

UNITED STATES OF AMERICA

DEPARTMENT OF LABOR

MINE SAFETY AND HEALTH

ADMINISTRATION

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IN RE: LOWERING MINERS' EXPOSURE TO RESPIRABLE COAL
MINE DUST, INCLUDING CONTINUOUS PERSONAL DUST MONITORS

* * * * *

BEFORE: GREGORY WAGNER, M.D.

Robert Thaxton

George Niewiadomski

Javier Romanach

Ronald Ford

Susan Olinger

HEARING: Tuesday, February 8, 2011

9:00 a.m.

LOCATION: George Washington Hotel

60 South Main Street

Washington, PA 15301

WITNESSES: George Ellis, Henry Moore, Esquire, Jim

Morton, Mike Cooper, Edward L. Petsonk,

M.D., Dennis O'Dell

Reporter: Danielle S. Ohm

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COUNSEL FOR PENNSYLVANIA COAL ASSOCIATION

E X H I B I T S

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NONE OFFERED

P R O C E E D I N G S

DOCTOR WAGNER:

Good morning, my name is Gregory Wagner. I am Deputy Assistant Secretary for Mine Safety and Health for the U.S. Department of Labor, and I'm also a physician. I'd like to welcome you here to this public hearing on MSHA's proposed rule for lowering miners' exposure to coal mine dust. On behalf of Joe Main and the rest of us, we would like to express our appreciation for your coming here despite clearly the importance of the topic to all of us, to brave the road conditions, the weather in order to be able to come here.

Before we get started with the formal hearing, what I would like to do is provide a little bit of context for MSHA's consideration, concern about this issue. I'm sure many of you recognize this picture incurred nearby in 1968. It's a fire explosion in --- near Fairmont, West Virginia, the Farmington Mine. It claimed 78 lives and provides the basis for the Federal Coal Mine and Health and Safety Act of 1969.

That Act was intended not only to prevent tragedies like that explosion, but it also reflected

1 the concerns at the time for the lung diseases that
2 miners were getting. There was a lot of interest and
3 focus on trying to prevent Black Lung.

4 As part of the 1969 Act Congress mandated
5 the respirable coal mine dust exposures be reduced to
6 a level to prevent new incidences of respiratory
7 disease and the further development of such disease in
8 any person.

9 In 1977, following the Scotia Mine
10 Disaster of '76, the Federal Mine and Safety Health
11 Act was passed, reiterating a lot of the '69 Coal Act.
12 In it, it set standards, which assure on the basis of
13 the best available evidence that no miner will suffer
14 impairment of health or functional capacity even if
15 such miner has regular exposure to the hazards dealt
16 with by such standards for the period of his working
17 life. No miner shall suffer.

18 So fast forward to the mid '90s, National
19 Institute for Occupational Safety and Health reviewed
20 the world's literature, the scientific literature
21 having to do with the lung diseases that coal miners
22 get and how to prevent them and gathered their
23 findings in a large document. It's available on the
24 back desk. It's a criteria document recommending a
25 standard for occupational exposure to respirable coal

1 mine dust. The recommendations included in that
2 document are based upon the best available science,
3 and those findings were reviewed by a blue-ribbon
4 panel established by the Secretary of Labor that
5 included people from the Industry, Labor and other
6 academics in order to look at this issue also and come
7 up with recommendations. They gave a report to the
8 Secretary of Labor. It was an Advisory Committee
9 Labor report on how to eliminate pneumoconiosis and
10 Black Lung among the coal mine workers. And in
11 essence, confirmed, or supported the NIOSH
12 recommendations.

13 Let me show you, briefly, what it is that
14 we're trying to prevent here. See on the left a lung
15 slice from someone who did not have Black Lung. In
16 the middle you see the beginning of the spots of coal
17 mine dust that were deposited, some stringing of the
18 lungs and some destruction among the tissue that's not
19 as similar chronic coal worker's pneumoconiosis, one
20 of the lung diseases that miners get.

21 And on the left you see a lung that's got
22 big holes, that the air that people breathe in can't
23 get through into the circulation. This is a lung that
24 has massive destruction. It's called progressive
25 massive fibrosis, and it's transformed over coal

1 worker's pneumoconiosis. This is one of the lung
2 diseases that miners get from coal mine dust exposure.
3 You get these --- what are called fibrotic diseases,
4 where the fibrosis stitch places on the lung tissue.
5 You get silicosis when there's silica rock,
6 crystalline silica that people breathe in and react
7 to.

8 You can also get diseases that don't show
9 up on x-rays, what we call airflow diseases. Chronic
10 bronchitis, emphysema, these can come on insidiously,
11 slowly and rob someone of their breath. Tuberculosis
12 is an increase risk also to people who have
13 significant silica exposure. So over the years, after
14 the passage of the 1969 Coal Mine Health and Safety
15 Act, there was a gradual reduction in coal worker's
16 pneumoconiosis among those who participated in an
17 x-ray program run by the National Institute for
18 Occupational Safety and Health.

19 Miners who were only under the new dust
20 limits showed less and less disease down until about
21 the year 2000, and then as you can see, there's a
22 point there that disease prevalence starts to go up
23 among those who participated in the program.

24 By this time I started investigating what
25 was going on, trying to figure it out. I went down

1 into some areas where they found geographic hot spots.
2 Clusters of people with severe lung disease. Let me
3 show you a couple examples. Here's an example of a
4 miner who was x-rayed in 1997, only 37 years old.
5 Sixteen (16) years of underground experience. Had
6 advanced disease in 1997, and then just three years
7 later at the age of 40 had this most severe stage B of
8 progressive massive fibrosis.

9 Another miner, 42 years old, 22 years of
10 underground experience, been a roof bolter in
11 Virginia. He started mining when he was 20, so 22
12 years of experience. All of his mining was under the
13 current dust standard, and his lungs were like the
14 lungs that I showed on the right category of 40 stage
15 C with substantial destruction of lung tissue and
16 problems with his breathing.

17 We worry about each person who dies in a
18 mine accident, but what's often unrecognized is the
19 hundreds, in fact, thousands who have died and
20 continue to die from lung disease from work. You can
21 see here, that although the numbers are getting
22 better, that over the last decade or so, it's like a
23 little more than 10,000 people who have died with coal
24 worker's pneumoconiosis and the other lung diseases
25 that come from breathing coal mine dust.

1 And it's not only a health problem, it's
2 not only a family problem, but it's also an economic
3 problem. The Black Lung benefits support is designed
4 specifically for miners who are disabled from all coal
5 mining work as a result of their coal mine dust
6 exposure. That's paid out benefits that are
7 approximately \$44 billion.

8 So the science says that pneumoconiosis
9 is rising in miners with greater than 20 years of
10 mining who were among those x-rayed in the NIOSH
11 program, and in cases of severe disease being seen in
12 the young workers 40 years old and younger.
13 Pneumoconiosis is far greater than in 1969 when the
14 original dust standard was set. Miners are dying with
15 coal worker's pneumoconiosis and dying from mining
16 injuries, accidents. A factor of 10 or 20. In miners
17 there are greatly increased risk of chronic lung
18 diseases of emphysema and chronic bronchitis that
19 comes from dust. Here's the bottom line, Black Lung
20 is caused by excessive exposure to coal mine dust,
21 that's the only thing that causes Black Lung.

22 MSHA's goal is to reduce miners' exposure
23 to respirable coal mine dust in order to prevent Black
24 Lung. In order to do that, simple you would think,
25 MSHA's proposed rule that addresses the number of

1 problems that have been identified with the current
2 situation, the rule --- well, right now miners often
3 work longer than eight-hour shifts, but currently the
4 coal mine dust sampling, in order to make sure that
5 the dust is controlled only goes for eight hours. So
6 the proposed rule would require sampling for the
7 entire shift, somebody told me that the dust monitor
8 gets turned off after eight hours, but I don't turn my
9 lungs off. This is supposed to correct that.

10 Miners are exposed every working shift,
11 but only five shifts are sampled, and samples are
12 averaged to determine exposure currently and the
13 proposal will determine exposure on each shift. Right
14 now samples are currently maintained at reduced levels
15 of production, but the proposal would require sampling
16 the average of the last 30 production shifts.
17 Sampling is supposed to be done when production is
18 normal. And this is the normal average for the last
19 30 shifts. That's what the proposal is.

20 We know from the NIOSH findings that
21 miners are getting diseases at the current standard, I
22 mean, even though what the Act says, is that no miner
23 shall suffer material impairment of health or
24 functional capacity wise. In order to address that,
25 the proposal would reduce the exposure limit.

1 And right now, several miners have not
2 provided sufficient information about either their
3 health or their exposures, and the proposed use of the
4 continuous personal use dust monitor and additional
5 medical monitoring including breathing tests, would
6 provide miners information on which to act. So that,
7 in sum, is what we hope to be doing with this proposed
8 rule and the purpose of our hearing today. So what I
9 would like to do is call our panel up to the front
10 first, and then I'll introduce them and we'll get on
11 with the hearing.

12 My name is Gregory Wagner. I'm the
13 Deputy Assistant Secretary with the Mine Safety and
14 Health Administration. I am moderating this hearing
15 on MSHA's proposed rule to lower miners' exposure to
16 respirable coal mine dust, including continuous
17 personal dust monitor use. And again, on behalf of
18 Joseph A. Main, Assistant Secretary of Labor of Mine
19 Safety and Health, I would like to welcome all of you
20 at today's hearing and extend our appreciation for
21 your participation in this rulemaking.

22 Right now I'd like to introduce the
23 members of the MSHA panel. First to my immediate left
24 is Robert Thaxton, and to his left George Niewiadomski
25 from our Coal Mine Health and Safety. To my far right

1 is Susan Olinger, and to her left is Ronald Ford, both
2 from the Office of Standards, and to my immediate
3 right is Javier Romanach, from the Office of the
4 Solicitor for the Mine Safety and Health division.

5 The proposal rule for lowering miners'
6 exposure to respirable coal mine dust is an important
7 part of the Agency's comprehensive Black Lung
8 initiative. It's the End Black Lung - Act Now. The
9 Secretary of Labor, Hilda Solis, considers ending
10 Black Lung disease as one of the Department of Labor's
11 highest regulatory priorities.

12 The proposal is published in the federal
13 register October 19, 2010, and in response from ---
14 requests from the public on January 14th, 2011, MSHA
15 extended the comment period from February 28th, 2011
16 to May 2nd, 2011. All comments and supporting
17 documentation must be received or postmarked on or
18 before May 2nd of 2011.

19 This is the fifth of seven hearings on
20 the proposed rule. The first four public hearings
21 were held on December 7th, 2010, January 11, 2011,
22 January 13, 2011 and January 25th, 2011. They were
23 held first at the MSHA Academy and then in Evansville,
24 Indiana, Birmingham, Alabama and Salt Lake City.
25 After this hearing, two others will be held, one on

1 February 10th, 2011 in Prestonsburg, Kentucky, that's
2 this Thursday, and February 15th, 2011, next week, at
3 the MSHA headquarters in Arlington, Virginia.

4 Now, before we start the public hearing,
5 I would like to present --- oh, I'm sorry. As many of
6 you know, the purpose of these hearings is to allow
7 the Agency to receive information from the public that
8 will help us evaluate the proposed requirements and
9 produce a final rule that protects miners in the
10 health hazards that result from exposure to respirable
11 coal mine dust.

12 MSHA will use the data and information
13 from these hearings to help us craft the rule,
14 responsive to needs and concerns of the mining public,
15 so that its provisions be implemented in the most
16 effective and appropriate manner. MSHA solicits
17 comments from the mining community on all aspects of
18 the proposed rule. Commenters are requested to be
19 specific in their comments and to submit detailed
20 rationale and supporting documentation for suggestive
21 alternatives.

22 At this point, I'd like to reiterate some
23 request for comments and information that were
24 included in the preamble to the proposed rule. Number
25 one, the proposed rule presents an integrated

1 comprehensive approach to lowering miners' exposure to
2 respirable coal mine dust. The Agency is interested
3 in alternatives to the proposal that would be
4 effective in reducing miners' respirable dust
5 exposure. The Agency invites comments on any
6 alternatives.

7 The Agency solicits comments on the
8 proposed respirable dust concentration standards.
9 Please provide alternatives to the proposed limits to
10 be considered in developing the final rule, including
11 specific suggested standards and rationale for your
12 suggestion.

13 Number three, the proposed rule bases the
14 respirable dust standards on an eight-hour work shift
15 and 40-hour workweek. In its 1995 criteria document
16 on occupational exposure to respirable coal mine dust,
17 the National Institute for Occupational Safety and
18 Health, NIOSH, recommended lowering exposure to one
19 milligram per meter cubed for each miner for up to a
20 ten-hour work shift during a 40-hour workweek. MSHA
21 solicits comments on the NIOSH recommendation.

22 MSHA included the proposed phase in
23 periods for the proposed lower respirable dust
24 standards to provide sufficient time for mine
25 operators to implement or upgrade engineering or

1 environmental controls. MSHA solicits comments on
2 alternative time frames and the factors which the
3 Agency should consider. Please include any
4 information and detailed rationale.

5 Number five, in the proposal MSHA also
6 plans to phase in the use of continuous personal dust
7 monitors or CPDMs to sample production areas of
8 underground mines and the miners who are Part 90
9 miners, those identified in the surveillance program
10 as showing initial signs of coal worker's
11 pneumoconiosis.

12 MSHA solicits comments on the proposed
13 phasing in of CPDMs, including time periods and the
14 information with respect to their availability. If
15 shorter or longer time frames are recommended, please
16 provide your rationale.

17 Number six, MSHA received a number of
18 comments about the use of the CPDM. For operators who
19 use this device is interested in receiving information
20 relating to its use. For example, MSHA solicits
21 information related to durability of the unit, whether
22 and how often the units have to be repaired, types of
23 repairs, costs of the repair, whether the repair was
24 covered under the warranty and how long the unit was
25 unavailable and any additional relevant information.

1 Number seven, MSHA understands that some
2 work shifts are longer than 12 hours, and sampling
3 devices generally last for approximately 12 hours.
4 The batteries keep them going for 12 hours.

5 MSHA solicits comments on appropriate
6 time frames to switch out sampling devices, whether
7 gravimetric samplers or continuous personal dust
8 monitors, to assure continued operation and
9 uninterrupted protection from miners during the entire
10 shift.

11 Number eight, the proposed single sample
12 provisions based on improvements and sample
13 technology, MSHA solicits updated data and comments
14 and testimony from earlier notices and proposals that
15 address the accuracy of single sample measurements.
16 The Agency is particularly interested in comments on
17 new information added to the records since October of
18 2003 concerning MSHA's quantitative risk assessment,
19 technological and economic feasibility, compliance
20 costs and benefits.

21 Number nine, MSHA is interested in
22 commenters' views on what actions should be taken by
23 MSHA and the mine operator when a single shift
24 respirable dust sample meets or exceeds the excessive
25 concentration value or the ECV in this proposed rule.

1 In this situation, if operators use a continuous
2 personal dust monitor, what alternative actions to
3 those contained in the proposed rule would be
4 suggested the operator take in. The Agency is
5 particularly interested in alternatives proposed in
6 the proposal and how such alternatives would be
7 protective of miners.

8 Number ten, the proposal includes a
9 revised definition of normal production shifts so that
10 sampling is taken during shifts that reasonably
11 represent typical production and normal mining
12 conditions on the MMU. Please comment on what the
13 average of the most 30 --- the most recent 30
14 production shifts specified in the proposed definition
15 would be representative of the dust levels to which
16 miners are typically exposed.

17 Number 11, the proposed sampling
18 provisions address interim use of supplementary
19 controls when all feasible engineering or
20 environmental controls used by the mine operator is
21 unable to maintain compliance with the dust standard.
22 With MSHA's approval, operators could use
23 supplementary controls, such as rotation of miners, or
24 alteration of mining and productions schedules in
25 conjunction with the CPDMs to monitor miners'

1 exposures. MSHA solicits comments on this proposed
2 approach, and it may suggest alternatives as well as
3 the type of supplementary controls that would be
4 appropriate to use on a short-term basis.

5 Number 12, proposed rule addresses (1)
6 which occupations must be sampled using CPDMs, and (2)
7 which work positions and areas could be sampled using
8 either CPDMs or gravimetric samplers. MSHA solicits
9 comments on the proposed sampling occupations and
10 locations. For example, please comment on whether
11 there are other positions or areas where it may be
12 appropriate to require the use of CPDMs. Also,
13 comment on whether the proposed CPDM sampling of ODOs
14 on the MMU is sufficient to address different mining
15 techniques to potential exposures and ineffective use
16 of improved dust controls.

17 Number 13, the proposed rule addresses
18 the frequency of respirable dust sampling when using a
19 continuous personal dust monitor. MSHA solicits
20 comments on the proposed sampling frequencies and any
21 suggested alternatives. For example, if the sampling
22 on designated occupations were less frequent than
23 proposed, what alternative sampling frequency would be
24 appropriate? Please address the sampling strategy in
25 case of non-compliance with respirable dust standard

1 and provide a rationale. Also, should CPDM sampling
2 of ODOs be more or less frequent than 14 calendar days
3 each quarter? Please be specific in suggesting
4 alternatives that include and support your rationale.

5 Fourteen (14), the proposal would require
6 the person certified in dust sampling or maintenance
7 and calibration retake the applicable MSHA examination
8 every three years, maintain certification. Under the
9 proposal, these certified persons would not have to
10 retake the proposed MSHA course of instruction. MSHA
11 solicits comments on this approach to certification,
12 please include specific rationale for any suggested
13 alternatives.

14 Fifteen (15), in the proposal, MSHA would
15 require the CPDM daily sampling and error data file
16 information be submitted electronically to the Agency
17 weekly. MSHA solicits comments on suggested
18 alternative time frames, particularly in light of
19 CPDM's limited memory capacity of about 22 shifts.

20 Sixteen (16), the proposal contains
21 requirements for posting information on sampling
22 results and of miners' exposures on the mine bulletin
23 board. MSHA solicits comments on lengths of time
24 for posting the data. If a standard format for
25 reporting and posting data were developed, what should

1 it include?

2 Seventeen (17), the periodic medical
3 surveillance provisions in the proposed rule would
4 require monitors, provide the initial examination of
5 each miner who begins to work in the coal mine for the
6 first time and then at least one follow-up examination
7 after the initial examination. MSHA solicits comments
8 on the proposed time periods specified in these
9 examinations.

