader. When they are mucking out the mine, there are not. But in other portions or operations, there may be.

MR. PETRIE: You mentioned that you have an electric drill, does that drill have a cab as well?

MR. PETERS: It does not.

MR. PETRIE: Thank you.

MR. SEXAUER: Brian, I just want to mention that our comment period closes January 27, so that if you can provide any additional information about the loader or any other information you care to by that date.

Any other questions?

(No response.)

MR. SEXAUER: Okay, thanks, Brian.

Our next speaker is Mike Neason.

MR. NEASON: My name is Mike Neason, N-E-A-S-O-N.

I'm the Safety Manager for Hanson based here in Louisville, Kentucky. I handle operations in Indiana, Kentucky and Ohio.

Current Hanson has -- well, we had seven underground mines, we've added two with another acquisition, so now we're up to nine. Most of those are in Pennsylvania, Indiana and Kentucky.

I guess before I get started, I want to say more or less the same thing I said a couple months ago, which was welcome to Kentucky. I really appreciate the opportunity to have these kind of discussions here. I've worked in a lot of different areas and the mining community in this part of the country is just -- it's a really tight group, we work really, really well together. Everybody is very, very conscientious.

And the fact that you guys have come, like I said, this is the second time in just a few months that this panel has been here. This is great access for our people. We really, really appreciate having the opportunity to have this kind of access at this point in these kind of proceedings. And I hope you appreciate how many people we put in the seats out there and I hope that shows a little bit about how much we care about these kind of activities. So before anything else, I wanted to say that kind of stuff.

And then I wanted to be as positive as

humanly possible. I went back and I was thinking about a lot of the comments that everybody has made in this. And Hanson has already provided written comments as our corporate position for this action.

What I guess I'm going to start talking about is probably more my end of the world, which is, you know, closer to the operations side to give you an idea of what's happened since this rule came about a few years ago, what impact it's had up to us at this point and where, you know, we see this moving forward.

From the positive side, since the advent of this rule, ventilation in our mines has gotten markedly better. We've put a new emphasis on this and we've changed it from an idea of moving fog ut of the way to one of moving exhaust out of the way, which has markedly increased the good air that we've got back in the mine. The guys see that, they appreciate it.

I'm sure all of you know that ventilating big stone mines is an entirely different issue than ventilating coal mines. You have a six foot ceiling, a brattice is six foot tall. If you have a 30 foot ceiling with 20 feet wide, it's a huge thing to have to put up and it's a huge thing to maintain.

When you're moving that much air through there, it's an entirely different procedure to try and

get it moving quick enough across the face to put you where you want to be.

So when we decided to make this move, and this was the first step we took was -- and Bill would know, he was with us when we were doing a lot of this stuff. The first step that we took was ventilation and it made a huge difference and the guys really appreciated it.

It was a very expensive thing for us to do. But it was a thing that we see a benefit from years down the way. So in that aspect, things have gotten better for the employees. Expensive, but it got better.

Secondly, equipment wise, from the point in time that this rule came about, we've upgraded the rolling stock that we use underground. And much of our stuff is diesel. In fact, nearly everything that we use underground is diesel.

We've got two more drills, a powder monkey, we've got two scalers and several trucks that we've brought in. Now, MSHA, when they wrote the rule initially, anticipated that by this point in time, 2006, a hundred percent of the old stock would have been rolled over and we would all have brand new pieces of equipment. And thankfully they acknowledged

a short while ago that those assumptions weren't exactly true. And equipment doesn't roll over as fast in this industry as it might in some others.

So we still do have some older things. But we do have some new equipment now and that is a positive. And a lot of those changes were made because the older equipment just would not meet the standard.

So when we bought the new stuff, you know, it's a little bit extra money. I mean just as he was saying, it's a little extra money to get the approved engines to get it in there. But, you know, we've got those, the employees see that, it's a positive thing that's happened since this. And so I wanted to touch on that as well.

Our engine maintenance program that we're using is far more proactive than it's ever been before. You know, where the goal was keep it moving and just as long as it's not smoking too bad we're okay. Which was, you know, the thinking back in the late '90s.

We're now using exhaust analysis to go in and measure the changes in the exhaust. So if we benchmark that over time, we can go back and make adjustments and change out injectors if that seems to

be the problem, air cleaners if that seems to be the problem. And proactively make these things run as clean as they can. If DPM is a project of incomplete combustion, the idea is fix the combustion problem. And that's something that we've dove into.

In doing so, the employees have seen the difference. It's an expensive process to go through to monitor it that often and to come back and make sure that everything is where it's supposed to be, but the maintenance cost, which started out big because there were a lot of problems the first day, have not carried on.

So measuring it is an expensive thing that we're doing and the guys are seeing that and they appreciate it.

The last change that we've made that is probably the biggest change, and really the smallest adjustment that we've had, has been the most recent thing, which was a switch to a bio-diesel blend.

If there's one thing -- we just got done annual refresher a couple weeks ago. And if there was one thing that I was hearing more than anything else from the underground folks was how much of a change the bio-diesel has made. The guy that loads the powder is up in a basket, you know, 20, 30 feet in the

air. Now, he is -- well, years ago was sitting right in that smoke. And, you know, he's seen the biggest change as ventilation has got better and everything else. And he says, you know, since that happened, you know, they make the joke of the trucks smell like french fries, but he hadn't, you know, and he saw a big change from that.

And that's something that we have done directly because of the emphasis that that rule has put on cleaning up the air quality in the underground. And that's another positive thing. And maybe I could say that's an expensive part, but actually that really hasn't been, cost wise, too much of a difference to move to the bio-diesel. Basically because diesel -- as expensive as diesel is right now.

But at the end of all that, when we began this we were taking our samples down there and trying to figure out where we were. I'm not going to give you specific numbers. But in rough terms, what we were finding when we began this were levels somewhere in the total carbon range of about 1200 for a lot of these folks.

After these changes, you know, we're now finding that we're consistently under 300. We're not at 200, we're certainly not at 160. Now, we have

tests that test out very, very well. But on the whole I feel comfortable saying that we've reduced from above twelve to below three. Now, moving it from three further is of course the next challenge, and much of what we're talking about here today.

I say that to say this. We tried to act in really good faith with this rule. Understanding that it was all kind of cloudy when we first looked at it and it was a totally new thing to think about. You know, much of the rules had come out. You see that, you know, OSHA had had something forever and then when it comes over to us, you know, we can kind of see where they were going.

This has never been anywhere other than us. This is a brand new thing for underground metal/nonmetal mines. And we did not have a roadmap to follow. So we have been a little skeptical in the beginning on how all this was going to go.

However, we wanted to make sure that Hanson was going to give the benefit of the doubt to the study. That we would participate in every way possible, we were a member of the 31 mine study, we've had people out there to help us and we've commented on everything that's come up. As an opportunity to comment would come forward, we would take that

opportunity and make sure that MSHA knew our position and what we were experiencing, as we were acting in good faith to try and come into compliance.

We've contributed to and we've supported the National Stone, Sand and Gravel Association's comments as they've moved forward and the same with the Kentucky Crush Stone Association, too. They've been very, very active in this and, once again, certainly appreciates all of you holding this here in our hometown.

When this rule began, the idea that I would, on the first training day when I'm talking to the guys and trying to explain to them where this rule was coming from, what I based it on was in the original statement that came out, the background said that MSHA was trying to build a rule. There were some studies from years ago that suggested that higher level occupations were somewhere in the range of 400. And so they were going to build a rule that was going to bring everyone down, in the underground mines who were higher than that, to the same level as everybody else. And offer them at least equal protection. And to do that, we're going to take these steps. And it was an easy sell to make to these people.

As we sit here today in 2006, we achieved

that. Today the 177 mines covered have a more aggressive program to protect their employees from DPM than any other industry in this country.

The question is where do we go from here? We're 177 small businesses and we're bearing the weight of a huge standard that's pushed us above and beyond everyone else. We have protection greater than everyone else. Pushing us above -- pushing us alone to an even further level of 160 is a harder sell for me to make to the guys. It almost seems discriminatory. You told me if I got to 400 I'd be as good as everybody else. My brother works in the shop, he -- covered in this and he doesn't see it. And yet, we're going this far down. It's certainly something that stands out to the employees and it's a hard thing to explain why this small group alone needs to bear this brunt.

As I said, these 177 operations are mostly small businesses. I think it's important to state that we in the stone end of it compete only in local markets. Our product doesn't come out and get shipped to other people who we compete with nationwide. We are basically supplying material to a small, in most cases, rural area.

Our competition is not another underground

mine who has the same standards that they have to comply with. They are surface operations who do not. So while we're scrambling around trying to find an engine that will meet the standard of being in the underground, our competition goes out and buys, you know, whatever it takes to get moving. While we're pushing forward on even further programs to ensure that the air is moving and the cabs are right, our competition is not.

I'm only saying this to say this. That at the end of the day, our prices are not high enough so that there's so much room in that margin that our people can bear the cost forever. At some point a business decision gets made. We can't find a new market to operate in. We can't change what we do. These regulations will be on us. And at the end of the day, we're going to have to figure out a way how we can remain in business and we can keep these jobs open for these people. If we continue to push down the level so far below what anybody else can even imagine doing.

There's three main problems that I guess most of us have come back to, in view of this rule. The first that stood out to me was that this rule seems to be rushed out before we had enough science to

really back it up. There's still questions that come out about total carbon versus elemental carbon and that relationship. There were questions for a good while about the 5040 method, you know, whether or not the impacters needed to be on the cassettes or not on the cassettes and how exactly that was going to work.

There is still questions about what limits we should make the people live with. We picked 400 because that was about what everybody else had. Then we picked 160 because we thought that was about what everybody else could do.

The rule seemed to be rushed out before science was there and now we've been in the process for several years of going back and trying to shore up something that's certainly on a weak foundation.

The second problem that I see on it is that the rule was based on several flawed assumptions. In order to get it out quickly enough, a lot of assumptions were made that, well, by this date all the equipment will be turned over and everything will be okay. Another assumption was made that, oh, by this date there will be a filter technology out there available that will just solve all these problems. And another assumption was made that, oh, by the time we get there, you know, we'll be able to measure down

on the cassette far enough so that we can accurately tell you how close you are to that 160.

Well, as MSHA's thankfully noted, you know, these assumptions haven't come to pass. And so we're still trying to figure out how to make things work without a strong foundation to base them on.

And the third deal was establishing an arbitrary final limit without fully understanding the economic implications. I know there were studies and I know there is -- there's documents from one side and documents from the other side and people putting together where their opinion is of the feasibility of this versus somebody else's thoughts on it.

I can't get over the fact that no matter how many times we push this, we're still that one small little segment of one small little industry that's the target for the brunt of all of this action. That final limit, if you're just going to arbitrarily put it out there, there needs to be some real basis. Well, you can't have arbitrary and the word basis. I'm from Kentucky, I'm sorry. Everybody behind me knows what I mean.

You can't just pick a number and make folks live with it. There needs to be enough basis back there to truly support it.

As such, the final thing I guess I really need to say is that from our position we've come a long way in this rule. We've done a lot of good activity that has resulted in a lot of things that our miners appreciate. We've acted in good faith, we've partnered with MSHA, we've worked through associations, we've built up relationships with people from other companies and been happy to share information on the things that have worked for us and haven't worked for us, so that throughout the industry everybody would improve.

I'm really, really proud of what we've done as an industry to deal with this rule. But at the end of the day, I think we've reached a good stopping point before any more science comes in to back this up. I truly believe that we need to delete the 160. I truly believe that we need to adopt that 308 elemental carbon as the final limit.

Now, if somewhere down the road science breaks through and gives us some information that's just unflappable and tells us that there is another protection limit out there that we need to get to, I think we as an industry have shown that we're willing to take the appropriate steps to protect our people when that comes up.

But until that day, I think that we need to stay where we are and understand that the level that we have reached is not some small step. Huge investments by a lot of people have gotten us to a point where we have greater protection for our people than anybody else working in the United States today. And I'm proud of that. I think we can stop there. That's all I have.

MR. SEXAUER: I've got one question for you. Who do you think -- now, I know you've said we should drop the 160 and keep the 308. What do you think about an approach of stepping down versus just going down to the lower limit? The approach that we've proposed. I'd just be interested in just getting your reaction to that.

MR. NEASON: Well, it once again is an attempt to try and shore up something that doesn't have a very firm base on it. You know, and it also doesn't give enough credit for all the work that's been done to get down to the level that's above and beyond what anybody else does.

Stepping down over time is giving you more time for these assumptions to catch up. Geez, we thought filters would get right by now and they didn't. Well, let's give them another few years.

And, geez, we thought they'd get the engines turned over. Well, surely by 2011 the engines will be turned over.

It's just buying more time to an end that still doesn't have any foundation in protecting the people.

MR. SEXAUER: Jim?

MR. PETRIE: Thank you for your comments, Mike. Two questions. Does Hanson have a respiratory protection program? Do you have any of the -- your underground miners that are currently required to wear respirators? And if so, do you have medical evaluation of them before they're required to wear a respirator?

MR. NEASON: We do have a respiratory protection program. We do have medical evaluation. I can only speak to the mines in my area, which is Kentucky and Indiana. We do not have anyone currently working underground who is required to wear a respirator at this point in time.

MR. PETRIE: Your medical evaluation program, how often do you conduct that? Is it annually --

MR. NEASON: The fit tests are annually and, without looking, I believe the medical evaluation is a

bi-annual deal.

MR. PETRIE: Does most of your underground equipment have environmental cabs?

MR. NEASON: No.

MR. PETRIE: On the bio-diesel, you mentioned that you're using that. Are you using that at all nine of your underground mines or just selected ones?

MR. NEASON: Once again, I can speak only for -- all of the mines that I deal with in Kentucky and Indiana, which I think there's only three in Pennsylvania, and in all of ours we're using them. Because our superintendent for the underground mine in Kentucky met his fuel salesman who goes to the same church he goes to and on Sunday they were talking about, you know, I've got this neat bio-diesel stuff, why don't you give it a shot.

And it was that simple the way it was decided to start it. And those two guys, it wasn't a company edict from above, it was these two guys out there in Lawrenceburg, Kentucky, that figured out this might work well. And they had positive results from it. So it went from those locations to the rest of ours.

MR. PETRIE: How many mines do you have in

Kentucky again?

MR. NEASON: Right now we've got two underground in Kentucky.

MR. PETRIE: And do you know what blend bio-diesel that you're using right now?

MR. NEASON: I think that they -- they've adjusted and adjusted and adjusted on it. It's -- I've seen it in lower -- I think it's right around 20 percent is where they started and just a little bit of play with it from that point to see where it goes.

MR. PETRIE: Have you experienced any kind of difficulties with cold weather and the bio-diesel gelling?

MR. NEASON: It does do that. Thankfully, so far this winter has not been too bad around here. And we've not had that. And plus, you know, we've got a double insulated tank that's placed really out of the wind and we've not had an issue with it gelling up. Everybody talks about it all the time doing that, but as of yet we haven't seen it.

One of the solutions to that that I've seen is moving a specific tank for that underground where, you know, it's always 60 degrees and everything is wonderful. And we've not done that but that's not to say that we won't at some point in the future. If

this turns out to be the right way to go and it turns out that we need a higher blend, then we'll do what we have to do to maintain that and make it workable.

MR. PETRIE: I presume you have a provider of the bio-diesel fairly -- that it's readily available here in Kentucky?

MR. NEASON: Yes, it is.

MR. PETRIE: Do you have problems with availability?

MR. NEASON: Not that I'm aware of. I know that there was a -- and this is just me being a resident here, I know that there was some stuff in the news a while ago about a bio-diesel plant locally trying to get started and having community problems and folks not really wanting that in their neighborhood.

MR. PETRIE: And your Kentucky mines are currently in compliance with the interim limit of 308 --

MR. NEASON: Uh-huh.

MR. PETRIE: -- micrograms elemental carbon?

MR. NEASON: Well, right now, today, geez, I hope so. Our testing says that they should be. Our testing says that we currently are safely under 300 at all times. And as long as all the controls are doing

what they should be doing, everything should be right. And I feel comfortable saying that we're under 300.

MR. PETRIE: Thank you.

MR. SEXAUER: I'm just waiting. Some of the panelists are taking notes here. George?

MR. SASEEN: Yeah. Mike, you mentioned about the equipment turnover. Can you get more specific, have you -- now have you replaced your -- which did you start first, did you start at the loaders and trucks or the production type equipment, have you got those turned over? Where are you at in your phase of turning this equipment over?

MR. NEASON: You know, I can't say that there's a specific plan and I'm X amount of the way down the road to getting that done. I think it's -- I think every year as we lay capital out, you have the high priority stuff and move backwards. I know that we started, to answer your question, with the drills because generally they seem to wear out faster. There's so much hydraulics that go along with it, that it makes more sense to turn those over quicker.

I know scalers came somewhere after that and powder monkey was just because the old one was really an issue.

Loaders and trucks are -- they're very

expensive things. You're going to spend a half million dollars per piece of equipment to have something that's in compliance and ready to do what you need it to do.

The second aspect of the rolling stock is that it generally doesn't wear out that fast. You know, it's not uncommon to see a truck that's made back in the '70s or '80s that still is putting in ten hours a day and safely and economically.

So those things come later on down the line. Usually -- the turnover that I can personally attest to in the haul fleet was because the trucks just weren't able to do what we needed them to do any more and the changes were made because, you know, after so many hours and so many rebuilds on the engine, it just makes better sense to go out and get a newer piece of equipment.

MR. SASEEN: Do the trucks haul out of the mine?

MR. NEASON: Yes, sir, they do.

MR. SASEEN: Okay.

MR. NEASON: Every one of the primaries we have is outside of the mine entrance. So they're in and out of the mine all day.

MR. SASEEN: Would you provide us some cost

information on what your cost of equipment turnover has been to date? I mean --

MR. NEASON: You know, I certainly can't do that from here.

MR. SASEEN: No, no, I mean in the written -- your written comments.

MR. NEASON: I can see if that's available and if it is available and it's something that we can easily break down to show to you, I'll be happy to make sure that you get that before the comment period closes.

MR. SASEEN: Okay. You mentioned about a -- you started a new engine maintenance program. I think you mentioned that you are doing tail pipe measurements or not?

MR. NEASON: This is a quarterly thing. We don't do this. We have a contractor who comes in and in fact they're also servicing the -- much of like the way this rule works, it's kind of a community from the miners and the mine operators. You know, these people came in and they come from a great deal of a way and the way to justify the cost of coming is they hit us and they hit two or three of our competitors in the same round. And so we've all kind of worked together and shared the information that these people have got

a product that seems to be working so far for us.

They come in quarterly. They benchmark each piece of the equipment quarterly and we maintain records to see if there's any changes. And if you have a rise in the hydrocarbons in a certain direction, then that denotes that we need to change, you know, injectors or whatever it needs to be.

So it's a quarterly program that we're on right now.

MR. SASEEN: Is it every piece of equipment or only specific pieces?

MR. NEASON: It's just about every piece of equipment. I'll go ahead and admit that the water truck that only rarely ever goes underground is -- we're really not going to pay for somebody to check that. And I was born in 1970 and that truck was born in 1965. So it's probably not going to do too well.

MR. SASEEN: You mentioned hydrocarbons. Are you measuring carbon monoxide or oxides of nitrogen? Do you know what gases they are?

MR. NEASON: I can't speak to what they're measuring, no.

MR. SASEEN: Could you provide us with what gases or any sample data that they've done?

MR. NEASON: If I can get the information

from them in a timely enough manner to get it put in, I'll certainly do that.

MR. SASEEN: Can you tell us what company you're dealing with?

MR. NEASON: Mirenco is the name of the company.

MR. SASEEN: Mirenco, okay.

MR. NEASON: Nice folks.

MR. SASEEN: Yeah, if you can provide us with some data to give us an idea of what kind of emission -- tail pipe emissions that you're doing and, you know, what process of certain levels, certain changes, then you require certain actions before it goes back in or certain maintenance procedures.

On the bio-diesel, have you been getting the tax credit?

MR. NEASON: I don't know. I don't know. I keep people safe. The accountants do that.

MR. SASEEN: And you said you're already using a double wall tank, is that stored on the surface for you now?

MR. NEASON: Yeah, right now it is. Yes.

MR. SASEEN: Does water pass through it or is it just kind of a double --

MR. NEASON: It's just a double walled tank

for environmental purposes.

MR. SASEEN: How big of a tank is it?

MR. NEASON: Not a clue. Not a clue.

MR. SASEEN: Okay, thank you.

MR. NEASON: Sure.

MR. SEXAUER: Jim?

MR. PETRIE: Do you use any diesel exhaust filters on your equipment now?

MR. NEASON: No. And we feel comfortable about saying no to this point. Every year NIOSH, as you well know, comes here and does an underground mine seminar. Many of our employees come to that, and not just the supervisors. We bring a lot of people to it. Because we want them to have the same kind of information that everybody's dealing with.

We've talked about what filters mean and what filters do and how they work and what they are. We've closely watched how that technology has moved forward. As of this point, even the employees don't see a benefit in doing that. Mainly because the maintenance that they're going to be required to do to change filters, to move filters around, is going to cause them to pull out the ladder and climb the ladder and work around the hot exhaust and move the heavy thing back down, you know, the ladder, put it where it

needs to go. And they're exposed physically to something -- these guys are smart. They understand these are real physical hazards I'm exposed to to try and get filters on and off.

I see how much better the air is down here since we've made all these movements. How much benefit am I going to get from having this filter on there versus how much exposure to risk am I going to have for having to put them on and take them off?

The second point that came up was, you know, we've invested a lot of money in this equipment. You know, a million dollars is not a lot of money when you start talking about this equipment. And we've invested that in here. We've addressed the combustion problems on the engines. We've been as proactive as we can be to make sure those are okay.

Now, at the end of all that expense, if we turn around and slap a filter on the end of it, knowing it's going to create backpressure, knowing that there's questions on what that's going to do to that engine that we just paid half a million dollars for, it doesn't make a lot of sense. So if you have greater risk in doing it, if you still have questions about how effective the things are and if there's a possibility that they're going to do damage to that

new piece of equipment that we just bought, it doesn't make a lot of sense to use that as of this point.

Now, we all hope that this technology gets way, way better. And as it improves and as the filters begin to show better numbers down the line, that it may make a lot of sense to move towards them. But as of this point what we've seen, what we've heard, what we've read and what we know say that filters aren't a good idea.

MR. PETRIE: Thank you.

MR. SEXAUER: George?

MR. SASEEN: No, Bill.

MR. SEXAUER: I'm sorry, Bill?

MR. POMROY: Yeah, just a couple questions. You mentioned you have turned over part of the fleet. Have you seen any changes in fuel consumption with the use of the new tier 1 and tier 2 engines?

MR. NEASON: Sure.

MR. POMROY: Do you have the numbers on --

MR. NEASON: I have not had the privilege --

MR. POMROY: Could you provide it in a subsequent submission?

MR. NEASON: If that's something that we can easily get a hold of and get back to you -- I can tell you --

MR. POMROY: It's comparing apples and oranges because you've got different equipment and different production and so forth.

MR. NEASON: Well, no, but it's a great point. Fuel costs are going up. What all this bad exhaust is, is incomplete combustion. That means you're using too much fuel for not enough air, which means you're burning stuff and you're not getting any benefit from it and that stuff that you're burning is expensive.

Having clean burning engines will save you money. You know, having a good program and maintaining to make sure that the exhausts don't get too far up, will save you money.

So I'm sure there's a savings on that. I don't know if we can benchmark it. Like you said, it's going to be complicated.

MR. POMROY: How long have you been using the bio-diesel?

MR. NEASON: It's been about a year.

MR. POMROY: Okay. Did you notice any change in fuel consumption when you went to the bio-diesel?

MR. NEASON: I can ask. I'll ask that as well. I don't know that there's any difference in

that. I know that there's actually properties in the bio-diesel that repair flaws in the engine as it rolls through. And not only does it burn cleaner, but it keeps the engine tighter.

MR. POMROY: Did you have any trouble with clogged fuel filters, things like that?

MR. NEASON: As far as I know, no. Like I said, at annual refresher -- the main guys that were talking were the driller and the guy that loads the face and the mechanic. And all these guys think that that was just a great move in doing that and they're all happy with it. So I'm sure if it was clogging filters, the mechanic would have given me that, too.

MR. POMROY: Do you know what the percentage of bio-diesel is in your fuel blend?

MR. NEASON: Like I said, I think we started somewhere around 20 and have adjusted. And I don't know

-- I've got 40 operations. I can't really keep up with each individual one.

MR. POMROY: You had mentioned that when it comes to things like trucks and loaders, they're so expensive that you kind of waited for them to wear out before you replaced them. Did any of your equipment replacement occur specifically to attain compliance

with the rule or is your investment in new equipment pretty much a reflection of just replacing worn out old stuff?

MR. NEASON: Well, no, it's a function of compliance with the rule. When this all came about, we quickly told everybody within the company that we're going to have to move to these kind of engines. We can grandfather the old ones but they're going to have to meet the requirements. And so we need to pick it up and we named the mines individually that, you know, this one here and that one there probably needs to go. So as capital is justified for the year, a part of justification for all of the capital that we're spending on equipment in the underground mines is this is a contributor to the higher DPM concentrations and if we roll this one outside as a stockpile truck and replace it with something else, then it will help us be in compliance with the rule that could close the mine.

MR. POMROY: Sure. You've mentioned using Mirenco for your emissions testing. Do you know, have they ever talked to you about reductions in elemental carbon as opposed to reductions in opacity or reductions in some of the emission gases?

MR. NEASON: You know, I wish I could speak

better to that. I know that when they first came out, the conversations that I'm having -- and understand, I'm talking with the technicians that are out there.

MR. POMROY: Sure.

MR. NEASON: The conversations that we're having is that it was focused really heavily on the opacity end of it. And that's what benchmarked each one of the percentages. And where they drill down -- you know, the one -- like George was saying, the more information that they get on it, but that I don't know. I know that there are other people here that use the same service and have been with them probably longer than we have that may be able to speak more accurately to that.

MR. POMROY: When they see an opacity number they don't like, what typically do they do to the engine to get that opacity number down, do you recall?

MR. NEASON: Like I said, there's some production people here today that deal with those folks pretty well and can probably understand that better than I do.

I know that when I was talking to those guys, they were saying that as you read each one of these levels in there, that gives you a good indication of where to start. And then it's a process

of elimination. Well, if you change this and you're still getting that, then you change this and you're still getting that. How far back into the engine do you get before you find that problem.

So I wish I could tell you more.

MR. POMROY: Okay.

MR. SEXAUER: George?

MR. SASEEN: Mike, just one followup question. You talked that equipment is expensive, especially the loaders and the trucks. Have you look into repowering those engines to get to maybe the latest technology on electronic engines for lowering those -- you know, for cleaning up those engines?

MR. NEASON: Well, no, we haven't. I know that the first step that many of us are going to make, except if you're talking about an operator that's just a sole -- all he has is one underground mine. You know, what we would do because we have several operations, you know, our step would be to take that loader out, put it in another application somewhere on the surface at this mine or another mine and put the new engine underground.

So the best use of our capital would not be to fix up an old one. It would be to rotate an old one to a place where it can do a good job and get a

new one and put it in the place where we have to have them.

MR. SASEEN: But for compliance purposes, if you got into the position where one vehicle was giving you a problem for compliance purposes, have you look into any repowering or would you consider that?

MR. NEASON: Tell me what you mean by repowering.

MR. SASEEN: Replacing an engine. Replacing a 1980 vintage engine with a 2005 vintage engine.

MR. NEASON: Well, and just because we're a bigger company, it -- cost wise it would make way more sense for us just to take that whole loader outside. To replace -- put a new engine in an old loader versus buying a whole new loader, move this one outside and then take the old one that's been, you know, working in the bins for a long time and totally remove it from the site.

You retire the oldest guy and it's kind of a series stepdown from there.

MR. SASEEN: All right, thanks.

MR. SEXAUER: Jim?

MR. PETRIE: I believe you had mentioned, Mike, that you did not have environmental cabs on some of your equipment or most of your equipment

underground. Is there any particular reason why you don't?

MR. NEASON: Those that came with the environmental cabs have the environmental cabs. I think the question that you asked is does most of your equipment have them, and the answer to most of mine is no.

The newer pieces certainly do. I can say that haul trucks are the problem with that for us. The new drills certainly do. Scalers are generally well equipped with these things because the cab is the whole thing.

Loaders, you know, if you have a newer loader they almost always do. But these haul trucks that we're driving, which in a lot of cases we see the haul trucks being the issue for any of the higher things we have, more than most. We've now reached the point where the haul trucks are the problem. And we've done that by a series of elimination and getting them down to where they need to be.

And where we're seeing that problem, I don't know if you all wanted to get this deep into it or not, as the trucks are pulling away from the face, they throttle down and through that period of time is when you get that big fat plumb that comes out of the

back. Now, when the driver pulls away from the face, he leaves the plumb back up in there where the loader is sitting.

So, you know, he's creating a problem that he's moving away from to the outside to dump it, while the loader operator is sitting in that environment. So one of the big problems we have with ventilation is, how do you get it out of that working face enough.

And another part of that is just educating truck drivers that, you know, until the turbo kicks in, you're not getting any more benefit out of stomping on the throttle. So just lay off of it and let the truck pull itself on out.

MR. PETRIE: Do you have any booster fans that you use underground at the face areas?

MR. NEASON: I would say that's probably a weakness. We do have booster fans. We do move them. We don't have any that we're moving consistently enough to be able to do that. Ours aren't really all that portable. So, you know, we do have them and we change them as we develop all the way on back. But we don't necessarily have a fan that's dedicated to move into a new heading every time we're in that heading to get it cleared out.

MR. PETRIE: Thank you.

MR. SEXAUER: Okay, that concludes our questions. I want to thank you for appearing before us. We're going to take a ten minute break and then resume with the next speaker, thank you.

(Off the record.)

MR. SEXAUER: We'll go back on the record. Our next speaker is Ed Elliott.

MR. ELLIOTT: Yes, if I could, I want to --

MR. SEXAUER: If you could speak into the mike, please.

MR. ELLIOTT: Okay, sorry. If I could, I'd like to relinquish, at this point, my time to speak. We have three operation superintendents and managers of our underground mines and also one of our safety managers. And they would like to come up and first speak as a panel if that would be all right.

MR. SEXAUER: And then at which point would you like to speak?

MR. ELLIOTT: And I'll come immediately after them.

MR. SEXAUER: Okay, that's fine.

MR. ELLIOTT: Okay, thank you.

MR. GREGOR: Good morning.

MR. SEXAUER: Good morning. Before you start, we have one microphone at that table and

perhaps if you move it when you are speaking into it so that we can get an accurate record for our transcript.

MR. GREGOR: We will do. First of all, I want to thank you for the opportunity to speak with you all today. My name is Adam Gregor. A-D-A-M. Gregor, G-R-E-G-O-R.

I am the safety and health manager at Rogers Group, Incorporated and have worked here for five years. Previously I worked at the Oldham County underground as well. I'll let the other three individuals introduce themselves.

MR. BEBOUT: My name is Vernon Bebout. I'm the underground superintendent at Jefferson County Stone. V-E-R-N-O-N. B-E-B-O-U-T.

MR. DENNIS: My name is Gregg Dennis. I am the manager at Jefferson County Stone underground, spelled G-R-E-G-G. D-E-N-N-I-S.

MR. WALKER: And I am Brad Walker, B-R-A-D; W-A-L-K-E-R. And I am the manager at the Marion Underground and I have been there 31 years.

MR. GREGOR: We are all employees at Rogers Group, Incorporated. And we are all voluntarily speaking here today to voice our concerns about the diesel particulate matter rule.

First, I want to say that Rogers Group is committed to providing a safe and healthy work environment. Part of that includes the effort to reduce diesel particulate matter exposures to the lowest possible levels, regardless of whatever the regulatory standards are.

With that in mind, let me say that Rogers believes, and myself as well, that this rule is not based on sound science and would not pass the review by the current data quality act guidelines.

It is vitally important for government to respect all parties and do what is right, not what is popular.

Based on what we know today, MSHA should, until further scientific evidence is available, adopt the current limit of 308 micrograms per cubic meter elemental carbon as the permanent PEL.

In the future, new rulemaking could be commenced if and when scientific data could be verified using a data quality act guidelines that would lower and support a lower limit.

Our company has made significant strides in the last few years at reducing diesel particulate matter. But the technology is not clear on how we can safely reduce the DPM exposures to the level proposed

in this rule.

We are following our own hierarchy of controls with respect to diesel particulate matter reduction and have found significant variations in results. Any company could find themselves spending effort -- great effort and money on one particular reduction method and find that it does not work effectively.

We will take some time at the conclusion of our opening statements to answer some of the questions that's been submitted by MSHA. But I would like to emphasize that we must be cautious in establishing some arbitrary number for DPM exposure until we know that our actions are right.

Our company has the ability to tackle these requirements but others may not. If you are not right, it could cost miners their jobs and that is a very serious act.

Now we will speak to the questions that were posed to us. The first one that I would like to speak of is whether it will be technologically feasible to reach the proposed 160 limit by the end of this year.

My position is this is not currently feasible or reasonable to achieve by the end of this year, the proposed PEL, with the current technology

that is available to us.

Speaking directly towards engine requirements, my concern is that other government agencies have opposed an engine requirement that is -- that will come to its final conclusion after the MSHA proposed rule. And also, that these equipment engine makers do not look at heavy equipment but more over-the-road equipment.

Secondly, whether compliance difficulties may lead to another problem by requiring a large number of miners to wear respirators until feasible controls are fully implemented and other comments or observations concerning this issue.

I think we all agree here that if our employees and miners have to wear a respirator at all times, that we feel that we will -- it will be a dis-incentive for our employees and also the turnover that is going to take place with the younger generation coming into the mining community, they may find this as a dis-incentive as well.

The next proposed question requested input on mine industry's experience with using bio-diesel fuels to reduce DPM exposures. This was interesting to hear the comments before with Mike. But we have used bio-diesel at Oldham County Stone, one of our

undergrounds. Twenty percent blend. And we found no value in that. We did not see any reduction to the diesel particulate matter at all.

We used this in conjunction with Mirenco and we did find values in what they offered to us. So it goes back to the idea of what we spoke about earlier where our efforts to reduce it and looking at multiple different -- looking at different efforts, we are finding different values and different results.

From here I'm going to turn it over to Vernon and let him speak.