10 Eighteen (18), the proposed respirator
11 training requirements are performance based and time
12 required for respirator training would be in addition
13 to that requirement of part 48. Under the proposal,
14 mine operators could, however, integrate respirator
15 training into part 48 training schedules. The
16 proposal would require operators to keep records of
17 the training for two years. Please comment on the
18 Agency's proposed approach.

19 Nineteen (19), the proposed rule
20 specifies procedures and information be included in
21 CPDM plans to ensure miners are not exposed to
22 respirable dust concentrations that exceed the
23 proposed standards. For example, proposed standards
24 include pre-operational examination, testing and setup
25 procedures to verify the operational readiness of the

1 CPDM before each shift. It would also include
2 procedures for scheduled maintenance, downloading
3 transmission of sampling information and posting of
4 reported results. Please comment on the proposed plan
5 provisions and include supporting rationale with your
6 recommendations.

7 I'm almost done. Number 20, MSHA has
8 received comments that some aspects of the proposed
9 rule may not be feasible for particular mining
10 applications. MSHA is interested in receiving
11 comments on the specific mining methods that may be
12 impacted and alternative technologies and controls
13 that would protect miners.

14 Twenty-one (21), MSHA has received
15 comments on the proposed Section 75.332(a)(1)
16 concerning the fishtail ventilation to provide intake
17 air to multiple MMUs. Commenters were concerned that
18 under the proposed rule the practice of using fishtail
19 ventilation with temporary ventilation controls would
20 not be allowed. MSHA solicits comments on any
21 specific impact of the proposed rule and current
22 mining operations, any suggested alternatives and how
23 the alternatives would be protective of miners.

24 Twenty-two (22), the Agency's prepared a
25 preliminary regulatory economic analysis that contains

1 supporting costs and benefit data for the proposed
2 rule. MSHA's included a discussion on cost and
3 benefits in the preamble. MSHA requests comments on
4 all estimates of costs and benefits presented in the
5 preamble and the preliminary regulatory economic
6 analysis, including compliance costs, net benefits and
7 approaches used and assumptions made in the
8 preliminary economic analysis.

9 Twenty-three (23), MSHA's received
10 comments that the proposed rule should not require
11 mine operators to report corrective actions and
12 excessive dust concentrations as 75.363 hazardous
13 conditions. MSHA would like to clarify that the
14 proposal would require the operators to record both
15 excessive dust concentrations and corrective actions.
16 However, under the proposal, MSHA intends that these
17 actions be recorded in a similar manner as conditions
18 recorded under Section 75.363. However, MSHA would
19 not consider them to be hazardous conditions.

20 Twenty-four (24), a commenter at the
21 first public hearing suggested a time frame for miners
22 to review CPDM performance plan be expanded. I want
23 to clarify MSHA's position on the proposed rule. In
24 developing the proposed rule, MSHA relied on the time
25 frame and process in the existing requirements for

1 mine ventilation plans. In the proposal, MSHA did not
2 intend to change the existing time frame and process
3 and stated that the proposed rule was consistent with
4 ventilation plan requirements and would allow miner
5 representatives the opportunity to meaningfully
6 participate in the process.

7 So as you address the proposed
8 provisions, either in your testimony today or in your
9 written comments, please be as specific as possible.
10 The Agency cannot sufficiently evaluate general
11 comments. Please include specific suggested
12 alternatives, your specific rationale, the expected
13 health benefits to miners and any technological and
14 economic feasibility considerations and data to
15 support your comments. The more specific your
16 information is, the better it will be for us to be
17 able to evaluate and produce a final rule that would
18 be responsive to the needs and concerns of the mining
19 public.

20 As many of you know, this public hearing
21 will be conducted in an informal manner, Cross
22 Examination and formal rules of evidence will not
23 apply. The panel may ask questions of speakers, and
24 those of you who notified MSHA in advance you were
25 going to speak or signed up today to speak already

1 will make their presentations first. After all
2 scheduled speakers have finished, any others who wish
3 to speak may do so. And if you wish to present
4 written statements or information today, please
5 clearly identify your material and give a copy to the
6 court reporter who's up there. You may also submit
7 comments following this public hearing. Comments, as
8 I said before, must be received or postmarked by May
9 2nd, 2011. Comments may be submitted by any method
10 identified in the proposed rule.

11 MSHA will make available transcripts of
12 all the public hearings approximately two weeks at the
13 completion of the hearing. You may review the
14 transcripts of the public hearings and comments on
15 MSHA's website at www.MSHA.gov. And we appreciate you
16 folks who are in attendance today. If you haven't
17 already, sometime in the course of today or on your
18 way out, please sign the attendance list at the back
19 of the room.

20 I want to begin today's hearing --- when
21 I call each of you in turn up to the table to speak, I
22 will ask you to begin by stating your name and
23 organization and spelling your name for the court
24 reporter, so that we have an accurate record. I'm not
25 that --- we will be here as long as people want to

1 speak, but I encourage each speaker to be mindful of
2 the others who hope to speak after you, as well as
3 those in the room who are interested in following the
4 rulemaking who want to hear what everyone has to say
5 through the course of this hearing.

6 Our first speaker is going to be George
7 Ellis, the president of the Pennsylvania Coal
8 Association.

9 MR. ELLIS:

10 Good morning. My name is George Ellis,
11 E-L-L-I-S. I am president of the Pennsylvania Coal
12 Association. With me is Hank Moore, M-O-O-R-E, he is
13 an attorney from Jackson Kelly, but he is also PCA's
14 counsel for mine safety matters. We appreciate this
15 opportunity to testify before you, on respirable ---
16 coal mine dust rule. PCA, for the record, is an
17 association that represents the majority of
18 underground surface coal mine operators in
19 Pennsylvania. We represent about 80 percent of
20 bituminous coal mining in Pennsylvania last year, and
21 that was about 17 million.

22 I will summarize my testimony. I think
23 everybody has a copy --- the panel has a copy. I will
24 provide one to ---. I'll probably not read it
25 verbatim, but I ask that it be read in its entirety

1 off the record.

2 Significant progress has been made over
3 the last several decades concerning the prevention of
4 coal worker's pneumoconiosis. Our members strive to
5 maintain the lowest possible levels of dust control in
6 the respective operations. The improvements of dust
7 control are evidenced by a significant decrease in the
8 incidences of CWP over the past several decades. The
9 fact this rulemaking is driven by a few called --- so
10 called hot spots attests to our meaningful improvement
11 in the dust control area.

12 The development of the continuous
13 personal dust monitor has presented the industry and
14 the Agency with a unique opportunity to restructure
15 dust control. We do not reject the use of CPDM. It is
16 better than the existing gravimetric system, but it's
17 not perfect. It has had problems in its development
18 and will continue to do so, but the Agency has utterly
19 failed to take advantage of this technology,
20 particularly in its most suitable use.

21 We strongly object to the proposed rule
22 in its current form, complete with technical and
23 operational impracticalities and misapplication of dust
24 control technologies, and represents a departure from
25 the cooperative approach necessary to eradicate Black

1 Lung.

2 We recognize MSHA, the industry, and
3 Labor met and discussed dust monitoring for several
4 years, but the rule reflects little or nothing of this
5 finding, substantial effort. Accordingly we
6 respectfully ask you set aside this rule and recommend
7 that you continue as MSHA set out last year, when it
8 launched the End Black Lung Initiative. That approach
9 was all encompassing and encouraging all stakeholders
10 to work together towards a shared goal of ending Black
11 Lung.

12 In the following proposed rulemaking,
13 MSHA placed inappropriate weight and support on
14 studies and information presented by various personnel
15 from NIOSH. Information that has not undergone the
16 appropriate level of scrutiny, nor has been subjected
17 to the peer-review required that's going to be relied
18 upon throughout the rulemaking and intended
19 requirements of this magnitude.

20 Data has not been substantiated for
21 accuracy or fact, nor does it necessarily support the
22 provisions included in the proposed rule, rather
23 conclusions drawn from this information can be
24 predicated on the bias of its presenters.

25 The industry has made repeated requests

1 for copies of the underlying data. And in addition,
2 NMA has filed several Freedom of Information requests
3 for relevant data. We ask that such data be provided
4 expeditiously so it can be fully vetted before this
5 rulemaking is concluded.

6 Rulemaking is also premised on the
7 existence of so-called hotspots. If so-called hot
8 spots truly exist or existed in certain geographical
9 areas and are further the result of substandard mining
10 operation practices, they simply do not warrant an
11 industry-wide rulemaking, especially the Draconian
12 nature of the proposed rule.

13 Address those specific cases with
14 specific needs, don't need a broad brush order over
15 the industry. And I'm speaking for the Pennsylvania
16 coal industry. And force us to do things that are
17 necessary within the bounties of our Commonwealth. If
18 it's a problem, if it's a particular limited problem,
19 based on the facts, address it in a limited way. CWP
20 is not the easiest --- easily explained nationwide
21 problem that MSHA claims as reason for implementing
22 rulemaking.

23 Indeed, the justification for a rule,
24 reducing the exposure level to a one milligram
25 standard has not been adequately demonstrated or

1 justified by MSHA in this proceeding. This brings us
2 back to our request for data. I think, Doctor Wagner,
3 at the outset you explained frustration of trying to
4 comment on some of the general rather than the
5 specific. We have that problem, too. We would like
6 to see specific data that this rule is based on so
7 that we can have our experts take a look at it so it
8 could be fully looked at.

9 Most importantly, the proposed rule also
10 fails to recognize the improvements that have been
11 made in the respirable dust concentrations, operators
12 simple and advanced dust control technologies and
13 improved work practices. In 2006 the average dust
14 concentration for continuous mine operators in
15 District Two was .88 milligrams per cubic meter. 2010
16 the number was reduced to .73. This recent downward
17 trend demonstrates that operators --- and again, it's
18 going to be for Pennsylvania coal operators.

19 Our commitment to lowering miners'
20 exposure to respirable coal mine dust, which is the
21 same purpose of this rule, I just want to clarify that
22 our objective is to end Black Lung. We don't support
23 the rule, not because we don't support the objective.
24 We don't think the rule will affect the objective.

25 It should also be recognized that relying

1 on single samples fail to take into account the
2 variability in sampling. In fact, the knowledge that
3 you have intact --- the fact that the technology will
4 be used is relatively untested and --- an underground
5 environment is not conducive to accurate sampling by
6 any means.

7 Current dust system, which is based upon
8 the five sampling average, results in a relatively low
9 number of citations of year. With use of the CPDMs
10 single samples and taking 600,000 samples a year, that
11 number can be expected to skyrocket, 30 percent of all
12 current in-house samples exceeding the one milligram
13 standard, even if there is improvements and this will
14 result in a massive number of citations.

15 As a point of perspective, single ---
16 multiple section of coal mines would be required to
17 produce 10,000 samples each year. The notion that the
18 industry and MSHA can smoothly transition to a program
19 that increases from the industry-wide 25,000
20 respirable compliance samples per year to 600,000 is
21 not credible.

22 The proposed rule indicates that every
23 exceedance of the standard will result in a plan change
24 in addition to a new respirable dust plan separate and
25 apart from the existing ventilation dust control plan.

1 Requiring new plan submittals with
2 repeated modifications based on single samples will
3 only exacerbate an already flawed and backlogged plan
4 approval process.

5 Further, operators have no effective
6 remedy in plan disputes. MSHA opposes expedited
7 hearings before the Review Commission on this sort of
8 issue, and the current backlog precludes actual
9 expedited consideration. We also question whether
10 MSHA has complied with the congressional imposed
11 mandate to perform a sound fiscal impact statement and
12 an analysis of the proposed rule. Even a cursory
13 review of fiscal information that accompanies the rule
14 indicates that the numbers are woefully understated,
15 obligating a meaningful cost analysis of the
16 rulemaking. I don't know what type of schedule you're
17 on. If you want, I can go over these examples, or I
18 can just ---.

19 DOCTOR WAGNER:

20 It's up to you.

21 MR. ELLIS:

22 Let me talk about one or two of them, and
23 then I'll go on. MSHA has got the compliance cost in
24 the proposed rule for underground coal operations to
25 be less than 40 million annual. The estimate

1 understates cost of the proposed rule whose complexity
2 and administrative burden is extraordinary. Operators
3 are currently collecting like 25,000 designated
4 occupation samples each year. As we understand it,
5 this would be increased to 600,000 under the proposed
6 rule.

7 The cost of the rule would exceed a
8 hundred million per year for underground coal
9 operators alone. Total compliance costs would greatly
10 exceed MSHA's estimates as operators are forced to
11 adjust schedules, modifying mining, alter underground
12 mine ventilation systems by adding stopping lines, and
13 additional airshafts in some situations. We believe
14 that the proposed rule effectively eviscerates the
15 ability of the underground industry to maintain
16 various levels of production.

17 It's not simply the rule itself, it's the
18 consequences that the rule has and these ramifications
19 that I've named. And the next page and a half really
20 talks about that. I want to talk about some other
21 areas of general concern, too. Mandating the CPDM as
22 proposed in the rule is not appropriate at this time.
23 There's been a number of deficiencies and problems
24 that have been experienced during the period of
25 evaluating this type of technology. For example, the

1 unit weight weighs approximately six pounds. It's too
2 bulky today, especially when it's factored along with
3 the other items that the miners are required to wear
4 on his or her person.

5 The CPDM should be made smaller and more
6 ergonomic prior to implementing on a nationwide basis,
7 more time to work out some of the affordability and
8 the reliability issues as well. And getting to that
9 liability issue, perhaps the most notable is that CPDM
10 is in compliance rulemaking consistently and
11 accurately used as a single shift sampler respirable
12 dust is a faulty assumption. It cannot. It has shown
13 to be --- for example, it has shown to be less
14 reliable in measuring lower concentrations of dust.
15 Since accurate measurements of lower concentrations is
16 a critical component of the proposed rulemaking, this
17 is a particular concern to us.

18 Technology mandated for implementation
19 under this proposed rule is proprietary. It enforces
20 an entire industry to rely upon a single manufacturer
21 who has little incentive to further develop technology
22 or engage in reasonable pricing practices. We've
23 already seen the disadvantages of relying on new
24 suppliers for SCSRs. To rely on a sole supplier,
25 obviously, is inappropriate and unwise.

1 The CPDM technology is most effective
2 when used in combination with a weekly dose concept.
3 Not a single shift exposure. The proposed rule
4 completely fails to recognize this.

5 Single shift sampling will have serious
6 ramifications for shift set schedule. Presently many
7 mines work a unique or different weekly schedule.
8 Some mines work four ten-hour day weeks. Other mines
9 employ weekend warriors, workers who work one ten-hour
10 shift and two 12-hour shifts per week. When Industry
11 and Labor were developing a weekly dose concept, these
12 type of shifts were factored into the weekly dose
13 concept. These workers are not working extended
14 weekly hours. In fact, the weekend warriors' schedule
15 is less than a 40-hour week, used to set the original
16 respirable dust system. By adding a single shift
17 exposure and the accompanying penalties, schedules
18 such as a weekend warrior will no longer be viable.

19 The entire reason for a personal dust
20 monitor is to measure the exposure to persons, not
21 perform area sampling. This is where we see another
22 flaw in the proposal.

23 There was the idea of developing the
24 unit, and why each person's personal exposure is
25 proper measurement and not that of the air. As the

1 rule is written, the entire CPDM, cap light and all,
2 must be exchanged worker to worker. This makes
3 absolutely no sense. Real time measurements provided
4 by the CPDM empowers each worker to recognize his
5 exposure increments. Workers can make adjustments in
6 positioning and other basic changes.

7 Industry's response is to allow
8 meaningful use of multiple operators who are needed to
9 maintain compliance. This rule prohibits this
10 practice, even though it stops it --- protects each
11 worker from over exposure. Mine operators should be
12 permitted to use administrative controls to minimize
13 dust exposure to individual miners, particularly when
14 confronted with abnormal geologic abnormality. This
15 was permitted with noise level. The proposal
16 virtually eliminates the use of such controls.

17 One of the frustrating failures of the
18 proposed rulemaking is the lack of performance options
19 to handle potential excursions above any compliance
20 limit. We find no options to continue production
21 while protecting our employees. A performance program
22 would allow for the changing of operators to ensure
23 that no one is out of compliance while production
24 continues. This is not permissible under the proposed
25 rule.

1 The proposed rule ignores personal
2 protective equipment, which is an effective means of
3 reducing individual miner's exposure to dust. Other
4 regulatory agencies give credit to the use of PPE.
5 Most longwall mines require the use of airstream
6 helmets or the equivalent, and there is no recognition
7 of this in the rulemaking. Even if primary reliance
8 is on engineering controls, PPE can be used to
9 supplement engineering controls.

10 A performance standard would also allow
11 for the use of PPE if non-compliance is likely. If an
12 operator cannot change operators and cannot use PPE,
13 and the worker is at risk of non-compliance, what does
14 MSHA expect the operator to do?

15 We do not believe that continued use of
16 artificially created sample locations such as
17 designated occupations are not necessary when the real
18 time measurement system can be used to help manage the
19 respirable dust inhalant --- inhalation for each
20 individual assigned to these occupations. Personal
21 sampling using real time readings is a major
22 breakthrough in CPDMs. The Agency ignores its use.

23 This proposed standard fails to
24 incorporate basic industrial hygiene process of
25 hierarchy controls. My members are confused as to the

1 logic of the x-ray program as written in the proposed
2 regulation as well as the rule requires reduction in
3 the standard for Part 90 miners from the present one
4 milligram standard to .5. We don't believe this is
5 necessary. We'd like to know what evidence MSHA has
6 to show that a one milligram standard that has been
7 used to protect Part 90 miners for the past 40 years
8 is no longer sufficient.

9 The rule also appears to include a
10 variety of Part 75 changes that bear no relationship
11 whatsoever to preventing Black Lung. We mentioned our
12 concerns with 75.332(a)(1), another prime example of
13 the proposed changes related to 75.363 and posting and
14 correcting and reporting hazardous conditions. Mine
15 examiner is a well-trained certified safety
16 professional who evaluates certain areas for hazardous
17 conditions on a mine by mine, case by case basis.
18 This proposal perverts the entire pre-shift and on-
19 shift examination process that is intended to prevent
20 miners from approaching imminent hazards.

21 It's a gateway approved standard that a
22 dust concentration of one milligram standard
23 constitutes hazardous conditions is inconsistent with
24 historical purposes of such examinations. An amount
25 twice that is the amount a miner can be exposed to 40

1 hours a week for 40 years. The rule does not address
2 the additional concern that we have with compliance
3 sampling, which is based on required operator sampling.

4 And at least from Pennsylvania coal
5 operators' perspective, we don't want to think that
6 the operator sampling is appropriate. We are tired of
7 being unfairly accused of improprieties for tampering
8 with respirable dust samples when everyone seems to
9 know that that's not the case.

10 We're also tired of being unfairly
11 accused when the irregularities that are part of the
12 filter or cassette manufacturing process have caused
13 an issue such as with low weight samples. We had
14 hoped that such accusations would have ended with the
15 decision in the abnormal white centers litigation. It
16 has not. Beginning at this point, compliance sampling
17 should be done only by MSHA, as the Advisory Committee
18 recommended.

19 The CPDM then can be used by operators in
20 its most effective use, to evaluate and control
21 individual exposure over a period of time, MSHA
22 inspectors are a constant day-to-day presence in our
23 mines. They can certainly perform the required
24 sampling if the rule were to go forward.

25 Proposed rule purports to recognize that

1 there are valid reasons to void samples, makes it
2 clear that MSHA will utilize an overly restrictive
3 approach in evaluating such requests. It's not clear
4 that MSHA will, in fact, void samples that should be
5 voided. It has, in the past, refused to void samples
6 with the oversized particles if there is a certain
7 weight gain. That means the sampling device can be
8 dropped and filled with non-respirable dust on the
9 mine floor without being voided.

10 Finally, MSHA needs to be more respective
11 to use of alternative dust control technologies.
12 Scrubber technology, for example, is an extremely
13 useful means of controlling dust. MSHA's current
14 approach seems intended to discourage its use or limit
15 its effectiveness. MSHA must begin to support any
16 method that would reduce the individual exposure, be
17 it scrubbers, PPE or administrative controls.

18 I cannot emphasize this enough. We have
19 made great progress in this area, all of us together,
20 and we should not ignore effective tools merely based
21 on some internal bias or philosophy or misconceptions.
22 Again, PCA appreciates the opportunity to testify and
23 comment on the proposed rule and try to answer any
24 questions that you may have.

25 DOCTOR WAGNER:

1 Thanks very much, Mr. Ellis. I'm going
2 to turn it to the panel. Susan?

3 MS. OLINGER:

4 I'll pass for right now.

5 DOCTOR WAGNER:

6 Mr. Thaxton?

7 MR. FORD:

8 Mr. Ellis, we understand that you don't
9 support the current use of the CPDM under the proposed
10 rule, but do you have an idea, any scheme that would
11 support getting the CPDM used in the mine under its
12 final rule?

13 MR. ELLIS:

14 I mean, initially we looked at that as a
15 control to measure an individual's exposure, not the
16 sampling. And so I mean, anything other than that, I
17 believe ---.

18 ATTORNEY MOORE:

19 There was a discussion that Labor and
20 Industry came up with a pretty comprehensive proposal,
21 and we don't believe that was adopted or utilized in
22 making any rule or proposed rule, and think that needs
23 to be looked at.

24 MR. FORD:

25 Okay, sir. Just for my understanding is

1 that there is a possibility that there is a scheme
2 that it would support using the CPDM in the final
3 rule. In your written comments, did you put that
4 scheme in so we can just take a look at what that is?

5 ATTORNEY MOORE:

6 My understanding is that MSHA is familiar
7 with that seeing that it was developed between Labor
8 and Industry.

9 MR. FORD:

10 Okay. Just refer to what scheme you're
11 talking about, and if we know about it, that's fine.
12 Some of the problems with cost you talked about were
13 related to the 75.332(a)(1) fishtail ventilation.

14 MR. ELLIS:

15 Yeah. Yes.

16 MR. FORD:

17 How many mines that PCA represents would
18 have problems with this particular provision?

19 MR. ELLIS:

20 With this particular provision?

21 MR. FORD:

22 Implementing 75.332(a)(1).

23 MR. ELLIS:

24 I'd say about 60 to 70 percent.

25 MR. FORD:

1 Of the mines. And what are the total
2 number of mines?

3 MR. ELLIS:

4 Forty-one (41).

5 MR. FORD:

6 So 60 percent of the 41?

7 MR. ELLIS:

8 Right. I mean, that's ballpark.

9 MR. FORD:

10 Right. And for those mines that would
11 have problems, what's the average MMUs that would have
12 problems in those mines? Is it one or two? Or if you
13 don't know now, could you just supply ---?

14 MR. ELLIS:

15 I would have to get that for you.

16 MR. FORD:

17 And crystallize also those percentages
18 for any written comments. That would be great.

19 MR. ELLIS:

20 Sure.

21 MR. FORD:

22 You also talked about conditional costs
23 that would relate to adjusted production schedules.
24 Can you tell me what would be provisions or what would
25 be the --- what's the problem with the proposed rule

1 that would cause adjusted production scheduling? I'm
2 just trying to see where that fits.

3 ATTORNEY MOORE:

4 It would eliminate the weekend warrior.

5 MR. ELLIS:

6 It would eliminate the weekend warrior,
7 but it also might very well result in, for example,
8 you have an eight-hour shift or a ten-hour shift and
9 you look at the sampler, and you are going to be over
10 by, say, half --- three-quarters of the shift. You
11 may just simply have to shut down and you'll have to
12 --- you won't be able to produce coal for the rest of
13 that shift. That's where we see that. Some of these
14 may result in shifts that are six hours long and that
15 sort of thing.

16 MR. FORD:

17 So you're talking about, at some point
18 during the shift you would look down and you would see
19 a certain number that would be a problem to you, about
20 completing that shift without having the person being
21 overexposed.

22 MR. ELLIS:

23 That's correct.

24 MR. FORD:

25 And you don't think that you could put

1 into place engineering controls quick enough in order
2 to eliminate that problem or adjust it before that
3 problem would go into effect.

4 MR. ELLIS:

5 Well, no, I don't, because if it were a
6 significant engineering control as such, it would
7 probably require plan changes, and plan changes don't
8 happen quickly. And your --- it would involve a
9 significant enough control that you would have to get
10 a plan change. You would already have significant
11 downtime.

12 ATTY. MOORE:

13 You're picking up on some of the
14 ramifications that this rule has, that we, at least by
15 our reading of it, we will refrain kind of when on
16 notice, appreciate some of these questions. They need
17 reliances.

18 MR. FORD:

19 Concerning your additional cost, what I
20 need to set this up. I was going to say this is the
21 end of my speaking, but I'll say right now, when you
22 provide the written comments, if you could give as
23 much detail as you can as to these cost items that you
24 said would increase. How many mines have incurred
25 these costs, how many are they using in mines? What

1 are the costs of these things? That would be very
2 helpful.

3 Just on a broad basis, again, you talk
4 about additional airshafts that would have to be put
5 into some mines. Not in detail, but in a broad sense,
6 what would be the condition that would cause an
7 additional airshaft, because that's a pretty big
8 expense?

9 ATTORNEY MOORE:

10 Well, the additional airshaft would cause
11 --- not going to mining, but that you are requiring
12 --- you're going to increase your ventilation,
13 something to that effect. Increase your ventilation
14 with airshaft mining engineers. Someone may be better
15 able to answer that.

16 MR. FORD:

17 Okay. Maybe in your written comments you
18 can express that, too.

19 ATTORNEY MOORE:

20 And one of the things we would know is,
21 given the hearing next week, we are relying on
22 recommendations and a number of our representatives
23 are going to be testifying next week, some of that
24 information will be provided at that time.

25 MR. FORD:

1 In your 41 mines that you represent, have
2 any of the operators used the CPDM in underground coal
3 mines?

4 MR. ELLIS:

5 Not to my knowledge.

6 ATTORNEY MOORE:

7 Operators in Pennsylvania have tried it
8 in other locations, to my understanding, but it's not
9 in ---.

10 MR. FORD:

11 So no mines have been represented by PCA
12 that has actually used the CPDM in underground coal
13 mine?

14 MR. ELLIS:

15 Not to my knowledge.

16 MR. FORD:

17 Thank you.

18 MR. NIEWIADOMSKI:

19 I have a couple questions for you. You
20 mentioned in your written testimony that in 2006 the
21 average dust concentration is .88 milligrams per cubic
22 meter. And that's been reduced to .73 milligrams per
23 cubic meter, which is just certainly significantly
24 below a two milligram standard, and certainly below
25 the proposed limit of one milligram.

1 And it appears that if you're successful
2 in certainly maintaining compliance with the dust
3 concentrations, the limits, the question is, since
4 certainly that's still significant improvements, but
5 according to the NIOSH x-ray data between 1996 and
6 2002, 2.2 percent of the miners x-rayed in District
7 Two have evidence of CWP.

8 Well, what's sort of puzzling to us is
9 maybe --- this is what maybe you can elaborate upon
10 what would be responsible for that. In 2002 ---
11 between 2002 and 2009, 3.6 percent of the miners in
12 District Two had early evidence of disease. That's a
13 significant increase over the previous time period.
14 And during the time period when, in fact, you've
15 indicated significant reduction less than that, in
16 dust concentrations. What would you account for that
17 increase?

18 MR. ELLIS:

19 I would have to see --- first of all, I'm
20 not a epidemiologist. You know, we just put these
21 stats together. And number two, I would like to
22 see ---. I mean, where in District Two were these
23 increases found?

24 MR. NIEWIADOMSKI:

25 Well, that's available on MSHA's website.

1 If ---.

2 MR. ELLIS:

3 I don't have the website up. Could you
4 tell me now?

5 MR. NIEWIADOMSKI:

6 They're all over District Two. This is
7 not focusing on the anthracite areas, we're talking
8 about bituminous ---.

9 MR. ELLIS:

10 I understand, sir.

11 MR. NIEWIADOMSKI:

12 And I just wanted to mention there's ---
13 you know, that's what's really puzzling to us, because
14 the levels are apparently being maintained although
15 we're still seeing significant increases in disease.

16 The second question that I have for you
17 is, you had mentioned that ---.

18 MR. ELLIS:

19 Well, I don't quite buy that last
20 assumption you said.

21 MR. NIEWIADOMSKI:

22 I beg your pardon?

23 MR. ELLIS:

24 I'm not --- you know, I know my science
25 isn't indicated that I bought the last assumption that

1 you said. That we're still seeing, you know, a rather
2 --- a sizable increase in the disease.

3 MR. NIEWIADOMSKI:

4 Right. 3.6 is a significant difference.
5 That's not the intent. Remember if you look at the
6 legislative history, their projections were no more
7 than two percent.

8 Let me ask you another question. This
9 concerns --- you had mentioned something about that
10 the Agency has not --- has ignored the recommendations
11 that were made by the industry, the ones they were
12 looking at submitting proposals on how to use this
13 CPDM, and one of the things that you had mentioned,
14 there was credible opposition. You're not the first
15 group to oppose the use of single --- citing on single
16 samples.

17 Well, I was curious what the use of the
18 CPDM, which is the device that gives you measurements
19 in real time, the intent of that device is to prevent
20 anybody to be overexposed at the end of the shift if
21 it's properly utilized. So really there should be no
22 concern about the use of single samples, because with
23 that device no one should be over. And given the
24 concentrations that we're talking about here, .88, and
25 if that's representative of what normally happens, you

1 should never have any problems with being cited based
2 on a single sample, because you wouldn't be in
3 compliance.

4 MR. ELLIS:

5 The problem we have, the single Sample is
6 the problem we have, the history with single shift
7 samples --- the problem we have with single shift
8 samples is the problem we had historically with single
9 shift samples, and we don't think reliance on
10 compliance and citations is appropriate to single
11 shift samples no matter what.

12 MR. NIEWIADOMSKI:

13 Let me ask this follow-up. I know that
14 you had mentioned about deficit provision in the
15 proposed rule, okay, but you did not mention something
16 that's very important, you said that's what the
17 industry had recommended, is that we do those
18 constant. You know, there's a provision also in the
19 rule that says that's it's going to limit weekly ---
20 permit the weekly permissible accumulated exposure,
21 which is equivalent to what the industry had
22 recommended to a weekly dose. This is the intent,
23 it's to protect those miners that have worked extended
24 weeks.

25 So there are two provisions. One is not

1 to exceed only a single shift, but in fact, there are
2 extended weeks, not to exceed the weekly permissible
3 accumulated exposure, which is similar to what the
4 industry proposed to a weekly dose.

5 MR. ELLIS:

6 As I understand the industry's proposal
7 on pneumoconiosis, it did not rely on single shift
8 samples, it relied on a weekly accumulative dose. We
9 thought that was appropriate, not ---.

10 MR. NIEWIADOMSKI:

11 Right. So you would support the
12 enforcement of the weekly permissible exposure limit,
13 which is comparable to the weekly dose?

14 MR. ELLIS:

15 We would support a weekly dose concept as
16 it was outlined by the Industry and Labor. We could
17 get them there.

18 MR. NIEWIADOMSKI:

19 One final question. You had mentioned
20 that something the industry --- that MSHA refuses to
21 void samples. And in particular, you talked about
22 OSPs. Could you repeat again what the concern is?
23 And why, because I wanted to --- I wanted to mention
24 this to you. For many, many years, MSHA has been
25 examining every operator sample that is approaching

1 the two milligram limit. Any sample that has a weight
2 gain of 1.4 milligrams, which is equivalent to two
3 milligram concentration, every sample is examined for
4 oversized particles following the criteria that's been
5 established since the '70s and void samples that, in
6 fact, have excessive number of OSP. So I think you
7 made a statement that we refused to do that now. If
8 it doesn't meet the criteria, it's a valid sample, but
9 we do void samples for OSPs.

10 MR. ELLIS:

11 Our feeling is that you don't void all
12 samples that actually have oversized particles. If
13 you get, for example, historically I remember 22
14 milligrams per cubic meter sample. There isn't any
15 way given a particular mine that came out of that was
16 a valid sample, and they did not void it.

17 ATTORNEY MOORE:

18 Historically, we've seen situations where
19 the sample is so adverse that it couldn't possibly be
20 a valid sample. And it couldn't possibly been
21 evaluated for oversized particles. It's been our
22 experience.

23 MR. NIEWIADOMSKI:

24 I have no further questions. Thank you.

25 MR. THAXTON:

1 Several questions. Again, my only
2 concern is I do want to clarify, we did build in a
3 weekly dose into the proposed rule. It does track
4 each individual shift, according to the way it's
5 recorded, so that we are actually looking at your
6 crews even though it's not individual miners, we're
7 looking at the designated occupation, the type of
8 sampling on weekly doses, so even your weekend
9 warriors, as you call them, would be a separate crew
10 than what your normal weekly crews are. Those are
11 held differently, two different reasons.

12 Does that, in any way, allay some of your
13 fears about the way the rule is looking at the weekly
14 exposure, given that you don't agree with the use of
15 single samples?

16 ATTORNEY MOORE:

17 No, because it's not a personal weekly
18 dose, as I understand it. It's a designated
19 occupation weekly dose. We've got the technology.
20 Let's use it in the way it should be used.

21 MR. THAXTON:

22 So you're proposing the only way to use a
23 CPDM, use it as a personal exposure unit to individual
24 miners?

25 ATTORNEY MOORE:

1 Yes.

2 MR. THAXTON:

3 That leads me right into my next
4 question. Since you are proposing again, saying the
5 best way the CPDM is to be used, are you then
6 proposing that every miner be sampled in order to
7 determine their exposure at all times?

8 ATTORNEY MOORE:

9 We're not, at this point, proposing that.

10 MR. THAXTON:

11 So how then would you propose to use the
12 CPDM in order to address --- protect the miners, and
13 if you're unable to tell us that here today, could you
14 at least provide us how you would envision the CPDM
15 being used in such a manner that it would provide a
16 degree of protection for all miners on every shift if
17 we're looking at it on an individual basis?

18 ATTORNEY MOORE:

19 We'll provide an answer to support that
20 question.

21 MR. THAXTON:

22 Okay. The last thing that I have for
23 you, is that you had indicated that over a third of
24 the samples that are submitted now are overexposures
25 that they would exceed the lower limit. Would it

1 surprise you that actually over the last five years,
2 basically we've gone from 78 to the last year on
3 record, which is 2010. Seventy-eight (78) --- over 78
4 percent of the samples submitted by mine operators
5 would currently meet the one milligram standard even
6 though they have no reason to meet the one milligram
7 standard?

8 ATTORNEY MOORE:

9 Yeah, if that's true, that 22 percent
10 would be a massive number of exceedances that all
11 result in a citation.

12 MR. THAXTON:

13 You are making that statement that the
14 mine operators are not putting any additional controls
15 or taking any additional actions to meet the one
16 milligram standard they were aware of. This is
17 considering that they were trying to get a two
18 milligram standard, but there are only 22 percent or
19 less actually exceeding one milligram without knowing
20 that they have to comply with the one milligram
21 standard.

22 ATTORNEY MOORE:

23 You and I both are assuming that all of
24 those samples are under a two milligram standard and
25 they might well not have been, because silica

1 reduction, but leaving that aside, I'm assuming that
2 even after we do our best, that the number, because of
3 sampling variability, is still going to be
4 unacceptably high.

5 MR. THAXTON:

6 Would it surprise you then if we look at
7 the designated occupation samples that mine operators
8 have been submitting --- indeed, last year, only four
9 percent of the samples, knowing that they were meeting
10 a two milligram standard, looking at the samples that
11 exceed two milligrams, there are four percent samples
12 submitted throughout the United States that actually
13 exceeded two milligrams?

14 ATTORNEY MOORE:

15 I've seen the 22 percent number, I
16 haven't seen the four percent number, but it's still
17 four percent of a couple hundred thousand samples even
18 if we're high on our estimate of 600,000. It's a lot
19 of citations and a lot of plan changes.

20 MR. THAXTON:

21 Thanks.

22 MR. ROMANACH:

23 I am Javier Romanach from the Office of
24 the Solicitor. I just have a few questions. Again,
25 you say that in 2006 the average dust concentration

1 for continuous miner operators in District 2 was .88
2 milligrams, and in 2010 this number was reduced to .73
3 milligrams. Do you have a basis for that reduction?
4 Do you know why that number was reduced?