MR. BEBOUT: Okay. Well, like I said, I'm with Jefferson County Stone here in Louisville. Since this all come about, we started making drastic changes down there. Of course the first major move we made was ventilation. It was building stoppings, we upgraded the motor on our fan, reset the blades and all that. That was step one, to get air across there.

Then after that we started in checking our engines, what have you. Like he said, Mirenco come in. They went through all of our engines. We've got one or two maybe that's the older models, but basically most of ours is newer engines. Our loaders -- what is it, 2004, ain't it?

MR. DENNIS: Uh-huh.

MR. BEBOUT: Yeah, it's 2004. So I think about 2000 and up, most of our equipment. After the stoppings and Mirenco, we -- okay, equipment wise, we run three shifts. We started changing our equipment around trying to utilize just the ones we had to have for each shift to cut down on the number of equipment that was running.

And the only thing we haven't tried there is the bio-diesel like they did there. They didn't have a difference in it, well, we haven't ever tried it at Jefferson. That's all I've got to say.

MR. DENNIS: Well, the only comment that I'd like to add to that is --

MR. SEXAUER: Just for the record, this is Gregg Dennis.

MR. DENNIS: Gregg Dennis. We have made great strides and I think everybody has. Everybody has taken this as a challenge to see where we can go. And we've made great improvement.

And currently, to our sampling that we have done, we are below the 308 and feel like we've made great progress to get there. We've changed a lot of equipment around, we've moved a lot of equipment around. Like he said, currently we run a pit loader and three trucks on our production shift. And we

produce a lot of tons. We're -- you know, we're over a two million ton operation. And like he said, running three shifts.

And the things that we've done I think have helped our air and our employees appreciate the measures we've taken.

Now, to get us to the next level is a whole new step. And we're not sure exactly how we're going to get there or even if we can get there. The 160 is a huge step that we're going to have to consider a lot of things, as we have already.

So, I mean that's our biggest concern going forward. With our people, our employees, the company we work for, the investment that they've already made towards this, and we're not there yet. And we've got a long way to go.

MR. WALKER: Hi, I'm Brad Walker. I believe I've been with the underground mine at Marion for, like I said, 31 years. And in that 31 years I've seen some big differences in the air quality underground.

In this last two years we put a vent shaft in, fans and it's made a big difference. But we're still -- we're right at the 308. And the next step would be a big step for us. And I don't know how in the world we're going to get there. But we'll do what

we have to.

We've got -- most of our equipment is '99 model and newer and we've got just a couple of pieces that are probably a '78 model. And that's about all I've got.

MR. SEXAUER: Do you gentlemen all work at the same mine location?

MR. GREGOR: No.

MR. SEXAUER: No. Could you just clarify -- let's see, Vernon and -- no, let's see --

MR. GREGOR: That's Gregg. Vernon and Gregg, they both work at Jefferson underground.

MR. BEBOUT: Jefferson County Stone.

MR. SEXAUER: Okay.

MR. GREGOR: Brad works at Marion.

MR. SEXAUER: Okay.

MR. GREGOR: And I do not work at either one of the mines. I work in Nashville.

MR. SEXAUER: Doris, you have a question?

MS. CASH: Yes. You said you've all been either at that 308 level. Do you have any regular respiratory protection program at your mines? And, you know, I want to ask you some of the same things we've been asking the other people, do you do fit tests for the miners? Are there medical evaluations?

MR. GREGOR: I'll speak to that. From the company's side, we do have a respiratory protection program. We do fit testing when necessary. And we do have a medical evaluation program. We provide PFD's, chest x-rays, et cetera.

MS. CASH: Okay. When you do that medical evaluation, is that like a pre-employment or an annual, bi-annual?

MR. GREGOR: We do pre-employment and then we also do on a three year cycle.

And as far as our sampling, all of our locations currently are under the 308.

MS. CASH: What about -- now you said although there's a number of different operations you have, I just wanted to ask you something about transferring. We asked some people before about transfer rights. If you had people that wouldn't be able to -- if they couldn't wear a respirator, would you have difficulty transferring them to another position with a new group?

MR. DENNIS: Probably not. Our surface plant -- we have a primary crusher underground and our mine is currently 1,000 feet deep. So we have jobs on the surface and jobs at the underground. So we probably could provide people transfers on the

surface.

MS. CASH: Okay. And then about what size are your operations, let's say for -- you know, in each mine? Fifteen, twenty, you know, how many people do you typically have on a shift at a property?

MR. DENNIS: We have -- on our production shifts we have ten employees on our production shifts. We have a total of 50 employees altogether at the operation.

MR. WALKER: And at the Marion quarry we've got a total of 12 people. So it would probably be difficult but they could switch people out.

MS. CASH: Okay, thank you.

MR. SEXAUER: Jim?

MR. PETRIE: I'd like to direct this to Vernon and Gregg. Does your Jefferson County mine have mechanical ventilation?

MR. DENNIS: Yes.

MR. BEBOUT: Uh-huh.

MR. PETRIE: And Brad had mentioned --

MR. SEXAUER: For the record, the answer is yes.

MR. BEBOUT: Oh, okay, sorry.

MR. PETRIE: Brad had mentioned that he's noticed a big change, in his mind, over the 31 years

he's been there. Have you also noticed a big change and reduction in diesel particulate emissions, in your minds, since you've gone to mechanical ventilation and made other changes?

MR. BEBOUT: We've made a big difference since we done that. Ever since, I don't know, '99, 2000, we put an air shaft down, we've got a fan there, plus we have -- I've got three booster fans down there also. And then after -- we built several good stoppings to get the air around the faces. That helped. But it still wasn't good enough. And then Mirenco come in and they helped us a bunch. We've had a big -- especially in our trucks and our drills, after they got done.

MR. DENNIS: And one thing to note, on the equipment, I mean we've had new trucks that the DPM was pretty bad in. And so not always necessarily can you equate a new truck with having much, much better DPM. Because we've had new trucks at our location in the last couple years and found out that they really need to be tuned up and set right and get to be working properly also.

MR. BEBOUT: Loader, too.

MR. DENNIS: And also our loader.

MR. PETRIE: Does most of your equipment

have environmental cabs?

MR. DENNIS: Yes.

MR. PETRIE: Are there specific areas of occupations that you feel would be more problematic in meeting the lower limits than others? And if so, which ones? And that would be either for Brad as well.

MR. GREGOR: Sure, I'll speak to that. Through our sampling records we can see that both the drillers and scalers at our occupations have the highest exposures.

MR. PETRIE: And does your -- do your drills or scalers have environment cabs?

MR. DENNIS: Yes, they do.

MR. PETRIE: Okay. I think, Adam, you had mentioned that you felt the 160 limit currently would be technologically infeasible.

With the phased in approach that we are proposing, do you feel that by the final -- date of the final limit in 2011, that that would give time for those controls to be evaluated to resolve any implementations and to implement controls by that time that would meet that limit?

MR. GREGOR: The 160 level, as I stated before, I do not agree with. I agree with the 308

limit that we're at right now. And looking at it as elemental carbon, not total.

The biggest problem is the separation between that. The technological advances, as I said before, the

-- another agency has a standard out and a phased in approach for engines. And it's not until after the fact that the final rule or the phase in process comes with MSHA.

So at this time, I don't know. I think we had assumptions before and we're making assumptions again that by 2011 we'll make those technological advances.

MR. PETRIE: Thank you.

MR. SEXAUER: George?

MR. SASEEN: Adam, you mentioned 20 percent bio-diesel was tried and didn't see a difference.

MR. GREGOR: That's correct.

MR. SASEEN: Has corporate thought about going higher blend?

MR. GREGOR: We have. We are going to pursue that once the winter is out. I know this has been a warm winter, so we probably could have used it. But we were worried about the gelling factor of the bio-diesel.

Once the summer months come or the spring months come, we will continue to use a higher concentration of the bio-diesel, percentage wise.

MR. SASEEN: Have you made decisions on what provisions you can make come next winter? Obviously winter will be coming again. If you implemented it during the summer, what provisions you would do to be able to maintain it throughout the year.

MR. GREGOR: To be honest with you, I don't know if I can speak of this. I haven't been in all the meetings that have taken place. Probably the same provisions that were spoke of earlier. Possibly taking it underground, using a double sealed drum of some sort.

But as far as that, I have not -- to my knowledge, we haven't pursued that. You may hear that later in other comments.

MR. SASEEN: You said Mirenco, when they came in, made a great deal of progress with your engines. Is there one specific thing that you think that they did across the fleet that made one significant difference versus a lot of little things?

MR. GREGOR: I think I'll let Gregg or Vernon or Brad speak of that.

MR. BEBOUT: The one that we noticed the

most on was our trucks. The newer electronic deals, like they put on those which helped. The older trucks, we had trouble with the pumps on them. They had trouble getting them lined out. But basically the newer trucks with the electronic and the new 988G Loader, now they made a big difference in them.

MR. SASEEN: Were the newer ones electronic engines or did you add an electronic component --

MR. BEBOUT: They added the electronic component onto them.

MR. SASEEN: Is this something like throttle limiter?

MR. BEBOUT: Uh-huh, yeah, certainly is.

MR. SASEEN: Okay. Do you know what altitude the mines are at in elevation?

MR. BEBOUT: I don't.

MR. DENNIS: No, I don't.

MR. SASEEN: You mentioned, Brad, that even though it's a new machine, I assume you mean a new machine, the emissions still weren't good.

Could you elaborate on what the issue was with that or -- you know, what you guys actually -- was it a certain engine that you've seen a problem with or just that one specific machine and what they did to correct it?

MR. WALKER: Well, they did a lot of things to correct these engines. Obviously their point is when you push down on the throttle, there's a lot of wasted fuel that goes through the engine. And sometimes they control that, that fuel going through there at that time period, so it can burn that fuel up before it goes out through the exhaust.

So I just said -- a lot of our new equipment needed to be tuned up, too. And I mean new equipment, less than a year old. And so the perception doesn't always need to be that new equipment doesn't automatically fix a lot of problems. They still have to be maintained and have some kind of -- we also have a service contract with them where they come in twice a year to tune up our engines. They check them before, they check them afterwards, so we can really tell exactly what all of our engines are doing. And I think that's key to what -- to how we progressed to where we are today.

MR. SASEEN: As I asked the other company prior, would you -- could you -- well, maybe I'll go back to Adam from corporate, provide any of the emissions data from Mirenco that would show what the procedures were that they -- how they've been testing the engines, results, when they saw issues what they

did to correct --

MR. GREGOR: Sure. I don't think we should have a problem with that. And in fact, I'm looking at an analysis sheet from Oldham County right now, with fuel savings and DPM reduction calculations, stuff that I can share with you.

And from there I can go back and find out if it's possible to share other information. But I don't see a problem with that.

MR. SASEEN: I'd be interested also in how they load the engine to do the test.

MR. GREGOR: Okay.

MR. SASEEN: Various machines.

MR. SEXAUER: I think that's all the questions. Gentlemen, thank you very much.

Ed Elliott?

MR. ELLIOTT: I want to first say my name -- well, let me say my name is Ed Elliott, E-L-L-I-O-T-T, Director of Safety and Health for Rogers Group, Incorporated.

Our headquarters is in Nashville, Tennessee. And we have five underground mines presently.

I want to first thank the previous panel because it's getting the people that are out there on the front line, they're producing today and working

and trying to make a profit and hopefully continue making money so I can run around in my truck and make statements like this.

But I really appreciate them coming in, because they had to go out of their way to do that.

I want to thank you for the opportunity to speak today and I would like to open my statement by saying that this rulemaking has taken many turns and twists to arrive where we are today.

Many people inside MSHA, as well as other governmental agencies, have spent countless hours of hard, dedicated work, and unfortunately will probably never be appropriately recognized for their dedication.

Regardless of my comments on the merits of the rule, I want to extend my appreciation for those efforts on behalf of all of us in the mining industry, and particularly the men and women who are in the real world of mining, truck drivers, loaders, drillers and others that perform all the associated tasks of metal/nonmetal mining.

Each company, association and labor group is committed in their own way to developing a safe and healthy work environment. Rogers Group is no different. And we have been taking actions over the

last five years, particularly, to reduce DPM in our mines.

First, I want to state that the rule, as it was promulgated and published in the Federal Register on January 19th of 2001, was fundamentally flawed and was not based on sound science. All the reasons this is the case have been enumerated in many forms over the last seven years, at least.

Yes, I, along with others, including the NSSGA, have tried to use the appropriate channels of government to highlight the weaknesses of the rule, even before it was made law in 2001. All to no avail. And ever since the rule was published, it has been tweaked and changed to bring it more into reason with all the available science, as well as ongoing research.

All efforts at correcting the rush to regulate with this rule has us still facing the cold facts that we're trying to improve air quality in underground metal/nonmetal mining through forced regulation based on unproven data.

Sometimes it is said that if one makes a statement often enough, we will begin to believe it. I had heard and read the rationale for this rule so many times, that I even get confused.

My personal belief is that we should work to improve the work environment. But I am also torn by having to fundamentally support the premise for this rule but adamantly opposing the basis for it. I have spoken with many operators in Iowa, Missouri, Kentucky, Indiana and others throughout the United States who feel the same.

What are we to do? There are many options open to us, this being one. But as we move closer to the date when the stay will expire, we will all have to weigh the other options.

I am the eternal optimist and trust that those in a position to act within the government will do the right thing. But unfortunately, we may be so far down the road that no one single person could stop this wreck from occurring.

It has, in recent days, become popular to attack mining companies for their failure to protect workers, as well as condemning MSHA for their failure to punish companies sufficiently to prevent accidents. Yes, there are some operators in the mining industry who need to dramatically improve their safety and health efforts, but the vast majority work hard at preventing injury and illness.

And I certainly am not here to say that MSHA

is soft on operators. Quite the contrary. I have seen MSHA increase the number of inspections in our operations and that has been sometimes painful, but it reminds us that we must remain vigilant in our safety and health efforts.

The change in MSHA over the last few years is not an enforcement but rather in trying to work with us to improve safety and health in the industry. MSHA cannot make operators or miners value safety and health. Only each individual can do that.

A comment was made at the Arlington hearing concerning the NSSGA's request for that hearing and yet no one from NSSGA spoke there. I am the chair of the NSSGA safety and health committee and on behalf of our members, I requested that the NSSGA appeal to MSHA for that additional hearing. And if we hadn't done so even, some speakers that were there might have been inconvenienced to attend at another location.

In addition, circumstances changed after our request for that additional hearing and the NSSGA decided that based on those circumstances, to wait and submit written comments at a later time. I am not speaking for them, but only to explain why the additional meeting was requested.

Now, back to the issue at hand. I want to

address some of the questions that have been raised by the rule. First, what experience have we had with alternative fuels such as soy based diesel fuel? And you heard from the previous panel that we had attempted to utilize bio-diesel, and I'm speaking of the soy based diesel -- bio-diesel fuel, at our Oldham County Stone Mine. And we did not see marked improvement as a result of utilizing that percentage level.

That's not to say that if you would have taken a bio-diesel fuel and utilized it in another application, it may have resulted in significant improvement. But what is very important is that when you decide to go out and improve your diesel particulate matter emissions, you've got to do it in an organized fashion. You must have a hierarchy of controls as to how you are going to approach achieving lower emissions on DPM. And that's exactly what we had done. We were looking at bio-diesel as one of the latter steps in our hierarchy of controls, at trying to see a marked improvement.

The other things we had done, we feel like at this point had brought the equipment to an efficiency level as far as operation of the engine and clean burning of the fuel, to probably one of it's

highest points. That's not to say that we won't, in the near future, and I'll speak in just a minute about we have an underground mining team that meets periodically to discuss options, but we may look at going to higher levels of bio-diesel fuel. As far as the B-50, I know there are even some companies that are using a B-99. And they have found marked improvement.

And so we are not discarding the use of bio-diesel fuel, only putting it back into that list of a hierarchy of controls that we may implement as we continuously move down in our overall objectives.

Second, about the request, if it will be technologically feasible to reach the proposed 160 limit by this year, realistically that's not practical. Certainly based on the current technology, we would not be able to do it.

MSHA also asked about its 2001 assumptions that if by 2006, 50 percent of the diesel equipment would have new engines, if that was accurate.

As you heard from one of the panelists previously, that in our mines we have tried to work at getting the newest and most efficient engines. But realistically there are times where equipment may last as long as 20 years and be very effective and very

productive. And as we would have a situation where there would be a need for a replacement engine, we would certainly look at trying to upgrade those engines to the most efficient that we could.

Not only from a DPM perspective but just from a business perspective. They are going to be more efficient in using fuel. And fuel -- it hasn't been too many years ago when you could buy diesel fuel for probably less than a dollar a gallon. Yet, today, it's in the range of two dollars, plus, a gallon. And bio-diesel fuel is significantly more expensive than that.

And I believe Mr. Pomroy or someone mentioned about the tax credits. And those are available and we have utilized those tax credits were available. And they have brought the price of soy based bio-diesel fuel down competitively with the higher priced diesel fuel. And of course that is effected by the market. And supply in some areas is just not there. In some of the more remote areas it's difficult to get bio-diesel fuel. We have not had a problem at this point in locating where there would be sources for bio-diesel if we wanted to use them in any of our five mines.

MSHA requested comments on whether

compliance difficulties could lead to a problem by requiring miners to wear respirators. That is a concern that I think we all have as we approach potentially to the very low levels that are proposed in this rule. That the operator may be forced to use respirators.