5 MR. ELLIS:

6 Not off the top of my head, no.

7 MR. ROMANACH:

8 You also stated an underground
9 environment is not conducive to accurate sampling by
10 any means. What is your basis for that statement?

11 MR. ELLIS:

12 Can you repeat that? I'm sorry.

13 MR. ROMANACH:

14 Yeah. You say that underground
15 environment is not conducive to accurate sampling by
16 any means. Do you have any --- when you say that
17 underground environment cannot be --- may not be
18 conducive to accurate sampling? Second to last
19 paragraph.

20 MR. ELLIS:

21 When you are in an industrial
22 environment, which is coal mining and you are sampling
23 someone who is doing a job, and if they go forward
24 with doing their job, and particularly in this case, I
25 know you all had the demonstrations of the individual

1 putting on all this mine gear, and you were doing the
2 sampling in an environment where you are not
3 unrestricted in your movements where it may be a
4 40-inch coal seam or 36-inch coal seam, or even a
5 five-foot coal seam. Your movements are not natural,
6 and because of that there are too many things that can
7 happen to affect sampling, and that is why we think
8 that's not an appropriate place for sampling.

9 Now, if you could just hang the sampler,
10 for example, in this room and leave it there for eight
11 or ten hours, that's one thing. Where if you put it
12 on an individual who's doing a hard, physical job in a
13 difficult environment, then it's not necessarily
14 conducive sampling. I'll relate that you understand.

15 I was talking to somebody who had a miner
16 who was crawling out of that mine, which you have to
17 do in some mines. He was wearing a CPDM on his hard
18 hat with his lamp, and his hard hat fell off. That
19 happens. You know, you bump your head. It's not an
20 easy environment. I mean, I would recognize that we
21 all can sit here in a conference room and talk about
22 sampling, but that's not the real world. It's hard
23 physical work around heavy machinery in a difficult
24 environment. And for that reason, sampling --- it
25 would be nice if we could just break the sampling, but

1 we can't.

2 MR. ROMANACH:

3 Do you have any suggestions about how to
4 conduct the sampling?

5 MR. ELLIS:

6 We would have to look within the perfect
7 world. And one of the concepts of living in a perfect
8 world is recognized, for example, single shift samples
9 are not necessarily the be all, end all.

10 MR. ROMANACH:

11 Again, so you're not saying --- you're
12 not denying that sampling cannot take place
13 underground?

14 ATTORNEY MOORE:

15 No, we're not denying that sampling can't
16 take place underground or it shouldn't take place
17 underground. It certainly should. But having said
18 that, we have to recognize the imperfections of
19 sampling. Even if the technology is the greatest
20 technology, and all technology isn't perfect, CPDMs
21 are better than gravimetric sampling, but it's
22 imperfect in recognizing that. That's why we think
23 single shift sampling is inappropriate.

24 MR. ROMANACH:

25 Again, do you have any suggestions of

1 where the sampling underground could take place?

2 MR. ELLIS:

3 I don't have any. We don't have any
4 problem having miners wear sampling devices,
5 particularly the CPDMs or advances in that. We need
6 to recognize the limitations of that. And because of
7 that we need to recognize that any rule has to
8 recognize the limitations of that.

9 MR. ROMANACH:

10 You also referenced the --- Mr. Ellis,
11 the number of deficiencies and problems with the CPDM.
12 On what do you base those deficiencies on? Was there
13 a particular study, a particular location? What was
14 the basis for ---?

15 ATTORNEY MOORE:

16 We based that on actions with some of our
17 members and their technology people on the use of CPDM
18 outside the State of Pennsylvania, and they indicated
19 there are technical problems.

20 MR. ROMANACH:

21 Do you know how many --- was there a
22 particular district that was involved, a particular
23 mine that was involved?

24 MR. ELLIS:

25 We can't speak for that.

1 MR. ROMANACH:

2 Can you provide us with some data to that
3 effect?

4 MR. ELLIS:

5 We believe we will be providing that data
6 next week.

7 MR. ROMANACH:

8 Would that data address also any
9 ergonomic effects on the use of the CPDM?

10 ATTORNEY MOORE:

11 I don't know whether or not in this
12 analysis there's testimony about the ergonomic effects
13 of the CPDM. And so I'll leave that to what evidence
14 is going in, testimony ---.

15 MR. ROMANACH:

16 Just a correction. You stated that the
17 proposed rule ignores the personal protective
18 equipment, but the proposed rule does mandate that PPE
19 be provided with the --- when the exposure is above
20 the proposed limit?

21 MR. ELLIS:

22 I don't think it takes the whole
23 effect ---.

24 MR. ROMANACH:

25 Do you have any data supporting the use

1 of PPE for protecting that miner?

2 MR. ELLIS:

3 Well, we have --- for example, here in
4 Pennsylvania we have a number of longwall mines, and
5 they provide the miners with Airstream helmets on the
6 longwall faces. That's routine. My concern is this
7 is routine in every longwall face, so they have not
8 been on any longwall faces. But it is sort of
9 routine.

10 MR. ROMANACH:

11 And has that reduced the exposure to the
12 miners?

13 MR. ELLIS:

14 If you're wearing an Airstream helmet,
15 yes, it reduces exposure. But having said that,
16 obviously it requires the sample outside of the
17 circumference. There's not a massive sample inside,
18 but they are effective.

19 MR. ROMANACH:

20 You're aware we are also under the Act,
21 which mandates that environmental controls should also
22 take precedence over personal protective equipment.

23 MR. ELLIS:

24 Taking precedence doesn't mean you ignore
25 particular factor types of ways to reduce personal

1 exposure, a PPE or anything of that nature.

2 MR. ROMANACH:

3 Would you recommend mandating the use of
4 PPE at all times?

5 MR. ELLIS:

6 I don't think we're going to take
7 position at this point.

8 MR. ROMANACH:

9 Do you have any proposal as to how that
10 PPE would be used or whether it would be used or when
11 it would be used?

12 MR. ELLIS:

13 We have not put together a proposal.

14 MR. ROMANACH:

15 You also state that compliance sampling
16 should be done only by MSHA. How would you --- if
17 compliance sampling would be done only by MSHA, does
18 that mean that the operator would not conduct any
19 monitoring of how much coal dust exists at the mine at
20 any particular point in time?

21 MR. ELLIS:

22 Not necessarily, no. I think operators
23 would conduct sampling, but the problem obviously
24 historically with compliance sampling done by
25 operators has been the allegations. A vast number of

1 us had a lot less gray hair when we started this ---
2 on that issue years ago. And there has to be a way to
3 figure out a system that an operator in sampling for
4 compliance is done by an individual. Otherwise, we'll
5 never be able to get any monkey off all of our backs.
6 And when I say all of our backs, I mean MSHA's backs.
7 MSHA is the only one that does the sampling. There's
8 always going to be issues, and I wish there weren't.

9 Our experience with our operators here in
10 Pennsylvania is they're trying their damndest to
11 comply and do things right, but there will always be
12 issues as long as you are relying on sampling from our
13 guys.

14 MR. ROMANACH:

15 And if MSHA were to be the only party
16 conducting compliance sampling, how --- do you have
17 any proposal as to how the operator would monitor the
18 exposure, the amount of respirable dust in mining?

19 MR. ELLIS:

20 Well, we have a nice new tool, CPDMs,
21 that the operators use. We don't have a full scale
22 proposal on that, certainly not, but we have a tool to
23 use.

24 MR. ROMANACH:

25 I don't have any further questions.

1 Thank you.

2 DOCTOR WAGNER:

3 You started your presentation with a
4 fairly broad indictment of the scientific basis for
5 the proposed rule and expressed concern about the
6 availability of information upon which the rule was
7 based. Have you taken a look at the NIOSH criteria
8 document that has over 70 pages of specific references
9 from the scientific and world peer-review
10 literature ---?

11 MR. ELLIS:

12 Yeah, I've seen that before, yeah.

13 DOCTOR WAGNER:

14 Right.

15 MR. ELLIS:

16 Yes.

17 DOCTOR WAGNER:

18 So could you let us know specifically
19 which of the areas, studies within that recommendation
20 and also within the references cited in the federal
21 register notice of this proposed rule that you're
22 particularly concerned about that's not being
23 scientifically valid?

24 MR. ELLIS:

25 Sure. And we can include --- one other

1 thing is that we could also probably include a Freedom
2 of Information request, if you could help us with the
3 delivery of that, we can certainly do that, too.

4 DOCTOR WAGNER:

5 Okay. Second, you've been involved in
6 conversations about weekly and daily exposures. We
7 would appreciate it if you provide any specific
8 recommendations that you have for how both weekly and
9 daily exposures should be taken into consideration in
10 order to be able to protect miners?

11 That your involvement --- it feels like a
12 few hours ago. Conversations about the weekly dose
13 and daily exposure limits, we would appreciate any
14 particular recommendations and the basis for those
15 recommendations that you would have that would combine
16 daily exposures and weekly exposures in a way that
17 could ensure protection of miners from lung disease as
18 a result of the respirable dust exposure.

19 MR. ELLIS:

20 Sure.

21 DOCTOR WAGNER:

22 And last, you made a broad statement of
23 commitment to the goal, the purpose of ending Black
24 Lung and raised a number of concerns about the
25 specific proposals that have been made to move in that

1 direction in the regulatory component of the End Black
2 Lung efforts, do you have specific recommendations for
3 what should be done differently from what is being
4 done now that would help end Black Lung?

5 MR. ELLIS:

6 On a regulatory side?

7 DOCTOR WAGNER:

8 On both the regulatory and the
9 non-regulatory side, but specifically since this is an
10 effort to look at regulatory proposals, whether there
11 are any regulatory changes that would move us in the
12 direction of keeping the commitment that Congress told
13 us to make in 1969 to end Black Lung. What would you
14 do?

15 MR. ELLIS:

16 And we can put that together. Just so I
17 am not misunderstood, we were --- you know, we're a
18 heavily regulated industry, obviously, on all sides.
19 And there are well intention regulations whose ---
20 with the letter of the reg is not going to meet the
21 intent, even though the intent is good. And that's
22 how we're looking at this, is we're not sure your
23 objective is going to be accomplished, particularly if
24 the rule is passed in this form.

25 DOCTOR WAGNER:

1 The specific request was in follow-up of
2 your statement of commitment to ending Black Lung,
3 what, if anything, specifically should be done and
4 please provide the basis for your recommendations as
5 to what should be done differently from what is
6 currently being done. Do you feel as though miners
7 continue to get lung disease as a result of the coal
8 mine dust exposures?

9 MR. ELLIS:

10 You're asking the wrong person for that,
11 but I would say, based on my talks with my safety
12 people, I think no, I think it's improving and that's
13 why I'm at a loss on some of these statistics that you
14 state. I think we --- no, I'm not hearing that. What
15 I'm hearing is that we're making great strides in
16 reducing the incidence of Black Lung.

17 DOCTOR WAGNER:

18 Okay. Were you going to say something
19 more?

20 MR. ELLIS:

21 No. Uh-uh (no).

22 DOCTOR WAGNER:

23 Okay. We're making strides in reducing
24 the incidence. Have we completed the task of
25 eliminating lung diseases from coal mine dust

1 exposure?

2 MR. ELLIS:

3 Well, I think that's still a goal we have
4 to work at, yes, but I think --- and I know you asked
5 me to put something together, and we will, but we
6 don't see what you're proposing to do is going to
7 result in that.

8 DOCTOR WAGNER:

9 Okay. Thank you very much. Thanks both
10 of you for your testimony here. The second person who
11 signed up to speak this morning is Jim Morton from
12 Thermo Fisher Scientific.

13 MR. MORTON:

14 Good morning.

15 DOCTOR WAGNER:

16 Good morning. Spell your name and tell
17 us where you're from.

18 MR. MORTON:

19 I'm Jim Morton, M-O-R-T-O-N. I am sales
20 director for Thermo Fisher Scientific. I would like
21 to thank you for this opportunity to speak to the
22 status of the Thermo Scientific PDM3600 coal dust
23 monitor. I'll have these comments forwarded to you.
24 I'll just read them verbatim to you and you can ask
25 what you wish.

1 What I'll do is briefly review four
2 points, the development, the production, the customer
3 support and the state collaboration of PDM. The PDM
4 is developed from a 25 year old bureau of mines
5 research initiative and specifications set. Initially
6 conceived as a machine mounted monitor and then a two
7 piece portable unit, the PDM is now a continuous dust
8 monitor utilizing state of the art respirable particle
9 cyclone, true volumetric flow and a unique oscillating
10 microbalance gravimetric filter.

11 We are submitting PDM3600 for final
12 certification in accordance with C.F.R. 30 Part 74.
13 The PDM3600 is manufactured in a Thermo Fisher
14 facility in Franklin, Massachusetts. Dedicated
15 production and engineering personnel assemble and test
16 the PDM in a single purpose manufacturing space.
17 Project managers are in close proximity to the factory
18 floor. All documentation, production processes, final
19 test and checkup procedures are compliant with current
20 ISO standards. Results of the performance checks
21 occurring through assembly and final tests are signed
22 off and maintained in a permanent file with internal
23 fixture.

24 Customer satisfaction is a paramount
25 concern to us at Thermo Fisher Scientific.

1 Approximately 250 PDM3600s have now been shipped. We
2 have established a field sales and training team with
3 a lengthy history of serving the unique performance of
4 the coal mining history. We are expanding and
5 significantly improving our level base technical
6 support and service response, including an asset
7 tracking system that registers and follows an
8 instrument for its entire service life.

9 Thermo Fisher Scientific is the world
10 leader in serving science and has a history of over 50
11 years of enabling our customers to make the world
12 cleaner, healthier and safer.

13 The PDM3600 is a result of a unique
14 collaboration of industry, government researchers and
15 miners. We solicit input from these industry
16 stakeholders and continually review, as appropriate,
17 our product to ensure its use, utility and
18 reliability. We're pleased that, since MSHA
19 certifications is intrinsically safe, PDM3600 has
20 performed well for hundreds of hours in some of the
21 world's most challenging underground workplaces. The
22 PDM is available right now and empowers miners to make
23 adjustments in real time to reduce coal dust exposures
24 below relevant standards. Thank you.

25 MS. OLINGER:

1 Is your asset tracking system being used
2 right now?

3 MR. MORTON:

4 It is. It's my recollection it follows
5 the serial number upon any short shipment, but I
6 believe it has been in place since midyear, since May
7 2010, and we can make that information available in
8 the written comments.

9 MS. OLINGER:

10 So of the 250 CPDMs that have been
11 shipped, not all of those have been entered into the
12 asset tracking system?

13 MR. MORTON:

14 There are probably some that have been
15 shipped during the initial shipments in early 2009
16 that may not be entered by the tracking number. We
17 are always evaluating and looking for that, in the
18 event coming in for service. We do know by serial
19 number when those units were manufactured and what
20 sequence and what quarter of the year they were
21 delivered.

22 In addition, over 80 percent --- I
23 believe it's 80 percent of the units sold have
24 maintenance contracts, three to five-year maintenance
25 contracts. So upon the recertification, when we the

1 owners ship them back in, we are also double checking
2 our system to make sure that asset is in our base.

3 MS. OLINGER:

4 And when units are sent back for repair,
5 are you able to tell us what the turnaround time is on
6 the repair, how long this unit is unavailable?

7 MR. MORTON:

8 It depends upon the condition it was
9 received and it depends on the service aspects. Is it
10 coming in for normal repairs? Is it coming in for a
11 recertification? Is it coming in for a damage? Is it
12 coming in for a unique situation?

13 So I can't give you those exact figures
14 right now, but we can put them in a particular format
15 to present them.

16 MS. OLINGER:

17 And can you give us an idea of whether
18 those that have been returned are under warranty and
19 the types of costs and repairs that are done?

20 MR. MORTON:

21 We can.

22 MS. OLINGER:

23 Thank you.

24 MR. FORD:

25 Mr. Morton, of the 250 PDM units that

1 have been sold by Thermo, have they all been sold for
2 use in under --- for use in underground coal mines?

3 MR. MORTON:

4 I can't be 100 percent sure. I believe
5 they have been with the exception of two that were
6 sold in Switzerland for a tunneling operation, but I
7 believe they've all been underground coalmines.

8 MR. FORD:

9 So you expect that the CPDM has other
10 non-mining use also that you can market it?

11 MR. MORTON:

12 Possibly. Possibly. That's why we
13 entertained the idea from Switzerland to determine its
14 viability and other non-underground applications.

15 MR. FORD:

16 Mr. Morton, for the PDMs that have --- of
17 the 250 that have been sold in the US underground coal
18 mining market, can you give me an idea of what the
19 average price is?

20 MR. MORTON:

21 I believe the average price is around ---
22 is under \$12,000.

23 MR. FORD:

24 Does that price include any sort of
25 warranty?

1 MR. MORTON:

2 It does include a warranty. It includes
3 a year-long warranty.

4 MR. FORD:

5 Okay. So the \$12,000 price is the
6 one-year warranty that comes with everything, the
7 machinery that you would sell?

8 MR. MORTON:

9 That's correct. Now, may I add that the
10 price is dependent upon the volume that is sold per
11 year, and as has been published, I believe, for public
12 consumption, is the fact that we have given a pricing
13 scale depending on how many units may be sold to the
14 industries. As the quantity goes up, the pricing
15 comes down.

16 MR. FORD:

17 You anticipated one of my questions. Can
18 you provide --- I know you probably can't right now,
19 but in your written comments, can you provide that
20 quantity scale?

21 MR. MORTON:

22 That has been provided. We can resubmit
23 it. It is possibly three, four years old, I believe.

24 MR. FORD:

25 That's why I'm asking you to resubmit it

1 again. You know, the costs may be different now. And
2 it's my understanding that that pricing scale follows
3 a purchase order, if that's correct, so if a
4 particular mine --- or I'm sorry, mine operator has
5 like three mines, he could put in one purchase order
6 for the three mines and take advantage of this?

7 MR. MORTON:

8 Oh, yes. Absolutely.

9 MR. FORD:

10 But if a mine operator had just one mine,
11 could he in any way involve some ---?

12 MR. MORTON:

13 I have no problem in entertaining a
14 collaboration were any larger quantity orders placed.
15 That's simple commercial common sense. We want to
16 make this instrument, this occupational health
17 instrument, as widely available as possible, and as
18 economically feasible as possible to all.