Now, there is certainly differences between negative pressure and positive pressure respirators. And I won't discuss, really, the merits of those. But from the standpoint of the mining environment, any time you make the mining activity more difficult for the workers, it is going to be more difficult to find workers that are willing to do that task. And we find it harder and harder in this day and time to find people that are willing to work, period. And let alone if they're having to be restricted by the use of respirators.

So we're concerned about that possibility. We hope that through time, that technology and further research will look at making respirators more user friendly. The positive pressure respirator, on paper and in word, it sounds easy. But you've still got to carry a little bit larger helmet, you would have to have some type of a device to drive it, you would have to have some type of filtration system. And all those

things add extra weight that the miner would have to carry. So the idea of respirators is certainly not something that we would look forward to having to use.

Also MSHA had requested information on diesel particulate filters. We have not gone to diesel particulate filters. In our hierarchy of controls, quite honestly diesel particulate filters would be our last choice.

First of all, just from a practical perspective, there is still issues with the types of filters you might use and if you are making the engines -- if the engines are inefficient to start with and you have to use a -- you want to use a diesel particulate filter as the correction method, it could very well be that because of the inefficiency of the engine, it makes the filters a lot more difficult to deal with. Because they're going to clog up, they're going to create problems for you and it's just going to increase the difficulties of implementing a program.

So we looked at diesel particulate filters as the last resort. It certainly may be one that we want to take, but it's not one that we would choose to go at early.

And for some reasons, as the people on this

panel are aware from MSHA and the other government agencies, that there were initially some problems with some of the filters had potentially catalytic filters producing harmful gases. Of course that was very quickly corrected. But there are things out there, the research is still going on, to determine what's the best filter.

The comment regarding technological implementation issues as they effect feasibility of compliance with the final concentration dealing with control technology and MSHA requests the mining community to address issues surrounding off board regeneration.

One of the things also about diesel particulate filters and off board regeneration is you're talking about increasing the labor cost. There's no way around it. It's going to take more people. And I think as Mike Neason mentioned earlier, the underground mining environment is a bit more expensive to exist. Just to produce in that environment. And you're not able to remove a hundred percent of the mineral.

So the effort you put forth, anything that adds cost to the price per ton of that product, you run the risk of putting yourself in a position of not

being competitive with other surface mines in the area. And certainly you can take it down the path that if this is restrictive enough, there may be some companies that would like to open mines that would be in an underground -- an area where an underground mine could go in, but they may say it's just not practical for us to do that, we can't compete.

So the idea of the off board regeneration, we have not used it but it may be something at a point in time we may need to.

Also, there are -- there is research, excuse me, going on now on regenerating systems that are a much lower temperature required. I know that the -- I think there's a Johnson Mathey system that is being tested and experimented with right now that would be a much more user friendly diesel particulate filter. Particularly if that filter were to be able to regenerate on board and actually reduce the -- it does not take as high of temperatures in the exhaust in order for it to regenerate.

The question was raised about water emulsion fuel. I know there are some operators that use water emulsion fuel. I know from comments that I have received, that it does reduce the horsepower on the equipment. There can be some problems as far as the

systems. On the newer equipment, they are pretty efficient in trying to filter out water in fuel. Because historically, water in fuel has been a negative.

So there are ramifications over and above just using an emulsion fuel.

Another point about the bio-diesel fuels is that -- I think this is something from an energy dependent standpoint that we may see this becoming more widely used in the mining environment, not just underground but in the surface.

Where I have an office in Bloomington, Indiana, the school corporation's bus service uses bio-diesel fuel and it found it to be very efficient and very effective at reducing emissions.

A part of using bio-diesel fuels is the ability to have it readily available for all operators. Those of us are fortunate enough to be in an area, a larger metropolitan area, it will be available. But my concern is it may be a number of years for some small operators in rural areas to have readily availability of bio-diesel fuel. And primarily the reason that I would say that is transportation cost. We can move products all over the United States, but it's just like as we move rock,

if you're moving rock just a few miles the price per ton for that delivery is pretty small. But if you take the price per gallon of fuel and you have to deliver it hundreds of miles, it could almost make it prohibitive.

MSHA requests comments on environmental cabs. This is one aspect, and I talked about the turns and twists of this rule. Initially the rule could have been enforced based on area sampling. Fortunately, we have focused it on the most important aspect and that is personal sampling.

And the cabs today are so much better. It's just amazing at how well they are able to make the work environment inside equipment so much more comfortable. I think this has to continue and operators, as we have, we have looked at older cabs and go back and retro-fit and just plug all the holes. It sounds very simple. But just sealing up the cabs has helped significantly.

NIOSH talked about data that should be requested from NIOSH to assist in developing an appropriate conversion factor. And there is no question in my mind that this rule should be based just on elemental carbon. There are too many factors that can affect a total carbon number.

We found significant differences in situations with elemental carbon versus total carbon just in a miner smoking. Now, if you really wanted to do something for the mining industry to improve all of the health of the miners, it would say outlaw smoking. Now that's something that, when we look at the health, that could be as critical a factor as anything. But we found significant differences that could be effect -- things that effect it like oil mist, it could be inherent qualities in the mineral itself that could be carbon contained that could become airborne and affect the sample. So it definitely should only be based on elemental carbon.

MSHA requests comments on the economic feasibility of a concentration of 160 total carbon and a possible phased in approach. You've heard my position with respect to total carbon versus elemental carbon as a measurement. I think without question the phased in approach would be the only way there's a chance for the operators to allow technology to catch up and research to catch up. And there are studies going on now. The NIOSH/NCI study, which is due out in -- I'm sure within the next year or so, is supposed to be the definitive research on whether DPM and the exposure to DPM elevates the risk of cancer in miners

who have been exposed to it working underground. I'm anxious to see that and I think that's something that could quite honestly effect what might happen going forward. And it could effect it in either direction.

I think definitely the phased in approach is the proper way to do it.

Talked about MSHA asked whether a five year phase in period for lowering the concentration limit complies with Section 101(a)(9) of the Mine Act. This section of the Mine Act states, no mandatory health or safety standard promulgated under this title shall reduce the protection afforded miners by an existing mandatory health or safety standard.

And to be honest with you, we don't know exactly whether it will or not. Because I, as I have stated before, the January 2001 findings concerning the health effects of DPM were, in my estimation, not supported by sound science. Nor have the scientific findings upon which MSHA's standard was based, been subjected to peer review and scrutiny under the now applicable data quality act guidelines.

As a matter of fact, this rule could cause operators to seek compliance assistance from sources that could put miners at greater risk of harm due to untested technology.

MSHA asked whether the five years is the correct time frame for reducing exposure. Certainly any group of people could debate whether there should be a phased in time period. If I had my choice, it would be we would stick with 308 and then wait five years to see where the technology is and where scientific study has shown us definitively about the health effects of diesel.

Then at that point, we should look at reopening and maybe reducing or lowering the rule to a lower level.

Talking now about extensions for compliance, without a provision for extensions, a mine in some instances would be without any recourse regardless of the efforts they had put forth to comply. And the second part of this was talking about the section of the regulation, 57.5060(c)(3)(i) and the effects of deleting that requirement.

I think it's important that the operator have the opportunity to repeat obtaining extensions for compliance. Now, certainly the District Manager would be the person that would be closest to knowing if these were legitimate requests and whether the mine operator had made legitimate efforts to reduce DPM and the DPM exposure. But there could be factors. I

could see where they had gone through newer equipment, they've maybe gone through using diesel particulate filters, any number of other technologies and yet maybe they should try to use bio-diesel fuel and because in the remote area they are located, particularly maybe in a metal mine, they might not be able to obtain it reasonably. There just might not be a source for it.

So having that option is important. And also I want to say that if an extension were requested and the operator were to be denied by the District Manager, there should be a provision available where they could go to the Administrator and if they were still denied and the Administrator felt they were not due an extension, then the operator should have an opportunity to appeal any of those decisions directly to the Mine Safety and Health Review Commission or another comparable independent body.

Also, if an extension is denied by MSHA, MSHA should provide specific recommendations on methods that the operator should have or should use to be considered to comply.

MSHA also asked for comments concerning medical evaluation and also medical transfer. I could read all that section of the request but I'm not going

to. I think everyone here understands that.

And first and foremost, the Rogers Group does not have a problem with the requirement for medical evaluation for anyone required by this rule to wear a respirator. But any requirement for a job transfer would only be made to an available job and not to create a job for that individual. And the operator should not be required to notify the District Manager of this transfer. There would be avenues that any employee could seek to address that if they felt that they were being dealt with unfairly according to whatever the regulation might be. And that's a part of the obligation of the operator and the education and training to make sure that employee understands their rights according to the MSHA regulations. And we have -- if there were an employee that felt that they should be transferred and were not, within our company we have an open door policy that would allow that employee to go up through the chain of command within our company to receive an answer for that. And they're also educated in their rights with respect to MSHA.

Another point I would like to bring up is concerning the error factor in the analysis and the ultimate decision based on that, whether an operator

would be cited or not for being in violation.

I believe it is important as we rachet down the permissible exposure limit, that we have to consider having a greater error factor considered prior to citation.

I'm not arguing the point about science. But if we step out of this room and somebody says there's a -- you know, there's a pile of dirt out there, we need to move it. Most everybody can see that pile of dirt. But if I say you're going to have to go out there and move the dirt and you go outside and you can't see a pile of dirt, well, it's getting tougher and tougher to really get down to the minute levels we're talking about sampling. There's potential for error in the circumstances dealing with the sampling process itself, the equipment itself, the laboratories, there are presently no quality checks on laboratories to determine how efficiently and effectively they are doing the sampling process. This is going to be a greater problem as we rachet down the PEL and start sampling very minute quantities.

Because if I went to look for dirt, my guess is I can go outside here and find a spot there's some dirt. But I could also find a spot there's not dirt. So when you start looking at the punches and the

analysis of the samples, that's something that we've got to consider, all of those factors, and there are so many of them that we need to make sure the error factor takes that into account.

Cost of compliance, Rogers Group is in business just like anybody else. They're in business to make money. But we have never approached any issue, whether it comes to safety or health either one, based on dollars. And I have to say to you that Rogers Group has spent hundreds of thousands of dollars in upgrading and reducing the level of diesel particulate exposure in the mines. And internally, we have a goal to reach a level lower than the final proposed standard.

I think of this as being the right thing to do to improve the environment in the mines. We want to make our work environment to where people don't mind coming to work for us, and see it as an atmosphere that they can work comfortably in. It's work or they wouldn't pay us. It's never going to be like sitting at home on the couch with a big screen TV. But we can work to making it better.

A couple of things I'll mention that were questions asked earlier. Any person that we hire in our aggregate operations, we give them a post offer

physical which includes a pulmonary function test, an audiometric test which doesn't apply here, and also a chest x-ray that is read by a B Reader.

Every three years we do a followup to that and go to all our operations and voluntarily, we do not demand, but we voluntarily offer and encourage every one of our employees in aggregate operations to go through a similar screening. And we do that at no cost on either end, at no cost whatsoever to the miner. And there should not be a cost to the miner.

I mentioned the hierarchy of controls. Just to touch on that one more time, I think we look at that from a business perspective. You look at a cost benefit from each step and you would want to try to do the things first that are going to be the least costly to you or the least imposing on either the miner or the equipment or the cost to the operator. And that's how we follow it. But we never close that hierarchy of controls and say we will never go to the next level. We will constantly be working to look at other ways to improve the emissions on our engines.

About the new equipment, I was really surprised by this, that one of the gentlemen from Mirenco, the company, and we had a meeting, as I mentioned of the underground mining team, and he came

and made a presentation to us. And in this presentation he showed us the statistical data and analysis of some engines. Most manufacturers, they meet whatever the guidelines and they put emission controlling things on the engines, but they're looking at how many horsepower can this engine produce. And sometimes in order to make horsepower you put more fuel than you need into it. And I'm sure George and probably Bill have seen that, and some of the others of you maybe have seen that in the field as well. So they're not concerned about getting that thing tweaked to where it's right on the margin of being a little bit hesitant when it accelerates, but it's part of what we're going to have to learn in the industry and manufacturers are going to have to learn that underground mine operators are looking for efficient engines that are the most efficient with the greatest amount of horsepower within that range of efficiency that they can be. But efficiency includes diesel particulates. And that's something that I think manufacturers have got to change.

As Adam Gregor mentioned earlier, I know the EPA has standards that they have required of over-the-road diesel engines. Those same standards aren't required of off-road diesel engines. And I think

that's one thing that at some point in time maybe an appropriate organization can say to those engine manufacturers, you're going to have to produce an engine that is going to be more efficient and that will help all of us.

I mentioned our underground mining team. Darrin Maxen, our Vice President of Aggregate Operations for the company, had determined that we needed to form an underground mining team. And we've done this over the last two years. And on that team will include all of the supervisors that -- I should say the superintendents and managers of our underground operations, along with our area production managers and we come together and report on successes we've had, we discuss what will be in the next steps in our hierarchy of controls. And this group of people have been able to -- all the safety people in the world are the MSHA people or the NIOSH people or the Solicitor's Office. People that are out there doing the work have to want to do it. They have to see that it's practical and as we've come together we've wanted to make sure we educate people about DPM and what we're trying to do. Without regard to this regulation, but just improving the atmospheric conditions for our miners.

And in bringing this team together, I have to say they're the ones that have made the difference in every one of our operations. And I know I spoke to one of the area managers and they've already put in for next year a more efficient fan to go in their mine. And that is a direct result of trying to improve based on DPM as well as other factors.

And that concludes my remarks. And I'll be receptive to any question you might have.

MR. SEXAUER: George, do you have a question?

MR. SASEEN: Yes. Ed, I'm not sure if -- I think you may have mentioned it early on in your testimony and I know Adam mentioned it and I'm not sure what people before him. But I wanted to get it clarified for the record. You mentioned that the MSHA step down of the exposure limits would come into effect before other agencies on engines. Could you or Adam clarify which agencies you were talking about?

MR. ELLIOTT: If I'm not mistaken, it's the Environmental Protection Agency and their requirement on on-road diesel engines. And I can't quote specifically here but I think that's generally known in that arena of the requirements. I think they're coming about sometime in the next five plus years.

MR. SASEEN: Right. There's two. There's on-highway and then non-road coming in starting about 2008/2009.

Okay. So you're seeing -- well, are you saying more that with this trend of the EPA cranking down on the engine emissions, that MSHA should follow that trend?

MR. ELLIOTT: I say that only from the standpoint that in my estimation improvement -- requiring manufacturers to produce cleaner engines is going to benefit all of us. Right now, to my knowledge, manufacturers of the larger engines that we use underground and our surface operations are not going to have to achieve some of the levels that the on-road engines will eventually have to achieve.

And it could very well be that manufacturers in the United States just elect not to produce those larger engines.

I'm not saying that MSHA should parallel impermissible exposure limits. What I'm saying, there should be government coordination that if we're going to be faced with lower permissible exposure limits, that somehow manufacturers should be required to produce engines that would meet those permissible exposure limits without the operator having to go back

and find any number of snake oil salesmen to potentially tell you if you do this, it'll do this for you. And it would help a lot if the engine manufacturers were looking to produce highly efficient engines for large off-road equipment.

MR. SASEEN: Are you talking -- I think that the tier 4, EPA tier 4, I think it goes up to at least 750 horsepower. Are you talking you're using engines larger than 750 horsepower?

MR. ELLIOTT: No. And honestly, I'm not in a position right now to intelligently discuss the issue with respect to those points you raised.

But when we look at those engines and you think about equipment, just like we talked about, there are times that you'll have a piece of equipment that will be structurally a very good piece of equipment for as long as maybe 20 years.

If you go out and you try to find a tier 4 engine, in some cases they will not fit that older equipment. They're just not made to go in the older equipment.

So we found ourselves kind of torn a little bit in trying to upgrade -- you talk about upgrading engines and retro-fitting newer engines in older equipment, and that's going to be something that's

going to be with us probably for the next five to ten years as older equipment gets phased out.

I can't tell you when the tier 1 requirements took effect, but I think you're looking at those -- that series of equipment and those engines in tier 2 that are the ones that are going to start making dramatic differences. It may be ten years before an operator can go out and spend the money to maybe get something that might have a tier 3. Tier 4 I don't believe are even -- are they on the market?

MR. SASEEN: No, not till at least 2009 or 2010 the first one kicks in. Tier 3 is now starting as of this year.

MR. ELLIOTT: So that evolution's going to help us and I think it -- in some respects it would probably -- this problem would take care of itself if we just waited long enough. There would be, as the engines get more efficient and the price of fuel goes up, everybody gets a lot more attentive to doing things that will cut costs.

MR. SASEEN: I'm glad you said your philosophy of looking at horsepower versus equipment because in a lot of cases you -- some people over buy the power for the equipment and that is a significant advantage to try to limit horsepower just to do the

work that the machines needed to do. And we in Tech Support have made some strides personally working with the engine manufacturers to look at some of these mining concerns that we can possibly get some processes to get lower horsepower ratings, especially now when you're in the electronic world, because of what you're saying. That some applications don't need the higher horsepower and we can tie in to more DPM ratings or get them to buy into some new MSHA ratings of lower horsepowers. You know, that makes -- I expect it to lead to making some significant progress. As you said, you're looking for trying to match power with the work you need and not over buying the power.

So we are making some strides in some programs we have within Tech Support to do that as we speak.