19 MR. FORD:

20 I just wondered maybe in your written
21 comments if you have any ideas of how a small mining
22 operator could maybe in some way see some of those
23 types of decreased spending?

24 MR. MORTON:

25 I would not desire to put that in written

1 comments, but I can say for the record that a
2 collaboration, be it an industry association, be it a
3 corporate entity placing it for a variety of
4 operations, all of these commercial procurements,
5 these win/win situations between a vendor and an
6 operator, are well published in general business 101.
7 These purchasing people are aware, and we would also
8 extend suggestions depending on the individual case
9 and the individual operator as is.

10 MR. FORD:

11 Okay. You also talk about different
12 warranty programs that you have. I know we --- if
13 anybody would just buy a PDM if they had an automatic
14 one-year warranty which includes the \$12,000 price.
15 Can you talk about the three-year warranty or the
16 five-year warranty or any other type of warranty ---

17 MR. MORTON:

18 Currently ---.

19 MR. FORD:

20 --- and the price that goes with those?

21 MR. MORTON:

22 I can't give you a definitive price. We
23 currently have three and five-year warranties that
24 cover many aspects of the instrument. There are
25 conditions surrounding and defining what is repaired

1 under the maintenance contract, the usual damage and
2 certain components within the instrument are required
3 --- are not covered under the extended maintenance
4 plan. We can submit for the record, if you desire, a
5 copy of one of those extended contracts.

6 MR. FORD:

7 That'd be great. If you can, well, just
8 submit the different warranty plans, what it includes
9 and the price of each warranty and the number of years
10 that plan would be under warranty. I noticed you also
11 talked about you did not have, at this time, a lot of
12 information concerning the repairs for machines that
13 are returned back to the manufacturer, so I'm ---.

14 MR. MORTON:

15 No. I believe I said that I didn't
16 necessarily have all of the serial numbers of the
17 instruments that went out. I'm quite confident that
18 we have a --- if not all, we've certainly had records
19 on all of the instruments that have been returned for
20 repair or service. We do have that and that is in our
21 --- it is in our tracking system or is being entered.

22 MR. FORD:

23 Okay. What I'm thinking about
24 specifically is if you could put this in your written
25 comments. Of all the sold units that have been sold

1 to be used in underground coal mining and that have
2 been returned to the manufacturer for repair, can you
3 state in your written comments what percentage of
4 those units were returned for problems that were not
5 under warranty?

6 MR. MORTON:

7 Yes, I can do that.

8 MR. FORD:

9 And can you also state for those units,
10 those percentage of units that were returned for
11 repairs that were not under warranty, what is the ---
12 what would be like some of the major or common
13 problems that were not under warranty?

14 MR. MORTON:

15 That is norm to our biweekly roundup that
16 we examine the various instruments that have been
17 returned, the various calls, oftentimes --- not
18 oftentimes, at times, people call in with a technical
19 problem and the instruments are not returned. The
20 technical support team over the telephone takes care
21 of that. We also monitor that and I can probably give
22 you that aspect as well, frequently asked questions,
23 if you will, and can certainly define, characterize
24 and describe the problems as they're computing them
25 and give you the IUs (phonetic) on the occurrences and

1 the frequency thereof.

2 MR. FORD:

3 Can you also, on those units that have
4 been returned, that repairs were not under warranty,
5 give us an idea of what's the average cost to repair
6 the unit not warranty?

7 MR. MORTON:

8 If there are any repairs that haven't
9 occurred on warranty, yes, I believe we can.

10 MR. FORD:

11 And finally, going again with the returns
12 --- I know that this was asked already, but can you
13 also give us the average turnaround time in your
14 written comments?

15 MR. MORTON:

16 I can, with the understanding it will be
17 further elaborated and reinforced and reiterated that
18 the times are improving. I need the panel and the
19 industry to understand that some of the situations,
20 questions, occurrences that have happened in the
21 field, we often need to receive the unit back and do a
22 study for root cause analysis. That's a fairly
23 comprehensive study, so may I suggest that the initial
24 first or second time you see a problem, the turnaround
25 time is not representative of what will occur in the

1 future. We would like that codicil to be recognized.

2 MR. FORD:

3 Concerning the issue of a coal mining
4 operator sending a Thermo machine back to the
5 manufacturer for repairs, do you have any sort of like
6 lending program whereby the coal mining operator could
7 use --- or the addition of any sort of lending program
8 whereby the coal mining operator could use like a
9 rented CPDM until the one they purchased is repaired?

10 MR. MORTON:

11 Yes. We envision many aspects of that.

12 MR. FORD:

13 Is there ---?

14 MR. MORTON:

15 The parameters that we could offer that
16 depend in --- depend dramatically on the proposed
17 rule, the uptime, what would you consider an accurate
18 sample, and the time frame that samples have to be
19 taken. We need to consider all of that before we
20 design a program of the utmost uptime to an operator.
21 Many things occur. The placement of units, who
22 actually has the units. There are many --- there's
23 been speculation that MSHA might own it, the property
24 might run it. Other parties might be interested. We
25 have some alternative plans in our --- in my forward

1 strategy, but much depends on exactly what's imbedded
2 within the rule regarding your desire, turnaround
3 time, sampling frequency, et cetera. We have similar
4 situations from the work we've done with international
5 agencies and even our own EPA where rentals --- units
6 on the shelf, spares that we hold, the operator holds,
7 et cetera. All of these are able to be envisioned,
8 but I can't really define something until at least we
9 see how this rule is turning out.

10 MR. FORD:

11 That I completely understand, and I've
12 just asked you to think about this, if you could think
13 about in your written comments perhaps telling us how
14 such a rental program would work and then the costs of
15 such a program under the proposed scheme that's in the
16 rule. I just want you to see if you could put forth
17 some examples.

18 I also have a question on filters and
19 it's similar to the CPDM questions. And that is as
20 the number of CPDM filters increase the number of
21 purchase orders, would the price per filter decrease
22 and could you talk a little bit about that?

23 MR. MORTON:

24 Currently, I believe our prices are in
25 the range of between \$5 and \$8. We have lowered the

1 price --- the price in consultation with both industry
2 and regulatory agencies. We have enabled larger
3 bundles, if you will, of filters to be available to
4 make them available at lower cost. These are a unique
5 filter, dramatically different than the integrated
6 filter that's now being used, and we feel that based
7 on projected use, which we think is a decent amount,
8 we tried to make the price constant and therefore
9 lower to what we expect the usage might be in two or
10 three years. We're trying to give to the industry the
11 lowest price right now for expected quantities that
12 could occur two or three years from now.

13 MR. FORD:

14 Okay. And again, in your written
15 comments, could you give us some scenarios of how that
16 would work in the --- a purchase order would work so
17 whereby some operator could get the \$8 price and some
18 get a lower price?

19 MR. MORTON:

20 It's a very simple scenario. The more
21 you order the cheaper the price. Again, as you
22 indicated, it's the same scenario that purchasing
23 agents in their professional demeanor would begin to
24 collaborate or begin to negotiate with us.
25 Absolutely.

1 MR. FORD:

2 Right. So if we can just get currently
3 what is that now, that volume of range that
4 produces ---?

5 MR. MORTON:

6 Tell you what the process is?

7 MR. FORD:

8 Yes.

9 MR. MORTON:

10 Okay.

11 MR. FORD:

12 Thank you.

13 MR. MORTON:

14 Sure.

15 MR. FORD:

16 Mr. Morton, thanks for answering my
17 questions.

18 MR. MORTON:

19 No problem. Thank you.

20 MR. NIEWIADOMSKI:

21 I just have a couple of questions for
22 you. Since a large portion of the 250 units have been
23 sold to mine operators because we know that --- have
24 purchased certainly a number of them, has the flow of
25 information from the users on their experience --- I

1 mean, have you --- has that been free flowing or are
2 you aware of the problems, because, you know, we've
3 had a number of public hearings and, of course you've
4 heard some of it here, that people have been
5 expressing problems, been experiencing problems with
6 the unit. And so I'm wondering whether or not, you
7 know, for you to be responsive because I know Thermo
8 wants to be responsive to its customers, have you, in
9 fact, had the --- do you have an open dialogue? Are
10 you aware of all the problems that the users have
11 experienced so you can address them accordingly?

12 MR. MORTON:

13 Excellent point. I believe that the flow
14 of information from users to Thermo has improved. I
15 believe that as we show our asset tracking system and
16 as our technical support improves that the flow of
17 information is much more forthcoming and candid. We
18 have certainly made efforts by putting two people
19 specifically to help support the users and to increase
20 training at the mine site. We have noticed a
21 lessening of some of the problems, but right now I
22 think the industry as a whole is generally impressed
23 with the transparency, with the responsiveness that is
24 now appearing with our asset tracking system. We will
25 upon call --- upon notification of a problem, we will

1 either enter that --- if it's a technical support
2 problem and the owner calls, then we will enter that
3 in a database the same day. If the user wishes to
4 send back any unit, we will use a return authorization
5 dated that day or eight hours hence. And that's how
6 we're beginning to track our information. If a user,
7 for instance, somehow sets aside the unit and the
8 return authorization isn't used, it still registers.
9 So whenever that unit comes back in, we can tie it to
10 the original occurrence. I don't think the procedure
11 is 100 percent perfect yet. The mining industry is
12 extremely spread out and I would hope that we have
13 conveyed who the operator should contact. That may
14 not always be the case, but we're striving.

15 MR. NIEWIADOMSKI:

16 One follow-up question. As the sole
17 producer of the unit, what can you say to allay the
18 concern that as a sole producer --- as has been
19 expressed here and other meetings --- that you're not
20 just going to raise the prices, okay, at will?

21 MR. MORTON:

22 That's a very good comment, and we've
23 been cognizant of that for three or four years because
24 the industry is candid, which we appreciate. But
25 we've been manufacturing instruments, as I've said,

1 analytical instruments and safety instruments for over
2 50 years. I would suggest as an exercise --- and I
3 already have the slides --- that we begin to take a
4 look at the inside of the instrument to see what
5 technologies are there and the amount of developments
6 and the amount of materialization and the amount of
7 sophistication, the fact that it has real time
8 volumetric flow control, which there's only two
9 instruments, two personal monitoring dust monitors in
10 the world that have it, and both of them happen to be
11 from our stable of products. The environment into
12 which this operates, the PDM3600, the environmental
13 concerns, the intrinsic safety concerns, we feel that
14 we are justified in the price that we are charging.
15 We feel that we are justified in the price reductions
16 that we're offering based on quantity. I believe and
17 have closely studied the figures, and I'm confident
18 that under any type of scrutiny, the pricing is fair
19 and allowable. We realize that this is a new paragon
20 in occupational monitoring, and we realize that we
21 have a large group of stakeholders that need to be
22 satisfied. We are in the business for the long run,
23 and it would be absolutely foolish and distasteful to
24 me personally if we were to offer an instrument simply
25 to take advantage of a market. That is not our ---

1 that is not Thermo Fisher Scientific's methodology of
2 operation.

3 MR. NIEWIADOMSKI:

4 Thank you very much.

5 MR. ROMANACH:

6 I have a couple of questions. In
7 addressing the potential market, if the rule that's
8 issued as proposed, how do you address --- are you
9 prepared to address the increase in demand and how so?

10 MR. MORTON:

11 Good question. Yes. We have had input
12 from the industry, from the agencies and from the
13 miners --- from the owner/operators themselves and
14 miners themselves about the potential uptake
15 requirement to furnish the --- adequately furnish the
16 industry within an 18 to 24-month period. That's
17 already in our production schema. We already have
18 some long lead time items that we've made our
19 instruments with the vendors. We can double our
20 manufacturing space allowable to the instrument and we
21 can double the shifts involved in the instrument, in
22 addition to adding other people. We feel that we have
23 --- will have no concerns satisfying the domestic US
24 industry if the expected quantities are required after
25 about a four to six-month lead up. For instance, this

1 year we have production expectations based per quarter
2 that should --- we have units on the shelf right now.

3 MR. ROMANACH:

4 Would you place a limit on the number
5 that a particular company or mine could request, the
6 number of PDMs?

7 MR. MORTON:

8 No. No.

9 MR. ROMANACH:

10 Are you aware --- has Thermo Fisher
11 conducted any study on any of the ergonomic effects of
12 the use of the PDM data in the mine, particularly in
13 an underground coal mine?

14 MR. MORTON:

15 No. We have heard and reviewed various
16 comments coming in from the lawyers. We have heard
17 and reviewed comments coming in from MSHA inspectors,
18 many people that have tested it. We have not heard of
19 any specific improvements or alterations specific to
20 that instrument yet.

21 MR. ROMANACH:

22 Have you received any complaints from any
23 wearers of the PDM?

24 MR. MORTON:

25 I don't know if I'd classify them as

1 complaints, as to the effect that they --- it's an
2 unusual device. It's an additive device. The weight
3 is increased over what they're primarily used to.
4 It's a brand new device that, as mentioned before,
5 people have to become aware of, and that process of
6 adopting is noticed, you know.

7 MR. ROMANACH:

8 Has Thermo Fisher considered any changes
9 to the product to make it lighter?

10 MR. MORTON:

11 In our goal review, we consider --- when
12 we hear issues being voiced by the industry, by the
13 stakeholders, by the lawyers, we will always review
14 both new technology, the diametric factors. We review
15 them in collaboration with our stakeholders, which
16 includes the agency, the researchers, the government
17 researchers involved, the amount of testing, the
18 amount of costs involved, the utility to --- the
19 utility means and usage. We always do that. Do we
20 have specific ideas? We're waiting for the
21 stakeholders to put those specific ideas in writing
22 and submit them to us. Manufacturing an instrument is
23 much like anything else. We can speculate and offer
24 blue sky suggestions, but it's only when definite
25 desired specifications emanate from the users that we

1 can now begin to do a life cycle study, a utility
2 study and a cost study. So we always solicit from the
3 stakeholders --- you give us a written set of
4 specifications and we will review it. That's been in
5 existence, I believe, since the first day of this
6 project and will continue.

7 MR. ROMANACH:

8 You said you shipped --- Switzerland has
9 been purchasing some PDMs from Thermo Fisher?

10 MR. MORTON:

11 Yes.

12 MR. ROMANACH:

13 How many countries have been purchasing
14 PDMs?

15 MR. MORTON:

16 Two. Some of what we call pre-production
17 units that were offered about six or seven years ago
18 were purchased by consultants from Australia in
19 substantial diesel fume and coal dust sites. And the
20 two in Switzerland. Currently, we have not applied
21 for international intrinsic safety, which is required
22 in most countries, although many countries have
23 suggested --- certainly many countries have an
24 interest, among themselves, Africa, Brazil, Australia,
25 Indonesia, Japan. They've expressed interest. They

1 have even suggested a waiver for the international
2 intrinsic safety approval to try the units out on a
3 test basis. It may be amenable to them, but we are
4 cautious about that. So we have only sold two to
5 Switzerland specifically for non-mining, and the units
6 that we sold to Australia came with the governmental
7 waiver to allow it to operate underground in
8 conjunction with a personal mounted methane detector.

9 MR. ROMANACH:

10 Does Thermo Fisher have a policy or would
11 they consider executing a policy to give preference to
12 a --- to American mines as opposed to foreign mines
13 that request PDMs?

14 MR. MORTON:

15 Right now I can see no instance where
16 that might be necessary. We have the production
17 capability to fulfill everyone's requirements based on
18 a cursory review of underground coal mines throughout
19 the world and those countries that are interested. I
20 don't see why we can't supply everyone on a four to
21 six-week satisfaction after we see award.

22 MR. ROMANACH:

23 Thank you, sir.

24 DOCTOR WAGNER:

25 I'm just going to request that you do

1 provide us as comprehensive a set of written comments
2 as you can that would include the number of users that
3 have been touched upon including --- you mentioned the
4 stakeholder written comments that you've solicited.
5 If you can provide a summary of these including the
6 identification of any points of either satisfaction or
7 dissatisfaction use or areas in which it's been found
8 to be less than useful. It would be good if you can
9 give us the information that you have about the units
10 that have been returned, whether --- not only the
11 specific problems, the turnaround time, the delays,
12 but also, as you noted, there is a kind of learning
13 curve here, so the trends over time and not just
14 averages.

15 It would be useful if you were able to
16 give ranges as well. It would be useful to know
17 whether your experience has been that a certain number
18 of units have multiple problems and a lot of units
19 have no problems, or whether a lot of units have a few
20 problems each. And as these get worked out, your
21 assessment as to the extent to which the problems
22 identified relate to inadequate training, use that's
23 at variance with the manufacturer's specification or
24 what the other root cause is that you've identified
25 and the extent of which these have been corrected.

1 Basically, you are the --- you hold the collective
2 wisdom of the experience in terms of the reliability
3 and durability of this device and it will be useful
4 for all of us to be able to have access to the
5 information that you are able to collect. We would
6 really appreciate it and it will help us to see this
7 formal rulemaking move forward. And with that, I will
8 thank you for your time.

9 MR. MORTON:

10 Thank you.

11 DOCTOR WAGNER:

12 So our next presenter is going to give a
13 fairly extensive slide presentation. It's now 11:10,
14 and what I'm going to do is break for ten minutes so
15 that everybody gets a chance to stretch and refocus.
16 We'll reconvene at 20 minutes past 11:00.

17 SHORT BREAK TAKEN

18 DOCTOR WAGNER:

19 Our next speaker is going to be Mike
20 Cooper. If you could state your name and spell it?

21 MR. COOPER:

22 Yes, sir. Mike Cooper, C-O-O-P-E-R. I'm
23 with Exponent, a scientific consulting firm. All
24 right. Let me start then with the slideshow. Just as
25 a couple points of my background, I don't run coal for

1 a living. I'm an industrial hygienist involved with
2 occupational health and a certified industrial
3 hygienist. So I've spent most of my career working
4 with preventing both disease and exposures for workers
5 in a variety of industries, but not in the coal
6 industry. I've not published within the coal
7 industry. I've done a lot of airborne contaminants
8 studies for a variety of industries including some
9 work over in the Middle East, on military bases. One
10 thing I might bring to this discussion is I have
11 served and am currently serving as a California state
12 health advisory expert, which is one place in the
13 country where the OSHA limits are reviewed and set as
14 opposed to some of the other states which are using
15 the older versions of the 1992 standards. So in
16 California, we actually have permissible exposure
17 limits for OSHA that are enforceable and chart below
18 the federal limits. I've sat on that committee for a
19 number of years, served in the past. Also worked with
20 the University of California as an instructor.