MR. ELLIOTT: Yes, and I have to say I think that the Tech Support within MSHA and also NIOSH are tremendous resources to the mining industry. They have -- you and others in the organizations have done a tremendous service to the mining community of trying to help us to meet this.

It's just -- I guess somebody's firing a blow torch at you to try to get you to go faster. But you're doing a good job and the mining community

appreciates those efforts.

MR. SASEEN: That's all.

MR. SEXAUER: Jim? Okay, Bill?

MR. POMROY: Just a couple questions. You talked a little bit about the error factor and I was curious if you object to the way that MSHA develops error factors for its various airborne contaminates.

MR. ELLIOTT: Bill, that's a good question and I'm not technically astute enough to look at the methodology behind it. And I trust that there are others, of course, in the industry that have spoken to it and I feel that generally speaking that most people have been satisfied with the approach that's been taken.

I'm just concerned that potentially the same approach, once we get down to 160, if it doesn't factor in some of those subjective things that could influence the result, that's the part that I think -- and to tell you exactly where that gets plugged in, I don't know. There are people a lot smarter than I that can come up with that.

But there's got to be a consideration of a little bit of a subjective nature of the sampling process that has to be considered that a circumstance could develop -- particularly if you use one sample.

If you were to decide to use multiple samples and coming up with a determination of whether somebody is over exposed, I wouldn't be as considered about it as I am.

But when you're going out there and using one sample, what if the pump flow is effected just a little bit, what if that miner, for whatever reason, a window breaks or something and there's an opening in that cab that's inadvertent, that sample comes out and there you are.

So that's why I think there's got to be a little additional factor considered for that.

MR. POMROY: The subjective things that you mentioned would be things like choosing which person to sample and what other things?

MR. ELLIOTT: Well, the person to sample. It could very well be on the sampling -- let's say the sampler is in a situation where maybe they were delayed in coming back to check a pump exactly at a determined time to verify it and the flow might be off. They would have to calibrate their equipment. The possibility that in the mine environment there can be a number of factors. Maybe that person is not in there typical job, maybe something has transpired. There's just a lot of factors involved there.

It could be over time that you might find as you sample an occupation, that if you consistently would see a higher number then you know it's the problem with the occupation, not the sampling. But one sample, you're putting a tremendous amount of pressure on that sample to be perfect. And the operator could potentially be dramatically effected if that sample were to come back where that person is over exposed and you potentially are going to trigger, you know, changes, you've got to look at the engine, you've got to look at your fuel. What's the employee -- are you going to have to put him in a respirator?

I mean there's just a lot of things that are triggered by that one particular sample.

MR. POMROY: You mentioned cabs as an effective DPM control. Do you have a program within the company to look at your cabs from a maintenance standpoint, close up those openings in the cabs? Do you have a company policy on operating with the windows closed? Doors and windows closed?

MR. ELLIOTT: Yes, we do. And we look at not just cabs of equipment, but I think you look at operating cabs of crushers, those type of facilities and making sure that they are sealed and have, if at

all possible, a positive pressure, filtered air, inside those. And that helps dramatically.

It is more difficult with the older equipment because they had a cab on them but they were about like Swiss cheese.

MR. POMROY: Not really environmental --

MR. ELLIOTT: From a distance they look like a cab but we have to -- we've tried to work at them, plug all the holes, make sure we get a flow of air in there, both heat and air conditioning, so those doors and windows could be kept closed.

Most of you know that have been out in the real world of mining, some of that older equipment and if you don't have an air conditioner in it in the summertime, if you don't have all the doors and windows open it's like a microwave. So we've worked at making sure that we do provide filtered air, both heat and cool, for those cabs so they can do that.

MR. POMROY: You mentioned a couple times the hierarchy of controls that sort of guide some of your decision making and determination of which controls to implement. Could you kind of describe how Rogers implements the hierarchy of controls concept?

MR. ELLIOTT: Well, what we do is look at all the aspects that you could do with respect to

reducing DPM. First and foremost, we look at trying to get the engine to operate as efficiently as possible.

Then as we do that, along with that we've got to look at providing a flow of air in our mine. You heard I think Vernon mention and Gregg and also Brad about adding fans, and we use booster fans and we do move them around the mine.

Mike Neason mentioned about the area right in the box cut, so to speak, where you're going in and opening up a new room, that is where you need to try to have a flow of air moving there. And I know that Vernon and Gregg, I've seen them, they move fans around in the Jefferson underground mine and we do in other places to try to get a flow of air into that area.

And so that's another thing that is a major factor. Then we've looked at what we're doing with the individuals. We want to make sure that the cabs that they're in are as environmentally sound as we can practically make them. We have gone out and looked at sampling, we've done a number of samples ourselves, and we found that if you have an environmental cab and you keep the doors and windows closed, you're not going to really have that much of a problem in formal

circumstances, okay? There are a lot of factors that can affect that, but in our normal circumstances you don't have a problem being in compliance with the 308.

So we would look at that. We'd also look at -- we've looked at a couple of different devices to make the fuel usage better. One was a rentar device that we did see a reduction in fuel usage. It really -- the only way it would effect DPM is just through a reduced amount of fuel usage, okay? But the Mirenco device we have found has given us significant improvements in DPM emissions.

So then we will look at -- which we did experimentally with a 20 percent bio-diesel fuel at our Oldham County Stone. And we had done those other things. They have upgraded their -- and I don't want to forget about the air flow. It's properly coursing the air, putting up stoppings, curtains and moving the air in a direction that would help. That's another aspect of the air flow.

But then we looked at the bio-diesel experimentally in Oldham after we had done those other things, the bio-diesel did not give us marked improvement. We feel like it's kind of maybe a country science, but we know now if we do those other things that the 20 percent bio-diesel is not going to

give us a marked improvement.

But then what we may do as we go through, if the other things that we feel like we've achieved, the controls, the maximum efficiency we can, then we'll probably look at a 50 percent bio-diesel blend and we may even approach that say at the Jefferson County mine.

So then the last thing we would look at is the filters. And if we had done all those other things and then we put filters on, we feel like they would not be near as onerous as they would be if we put that as our first step in our hierarchy of controls.

And there are other factors that I could add in there. But in our general discussions we talk about, among this larger group, let's get fans efficient, let's make sure we're getting the flow, just go through a thought process of not just -- well, maybe we'll try this. Well, maybe we'll try this. No, let's plan and everybody try this and then we'll move to the next step.

MR. SEXAUER: Okay, thank you, Ed. Let's go off the record for a minute and talk about our schedule for the remainder of the day.

(Off the record.)

MR. SEXAUER: We'll go back on the record. Our next speaker is Ren Ramer.

MR. RAMER: Good morning. It's a pleasure to get a chance to speak before you guys on DPM and where we're at. My name is Ren Ramer. That's R-E-N and R-A-M-E-R. I work for Carmeuse Lime and Stone, Incorporated, out of our Maysville operation. And Carmeuse is C-A-R-M-E-U-S-E. That's a little difficult to spell.

Thanks for taking the time to be here today with us. I'm not sure how the other meetings have gone, but I notice all the bags stacked in the front, so I don't know what you thought of us hillbillies here. If you're going to have to make a quick dash or what. I'm just kidding.

I had basically a prepared statement that I worked on with our environmental manager, George Love, and also our Kentucky mines manager Larry Metzena.

And as I set here this morning listening to the comments from the others in the industry and then also the questions you all have asked, it's eluded me to add additional information to address some of your questions from Carmeuse's point of view, where our experiences has been and everything.

So I'll basically go through the -- what

we've put together and then try to add in as best as possible the comments I feel that are relevant for this discussion.

I just want to touch base, we as Carmeuse Lime and Stone operate two underground mines in Kentucky. We've operated the Maysville mine for approximately 30 years. It's underground, it's 1,000 feet below sea level. So all our work is done underground, other than sending mined stone to surface. So we don't come in and out during the course of the day hauling or crushing or anything like that, it's all done underground.

We employ approximately 30 miners at Maysville. Our Black River facility, I'm also representing them somewhat today, too, they employ approximately 80 miners. They've been in operation for 40 plus years. Both operations produce about seven million tons of stone per year. About four million tons at Maysville, and then three million tones as Black River.

I just want to emphasize that Carmeuse is committed to aggressively protecting all personnel from hazards in the work place. Including hazards that might be associated with diesel exhaust.

And Carmeuse supports sound regulations and

fair enforcement. And further, the safety and health of our miners along with the rest of the industry people in the metal and nonmetal side of things.

We've continually strived for zero lost time accidents. And over the past three years we've had less than one accident per year. A number of our different operations within our mine and such has gone without a lost time accident for more than one year. Especially our plant organization.

We do annual hearing and pulmonary testing of our employees. It's done every year, primarily with the hearing and pulmonary in conjunction with each other because with the noise regulations we're required to monitor our employees' health and hearing capabilities, so we do the pulmonary testing at the same time with an outside firm.

For years we have operated equipment with the diesel soot filters on them to help with the diesel soot coming out of the exhaust on the engines. So we've taken strides there.

As you guys know, the metal and nonmetal industry has worked closely with MSHA to develop a better understanding of the issues presented by DPM with the underground environment and develop and evaluate various methods for controlling or limiting

the DPM emissions.

Carmeuse has -- is the largest producer of lime in the United States and we've moved aggressively forward in several fronts to determine the appropriate methods to meet and maintain the negotiated 400 total carbon or the 308 environmental compliance levels.

Basically we'll be reviewing what we've done in the past to impact our efforts taken to meet the 400 or the 308 levels. We've made changes in our maintenance programs, retrained personnel in both operations and maintenance departments, purchased new more fuel efficient mobile equipment to replace otherwise adequate equipment and improve air flows within the mines and air quantity delivered in the mines.

We've switched to diesel drills, which is a little bit unfortunate with the regulations coming out. But it was extremely expensive to maintain electrical infrastructure as our mine has continued to grow in the 30 plus years in operation.

Basically the Maysville mine has over 1100 acres opened up right now so we have an extensive working. So it's become extremely impossible to maintain adequate electricity. And the industry is operating the -- more of the diesel drills, so we

switched to maintain, I guess what you might say, compliance with the rest of the industry.

We are in the ops of purchasing a remote mechanical bolter which is a move to switch the operator back into the cab. He can do all his bolting functions from within the cab.

We initially used this technology in the early/mid '80s and it caused us some issues with roof bolting and stuff where we had resin rex and problems with installing the bolts and stuff. So in the early '90s we had switched to putting the person in the basket where we had better control on getting the resin in and getting the bolts installed. No problems there. Now we're making the switch back to putting the person into the cab. So those issues could possibly come about again that we had to deal with earlier.

Significant activity. Carmeuse has undertaken solely at its own expense to study two diesel fuel blends on DPM emissions at our underground mines. The testing involved the use of alternative fuel blends, specifically yellow grease, and the version soy based fuels. We invited MSHA to participate and you all did, in the studies, and several papers have been put out by MSHA on the

effects of the fuel blends and on the DPM emissions.

Also Carmeuse has tested and is now using PuriNOx, the non-organic blend of diesel fuel which is the water fuel emulsion.

According to a sampling of the data, the fuels have produced measurable reductions in DPM emissions at the mine exhaust openings. However, these data alone do not demonstrate compliance with the interim limit. These are fully diluted values, i.e., all the incoming fresh air has mixed with the diesel exhaust from each working area. And the regulations require the compliance be based on personal samples, those collected in the breathing zone of individuals. Therefore, these data represent an interesting trend rather than actual demonstrated compliance.

The impact of the various fuel blends must be evaluated in light of other factors such as operational impacts, information regarding increased fuel consumption, additional cost for blends, increased down time, increased maintenance cost and impact of power loss resulting from the use of blended organic fuels. And this data was provided to MSHA in September of 2003 at a public hearing in Pittsburgh, PA. The results expressed are the same as those that

were expressed earlier.

Just as some side notes of stuff, we tested bio-diesel beginning in early 2003. We tested 20, 30 and 50 percent blends. We tested both the virgin and the soy at the 50 and the 20 percent blends.

And we ran B-35, which is 35 percent bio-diesel, for seven months. The fuel causes some filter issues and that was with the fuel filters on the actual pieces of equipment.

We settled with the yellow grease because of its availability and the performance of it. It actually cleans better than the soy based bio-diesel. Just looking at it, basically a B-35 blend will clean better than probably -- or comparable to at least a B-50 blend of soy based bio-diesel.

We used the bio-diesel I guess from July until January of 2004. Part of the problem with the bio-diesel we noticed was -- or not noticed, but we incurred with this is that we could not get fixed pricing on it. Yellow grease is a traded commodity so the pricing fluctuates very significantly based on the demands of the market and everything. So we could never come into a stable contract with the people and the price continued to rise and became not as cost effective for us. And PuriNOx at the time, which is

the water emulsified fuel, then became an option for us to try and use.

We tested PuriNOx in late 2003. We had concerns earlier on that the power reductions would cause us issues with meeting performance and tonnage capabilities of our mine and everything. So we had a lot of reservations earlier on with using it. And that's the reason why we went with bio-diesel first.

The PuriNOx worked fairly well in the winter blend version which is 10 percent water. And then 90 percent fuel you might say and there's some methanol mixed in there and then there's some special additive that keeps the water molecules all separated from each other, keeps them emulsified.

That worked fairly well. The 20 percent, which is the summer blend of it, has caused us some more issues than what the ten percent does. And we have a tremendous amount of problems with some of our newer CAT equipment. It does not want to burn properly on the fuel.

So right now we're actually running PuriNOx on those equipment that will burn it and then we're running diesel fuel on the other ones. We're running the, you know, low sulfur.

There are also some pricing issues with the

PuriNOx because it's manufactured in Cleveland and we have it trucked down to Maysville. So it's a six hour trucking run for anybody bringing fuel in. And that causes issues with getting proper deliveries and stuff like that. It's very important to keep it delivered.

We've been using it approximately a year now. And we seen some issues early on with injectors, fuel filters, you have to switch to a brand that is not a water absorption based fuel filter.

Just to continue on with the documentation, the use of personal protection equipment for compliance should be carefully reviewed. Our experience tells us that occasions will arise where personal protective equipment will be the best method to address the DPM levels. In Carmeuse's mines, there are occupations such as roof bolting, powder loaders, high scalers, personnel working outside the cab near the roof or back of the mine. Use of PPE such as air filter and helmets or face shields as an option or primary means of compliance will achieve the objective without extraordinary efforts to move air into areas where few personnel are exposed.

This diversion of air deprives other working areas of the fresh air that may allow larger numbers of employees to work in areas otherwise that would

meet DPM limits.

The movement of air is also expensive and not always technically feasible. For example, the cost of an installation of a 16 foot diameter air shaft is approximately $1,000 per vertical foot. With the Maysville mine being 800 to 1200 feet below ground, depending on the shaft location, becomes extremely expensive. We're looking at 800,000 to $1.2 million for a shaft installation. And with fans added onto that shaft, you're looking at a million dollars to $1.5 million.

As I mentioned earlier, the Maysville mine has over 1100 acres developed. We circuit approximately 850,000 to 900,000 CFM out through the mine through two air splits of approximately 440,000 CFM each.

The air has to typically course through the mine approximately one mile to 1.5 miles to reach the -- I guess would you say, from the intake to the back out to the exhaust. We use approximately 12 booster fans along with numerous air walls to keep the air moving and sweeping across the faces.

We're working on getting to the next shaft locations but it takes time to properly locate a shaft where it's most beneficial for the mine for an

extensive year's period. We've installed shafts in 1986, 1997 and probably the next shaft we're looking at is in 2008 to meet the regulations.

Just to comment on the single sample for compliance, Carmeuse does not believe that a single sample will fairly represent the then current situation and the method has not been proven accurate and feasible. This is clearly illustrated in the examination of the data presented by MSHA in one of its papers. Diesel particulate concentrations from Diesel particulate matter studies at Carmeuse North American, Incorporated, Maysville Mine Number 150, 7101 Maysville, Kentucky, that was done on August 29th, 2003.

During the initial baseline and bio-diesel studies MSHA and Carmeuse had samplers hanging side by side in several personal applications. In the return locations MSHA had two samplers beside the Carmeuse sampler with various variations among the averages where MSHA had two samplers. The MSHA samples and Carmeuse samples ranged from almost nothing to almost 51 percent.

The sampling environment where the greatest variation was obtained and one sampler was inside a cab on a new piece of equipment which was a new CAT

988G Loader.

The greatest variation, 40 percent, at the exhaust slope as well as the least variation, 1.5 percent, at the exhaust shaft, occurred at various stable platforms.

All pumps -- the two MSHA and the one company pump were hanging on a stand in the mine opening. The distance between the sample pumps was less than 18 inches. These types of variations caused Carmeuse great concerns in compliance testing as implemented.

In addition, MSHA has admitted that the relationship between elemental carbon and total carbon is not stable and varies from mine -- day to day and from mine to mine. And also from place to place within the mine.

In a statically significant manner Dr. Jay Borac of Yale University of Medicine, a world recognized expert in toxology and risk assessment has expressed serious concerns that measuring diesel exhaust at low levels, measuring total carbon and then measuring 160 PEL are neither feasible nor accurate.

The most controversial portion of the proposed PEL is the 160 micrograms per cubic meter is supported by sound scientific data. Preliminary data

releases from the ongoing study being conducted by NIOSH of the 14,000 miners involved in sampling, access and extensive records from miners using diesel equipment since it was originally introduced into mining 30 plus years ago, have not demonstrated that there is excess cancer or disease found among our miners.