21 My disclaimer here is myself and a
22 colleague at Exponent were asked to independently
23 review the proposed MSHA rule related to specifically
24 the CPDM MSHA maintenance, exposure monitoring and
25 other factors. I think you see that from the material

1 that's provided and the slide as well. Exponent did
2 receive funding from the Murray Energy Corporation in
3 order to conduct this independent assessment. But
4 having done this for a number of years, the opinions
5 and comments presented today are my own and my
6 colleagues' and not necessarily that of Murray Energy.

7 In terms of methodology, I will explain
8 that we reviewed the rule from an industrial hygiene
9 viewpoint, reviewing of course the CPDM studies and
10 quantitative risk assessments in terms of the basis
11 for the lowering of PEL. I was able to review
12 conditions in two underground bituminous mines. They
13 were MEC mines, and we reviewed collective all of the
14 continuous personal dust monitor data for five
15 underground mines. As part of the investigation, we
16 reviewed dust managers and various safety and health
17 professionals within the mines.

18 There are several areas of agreement with
19 the proposed MSHA rule. I state those here, of
20 course, reiterating some of the comments from prior
21 speakers. I do appreciate the process which allows
22 for public comment because I think the goal is, of
23 course, to reduce miners' exposure to respirable dust,
24 and that's why we're all in the room. I certainly
25 agree that the CPDM unit has the potential to improve

1 both the timeliness and knowledge of dust levels,
2 mixed dust levels within the mine, assuming it has
3 reliability and is feasible to use. We'll discuss
4 some aspects of that in just a bit.

5 Certainly, through the course of the
6 objectives as articulated in the 2009 End Black Lung
7 Initiative --- and that's been going on for a number
8 of years --- of course, I am cognizant that there's
9 been a lot of very good work and scientific research
10 that has been performed through the years in this
11 particular arena. Obviously, the objectives of the
12 Black Lung Initiative include rulemaking, enhanced
13 enforcement, collaborative outreach, education and
14 training. I think, that as my 10-year or 20-some odd
15 years in the industry working with management and
16 employees, the last two I think are the most highly
17 effective ones. In terms of the collaborative
18 outreach in the industry, there's a lot of good
19 information out there, education and training from
20 both the agency as well as the miners themselves.

21 There are, of course, some areas of
22 concern with the proposed MSHA rule. The CPDM units
23 is one of those concerns. We have reports that miners
24 were frustrated using the units because, in part, its
25 high fault rate raises the potential for distraction.

1 We'll explain a few of those issues later in the
2 discussion.

3 The proposal calls for a large increase
4 in the number of samples. These would be mixed coal
5 mine dust samples. Some of the factors including mine
6 size, coal type, the region where the mine is, silica
7 weight, et cetera, and miner age not monitored by CPDM
8 - looking for all factors that affect a particular
9 safety. Those are some of the factors that are there.

10 The last point on this slide is large
11 scale monitoring on the CPDM, in reality is an
12 inefficient way to improve our understanding of those
13 situations and the factors involved influencing the
14 coal worker's pneumoconiosis. My stance is that a
15 smaller well focused study where the objectives were
16 known and understood upfront and delineated in the
17 file would be a much better way of approaching it and
18 it would produce better quality data, hence that's one
19 of our recommendations.

20 Some other areas of concern, I'm also
21 looking for some delineation of when anything new is
22 introduced into the workforce, whether it be a piece
23 of equipment or something. The concern is whether
24 there'd be any unintended risks from the introduction.
25 A couple of those risks that may be unintended risks

1 would include wearing the CPDM as several speakers
2 have noted its weights, the unbalanced load. There
3 are issues there. It sounds like the Committee is
4 well aware of those particular issues. The other
5 issue, of course, would be the potential distraction.
6 I'm very sensitive having done a lot of fatality
7 investigations in my years, and distraction is a major
8 issue. We do not want to increase a miner's
9 distraction in terms of wearing or reading the unit or
10 anything else caused by that particular unit.

11 Lastly, citations in the proposed rule
12 changed from the average to the single shift and it
13 appears that this is at the same time that more
14 samples are being required. The new instrument is
15 being put into effect which may not have been fully
16 tested under all of the mine conditions. We'll talk
17 through that. It appears that that new instrument has
18 a higher fault rate than what is currently used and
19 whether or not it intends to --- you can only do so
20 many operations and modifications at the same time, so
21 we may want to look at that and some recommendations
22 regarding that.

23 My topics today will be to provide you
24 some data. I hope this is specific enough per your
25 request regarding miner experience with the CPDM,

1 maintenance issues, the NIOSH 2006 study which
2 discussed the testing and then some data that I
3 collected of five different mines and the use of CPDMs
4 regarding the error rates over the last approximately
5 18 months.

6 I would like to talk very quickly about
7 the feasibility and rationale for lowering the PEL and
8 then provide some practical considerations. We'll
9 take questions at that point.

10 We'll begin with the mining experience with
11 the CPDMs. The miners are reporting a variety of
12 concerns when they've worn the CPDM. Murray Energy
13 Corporation provided CPDM units to five mines
14 approximately mid 2009. They've been using them from
15 that time period. The data collected were from that
16 point in time until 2010, the end of the year, so
17 approximately 18 months of data. These units were put
18 in place and a number of samples were taken. We talk
19 about how many samples and the number of hours
20 involved on the subsequent slide. The miners that
21 wear these units reported that the unit has a high
22 fault rate. This is --- the parenthetical here is not
23 from the miners. That's my data point from reviewing
24 all of the dust cards from each of these mines for
25 each of the units for this

1 18-month period. The miners report that the CPDM unit
2 is too bulky for seats and equipment compartments and
3 that faults have occurred in terms of the start of a
4 shift which sort of obviates the ability of the unit
5 to do what it's intended to do for the portal to
6 portal shift monitoring. Miners have reported some
7 frustration regarding that there were no alarms either
8 audible or vibrational to alert the miner. And that
9 coupled with the next comment is that it's a bit
10 difficult to read. Having been able to spend a couple
11 days underground using these units and some extensive
12 testing in our offices with respect to maintenance of
13 these units, it is indeed difficult to read the
14 display, to put it in their own words, to read it.
15 But most of the background, I guess, was reported by
16 miners as too long, it has a tendency to catch on
17 equipment, and it really has to do with the weight of
18 the units coming from the side and going up to the cap
19 light as opposed to from the rear, which is where the
20 battery was usually put, and it would come directly
21 over the back of the head. The connections to remote
22 units are hard to make in the mine themselves and were
23 not as standard and as foolproof, if you will, with
24 respect to the exchanging out a cap light battery, for
25 example, or putting a remote connector on the cap

1 light. The CPDM unit does not fit into pouches and
2 doesn't fit all the belts. These were from the
3 miners.

4 Interviewing certain managers at three of
5 the mines, their complaints were on a different level.
6 It really had to do with the use of the equipment and
7 some of the maintenance issues involved. I'll start
8 with the time. We certainly were concerned with
9 respect to Mr. Morton and what they have done. This
10 is a significantly improved unit from the gravimetric
11 sampling. The technology was very impressive inside.
12 Obviously, there was room for improvements. One of
13 those would be a long start time to include software
14 and hardware error, situations where we're trying to
15 make sure that it's operating within the specific
16 parameters. Thirty-five (35) minutes means that if
17 you set the timer to start the equipment, if the mine
18 shift starts at eight o'clock and you set the timer at
19 7:00, because that's when you get in, then you've got
20 35 minutes. And if it fails the first diagnostic,
21 then you don't have time for it to go through the
22 second one before the shift starts portal to portal.

23 The CPDM unit, per the certified rescue
24 managers, they had concerns that it's more complicated
25 to maintain than the gravimetric sampler. I think

1 that is apparent. The maintenance of the unit is
2 specialized in that it does require some practiced
3 skills. I observed firsthand two of the locations
4 where maintenance of the unit would be done, which is
5 topside. And they are not --- they are not clean
6 rooms, you know, in terms of the location where some
7 of the maintenance would need to occur.

8 Four out of the five CPDM units that were
9 examined from the five mine study that was conducted
10 needed to be sent back to the factory six times within
11 the 18 months that they were present in the mines.
12 Two of these particular units had to be sent back
13 twice. That's of some concern, and we'll talk about
14 that. Significant time was required to return the
15 units to the company for repairs when a significant
16 repair occurred. I believe in one case the 3600PDM
17 pump failed on a unit with less than a year's time on
18 it. That took a couple weeks to diagnose and to get
19 the equipment back. I understand that there may be a
20 rental unit that's available from the company. That
21 wasn't known to the folks that were using this piece
22 of equipment.

23 There's concern that one of those units
24 have failed in a major piece of equipment within that
25 time period. There is mention that --- some of the

1 maintenance, there was some need for experience with
2 some of the maintenance components like the KO, which
3 is calibration offset, which is done with tweezers
4 putting small weights on the oscillating filter. That
5 requires some skill to be able to maintain that. I've
6 done that a few times and have watched others do it
7 who were more experts than I am. It's not a simple
8 thing and it needs to be done with some care. So does
9 the cyclone cleaning and the forward determinations,
10 which those --- the cyclone cleaning are not part of
11 the maintenance that would be required with
12 gravimetric sampling for example. Obviously, we
13 mentioned the fact that there's only one MSHA approved
14 CPDM manufacturer at this point and there's concerns
15 about that from dust managers in terms of the
16 availability of the units and supplies.

17 Safety and health professionals that were
18 interviewed came up with these particular concerns,
19 again, still on the CPDM. Wearing the unit may cause
20 some potential risks and should not be upfront summary
21 - to distract and perhaps decreased ability to go in the
22 mine and work safely. Wearing the CPDM unit incurred a
23 risk for ECVs based on how slow-. I will say this
24 carefully. There's a misconception that the CPDM is a
25 real time unit. It doesn't mean the real time dust

1 concentrations for a 30-minute time period and then as
2 opposed to an end of shift calculation at that
3 particular point in time. From my experience, I'd
4 like --- with handheld devices I'd like to see units
5 which are a direct reading in the sense that I could
6 walk up to a miner, indicate what the concentration is
7 while they're performing work so there isn't a setback
8 in terms of the 30-minute time period and saying,
9 well, what you did in the last 30 minutes was too high
10 based on the bar graph that's provided with the unit.
11 Some of these might be interpreted as suggestions to
12 the manufacturer for changes.

13 There is some concern that some of these
14 changes may take some time in order to accomplish
15 them. So the two main items we mentioned are the
16 providing of a continuous reading or readings for
17 30-minute averages and the end of shift average. You
18 can look to this information all down the dust chart,
19 but of course, that's not performed within the mine.
20 While it's important to note that the CPDM is an
21 improvement over the gravimetric unit, the ability to
22 implement rapid changes because of this non-continuous
23 situation is significant. I show here a slide which
24 depicts some of the remote connections used that I
25 mentioned before. The two that are held here by the

1 hand are two of the remote connections for continuous
2 operation of that unit which is plugged into a port
3 supplied by the CPDM. If the miners had their choice,
4 they would rather see a connection that's like this
5 which is a cap light battery. That's over on the
6 right side. It is a little difficult to do this
7 connection in the mine setting because you'd got ---
8 and I think you can see right here, it's unintentional
9 on this particular photograph. If you look carefully
10 right here, you see how much material and debris is
11 present. In this particular mine situation it had
12 more than one type of connector for the remote device
13 in order to make it operational. So if you brought
14 down the wrong connector or didn't have it available,
15 that would be a problem.

16 This is showing a video, if you will, of
17 one of my colleagues in the mine. You cannot hear
18 this, but the problem is it's a shuttle car in an
19 equipment compartment when you sit down. And this
20 individual is much more petite than I am and my
21 observation, in deference of the size of most miners,
22 she can't read the unit where she's sitting. It
23 actually faulted through no trick of photography after
24 she sat down because the hose pinched and caused the
25 flow to be a problem. And the bottom line is it is a

1 little hard when you're crammed inside of the
2 equipment compartments. This is just the shuttle car,
3 but there are much more tight spaces that are present
4 there.

5 So in terms of CPDM maintenance issues,
6 one unit that was available to us with a specific
7 serial number which --- maybe tracking --- the asset
8 tracking system, was provided to Exponent for several
9 recent evaluations, both of sampling as well as to
10 review the maintenance procedures and perform the
11 monthly procedures as well as the annual procedures
12 that were done. We were looking at this from a
13 standpoint in time as well as of use. The unit, this
14 particular unit we had some problems with. It may
15 have just been the particular unit that was given to
16 us. It did not go back to the factory prior to it
17 coming to Exponent, but it was an in-use unit and was
18 shipped to us in the state --- there was a lot of coal
19 mine dust on the unit when we got it. So it was as it
20 would have been used is our understanding within the
21 mine. In this particular case, the unit repeatedly
22 passed the diagnostics but gave high readings in the
23 one to two milligram per meter cubed, the values off
24 the site. This is highly unusual. Something was not
25 right. We did perform one KO test on this to see if

1 the added weights onto the de-oscillator would be ---
2 may be indicative of error, the need to send this back
3 to the factory for repair. The difficulty was it
4 failed the first time, it passed the second and then
5 subsequently passed other diagnostics. So we thought
6 that it was simply a unit that had something go wrong
7 with it which subsequently had resulted in something.

8 So we took that unit down into the mine with --- then
9 we went on the mine tour. Read through the manual and
10 the reviews, NIOSH said we were --- we had pieces that
11 we were looking for on our analysis, some things that
12 we look for, data concerning any type of failures for
13 the critical parts of the unit, the lifetime of the
14 unit, and how long it would take --- if there were to
15 be improvements, how long those improvements would
16 take in terms of the response by the company or
17 approvals by MSHA.

18 One unusual failure then with the same
19 unit I just described occurred when we went into a
20 mine. We went in. It initially passed diagnostics
21 out of the mine. I mentioned before that it had units
22 --- had values that were high in readings in an office
23 setting. And I mentioned about the KO. One thing
24 that we were very --- we do science for a living, so
25 what we do is observe types of things. When you see

1 unusual types of errors for any piece of equipment ---
2 I've worked in a typical chemistry lab over my career,
3 but when we popped the unit at the end of the one day
4 after this had failed --- so the unit did not provide
5 data in terms of giving specific portal to portal
6 information on the first date that we used it in the
7 mine. We pulled it out and found a very odd looking
8 fiber, so we had that analyzed as well as filter by
9 semi ----. We looked at the filter by scanning
10 electrons copy and the filter itself. And we did a
11 quick analysis of this finding of EDS. What we found
12 is that the filter was pretty good in terms of the
13 cyclone and collecting a lot of particles which were
14 not higher than the ten micron limit, so that --- when
15 you scan that filter, it looks pretty good in terms of
16 that. The unusual part, the fibers, I cannot explain
17 where it came from. That particular mass was 95
18 percent carbon, had some particles imbedded in it.
19 Where it came from is not distinguishable, so that
20 would be helpful to discuss it with TSI (phonetic).

21 I guess that stated perhaps not all of
22 the issues with the unit that have been released by
23 the prior studies at NIOSH in 2006. If I could refer
24 to that 2006 study that was done by NIOSH, they
25 conducted both laboratory and mine testing. The first

1 part that's done in the dust chamber, the gravimetric
2 versus the CPDM unit. As noted, these were all
3 pre-commercial units based on the age. I think we
4 were told that they were first shipped in 2009 if I'm
5 correct, for the commercial year available in the
6 market. NIOSH didn't really explain what maintenance
7 was performed on these except in the dust chamber
8 where they did say that each unit was cleaned after
9 each day of use. And I assume this to be the
10 beginning of each shift, but I'm not sure. They
11 didn't report the amount of time it took to do this.
12 They did mention that the maintenance that was
13 performed at the end of day included cleaning the
14 cyclone grit pot, the tapered element, the sensor
15 module and cleaning out the inlet tube lines. That's
16 all appropriate and would be required by the
17 maintenance service unit who was doing this work to
18 perform those same types of maintenance at the end of
19 each shift, and you have to replace the filter as
20 well.

21 For the mine sampling, the NIOSH report
22 did not communicate what maintenance was done for
23 these particular units. We understood that NIOSH was
24 present for three days during the testing in terms of
25 instructions, et cetera. Then they left the unit with

1 the mine and the data collection was both when NIOSH
2 was present and when they were absent. The in-mine
3 testing by NIOSH in 2006 included ten mines, three to
4 ten days at each mine, one full shift per day. They
5 didn't report any monthly or annual maintenance as we
6 had discussed. Of course, these are pre-commercial
7 units. They evaluated 25 units. They had an average
8 of about 437 hours for each unit of operating time,
9 and that was equivalent to about 44 ten-hour shifts.
10 The results of NIOSH indicated that it took about
11 1,202 full samples of the CPDM unit for approximately
12 11,000 hours of testing. The best units, and I'm a
13 little cautious when I relay this --- I'm not quite
14 sure what it means, but there were some units perhaps
15 that performed better than others, and better ones
16 went 532 hours without needing repairs. And I would
17 assume that that means no faults. It wasn't directly
18 communicated. A void rate was determined as the
19 number of invalid samples or total samples, and NIOSH
20 reported that number as 9.8. Out of the 1,202
21 samples, there were 118 invalid samples that were
22 reported. And I assume that was based on the error
23 rates. They mentioned it was not a valid sample.
24 The two types of errors that NIOSH
25 reported in their 2006 study on the CPDM indicated

1 both remedial and critical, the one being that there
2 were software and hardware modifications and upgrades
3 or changes that needed to happen with the various
4 components. I assume that this was related to or
5 would have been related to the maintenance components,
6 although that wasn't specifically stated. And the
7 second was a critical error which was the units aren't
8 functioning and that has to be sent back because
9 there's a unit reliability issue. The NIOSH report
10 indicated a method of calculating when the repairs
11 were needed per thousand hours of run time and average
12 that number by making it 4,000 and averaging 4,000 ---
13 number by 4.75 per thousand hours.

14 If we were to take this information and
15 communicate it into a mine that's operating under the
16 proposed MSHA rule for three shifts work at a time,
17 assuming that one unit operates about 15 hours per
18 day, so the assumption here was that you have a unit
19 operational. Then it would need time to charge and
20 time to do its maintenance and replace its filter and
21 then it would be available for the third shift, and
22 then with alternating CPDM units in that fashion. If
23 you had an error occur that would be 4.75 times per
24 thousand hours until we reach this error occurring
25 approximately once every two weeks within the month.

1 That seems like a high number, but you've got to
2 understand that some of those might be critical, some
3 of those X hours may have been changed or altered by
4 reasonable X amount that when the company provided a
5 commercial version of this that some of us were
6 working on that.

7 My comments on reviewing both the
8 information from the mines as well as the NIOSH report
9 are that the CPDM units were tested using the
10 pre-commercial values, which there's probably some
11 good and some bad with respect to that. There was no
12 report of the monthly or annual maintenance performed
13 and that's a critical element of maintaining the
14 reliability and integrity of the units with time. The
15 study is limited in that it compared a number of hours
16 of sampling which would be about 11,000 over the ten
17 mines that were looked at. In my estimation, that's a
18 rather small number given the number of hours required
19 for a sampling to occur in a typical mine given the
20 proposed rule standard. Some of the faults were
21 observed in the study, but it is possible and
22 certainly could be likely that other errors may be
23 present on the CPDM units which will come out as the
24 result of additional testing, essentially additional
25 not testing, but use of the units themselves. I

1 mentioned the mean time between failure and the
2 lifetime, but my concern is that we're talking about
3 --- these are expensive units, to rule out the full
4 range of errors and to demonstrate that that's clear.
5 And I would be concerned about what that means. If we
6 look at some specifics in terms of numbers, the NIOSH
7 report cited the MSHA available database regarding
8 gravimetric samples and how many voided samples were
9 present for the time period of 1995 to 2004. There's
10 a little bit of disclarity in the NIOSH report in that
11 there's two different date ranges given and the
12 numbers appear slightly different if we take this to
13 be the information that is correct. The inspector
14 data had a void rate of approximately 6.1 percent,
15 23,399 samples were voided over the 381,000 that were
16 taken of this time period. And the operator even had
17 a higher void rate of 11.7 when the samples were sent
18 in.

19 If you looked at the MSHA inspector and
20 operator data, those void rates, I believe everyone
21 with something besides the CPDM unit would have a
22 lower void rate. And in fact, in the NIOSH 2006
23 report, to quote here, is that based on the expected
24 capabilities of the CPDM, they estimate that about
25 half of the MSHA voided samples could have been valid.

1 Unfortunately, this wasn't quite the case. If you
2 look at the --- well, I'm going to --- I'll slide out
3 of the way here, but I think it's the way the slide
4 is; is that correct? If it's a CPDM --- we'll go with
5 what we have.

6 The CPDM error investigation, we went and
7 collected all of the dust card hard copies and the
8 notes that were provided by the operator during the
9 sampling, and in most cases these were handwritten
10 pieces of paper we entered into the computer,
11 approximately dated 2009, 2010 for five mines. So you
12 can see the total number of samples that were taken
13 was --- well, just which you can see from the data
14 there is there's five mines. The number of coded
15 samples that were collected was approximately 166,
16 thank you very much. And if we looked at the number
17 of samples in the --- and right off the dust card you
18 can see errors that were present, so this is not an
19 interpretation by an operator, so you print the card.
20 Some of the data had multiple errors, but if you just
21 pick the ones that had one error, those numbers total
22 48.59. This represents the experience of 18 months
23 where they're using the units from a portal to portal
24 survey within the particular mines that we were
25 looking at, which were located in Kentucky, southern

1 Illinois regions. The percent void in this particular
2 set of data looks higher than both the NIOSH estimate
3 from the 2006 study and certainly higher than the data
4 from gravimetric report, the CPDM --- I mean not for
5 the --- were the operator data. We did it because the
6 cards allowed us to do this. We looked specifically
7 at the number of hours involved and then did a rough
8 calculation of the errors per 1,000 hours and came up
9 with a number which is located on the bottom here,
10 which is what we want.

11 Well, what types of errors did we see?
12 We looked at all these dust cards. I'm going to
13 report now the total number of errors. This is not 48
14 on the prior slide, but this is 75 because some of the
15 units had multiple errors. The kind of errors we saw
16 with the CPDM unit ranged from some of the high ones
17 like mass offset error, which was most common, to high
18 filter overload, low power, flow out range, TE
19 frequency and not detected. This represents then the
20 --- from all five of the mines, the dust particle
21 information that we were able to extract. But if ---
22 we then in the next slide compare the invalid versus
23 total samples, so if you'll let me loosely call that
24 the void rate --- and we compared the 6.1 percent from
25 the MSHA inspector data with the 11.7 from the MSHA

1 operator data that's publicly available and is
2 published in the NIOSH study, those numbers are 6.1,
3 11.7. NIOSH came up with 2.8 for the pre-commercial
4 testing in 2006. Our data from the five mine study
5 with commercial units was 29 percent. I took the
6 liberty of walking hand in hand with statisticians and
7 had them calculating upper balance of expected, a
8 prediction using the normal traditional model. That
9 number had a plus or minus seven percent, so the 29
10 there is anywhere from 22 to about 36 percent would be
11 the expected percentage of invalid over valid samples.
12 That's a pretty high number and it's not the same as
13 the information that we would have expected from the
14 testing that has already gone on. If you'll allow me
15 to compare the CPDM error rates in the same type of
16 way that NIOSH had in terms of number of hours
17 involved, a best case in order to put a number on the
18 chart is one error per 1,000 hours based on the NIOSH
19 study. NIOSH did report in their '06 error (phonetic)
20 data, 4.75 errors per 1,000 hours. The five mine
21 study came up with a number value of 41, which was
22 about 18 months' worth of time.

23 My conclusions from these studies is that
24 they've suggested the true error rates of the CPDM in
25 the field use is not known at this time, and I'm more

1 confident in understanding the things that might
2 affect errors should we note --- and let me say this
3 as clearly as I can --- before relying on it for
4 compliance purposes. I think the unit as itself is an
5 improvement on the gravimetric tool. It involves a
6 much more immediate understanding of what the
7 concentrations are available both to the miner, the
8 dust manager and the safety health professional within
9 the industry. However, to rely upon it for compliance
10 purposes, I would have some issues. If the error rate
11 is as high as observed in the five mines, it certainly
12 wouldn't be a good tool for whomever for compliance
13 purposes. So maybe the best thing we have about the
14 compliance issue would be the question.

15 So the questions I would raise back to
16 the Committee for consideration would be why would the
17 field use five pieces of equipment over an 18-month
18 time period at such a different error rate from what
19 NIOSH have or whether that would have predicted ---
20 based upon the knowledge involved. Some of the units
21 performed more poorly than others, so I would
22 certainly try and analyze and maybe some of that
23 information would be available if --- if it was
24 possible to take the full range of industry data from
25 the manufacturer in terms of their asset tracking.

1 Somebody could do that particular piece of work.
2 What's the fault rate if you're taking samples day
3 after day with these pieces of equipment, noting that
4 NIOSH did this over a period of between three and ten
5 days, but the proposed rule suggested they be done
6 over an everyday situation, which means operationally
7 for a longwall or a continuous mining operation. That
8 would be anywhere from 8.5 to 9 percent of the
9 available hours within the year on three shifts. What
10 is the suspected interference? There's not a lot of
11 information from that that we could discern from the
12 literature, and I guess I would be curious to know
13 about what were the mining conditions under which the
14 pre-commercial CPDMs were tested in the 2006 study by
15 NIOSH?

16 What I'm particularly concerned about is
17 the last item, the relative humidity aspect, and I
18 understand that it has been admitted; however, the
19 extremes in the mine that I viewed personally ranged
20 from either from about 15 to 100 percent relative
21 humidity depending on where you were. And that's a
22 pretty large range. The folks at NIOSH did indicate
23 that they looked at a relative humidity range and I
24 believe that that was in the 30 to 50 percent range,
25 which would be good for a comfort zone in Washington,

1 Pennsylvania, but it may not be reflective of what the
2 units will see within field operations.

3 Additional questions would be --- and I
4 don't know this answer --- what are the range of
5 temperatures and RH conditions within US mines? A
6 particularly important question is will the fault rate
7 increase as the units age? That's certainly something
8 that I cannot answer. We only have a limited amount
9 of data here, but it's something that would be very,
10 very helpful to have a collaborative understanding of
11 what that would look like, especially for the
12 proponents if it's to be used for compliance purposes.
13 It would be nice to know what the useful life is for
14 compliance purposes. I'd like to know that in the
15 meantime for the critical components of the unit
16 itself, how long it will take for the changes or
17 suggestions, some of which were presented in this
18 discussion.

19 Another question that comes up is what
20 happens when the CPDM unit faults? If there's no
21 effect, then we can ignore the slide. If you're
22 required to resample, then you've got some questions
23 about that because you typically will have to stop to
24 clean it, perhaps change the filter and run the
25 diagnostics again, which is a 35-minute time period in

1 order to set that. Now you may miss the portal to
2 portal situation at that point, so the question is, is
3 the sample required at another shift? Do you upload
4 the fault data to MSHA? Are they counted? Is there a
5 compliance issue for faulting this? Those are some of
6 the questions that I would ask back to the Committee
7 considering this as things that need to be addressed.

8 From an industrial hygiene perspective,
9 one of the other key issues that I am interested in is
10 how do you prevent disease. I appreciate your initial
11 discussions this morning. We're all here because we
12 want to understand and help with this Black Lung
13 disease affecting coal miners. Having personally gone
14 through and watching somebody pass away with COPD and
15 emphysema, I would not wish that on anyone, but we
16 need to differentiate the factors involved. And
17 specifically the CPDM collects mixed dust samples
18 within the mine. There are some other factors as
19 noted by the rule regarding the issues in terms of
20 silica. There are some aspects that aren't noted by
21 the rule, which would be mine size, the coal rank, the
22 effective age of the workers, some of the other
23 compounding factors that the epidemiologists will tell
24 us, et cetera, and the presence of some of the other
25 potential contaminants, i.e. biologically available

1 iron, which has come out in some recent studies, I
2 believe one in 2008. And then other factors which
3 could affect long term, but may not be involved in the
4 development of disease issue, things like adhesive
5 solvents within the mine. Obviously, each and all of
6 these would be improved if there was good real time
7 exposure data present, but I will point out that
8 exposure data is not quite the same thing. Collecting
9 exposure data is not the same as collecting data for
10 compliance purposes.

11 My experience, I'll briefly mention it in
12 terms of setting up --- or an assistant of setting
13 public policy or permissive exposure in the State of
14 California went something like this. What I probably
15 reflect by this slide is that because of their
16 legislative requirements to the California version of
17 OSHA, which is state by state, they're required to
18 update their airborne contaminant exposure levels on a
19 frequent basis. And what that simply means is
20 approximately once every two years, another set of
21 review and provide it. The way that this is done is
22 to set up a health expert advisory committee to set a
23 healthy standard. I think it was referred to earlier
24 in our discussions. There's been a lot of work in
25 this particular area which has to do with a

1 health-based standard as recommended by NIOSH from
2 their 1985 reports, one that I have used.

3 The second component of this is the
4 public process, looking at the economic feasibility.
5 So we have a feasibility committee that reviews the
6 results of the health-based standards. I participated
7 on the first community health-based health expert
8 advisory committee and I attend the economic
9 feasibility committee meetings just for an
10 identification of interests in health. These are then
11 provided --- the recommendations are provided into the
12 standards or typically those were in ranges, not just
13 the numbers, but we had ranges to the standards board.
14 The standards board does their work with them and
15 comes up with a proposal which goes to the state board
16 for enforceable PEL.

17 The whole point of this slide, not to
18 belabor it, is that there is the feasibility
19 components to this, and this is very important and
20 helps keep this thing on track. When we talk about
21 all the PEL, one of the key documents --- and this is
22 the 2010 version so I've provided a couple comments
23 regarding that particular component. If you are a ---
24 used compliance data to monitor exposure to silica,
25 that is specifically mentioned in the QRA as being

1 non-binding, but that's what they have to deal with
2 and I would recommend --- there are several reasons
3 why that's not a good indicator of exposure
4 monitoring. The QRA you submitted for mixed coal dust
5 does not by itself differentiate other risk factors.
6 It didn't help. Or silica, for example, or maybe the
7 roof is --- you know, has a thin seam in the roof
8 which would include a higher silica content. What
9 they did use was a set of MSHA data that were
10 available, so this is trying to show a little bit
11 here. And all the data that's available for MSHA,
12 they went to operator versus inspector under various
13 elements. The inspector data was better. They looked
14 at the entire time period and argued that 2004 to 2008
15 was better data than the entire time period, most
16 recent, I guess. They then wrote that first day of
17 day use and then they adjusted it in some way,
18 adjusted one year's worth of that unit for 2008 for
19 what they called the adjusted supplemented core or
20 ASC. From that, the QRA came up with an average
21 reported range of current exposure levels, .5 to 1.2
22 milligram per meter cubed. It seems like --- and I'll
23 explain why when we look at the data that we came up
24 with. I think my main comment here is that they did
25 come up with this range, but they also said in the

1 same report that there were some caveats associated
2 with that. So if you quote from the report, it says
3 essentially that approximately when they looked at the
4 percentage of work, occupations that did not meet the
5 one milligram per meter cubed standard, they had ---
6 because all of them did not meet it at some level, but
7 they had a range of percentages of approximately,
8 reading the bottom of the slide, .9 to about 72.2
9 percent, with an average of about 20 percent of the 19
10 occupations did not meet the one milligram per meter
11 cubed based on the data that the QRA relied upon when
12 they recommended a lower PEL. This is of some concern
13 from the feasibility aspects. If we took data --- we
14 did this for two of the mines, this certainly could be
15 done for more, but we looked at the feasibility in
16 terms of what's reported in the MSHA database, the
17 gravimetric data from 2008 and 2010, so this is more
18 current data, if you will, the number of operator
19 samples over one milligram per meter cubed is reported
20 and then it's a total number of samples reported for
21 two different MSHA mines. The information here, it
22 says that whereas the two milligram per meter cubed
23 from the operator sample is being not met
24 approximately between six and seven percent based on
25 the MSHA operator data, if the standard were lowered

1 to the one milligram per meter cubed, that number
2 would go from approximately six to seven percent to
3 somewhere between 33 and 42 percent. That seems like
4 a dramatic increase.

5 The inspector data similarly shows an
6 increase, but it's not as large. If we were to do the
7 same thing, if we were to --- I had available to me
8 all of the dust cards for five different mines using
9 five CPDM units, we did the same analysis for the
10 18-month period looking at all five mines and seeing
11 what the end of shift values would be for exceeding
12 one or two milligrams per meter cubed. What you see
13 here is the mines that used the CPDM units saw 2.5
14 percent of the samples not being reported for valid
15 samples. That's why this number has the denominator
16 of 118, 2.5 percent. If the standard were lower, this
17 would translate to approximately 15 percent. Eighteen
18 (18) over 118 samples would not be a proposed lower
19 standard. This is a concern because the number of
20 valid samples here is 118. What we estimated that a
21 particular mine would need under the proposed rule was
22 in excess of over 6,000 or 7,000 samples. And so this
23 is a large number.

24 So I guess I'll include on that
25 feasibility of lowering PEL, I think there is a real

1 question as to whether one milligram per meter cubed
2 can be met with a 95 percent confidence level within
3 an actual mining operation knowing those conditions
4 that are present and all of the efforts that both the
5 mine operators and miners have done to reduce
6 exposures over time. And I think the data does show
7 that there's a lot of that happening and has happened
8 over time. The proposed rule seems to change to me
9 variables at the same time, both bimonthly --- average
10 about the same. Average of five samples that's been
11 changed to a per shift, in other words, a weekly
12 component as I understood, and was addressed earlier
13 today. The measurement, too, is changing. The number
14 of samples is changing. Maintenance requirements in
15 my view are increasing. The unit that's being
16 required has a higher fault rate and there's a lack of
17 experience with the units in the mines. I think I
18 heard some from the Pennsylvania Coal Association
19 indicate that to his knowledge they are not using the
20 CPDMs within the state within the mines earlier today.
21 My graph will represent how many samples
22 is involved. It'll look something like this. It's a
23 little tough to weed out exactly what the numbers look
24 like, but if we took one of the Murray Energy
25 Corporation mines, we've picked one --- we've picked

1 three of them, looked at how many operator samples
2 were required over a three-year period and divided
3 that --- the old rule on the books has about 264
4 samples per year. If you make the assumptions in the
5 upper right-hand box of --- per MMU that's a
6 requirement where there's one designated operator then
7 other designated operators can ignore the DA, the
8 designated area. We put that five mine use for this
9 particular mine on three shifts and consequently the
10 number is --- about 71,000 samples would be required
11 by this mine per year. That has some pretty
12 significant applications in terms of the error rates
13 that we discussed earlier. I think we would argue
14 that the number of CPDM units required for that mine
15 would be somewhere in the order of magnitude of about
16 60. Counting the fact from the error rate and how
17 many you need for all shifts, 24 hours a day, they
18 would have to be recharged and maintained. That's a
19 rather substantial amount of cost, let alone the
20 number of filters and other repair situations that may
21 occur.

22 I will conclude with two slides on some
23 practical considerations. I apologize if these are
24 too general, but I would certainly conclude from this
25 discussion that the data collection --- and we'll say

1 this carefully --- data collection doesn't reduce
2 miner exposure. What you do with that data collection
3 to pull a miner out or change situations or make other
4 impacts to the workplace is what reduces the miners'
5 exposure. And that's what we're interested in. There
6 appears to be some significant increased changes,
7 significantly high hurdles, if you will, in terms of
8 the feasibility to meet the one mg per meter cubed and
9 certainly within the data that was provided here.

10 I would argue that what happens to the
11 data that's being collected is pretty important. It's
12 important to get very good data about exposures and
13 different factors in terms of all the things that
14 could impact a particular miner's exposure with
15 current significance of disease. I am not convinced
16 that somebody has handed this over to the
17 epidemiologists and said here's the number of data
18 samples that we're going to collect. So the idea here
19 is that collecting samples on a 20 percent shift over
20 all US mines is probably not the most efficient way to
21 get exposure data. If the goal is strictly for
22 compliance, that may be what's required. However,
23 there are some significant arguments in terms of
24 feasibility and other aspects, the compliance issue
25 based on the CPDM units as discussed.