This comment made by Dr. Jay Chase who has evaluated the data on behalf of Marsh, is contained in the rulemaking record. The NIOSH/NCI study is expected to be completed in 2006 or 2007.

In summary, Carmeuse has asked MSHA to consider these comments during its deliberations on the rule. We feel that the current negotiated standard of 308 is possible to achieve and to maintain. And we are committed to doing so.

At the matter of the final DPM limit of 160, Carmeuse sees no current justification for the 160 standard and asks that it be revoked with further limits based on the NIOSH study that comes out later on.

We further request that MSHA reconsider the single sample for compliance. Data we have gathered in conjunction with MSHA personnel clearly shows the problems with the concept. The conversion factor also

needs to be fully understood at the lower DPM limits, not fully understood by 2007. The 160, and the 160 is not revoked, then 160 should at least be based on elemental carbon.

That concludes my comments at this time.

MR. SEXAUER: Ren, thank you. As I indicated, we'll take a break for lunch. I only have one comment before we do that. The bags are here but they're here not because we want a quick escape, we do like Louisville. They're here because we're kicked out of our rooms at eleven o'clock.

Let's take a break for one hour for lunch and resume at ten after 1:00. And then we'll be asking you questions when we return.

MR. RAMER: Okay.

MR. SEXAUER: Okay, we're off the record.

(Off the record.)

MR. SEXAUER: Back on the record. I think we were to have Ren Ramer continue. He's not back yet. I understand there's been some holdup at the lunch downstairs. He may be down there. So we'll just proceed with the next speaker and then when he gets back, we'll get him back into the flow of things.

In the meantime, I just want to submit for the record the one page memo from Richard Hamilton,

Vice President, O'Malley & Gibson, Georgetown LLC. It's signed by Richard -- F. Richard Hamilton, III. And we'll put this in the record as a submittal during the hearing.

And for the information of the people in the audience, what we'll do is we'll -- on our web site where we have the hearing transcript, right underneath that we'll include any submittals that are entered into the record at the hearing.

Okay, so what we'll do now is we'll proceed with Patrick McHale and Ted Dinardo.

Gentlemen, if you would, again, state your name, spell your names and then the name of your organization.

MR. DINARDO: Ted Dinardo. That's D-I-N-A-R-D-O. And I'm with Rogers Group.

MR. McHALE: My name is Patrick McHale. M-C-H-A-L-E. Rogers Group, Oldham County Stone.

MR. SEXAUER: Okay.

MR. DINARDO: I guess first of all I want to just make a note that we are -- we're both employees of Oldham County Stone. The -- what I'm about to go through, and Patrick's conversation, is kind of an informal presentation. We don't have a statement, per se. I've got somewhat of an outline of some of the

things that I'd like to touch on.

Both Patrick and I have just been working together for the last -- it's been about two months now. I've been with Rogers Group for about a year. Prior to that I've had about 20 years of experience within the mining industry. In fact, I know, Jim, I've been on the other side of the desk a couple times with Jim and it's always been a good experience when we walk away.

But my first experience as a young engineer was at an operation that was a quarry operation and the plans were to take that operation underground. And that operation had about 50 percent silica content. So at that time, 15 years ago, the concern was good ventilation to deal with the problems of silica.

Because of that, we were able to use a lot of different techniques, a lot of it was gained from NIOSH studies that have been done out west, the oil shell mines. There were some really good studies done by NIOSH.

And so we learned a lot of things. We were using free-standing jet fans. We used the long pillar configurations in terms of developing the -- to control the air flow. Different types of brattice

cloth that had velcro on it. We even got to the point where we did some unique things with -- we tried some military type filters on cabs. They were used for bio-type problems and different types of gases that would be used against the military. So we had even experimented a little bit with that.

So I feel very comfortable with ventilation. Since then, I've come to work with Rogers Group. I've found that Rogers is just a great company. They seem to have a very good handle on their approach to deal with diesel particulates. I think it goes without saying, I think Patrick and I are in agreement, that it goes without saying that we as a company and both of us as individuals, I think, want to have good quality air underground. That's a responsibility that managers have and I think Patrick can say he's kind of come up through the ranks and I'm sure he'll get a chance to -- I'll give him a chance to tell you a little bit about his experience, too.

And so he feels very concerned about the welfare of the miners underground.

I think the biggest concern that we have is what is the proper level. You know, what is a fair level for diesel particulates? And what is a good time table to implement that level?

I'm sure you've heard that a number of times this afternoon. We didn't get a chance to be here earlier this morning, but I'm sure that's some of what you've heard from others. And I think there's a reason why you continue to hear that and I think it's because there's a true concern.

Our company, as Ed had mentioned earlier, has had a number of meetings within their group. And during those meetings on at least one occasion I can recall, the question was, well, how do you feel about the 308? And I think for the most part the managers in that meeting felt very comfortable and were willing to say that pretty quickly. We think that with some work we can get to that 308 level.

But when the same question was raised, what do you think about the 160 or what do you think about the 160 five years from now? That wasn't the same reaction. There was not a person in that room that was willing to jump in and say, oh, yeah, no problem, you know, we can do that.

So I think there is a real concern about, you know, what that level is and what's achievable. So I think it's important going forward that we are sure to give industry time to be sure that it can achieve the levels and then be sure that the science

is sound to base those levels on.

As Ed had mentioned, we've done a number of things. We've done engine tuneups, we've done the baseline tail pipe emissions testing. The Mirenco work has been tremendous. We need to feel very good about that because we were able to get that baseline testing on each of those pieces of equipment. Then we were able to go in and make changes and then we were able to go back and retest using those same procedures to be sure that the levels were in fact reduced. So we feel very good that the approach was very scientific and definitely produced results.

As Ed had mentioned, we followed that testing up with the B-20 blend. And then we went back to the same tail pipe emissions testings. That's how we determined whether or not we had a good effect from --

MR. SEXAUER: You're referring to Ed Elliott?

MR. DINARDO: Yes, Ed Elliott, I'm sorry. I forget that we're being recorded.

So I think that the approach that we took has been sound. I think the company has definitely taken the right scientific approach to being sure that we get the most bang for our buck.

Patrick, I've talked a good bit, so I'm going to let you talk a little bit about some of your experience underground at Oldham County.

MR. McHALE: Well, I've been with Oldham County Stone for pushing ten years. I've worked underground a good portion of that time. Done a lot of the jobs underground, loaders, trucks, things to that nature.

And I've seen a lot of good changes here recently as far as the ventilation. We have one shift that we put in and we have a lot of curtains and stoppings we've put up to help direct the air back to the faces.

We're in the process right now of surveying and putting in another shaft that's going to be back closer to the working faces. I think that's going to help our air tremendously.

As we talked about several times, the -- you know, some of the diesel particulates that we had coming out of them 500 horse engines we have in our Euclid trucks, we cut the diesel particulates at the tail pipe in half with this Mirenco unit we put on there.

So, you know, Rogers Group as a whole, I mean I'm very impressed with their -- you know, when I

came to the company I basically came from a work environment that had no safety -- you know, no safety standards in there whatsoever. And, you know, Rogers' commitment to safety and the DPM's being a part of that, to me, is, you know, it's very impression.

You know, they're very concerned about the workers, as am I. You know, all the guys that work down underground I've known for years, I'm friendly with. We all want the air to be good and suitable. We also want it to be, you know, if that 308 is where we could all live with, then that's -- you know, where the company can live with, the miners can live with and that's where everybody wants it to be.

And I just feel like, you know, we're working in the right direction to make the air good down there for everybody and, you know, that's about all that I was here to say today.

MR. DINARDO: And I think that's pretty much it. We'd be more than happy to try to answer any questions. I know there were some set questions that the committee had asked for. I think for the most part they have been addressed by others in our group. Certainly the elemental carbon versus the total carbon, I definitely feel strongly about that issue. Just from our own experience. I think it had been

mentioned.

We were able to -- there was a device that was developed and I'm guessing that it was probably mentioned earlier in the committee meeting, but was developed that would be able to do some instantaneous measurement of total carbon. We were able to test that unit underground at our Jefferson operation. And what we were able to find was that when you went into a control booth, we were actually able to take some readings and then the fellow had left the control booth and then about that time the fellow had lit a cigarette within the control booth. So he decided, well, I'm going to go back and just test just to see what the effect would be. And it was amazing the effect that it had on total carbon.

So I think that it's really important that we're careful about the measurements that we're using as well. So that's something that had come out.

We're willing to answer any questions.

MR. SEXAUER: Any questions?

MR. PETRIE: Just a few.

MR. SEXAUER: Jim?

MR. PETRIE: At your mine do you have mechanical ventilation?

MR. DINARDO: Yes.

MR. McHALE: Yes.

MR. DINARDO: We have a main fan and then several smaller booster type fans throughout the mine.

We're fortunate though, we have a shaft actually but our cover is very low. We're at about 50 foot cover. So at our mine it's not very difficult to establish a shaft. As compared to Jefferson, which isn't that far away. Jefferson's only a matter of about 17 miles but they're in a different deposit and they're 1,000 foot below ground.

So in mines such as Jefferson, of course the challenges are much higher.

MR. PETRIE: Does most of the production equipment have environmental cabs?

MR. DINARDO: Yes, most of our equipment have cabs and we ensure that we have air conditioning and heating and sealed -- sealed type cabs.

MR. PETRIE: At your mine do you have any miners that are required to wear respirators?

MR. McHALE: No, I don't believe so.

MR. DINARDO: No, we're fortunate that way.

MR. SEXAUER: Doris?

MS. CASH: Yes. As we had asked some of your colleagues, for your size operation are you in a situation where if somebody was unable to wear a

respirator that they would be able to be transferred to another job? Would that create difficulties for you?

MR. DINARDO: I think it could create difficulties. We have -- currently we have about I think there's nine fellows that are underground. We have a total of 25 people including scale people, supervisors and so forth at our operation. We're about a 1.2 million operation.

And that could be difficult. I think that we would certainly -- Rogers is very good about how it treats its employees. So I think that they would certainly try to find -- either if we could find something at our site or possibly at one of our sister sites that's in the Louisville area. We have two other operations. We would certainly try to make that happen.

But I think there needs to be an opening. I think we can't -- we're a business and we can't be in a situation where we are just trying to find a position if there's not one available. So I think it's important that that consideration is taken, certainly.

MR. SEXAUER: George?

MR. SASEEN: Patrick, you just mentioned, I

just want to clarify the device, you said on a 500 horsepower truck, Mirenco came in and did something that cut it in half. Did you specifically say what that was that cut the DPM in half?

MR. McHALE: What it is, it's a box that works on the electronic fuel system. And actually, you know, I'm not an expert on it by any stretch of the imagination, but actually what I was understanding how it works, is when the operator of the truck hits the throttle to take off, instead of it bursting that fuel in there all at once and leaving this big puff of black smoke behind the truck, it eases the fuel into the system and therefore it might take them, you know, a hundred feet or a couple hundred feet to get up to full -- you know, to full throttle. But what it does, by doing that it leaves a lot less DPM's in the air behind them.

MR. SASEEN: Do you know what model engine that is?

MR. McHALE: It's a Cummins 500 horse, I know that.

MR. SASEEN: Electronic or mechanical fueled?

MR. McHALE: It's electronic.

MR. SASEEN: Electronic?

MR. McHALE: Yeah.

MR. DINARDO: For the device to work properly, I believe it only -- they can only use it on electronic type devices. Now what they do on the mechanical side is typically what they're do is, because they can do the baseline study, they'll go ahead and bring in a mechanic from the local rep, whoever it be, whether it be Catapillar or Cummins or whoever, and then they'll work with them while they're doing the testing to be sure that they're adjusting the engine to its highest efficiency.

One of the things that we found in our initial baseline testing of the equipment, is some brand new pieces of equipment, fresh in the mine, were not nearly as efficient as they should have been. And the only thing we could conclude from that is that, you know, even though these engines are supposedly meeting a certain criteria, that's only in a lab type situation. When they start mass producing these pieces of equipment, apparently they don't go through the rigorous testing on every piece of equipment before they send it out.

So it's important to note I think for operators is that it's a good thing to do some baseline testing, even on new pieces of equipment

because you may find they may not be exactly what they need to be from an emissions standpoint. And that's something we learned through the testing.

MR. SASEEN: Thank you.

MR. SEXAUER: Bill?

MR. POMROY: Do you haul the stone out in haul trucks or do you haul it out on a belt?

MR. DINARDO: Yes, haul trucks.

MR. POMROY: Are your portals on intake or are they in the exhaust area?

MR. DINARDO: They're on intake.

MR. POMROY: They're on intake.

MR. DINARDO: Yes. They were on exhaust and we actually changed the configuration within the mine just recently.

MR. POMROY: Okay. When that second shaft goes in, that will also be on exhaust, the same as the current shaft?

MR. DINARDO: That's correct.

MR. POMROY: Okay, thanks.

MR. SEXAUER: I think that's all the questions. Thank you, Gentlemen.

I believe Ren is here. So if you wouldn't mind, we'd like to conclude our pre-lunch session.

After all that, I hope we've got questions

for you, Ren. Okay, Jim? I think Jim has --

MR. PETRIE: Give me a second. If somebody else has a question, they can go first.

MR. SEXAUER: Okay, George?

MR. SASEEN: Yes. Ren, a couple questions. You mentioned you've introduced diesel drills -- just introduced some diesel drills?

MR. RAMER: Right.

MR. SASEEN: Do you know what size horsepower engines those are?

MR. RAMER: They are approximately 250 horsepower each, and we have two of them.

MR. SASEEN: Two of them?

MR. RAMER: Yeah.

MR. SASEEN: Are they -- are they electronic engines or --

MR. RAMER: Yeah, they have electronic engine. One is a Duetz, they're a water cooled engine; and then the other is a Catapillar.

MR. SASEEN: Okay. You mentioned that -- oh, it seems like you've had a lot of experience both working with the bio-diesel and the PuriNOx. Have you ran into any warranty issues with the engine manufacturers using those -- either using PuriNOx or bio-diesel? Is there a warranty issue on the engines

when using the alternative fuels?

MR. RAMER: Yes and no. I guess when Lubrisal came to us and everything with the PuriNOx, it was presented to us as a development project that they did in conjunction with Catapillar. So, you know, there was supposed to be no warranty issues and stuff like that.

And, you know, some of the equipment that didn't work real well on it and everything, you know, it was somewhat of work, you know, to make everybody come on in to the table and stuff like that and step up and do it.

We had good engines on a couple pieces of equipment and we did not get them, a couple of them, to run on the PuriNOx. And we actually ended up switching out one good engine because we had so many problems with it. We had another Catapillar engine that was, you know, on our equipment list and everything that we went ahead and rebuilt and put it into that application.

We recently went to purchase a new down hole drill. We were considering an Ingersol Rand which is now part of Atlas Copco, their model, which was about 100,000 or almost $130,000 cheaper than a Gardner Denver of the same size. And we ended up having to go

with the Gardner Denver because Cummins would not stand behind the engine warranty if it was running on PuriNOx. And we were, you know, still under the mind set that we're going to try to make everything in the mines, you know, run on PuriNOx and everything because, you know, it has been beneficial for our missions and everything. And it is a bit of a pain, you know, to try to keep track of two fuels.

We recently, when we switched over, finally got to where, you know, we had a number of pieces that it wouldn't run on. We had a brand new 771 Catapillar haul truck and it ran pretty decent on the winter blend -- I mean the summer blend -- winter blend, I'm sorry, with ten percent water. But when we went to the summer blend at 20 percent, its performance totally stunk. I mean we could
-- it wouldn't even pull itself.

And we did all kinds of filter changes and stuff like that and finally the mine managers had had enough, put straight diesel in it, you know, with the low sulfur version is what I'm referring to.

So we put low sulfur in it and it come back around and everything. So now, you know, we've got another tank underground that we're keeping about 2,000 gallons of fuel in. We had to make some changes

on top to be able to bring in loads of diesel fuel and they're actually paying a bit of a premium price right now for the straight diesel that we're using because we're not able to get full shipments like we used to. Our tank on top is only 4,000 gallons which cannot get a whole 7,000 gallon load. So you pay a premium for that.

And then we had to switch some tanks around on our service trucks and everything where we can provide the other equipment with the low sulfur diesel.

MR. SASEEN: But did you, on the bio-diesel, did anybody ever tell you that that would void their warranty?

MR. RAMER: Yeah, Duetz wasn't -- Duetz wasn't real keen on running bio-diesel into it as well. But then also from the fuel manufacturer's standpoint is, you know, the equipment manufacturers have to prove that the fuel actually caused that kind of a problem or whatever that we would report.

Fortunately, with the bio-diesel we never had any engine problems, per se, related to internal breakdown. We had a lot of problems with fuel filters and everything, especially the yellow grease. You look at it and you can see solid particles basically

in there. And when we went to the 50 percent bio-diesel fuel, it just gummed up our filters and we were constantly changing fuel filters on everything because they were just getting so filled full of stuff.

And then the same thing went with -- when we finally went to PuriNOx and everything, had the same issue for the first couple weeks of getting all the filters changed around on it as well.

MR. SASEEN: You mentioned when you went to the PuriNOx summer blend of 20 percent, you had problems with your CAT equipment.

MR. RAMER: The tier 2. The tier 2 engines, it appears to be those -- that 771 is running a tier 2 and we have some CAT 631-G's that we're phasing out and moving to the rigid frame trucks. And they don't have the tier 2 engines in them yet and they run, you know, pretty decent on it. But the tier 2's, we also had a CAT 988-H loader with a tier 2 in it and it doesn't like the 20 percent PuriNOx as well.

MR. SASEEN: What's the problem, specifically? Do you know what the problem is or has CAT told you?

MR. RAMER: No, nobody has really told us or we don't really know for sure. I don't know whether it's the fact that there's so much of a power loss

with the engines and stuff that the electronic controls on them can't make up for it or whatever. I just know that it doesn't work. And it's also going through the rate at which we change the injectors and stuff. Those have increased as well.

MR. SASEEN: That's a large horsepower engine.

MR. RAMER: Right. It's -- I know the one in the 771 is 517 horsepower and the one on the 988-G I think is right around 425.

MR. SASEEN: But that's the only problem you saw on those couple CAT engines with the PuriNOx?

MR. RAMER: We had a Duetz engine in a roof bolter that we struggled with for, I don't know, a couple months and then we just finally -- we finally ran it on straight for a while and then we went back and tried to make it work and the engine actually had to be rebuilt and it still wouldn't work. So that's when we switched it out with the Catapillar engine.

MR. SASEEN: Did you ever find out what the problem was?

MR. RAMER: Not really. I'm not sure whether it's just an internal flaw in the engine or what. I mean the Duetz's, we've always had good success out of their air cooled ones. But like the

new face drill and the roof bolter and stuff had their liquid cooled engines in it and they -- it just doesn't perform as well as what the air cooled versions did.

So I don't know if it's just a manufacturing type glitch with the engine or what.

MR. SASEEN: Thank you.

MR. SEXAUER: Bill?

MR. POMROY: Just a couple other questions about the PuriNOx just so I'm clear. Maybe you said this and maybe I just didn't catch it. But when you were having problems with those tier 2 engines, was that with one particular blend of PuriNOx or was it with both the summer and the winter blend?

MR. RAMER: Primarily with the summer blend.

MR. POMROY: Okay.

MR. RAMER: There is a decrease in horsepower and stuff like that with both blends, but it's most significant with the summer blend. Because I guess, you know, you've got ten percent more water, water in the mix. So it's really up and I don't know -- I think in the summertime also I think there's some -- the methanol is taken out of it. You know, I think with the winter blend it's a percentage of water, methanol, diesel fuel and then that special additive

or whatever.

Well, in the summertime the methanol comes out. And I think they put the methanol in to help boost, you know, emissions and -- you know, performance and stuff like that. Because they decrease the amount of water. So they put an additive in to help try to maintain the same emission reductions.

MR. POMROY: You had the most trouble then with the summer blend but you're running straight diesel on those tier 2 engines winter and summer anyway?

MR. RAMER: Right.

MR. POMROY: Okay.

MR. RAMER: Right.

MR. POMROY: Just one other question, too. I'm wondering if you know or maybe you could get for us before the end of the comment period what percentage of your total horsepower hours are fueled with PuriNOx and what percentage is fueled with ordinary diesel.

MR. RAMER: Yeah, I can come up with that.

MR. POMROY: Okay, thanks. That's all I have.

MR. SEXAUER: Jim?

MR. PETRIE: Yes. Ren, are both your Maysville and Black River mines, are they mechanically ventilated or are they natural ventilation?

MR. RAMER: They're both mechanically ventilated.

MR. PETRIE: Mechanical. And you use booster fans in the working areas?

MR. RAMER: Right.

MR. PETRIE: Does Carmeuse have a respiratory protection program and do you they have any miners that they require to wear respirators for diesel particulate exposure?

MR. RAMER: We don't require any miners at the moment to, you know, wear respirators for diesel particulate matter. We have, you know, respirators available for people, dusty conditions more or less. But not for DPM at this time.

MR. PETRIE: Do they have any kind of a medical evaluation program?

MR. RAMER: Yeah, we do the annual pulmonary testing. And then some people that are in applications where we think there -- like the powder loaders or high back scalers, roof bolters and stuff like that, we pay specific attention to those guys as well to make sure there is no medical problems

associated with wearing respirators.

MR. PETRIE: And do you know if both your mines are currently in compliance with the 308 microgram standard?

MR. RAMER: Yeah.

MR. PETRIE: They are?

MR. RAMER: Both of them are in compliance.

MR. PETRIE: Okay, thank you.

MR. SEXAUER: Doris, do you have any?

MS. CASH: No.

MR. SEXAUER: Okay, Ren, thank you.

MR. RAMER: Okay, thank you.

MR. SEXAUER: Okay, Norbert?

MR. PAAS: I'm Norbert Paas. I'm with Dry Systems Technologies. We're a manufacturer of diesel power packages and filtration devices.

MR. SEXAUER: Could you spell your name for the record, please?

MR. PAAS: N-O-R-B-E-R-T. Last name is P-A-A-S.

I've got some comments here. And right now I just want to go through there, you know, as we submitted them.

And in our comments, as MSHA proposes it's final rule for diesel particulate matter exposure of

underground metal and nonmetal miners, we find that the NIOSH studies referenced in the MSHA -- by MSHA, are limited to technology that mostly has not yet been proven in the mining industry.

As expected, difficulties have arisen from adopting particulate traps and/or fuel additives to the confined and harsh mining environment. Reports of premature particulate trap failure, uncontrolled regeneration, increases in NO2 emissions, increased emissions during the regeneration process of the trap repair, onboard regeneration and more recently even questions about the suspended platinum in the air raised suspicion if such technology is suitable for hard rock mining, or mining at all for underground.

Were not evaluated in detail by -- during the NIOSH studies. A whole new filtration technology has emerged during the last 15 years. This technology has been thoroughly tested and is approved by MSHA for use in gassy areas of coal mines. It is extensively used by the coal mining industry of the U.S., as well as South Africa, Australia and Canada.

Separately, approvals have been issued for the state of Pennsylvania and the state of West Virginia for use in coal mines. But a documented ambient exposure of total DPM has to be reduced to .10

milligrams per 100 micrograms per cubic meter.

This technology known as a dry system is offered for a wide range of diesel engines by the USA based Dry Systems Technologies located in Woodridge, Illinois.

The MSHA Part 7-F approved version of the Dry System represents the state of the art technology for explosion proofing and emissions control.

Because of the lengthy and costly MSHA approval process, which currently costs upwards to $100,000 to get a power pack approved, the entire system for the coal industry would be cost prohibitive for use in the hard rock industry. Which obviously doesn't need explosion proof packages.

The Dry System was therefore developed for use in areas in mining that does not require explosion proof packages. It cannot, of course, can't be used in gassy areas of mines. But otherwise, maintains all the emissions control features of the original in by Dry System. At a significantly lower cost. The systems were somewhere between nine and $25,000 for a package.

The Dry System concept is fundamentally different from the soot trap system. The filtration is down at room temperature of 240 to 270 degrees.

Where not only the elemental carbon but also the hydrocarbons are captured in a filter. Unlike soot traps, with regeneration the --

MR. SEXAUER: I'm sorry, for the record, that's soot traps, S-O-O-T?

MR. PAAS: Soot traps.

MR. SASEEN: And, Norb, is that degree F or degree C? Degree F, your temperatures you just --

MR. PAAS: Degree F, yes.

MR. SASEEN: Degree F.

MR. PAAS: Yeah, it's 240 to 270 degrees fahrenheit.

And at that temperature we are not capturing only the carbon soot, we're also capturing the hydrocarbon components, which is the unburned fuel and the unburned oil that's coming out. And this is where the discussions earlier were going on between elementary carbon and total hydrocarbons. We're capturing total hydrocarbons, we're not just capturing elementary carbon.

Unlike on soot trap systems, with regeneration the captured DPM is removed from the Dry System when the low cost filter is replaced and being discarded as regular refuse, or garbage.

There is no need for use of any special fuel

or fuel additives. Also low -- also low sulfur fuel and/or bio-diesel would increase the useful filter life. The amount of particulates that we have to capture obviously is what's coming out of the engine. And if you reduce what's coming out of the engine, you obviously get a higher filter life.

There's no need to replaced older engines that are still in working condition. And I heard that earlier, you know, that there's machinery out there that's upwards to 20 years old.

With the documented 96 percent reduction of total DPM, even the older and dirtier engines can be brought in compliance with the MSHA exposure limits. Either current or in the future.

Dry System power packages are available for most existing and new diesel engines. When I say existing, that is engines that are currently in older equipment in the machines. Ranging currently from 3o to 500 horsepower. And the system can be adopted to most existing machine frames.

That's the end of the submission that we put in there. Now, do you have any questions?

MR. SEXAUER: Jim?

MR. PETRIE: What kind of filter life are you seeing with the older engines?

MR. PAAS: The Catapillar, for example, we're seeing on the 150 to 190 horsepower, we've got it both for the 3306 PCNA and the 3306 PCTA, anywhere between 40 and 45 hours. And the filter cost in that particular filter is a little bit under a hundred dollars.

MR. PETRIE: And have you had any problems at all with the filters burning through and if they don't change the filter --

MR. PAAS: No, because we operate at a low temperature, we don't have the fire issues that high temperature filters have experienced. We have currently about a million operating hours in our systems. Systems has been in operation since '92 and we've got 300 systems operating worldwide. We had zero fires.

MR. SEXAUER: George?

MR. SASEEN: Norbert, obviously we've heard various configurations of machines. Sometimes it's tough to get filters on machines because of size or visibility. Do you see any limitations on designs of your system that would limit it from fitting on a machine?

MR. PAAS: Well, let me just bring one example up that we just recently done. I did some

Mustang Skitch Steer and if you've seen those machines without putting anything on, you can't even stick your hand in there. And we had 76 horsepower. We repowered it with a Cummins engine and with a Dry System on there, that system is very, very compact. And we did indeed put it into the Skitch Steer without raising the hood.

MR. SASEEN: What size filter did you end up with?

MR. PAAS: That particular one uses our smallest filter, that's the eight inch filter.

MR. SASEEN: Eight inch diameter?

MR. PAAS: Eight inch diameter, yeah.

MR. SASEEN: And --

MR. PAAS: We've got three filters currently. One is 16 inch diameter, one is 12 and one is 8.

MR. SASEEN: And that's length?

MR. PAAS: Diameter.

MR. SASEEN: Diameter. And how about length?

MR. PAAS: The length varies from about 16 inches to 26 inches.

MR. SASEEN: Could you supply us, maybe for the record, your experience with the different ages of

engines that have certain particulate reduction -- or certain particulate levels, what expected size of the filter would have to be and the system would have to be and the cost associated with that? And maybe how long the life of the filter. Could you maybe supply some examples to us?

MR. PAAS: Yeah, I can do that. We are repowering currently some older Catapillar 3306 engines, which are PCTA engines, have 85, 90 horsepower. With the Cummins 8.3 engine.

The Cummins 8.3 -- the Catapillar is about -- don't quote me exactly on the number, I think it's just in the low 30's grams per hour; and the Cummins is about 20. So it's about a third less measures.

And you see that definitely it's -- you can trace it in a filter life, that the 40 hour filter then you start seeing 60, 70 hours out of the same filter with that same engine. Given the same horsepower on, incidently, the same machine.

MR. SASEEN: But do you need to repower it or can you work with existing --

MR. PAAS: We can work with existing equipment. The drawback, if you go with a real dirty engine of course, is the filter life goes down because what comes out of the engine we have to remove and the

filter has a certain capacity and when that is reached, you know, which is indicated by the back pressure, then you have to replace the filter.

MR. SASEEN: Do you supply back pressure monitors with your system?

MR. PAAS: Yes, every one of our systems has a back pressure monitor.

MR. SASEEN: What type of system do you use?

MR. PAAS: We just use dial gauge, dial indicator. A gauge.

MR. SASEEN: Do you have any problems plugging the --

MR. PAAS: What we find usually is before you -- before we really have a problem so to speak of, that the engine loses horsepower. And when the engine loses horsepower, somebody complains. And then the filter gets changed. So, no, we don't normally see that being a problem.

MR. SASEEN: Okay, thank you.

MR. SEXAUER: Bill?

MR. POMROY: Yeah, just a couple questions. Does your system take the place of a muffler or do you have a muffler in addition?

MR. PAAS: It will take the place of a muffler, that's correct. We're reducing the --

actually, the engine is more quiet with our system on than an engine with a normal muffler.

MR. POMROY: And you've done some actual noise monitoring so you can quantify that reduction?

MR. PAAS: Yeah. Yeah, it's -- you know, for example, the Catapillar engine we have the component sitting on the side of the engine and a lot of the engine noise on a Catapillar comes actually out the side wall of the engine, as you know. It goes to about 108 decibel. And having that hunk of steel sitting there, you know, it just basically muffles.

Now, what's coming out of the exhaust is not an issue because we're well below the engine noise, the mechanical engine noise.

MR. POMROY: You get some buildup in the heat exchanger itself?

MR. PAAS: Yes, you would get buildup in the heat exchanger, that's part of normal physics. You're cooling the exhaust gases down and in the process -- this is actually what the -- why we're able to get the liquid hydrocarbons out. You get the gases -- the gaseous hydrocarbons into a liquid state. When that happens, they will attach themselves to whatever they can. Most of them attach themselves to the elementary carbon and so you have the elementary carbons are out

of the hydrocarbons. Some would also attach itself to the walls of the heat exchanger.

We have developed a system that works really like -- you know, we inject, periodically, a small amount of water in the exhaust manifold. When water flashes into steam, it expands about 240 times, and it's the shock, the pressure shock, that comes out of that. It actually knocks the soot out.

Now, we have a backup system in case somebody neglects using the water injection system. We have a media that we can run through there. I sort of describe it similar to sandblasting. It's a media you inject into the same port as the water injector is and it's probably about the size of a bottle like that, that we have pre-packaged, and you pour it in and it will take the remaining soot out and will deposit it in the filter. So there is nothing that comes in the atmosphere.

MR. POMROY: The same is true when you do the water injection, all that accumulated soot just collects on the filter?

MR. PAAS: That's correct.

MR. POMROY: How often do you need to do that?

MR. PAAS: We recommend it about -- done

twice a shift. And it's done during the operation. You don't have to stop it. It is a push button lever in the operator's compartment and the operator, just as he goes down hauling, preferably on heavy loads, you know, he pushes a button and the thing just happens by itself. He doesn't even know what's going on otherwise.

MR. POMROY: Okay.

MR. SEXAUER: George?

MR. SASEEN: Yeah, one more quick question. How are the mines dealing with the used up filters? What's the proper disposal process?

MR. PAAS: We had it checked out and you can landfill them. Some suggestion I made already, you can also incinerate them and can run a furnace with it, if we get enough filters.

But it's basically paper and the paper we're using on the filter is a non-treated paper that has no chemicals added to it. So it's safe to deposit. The soot that comes out of the exhaust system is elementary carbon. And attached are the hydrocarbons. None of them, when they're confined, are considered a hazard. You know, so they're all inside of the filter. So you can landfill them, you can dispose of them any which way it's convenient for the mine.

I know some people throw them in the garbage.

MR. SASEEN: All right, thank you.

MR. SEXAUER: Jim?

MR. PETRIE: You had mentioned a price range of $9,000 to $25,000 for the initial setup. Is it -- is that based on the size of the equipment? The larger the equipment, the more expensive?

MR. PAAS: That's correct. You know, when we start talking about a 50, 60 horsepower system, you know, we've put them in for around 9,000. When you start getting into the two, three, four hundred horsepower systems, obviously you get into the twenties.

MR. PETRIE: Does the heat exchanger last indefinitely if cleaned or does that have to be replaced?

MR. PAAS: We never replaced a single heat exchanger. We can't really say that yet for sure, but we predict the life of the system is 40,000 hours. Which is typically about the life of the equipment.

We have engines -- we have systems out there that have outlasted three engines. That they have -- typically you replace an engine about every 10,000 hours or rebuild it, in coal mining at least. And we

have systems out there that have seen already the fourth engine.

MR. PETRIE: And are there any non-coal mines that your system is currently being used at?

MR. PAAS: We have not gone in that direction because our initial focus was in explosion proof systems. And as I said earlier, explosion proof systems, they're very intensive in terms of the certification. It takes typically about three years to get a certification through, is that right, George?

And it's -- well, it's a lengthy process and it's a very detailed process. And as a matter of fact, sir, we are looking well above $100,000 per package to put that in there.

And right now we've got two power packages. In fact, we've got the only two power packages that are available right now for in by for a hundred -- 16 and 190 horse engine.

We're now -- we have branched out in the out by areas of coal mining. So we've got probably about half our equipment right now is actually operating in out by areas. And the out by systems, obviously, would be the same thing that we would be offering for hot rock mining.

The same technology in terms of cleaning the

emissions. But without the explosion proof feature.

MR. PETRIE: All right, and your out by system is currently available then?

MR. PAAS: Correct. And we can make it available for virtually any engine. We have a series of different heat exchangers and filters that are modular in construction, so they can be adapted to different machinery.

So if have a more generic engine that -- say it's 325 horsepower, we have a heat exchanger that will match the 325 horsepower. We have a filter that will match it. We have a catalyst that will match it.

And what we have to do is then make the interface between the engine and our system. The manifold and a couple pipes unique to that particular machine.

MR. PETRIE: Thank you.

MR. SEXAUER: Doris?

MS. CASH: Yes. Could you give us an idea, and if not right now, then in your written comments, perhaps how many of these units are in use or you have put into use? And for how long your company has been doing this?

MR. PAAS: Yeah, I've actually got that in there but I can expand on that a little bit more.

We've got right now about 300 systems in operation. Systems have been in operation since 1992 and they're operating on three continents, the U.S., Canada, South Africa, Australia.

The original development started in 1987 with the first package. We did not have a package actually out in a mine until 1992. So there was a long development phase that went into it.

We have not had a package that went back. You know, they're all out there still. Except those where the machines got scrapped and the package got scrapped with the machine. But they have not -- they don't remove them or anything.

MS. CASH: Thank you.

MR. SEXAUER: Thank you very much.

MR. PAAS: Okay. Thank you.

MR. SEXAUER: Everyone who has indicated that they would like to speak has spoken and -- that is, everyone who signed up, with the exception there's a gentleman in the audience who would like to address us.

MR. SHERIDAN: My name is Jim Sheridan, S-H-E-R-I-D-A-N. I'm manager of underground operations for JM Huber Corporation in Quincy, Illinois.

We run a large underground limestone

operation. We produce about 3,000 tons per day. That's with an 18 person workforce, split into two shifts. Our equipment fleet consists of a CAT 980 Loader; CAT haul trucks, the 769's; one Getman Scaler; one Fletcher two-boom jumbo; and one Getman End Fill Loader.

With the exception of the Getman End Fill Loader, all of our equipment fleet has enclosed cabs.

We recently had an MSHA inspection, in August, and the representative that came out outfitted the day shift crew with the DPM monitors on their person and he collected a sample for that day. And the results of that are published on the MSHA web page. If you look up our mine ID number, you'll see what those numbers are.

I tabulated those and put them into a report. And I'd just like to read directly off the report here.

August 8, 2005, a representative from Mine Safety and Health Administration, MSHA, placed diesel particulate matter monitors on the day shift equipment operators. The monitors were worn throughout the eight hour shift and were collected at the end of the shift for laboratory analysis.

On October 19th, 2005, the results were made

known of the DPM monitoring. The results for the mine equipment for the operators is as follows. And I have a table on here and it comes straight off of the MSHA web page. The front end loader operator had a reading of 140 microns; the PEL being 308. The haul truck -- the two haul truck drivers that were driving at that time had readings respectively of 111 and 100. The drill operator had a reading of 58. And the end fill loader had a reading of 34.

Now, all of these readings not only bested the 400, they bested the 308 and they bested the 160. But it's important to recognize why and how these readings got to where they are. And so I started looking at the different situations that the operators were in during that day that they were being tested.

And it's interesting to note that the front end loader operator had a reading of 140 microns. He works in an enclosed cab, positive pressurized. And the understanding of why his reading is higher than the others, this is what I came up with. His job task requires that the loader operator remains captive in that heading for a longer period of time than any of the other equipment operators. This piece of equipment has a 300 horsepower engine. The loader operator loads the haul truck that has a 450

horsepower engine. Both pieces of these equipment are contributing to the diesel exhaust in a working room environment that is approximately 50 feet wide, 30 feet high, by 75 feet deep. That 75 feet deep is the area in which the loader and the truck work around to get the shot rock out of there. Although the mine headings themselves can be several thousand feet long.

MR. SEXAUER: Are these readings elemental carbon?

MR. SHERIDAN: I believe they are. That's what's on the site, yes.

MR. SEXAUER: Okay.

MR. SHERIDAN: As a rule of thumb, we use a ventilation of 100 CFM times the total horsepower. In this case we have a hundred times 300 plus 450 is 75,000 CFM.

We have a cross-sectional area of 1500 square feet. And so the velocity of the air needed to get this would be somewhere around 50 feet a minute. The actual velocity that was -- for that day was not actually measured.

The haul truck drivers, also on the same heading, two trucks running that day, one of 111, one of 100. Both having enclosed cabs, positive pressurized. Although these pieces of equipment have

higher horsepowers than the loader, they have a significant advantage over the loader in that they're mobile. These pieces of equipment are able to drive away from the work environment off to the crusher station. So -- whereas, the loader operator has no choice but to stay there. The trucks are there as long as they're being loaded and they can drive away. So I attribute the lower readings to that advantage.

The drill operator had a reading of 58 microns. Again, the drill operator works in an enclosed cab, positive pressurized. The lower readings can be attributed to two factors. The first is that the machinery is relatively new. It was -- it's less than a year old. It has a good seal around the cab and has good cab air filters for providing cleaner air to the enclosed cab.

The second reason is that on the day of the monitoring, the drill operator worked upstream in the ventilation from the loader and the trucks. This placement contributed to a much lower reading. This particular piece of equipment is also captive for a long time in the heading before it can move to another location.

The other piece of equipment that was measured that day was the end fill loader and the

blaster. And their readings, to me, were surprising low compared to everybody else. And that they were 34 microns per cubic meter. The blaster is the only equipment operator who does not work in an enclosed cab. The readings for this operator -- the low readings for this operator may be explained as follows.

The operator on this particular day was the furthest upstream in the ventilation than all the equipment operators. The exposure to diesel exhaust from the other pieces of equipment was greatly reduced, if not altogether non-contributory.

This could have likely gone the other way had the operator been working downstream from all the other pieces of equipment.

Again, this piece is captive in the heading for a long time before it can move.

What was important to me, what I recognized in looking at these readings and the placement of where these people were, was that location in the ventilation stream does make a big difference in concentrations of DPM's.

And with the end fill loader being the only person outside of an enclosed cab, being farthest upstream in the fresh air, and then as the air moves

to the mine, on the low end is where the loaders and the trucks were.

If that situation were reversed and you have all your equipment, your diesel producing equipment on the upstream side and the end fill loaders on the downstream side, he would probably have been exposed to much higher levels.

What we've done to take action, take steps to mitigate these readings and bring them down even further are switching to a bio-diesel fuel, which we recently did. We're on our third shipment. And the reason that we were not able to move to that mix before was Catapillar, who supplies our loader and our haul trucks, was reluctant to let us use the bio-diesel fuel in their equipment. It wasn't a warranty issue, it was just reasons that they just didn't want us to use it yet. They hadn't done some complete testing or whatever.

After a little bit of arm twisting, they said it was okay if we went to a bio-diesel mix. So long as it didn't exceed a 15 percent blend. Well, the mix that we're using is an 11 percent. It's B-11.

All the other equipment manufacturers, they did not have an issue with using bio-diesel fuels in their equipment.

Other steps that we can take, we have gone to -- I like the approach of going from low tech, low cost to high tech, high cost. And we're still down -- I'd like to stay down on the low end of the spectrum and accomplish maximum results with minimum input.

And the other thing that we did was we improved our ventilation. In large room and pillar operations there's a basic formula in fluid dynamics, Q=VA, quality equals velocity times cross-sectional area.

Now, if you're moving 700,000 CFM through the mine and you've got a tremendous cross-sectional area in that mine, that means your velocity has to drop off significantly. So -- and that's the big problem that I see in our operation is just -- if we could improve the velocity of the air itself, we could remove some of these exhaust materials out of there. And so that's steps that I want to improve on at our particular operation. And we do that with putting curtains in strategic areas to create venturi effects with ventilation stream, and to block off unnecessary mine workings and just channel the air into the active work area.

And in places where we have these particular pieces of equipment like the drill and the end fill

loader that are in there for a couple hours before they move on to the next heading and perform their operation on that heading, these portable fans, auxiliary fans. You can mount them on skids or on rubber tire, set them up, turn them on and provide an air stream in that work head.

The other thing that I see that we can do, and it just happened to work out really good for us on that particular day that we were being tested, and that is to distribute the workforce whenever possible and to keep people spread out instead of in a concentrated area.

One issue that I think that is beyond our control, and this is a very unique situation, there might be other operations that experience this in underground limestone mining, and that is the upfront portion of the mine workings. And this is an old mine. It's somewhere around 40, 50 years old. And the up front mine workings have been converted into underground warehouse storage.

We get anywhere from 100 to 150 off-highway semi's coming into the mine, dropping off products, picking up products and so forth. I have no way to control the diesel that they contribute to our ventilation stream. I don't think that they are

regulated. We have a problem with that.

I can't control their actions and their exhausts, yet we share the same ventilation. And there happens to be a very unique, mutual understanding between MSHA and OSHA on this. It's all underground but they've decided to draw a line in the sand, more or less, and said this side of the underground is not considered underground. It is under the purview of OSHA. This side is considered the mine.

It's a very unique set up and yet no one tells the DPM's, you're OSHA, you're MSHA. I don't know what can be done about that.

I'd just like to close with a philosophy and a comment of mine here. Mines are productive only if they have a solid safety culture. We as mine operators have a responsibility to implement safety controls within reason through changes in the engineering design, mechanical devices and administrative controls. And by sound regulatory rulemaking. Thank you.

MR. SEXAUER: Jim?

MR. PETRIE: Just a few questions. Well, first off, I want to congratulate you on your excellent sampling results. You've done very well.

You reported that you are now using some bio-diesel. Was that in use prior to the sampling that was done or after?

MR. SHERIDAN: No, it was not. At the time that the sampling was done, we were still using the off-road diesel. I'd be very interested to find out what our measurements would be now since we have converted over to the bio-diesel.

I've heard comments from some of the previous speakers that they have not noticed a difference. I'd be real curious to see what that difference would be in our case.

MR. PETRIE: And do your haul trucks, do they go to the surface to a crusher or is your crusher underground?

MR. SHERIDAN: No, they drive to the surface to a surface crusher installation. And one advantage that we have on our particular operation is that we're basically level throughout. We have no ramps, we have no inclines up or down. Horsepower does not seem to be effected by using the bio-diesel blend.

The two moments that are pieces of equipment would experience an exertion is, one, when the loader is getting a bucket of material to load into the truck, and then the other when the truck is backing up

to the crusher hopper to dump his load. And one of these operators have noticed a drop in performance.

MR. PETRIE: You mentioned that you're using curtains and stoppings in the mine. How extensive are those? Do you use them just in a few areas or --

MR. SHERIDAN: Well, fortunately, before I got there they had put up a fair amount of curtain. And it runs well over a mile. And there's places where it's deteriorated and has come down and so forth there. And that's just a matter of replacing those particular positions and then adding new curtains as we advance the mine.

And in places where we no longer have activities going on, to put curtains in there. There's not really a need to ventilate these areas. We're a non-gassy mine.

If we can channel all that air and make it more useful in the places that we're working, it's to our benefit.

MR. PETRIE: And is most of your equipment newer or -- I know you mentioned the drill was relatively new. What are the ages on some of your other equipment?

MR. SHERIDAN: We have equipment that -- some of this is up around 15 years old, especially the

Getman Loader. And our scaler is somewhere around 12 years old. And our trucks and our loaders are somewhere in the area of five to eight years old.

One thing I might point out also on the readings that we got on the loader operator, his was the highest and aside from being captive in the heading longer than anybody else with the most horsepower, this particular operator also smoked. So that might have influenced the readings a bit, too. That's hard to say at this point.

MR. PETRIE: Okay, thank you.

MR. SEXAUER: Doris?

MS. CASH: Yes. I'm wondering, with the equipment that you have, you're saying the ages, 12 to 15 years old, the trucks and loaders five to eight years old. Do you have a planned maintenance program?

MR. SHERIDAN: Oh, yes. Oh, yes. We have a preventative maintenance program where equipment is scheduled for certain hour -- a certain number of hours for various degrees of maintenance attention.

Smaller number of hours for things that use up quicker, oils and fluids and so forth. A higher number of hours for longer wear items, on transmissions and engines and so forth.

MS. CASH: Okay, thank you.

MR. SEXAUER: George?

MR. SASEEN: Yeah, just one question. You said that Catapillar had a problem with the bio-diesel. Do you know if that came from the local distributor or Catapillar Corporate?

MR. SHERIDAN: I don't know for sure. I tried to get this information from our local distributor. And I believe that he had to go to his higher source also to get permission. Where that came from, I don't know for sure.

MR. SASEEN: But it wasn't a warranty issue, it was more a --

MR. SHERIDAN: Not in our case, it was not a warranty issue, no.

MR. SASEEN: It was more just they didn't want you to use it right now.

MR. SHERIDAN: Right. They were just reluctant to go that route. And frankly, I'm surprised with Catapillar, as large as they are, why they haven't already established a laboratory testing facility and run different mixes on different size engines.

MR. SASEEN: That's why I was curious on maybe this came from more of your local person. You bought the machine off of him and he was worried about

a warranty issue versus the corporate position.

MR. SHERIDAN: Again, I couldn't say for sure. It came from a higher source.

MR. SASEEN: Okay, thank you.

MR. SEXAUER: Bill?

MR. POMROY: Yeah, just a couple questions about the ventilation. You mentioned the warehousing operations there in your underground area.

Does your intake air for the mine have to pass over those warehouse operations or are you drawing those over-the-road truck particulates into the mine?

MR. SHERIDAN: Our -- even though that we're on a single horizon environment, you know, in our operation and we're not more than 250 feet below surface, we can't take advantage of any natural ventilation with pressure differential, we're not that deep.

The reason that -- we have to do a certain accommodation for the warehouse people. And that is, as they enter into the mine from the outside, we have very high humidity and when you have cold air meeting warm air, you can get pretty thick fog right there. We have to keep that very visible for these off-road drivers who probably have never been in underground

operations, period, except maybe if they're in a parking garage or going through a tunnel.

And we have to keep that air almost crystal clear down there for visibility. So during the winter months, we draw air into the mine. This is where we get the biggest problem with the diesel contamination into the active part of the mine.

Now during summer ventilation periods, we'll exhaust back out just for the same reason, so that we keep that portion where these semi-truck drivers are coming in, that air is clear and they can see without running into a pillar or something.

A very unusual situation. And when I first saw the ventilation, I asked our operations manager why we have a switch -- a reversal in our ventilation when we're a single horizon. And he said this is the reason why.

MR. POMROY: It's really feasible to have two separate circuits then. You kind of have to combine them?

MR. SHERIDAN: It's not practical at this time, no.

MR. POMROY: No. You mentioned that you put some portable fans into the individual headings --

MR. SHERIDAN: Planning to. Planning to.

MR. POMROY: Oh, planning to. Are those electric or are those diesel?

MR. SHERIDAN: There's a manufacturer, ABC, and they've got some diesel powered fans. They're a very low diesel emitter fans. And I don't know what the capacity of the tank is there, but you could turn it on and continuous operation they'll run up to something like four days straight.

We wouldn't run it on a continuous operation basis anyway. We'd just have it on long enough during that time that we're in that particular heading.

And all that I would use it for is to move the air. Not that it would make it any cleaner, but just that it would move it. That's the biggest drawback I've seen in our ventilation. Again, Q=VA. We have a very low V, a very high A.

MR. POMROY: When do you think you might get those fans up and running?

MR. SHERIDAN: It's a matter of budget. Cost.

MR. POMROY: Do you have a shaft at all or does all your air go in and out the portals?

MR. SHERIDAN: No, it's all through portals, yes.

MR. POMROY: That's all I have. Oh, I

should say, good job. Those are great numbers.

MR. SEXAUER: Jim, you mentioned you have a table? Is it possible to submit that table to us?

MR. SHERIDAN: Well, actually I got the table off your web site.

MR. SEXAUER: Oh, I'm sorry, okay.

MR. SHERIDAN: It's on the data retrieval system. Data base. If you go there and you put in our mine ID, the numbers will pull right up.

MR. SEXAUER: Great.

MR. SHERIDAN: And this table comes right off of that.

MR. SEXAUER: Okay, if you or Norbert or Ren or anyone who spoke has any written material that they used to speak from that they'd like to leave with our Reporter, that would be great. It would help us with the transcription of material.

MR. SHERIDAN: If it's okay, I'd like to check with our plant manager, that he's comfortable with that. And I don't see why not. Since the readings came off of your web page anyway.

And my explanation is just my observations of why the readings were what they were. But I don't think that he would have an issue with that. If not, I could certainly forward them on.

MR. SEXAUER: Okay. Anyone else -- Jim has one more question.

MR. PETRIE: Do you have any concerns with the final limit and any comments on our phased in approach? You apparently are within the final limit right now. But is there anything you would want to say in regards to that?

MR. SHERIDAN: In our particular case, we were able to achieve those readings and we have the room underground where we can distribute the workforce and we do have access to bio-diesel fuels right across the border in Iowa, there is a bio-diesel plant. So we have great availability to spread our workforce, we have access to bio-diesel fuels. We can fit into that. I don't want to speak for the mining industry as a whole because I recognize that there are places they do not have access to those materials.

My own opinion, I think that anything below the 308 microns would be very hard to justify unless there were substantial scientific evidence showing why it should go that low.

MR. PETRIE: Thank you.

MR. SEXAUER: Jim, thank you very much.

Is there anyone else in the audience that would care to address the group?

(No response.)

MR. SEXAUER: If not, then we'll conclude this hearing. We're finished, thank you very much.

(Whereupon, at 2:26 p.m., the hearing in the above-entitled matter was concluded.)

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REPORTER'S CERTIFICATE

DOCKET NO.: N/A

CASE TITLE: Diesel Particulate

HEARING DATE: January 13, 2006

LOCATION: Louisville, Kentucky

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Mine, Safety and Health Administration.

Date: January 13, 2006

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