1 Many variables that are articulated seem
2 highly unlikely. That means they're put out in the
3 community to do some studies or establish a third
4 party to look at it. What do we do with all this
5 information that's going to be coming our way? Of
6 course, I have worked with both the industry and the
7 workers for a number of years, and I always think
8 there's a collaborative approach between the agency
9 and industry, mine investigation things. The last
10 line talks about some practical considerations. I
11 understand perhaps incorrectly that the Committee may
12 be interested in having our experts pursue economic
13 and ergonomic review of the CPDM units. I highly
14 encourage that, looking at things like distraction,
15 the weights, the unbalance and the population of older
16 miners.

17 Under my very short tenure in underground
18 mines, we had three federal safety inspectors there
19 each day. We may not have met all of them, but there
20 were a lot of folks there. It's a highly regulated
21 industry. That's the mining industry, mine
22 experience. One thing that could be done is you could
23 have people in different sectors and have them collect
24 data both in terms of reviewing faults and ergonomic
25 considerations, and take that information and feed

1 that into this for a period of time of six months to a
2 year. It would be very helpful in terms of the use of
3 the units. I mentioned earlier pursuing a third party
4 to look at the design of what are we going to do with
5 the sampling data that the operators are going to
6 collect at the time and relate that back to the
7 factors involved with incidents of CWP. That's a very
8 unique opportunity. It was mentioned lastly that
9 going from the Pennsylvania coal group mentioned what
10 I would use, a mix and match strategy. One thing that
11 I understand that the rule has proposed is it does
12 allow the use of respirators. The hierarchy controls
13 it, however, it's an important component if you're
14 looking at trying to protect somebody from a
15 respirable situation. One way of looking at this in
16 terms of a practical consideration would be looking at
17 mix and match, which takes less PEL, provides more
18 highly respirable mixed dust concentrations, the use
19 of things like airstream helmets that were mentioned
20 earlier where needed and where perhaps elucidated by
21 what the data would show. And obviously, the impact
22 of education affecting miners' work practices. That
23 might be, in my opinion, to help to reduce miners'
24 exposures. Thank you very much for your time and
25 attention.

1 I'm sorry. One more side course. The
2 data are preliminary. What I mean be that is that we
3 asked for data across the mining industry to look for
4 information. It's out of my hands at this point in
5 time. We would like to look at things like error
6 rates, maintenance issues and miner experience. Over
7 time, we will review that information if it's
8 available. Thank you.

9 DOCTOR WAGNER:

10 Thank you very much. Susan?

11 MS. OLINGER:

12 Not at this time.

13 MR. FORD:

14 I just have a couple questions. How many
15 miners were involved in the five mines that were
16 conducted over the 18 months?

17 MR. COOPER:

18 I'm sorry, sir. Could you repeat the
19 question?

20 MR. FORD:

21 How many different miners wore the CPDM
22 over the 18 month study of the five mines?

23 MR. COOPER:

24 I would have to get back to you on the
25 number of individual miners. There were different

1 miners under different situations, both longwall and
2 bituminous, and I believe a couple of shuttle car and
3 scoop operators, but we can certainly provide that
4 information.

5 MR. FORD:

6 Can you tell me what kind of training
7 they received on how to use the CPDM unit before they
8 actually started using it in your five mine study?

9 MR. COOPER:

10 Is the question, sir, related to the dust
11 managers or the miners themselves?

12 MR. FORD:

13 It's the actual persons that were wearing
14 the unit. I'm trying to see, did they receive any
15 type of training at all before they were involved in
16 this study, or did they have no training and just wore
17 the unit?

18 MR. COOPER:

19 That's a very good question. If you'll
20 allow me, I'll answer it in a broad array. And that
21 is --- you also asked the question what was the
22 training that the certified dust managers who were
23 administering this have prior to providing this
24 information to the miners. What we ended up looking
25 at is in one particular case the certified dust

1 manager changed in the middle of this time period.
2 And the information that we had was the individual who
3 took over the units wasn't doing all of the monthly
4 maintenance on it. So that raised a significant flag.
5 So we looked at the information to see whether or not
6 the errors for that particular situation were higher
7 than the other four mines and whether or not there
8 were more errors at the beginning when there was less
9 experience or for the errors spread out over time.
10 And what we found was what you saw in the data set, is
11 that it didn't seem to matter really in terms of the
12 error rates, the void rates or the invalid versus
13 valid samples. Nor, in fact, that some maintenance
14 was not being performed as the manual would have
15 requested it to have been performed, which raised
16 another component of concern. That might have come up
17 if the study had gone on longer, but it was certainly
18 a concern. In specific answer to your first question,
19 though, we interviewed both some miners, as well as
20 the certified dust managers who provided the tool to
21 them. They basically said this is the unit, here's
22 how it works. It was a very brief thing. It was not
23 extensive. In my understanding, they were asked the
24 questions on a document, but no specific notes were
25 taken about which miner and what operations were

1 present for some of the information, so we had a range
2 of notes being taken for the dust cards versus rather
3 extensive handwritten notes which we could correlate
4 to the specific dust cards. I have confidence that on
5 the situations where there were specific notes being
6 taken of who the miner was and what information was
7 made back and forth from the miner to a deferred
8 location, et cetera. That information would be more
9 robust than the ones where there was no computation on
10 them. So I believe to be a rather short training
11 program if you would --- very generous to describe it
12 like that for the miners themselves.

13 MR. FORD:

14 Again, concerning the logistic five mine
15 study, concerning the training for the maintenance,
16 and I'm talking about here the daily maintenance, did
17 each miner do their own --- did each miner that wore
18 the machine during their shift, did that miner do the
19 daily maintenance or did some other miner do the daily
20 maintenance? And then the second part to that
21 question is for whoever did the daily maintenance,
22 were they trained in any way or did they receive any
23 kind of training at all in how to perform maintenance,
24 specifically the daily maintenance?

25 MR. COOPER:

1 I think both are very good and valid
2 questions. The first one is did the miner that wore
3 the unit perform the daily maintenance, the answer is
4 no. That was performed by the certified dust manager
5 which in the case of the five mine study the gentleman
6 who was the certified dust manager for the mine, they
7 had an individual specifically who was an experienced
8 miner that took that role, the position within, if I
9 could call it the environmental health and safety
10 department within the mine. So that was the MSHA
11 certified manager who was both adapted technically to
12 do that job because he was the one who managed the
13 gravimetric samplers as well, and with that gentleman,
14 he would actually communicate, in some cases take
15 notes on the information that was being provided to
16 the miners themselves. So it was not done by the
17 miner. Probably there would be some way we could do
18 it for some mines that don't have an individual in
19 that particular job category that we, at the
20 additional expense of doing this, could put somebody
21 in that role and then multiply that across all the
22 mines involved. The second part of your question
23 you'll have to repeat for me.

24 MR. FORD:

25 That mine that was --- I realize that

1 mine that was performing the maintenance, daily
2 maintenance, is a certified --- certified to perform
3 daily maintenance on the gravimetric, but the --- I'm
4 sure you --- maybe can you tell me what --- if not
5 now, maybe in your written comments, what level of
6 training did that person get to perform maintenance on
7 the CPDMs?

8 MR. COOPER:

9 Okay. There is an established course or
10 training for the CPDM unit. I will provide you
11 information on my written comments to address your
12 question. I can offer, though, because you've have
13 asked in your question about what was my training to
14 do the maintenance on those units, myself and my
15 colleagues, Ms. McCarthy, specifically went through
16 each and every step, and we used a manual as our
17 guide, and when we had questions, we'd call TSI.

18 MR. FORD:

19 One last question, and that is how long
20 did it take you to do daily maintenance?

21 MR. COOPER:

22 The estimates that we had for the daily
23 shift maintenance was ---

24 MR. FORD:

25 I mean the daily unit care.

1 MR. COOPER:

2 --- per unit between 15 to 20 minutes.

3 MR. FORD:

4 Thank you.

5 MR. NIEWIADOMSKI:

6 Mr. Cooper, let me just say this, that it
7 appears that you've done a really comprehensive
8 analysis of this, and have raised some important
9 points for the Committee to consider.

10 MR. COOPER:

11 Thank you, sir.

12 MR. NIEWIADOMSKI:

13 Let me ask you a couple questions. I'll
14 refer to the slides; okay? On slide number 11, this
15 has to do with mining experience with the CPDM. You
16 mention in here that data was not provided
17 instantaneously to the miner. Well, we know with
18 technology that certain dust other than light
19 scattering tends to be not something that we've looked
20 at before. As an engineering tool it's fine, but not
21 for exposure monitoring. Why do you think that it's
22 important for somebody to know there is a case which
23 is --- you know, at times they can be 56 milligrams
24 per cubic meter? They just occur for a minute. So
25 can you elaborate why you think it's important?

1 MR. COOPER:

2 Yes, sir, I can, and without too much
3 difficulty. We brought a light scattering device with
4 us, so that I had a device which could provide an
5 instantaneous reading. There are problems with light
6 scattering devices, certainly within the high humidity
7 types of situations that could occur. When I searched
8 through the literature, I did not find any direct
9 comparisons between the light scattering and the TE
10 (phonetic). I did not find where the light scattering
11 had been specifically tested within different
12 temperature or humidity conditions. I think it's
13 quite well known that depending how much moisture in
14 the dust chamber, you're going to have particles. And
15 it will see differences and I guess I'd be very
16 interested to understand what that looks like
17 certainly as a scientist, so that we had some
18 understanding of that. But I think the question you
19 specifically raised is there's no unit that's
20 currently MSHA approved that's light scattering that
21 would give you a direct reading. If the question is
22 why do you want that, as we're going into the areas,
23 going into the areas where you could bring a piece of
24 equipment in like that, and you had a dust scattering
25 unit and you had the CPDM, it's very interesting what

1 the miners were interested in is to be able to walk up
2 to someone and say you're standing on the intake side,
3 you know, this is the wrong place. Or you're on the
4 tailgate side and you can need to be, you know, in a
5 better physical location. You can't do that with a
6 30-minute sampling device. In my experience looking
7 at toxic gases, airborne contaminants in a variety of
8 different industries, I would like to have a handheld
9 device that I can use in order to impact worker
10 behavior. If it's not the most practical device or
11 it's not a device that meets compliance purposes, I'm
12 okay with that. I use whatever tools are available to
13 me.

14 MR. NIEWIADOMSKI:

15 Thank you. Slide number 18, an analysis
16 of the report of CPDM errors, you've indicated that
17 using those errors --- or at least based on those
18 errors, you've calculated and determined that the
19 repair rate would be one repair every two weeks, and
20 you felt that's not acceptable. What do you consider
21 to be an acceptable repair rate? And the other thing
22 is this, part of it is also you assumed that when we
23 see CPDM errors --- and of course, it's defined as an
24 error and we've had these discussions because some of
25 them are not errors, okay, were, in fact, an

1 invalidated sample, so my question to you is assume
2 that every time there was an error, okay, whatever it
3 was, that would result in invalidating that sample.
4 Is that how you looked at that?

5 MR. COOPER:

6 Yes, sir. To answer the second part
7 first, because I'm not --- I don't have a clever way
8 to do it in terms of more differentiation based on
9 some type of way to come out with in terms of design.
10 And the only types of information available for ---
11 about the mine study is that we have the dust cards
12 which indicated what errors, their frequency and their
13 dates and how many hours and when within the operation
14 that error specifically occurred, because it's time
15 stamped. But the thought process there is that you're
16 examining --- it would be kinder to say fault for the
17 piece of equipment that's identified. I guess the
18 definition there would be that we were not able to
19 complete a portal to portal shift sample for whatever
20 reason. It's a hot mess situation. That may be real
21 and it may have to overcome the ability of the
22 instruments to be able to detect that on a situation.
23 If it's a pinched hosed, that may be real, but it's
24 still providing a piece of information that says we've
25 got an error on that portal to portal shift

1 information. And the question becomes what do you do
2 with that information? If we report it as a fault,
3 that's perhaps a little more clear.

4 MR. NIEWIADOMSKI:

5 So what you're saying is that what's
6 required is some additional explanation and discussion
7 of the importance of the particular errors and whether
8 or not if you experience them, whether or not that
9 invalidates the sample, or it's just maybe a red flag
10 to you to look at something else?

11 MR. COOPER:

12 Sir, I think that's fair. One of the
13 slides tried to hit the point you're saying. What do
14 you do when you've hit a fault or an error within the
15 --- in a particular unit? And some of the questions
16 that are raised are what do you do with that
17 information of slide number 29 specifically? If it's
18 a new sampling, then there's issues with that. But
19 perhaps more important is how do you count those. And
20 if it's being used for compliance purposes, it's
21 certainly not what would be recommended.

22 What do you do with that information?
23 The fact that we're seeing numbers which have allowed
24 what we call a fault rates significantly higher than
25 what miners saw in the 2006 setting is a concern,

1 because I think, quite frankly, they were pretty small
2 samples. This is five mines with 166 particular
3 samples that were involved here. That's a very, very
4 small portion of --- statistically of what would occur
5 over --- if one individual mine collects 7,000 samples
6 per year, you would see a very significant aspect that
7 might be problematic.

8 MR. NIEWIADOMSKI:

9 Let me refer you to slide number 38. And
10 I know that the slide above, which is slide 37, you
11 determined the number of samples that would be
12 required to be collected under the proposed rule.

13 MR. COOPER:

14 Yes, sir.

15 MR. NIEWIADOMSKI:

16 Slide 38 is showing the data collection,
17 although it does not necessarily reduce miners'
18 exposures. I think the intent is, as Doctor Wagner
19 mentioned at the beginning, that we know that
20 overexposure to such concentrations causes Black Lung
21 disease. So the intent of the rule certainly is not
22 for other purposes. The intent of the rule is to
23 prevent overexposure on individual shifts. And so
24 when you're indicating that the data collection is not
25 --- we're not doing data collection, the intent is to

1 make sure that no one is overexposed at the end of the
2 shift. The question being is what do you recommend?
3 What are you going to propose if you're indicating
4 that 24/7 sample is not necessary, okay, to ensure
5 that every miner is being protected in a shift? Is
6 that what you're saying? Or do you have something
7 else that --- another idea and alternative to finding
8 what should be the frequency of compliance sampling to
9 ensure that nobody is being overexposed on individual
10 shifts? And as far as we know right now, the best way
11 to do that is to monitor the miners every shift. So
12 my question to you is, if 24/7 is an overkill, okay,
13 what should be the frequency to ensure that miners are
14 not being overexposed on individual shifts? Right
15 now, we're looking at sampling that's being done by
16 --- it's five shifts of sampling in two months. That
17 data basically, since 1983, has shown that the average
18 concentrations are below one milligram. And so when
19 you look at that data and you look at the level of
20 disease, the question being is why are people getting
21 disease. And if you're implying that, by point number
22 two, that there appears to be significant feasibility
23 challenges, are you indicating that even though
24 compliance samplings are indicating that there's
25 significantly below one, that actual exposures are

1 lesser? A compound question. A number of things I
2 threw at you. I apologize for that.

3 MR. COOPER:

4 If you'd be kind to let me answer and
5 then please clarify if I haven't reached the points.
6 On the first question, if I understood it correctly,
7 sir, the points regarding the 24/7 and that being
8 overkill, I'm not a statistician. If I were to go
9 back and take a look at the information that was
10 available and what information you wanted to collect,
11 I would go back to my statistical department and say
12 design me a study that would collect the appropriate
13 item information. It would most likely not be 24/7.
14 But we can answer that question specifically by asking
15 the folks who specifically design studies to come up
16 with a statistical model so that that could be
17 followed in terms of coming up with a recommendation.
18 I don't --- and I will apologize if it's in the
19 record, but I did not come across a design of sampling
20 with clarifications as to how the sampling regimen
21 came up currently. And perhaps you could educate me
22 if that does exist within a body of literature.

23 MR. NIEWIADOMSKI:

24 Can you repeat that again?

25 MR. COOPER:

1 Sure. But I guess what I was asking, I
2 did not see it. So is there something in a body of
3 literature that defines how the sampling strategy was
4 developed for the proposed rule?

5 MR. NIEWIADOMSKI:

6 The intent is --- primarily what we're
7 trying to do is prevent --- as far as we're concerned,
8 every overexposure is important. Okay. So we want to
9 prevent. And the only way we know right now is to
10 monitor miners' exposure on the shift.

11 Now, we've indicated that statisticians
12 could, in fact, look at data and design the sampling
13 frequency. But you know, we understand that that's
14 assuming that it's based on the conditions, okay, that
15 you're comparing to are certainly set and staying and
16 don't change. They're preventing, in fact, design
17 sampling frequency and not --- that doesn't require
18 24/7. Assuming that the environmental conditions
19 remain similar from shift to shift, but that's not the
20 case, because mining is very dynamic, things change
21 from shift to shift. And you can't use the results of
22 one and assume that you're going to get the same
23 result the next shift.

24 MR. COOPER:

25 Sir, I think that's very fair. What can

1 be done is if the goal is to understand whether or not
2 the dynamics are being modeled correctly with a
3 sampling strategy, then I would recommend that setting
4 be done upfront. And that is what we were indicating
5 in terms of some of the practical conclusions.
6 There's going to be a tremendous amount of additional
7 sampling that's being ---- that is being required.
8 One way, perhaps, we know would be to pick a region of
9 the country, let's say, ours or some region of the
10 country where it was indicated that the prevalence or
11 incidents of CWP is the highest. Choose that as a
12 region and have a study conducted so that the sampling
13 methodology within that region could be known and then
14 apply that information over to the rest of the mines
15 within the country. That's one way to do that.

16 I don't like to collect any data as a
17 chemist or as an industrial chemist that I don't know
18 what to do with it. But I am fearful when I read this
19 proposed rule. There's a very large amount of data
20 that might be extremely valuable, but it's not being
21 collected in a way that we know exactly what we're
22 going to do with it. If it is for compliance
23 purposes, that is an answer. If it's for the stated
24 objective, which is to reduce miner exposure and
25 understand and to differentiate the factors involved,

1 then that's one. I don't think that this is done in
2 an efficient way.

3 MR. NIEWIADOMSKI:

4 Thank you. I have no further questions.

5 MR. THAXTON:

6 One second. A few questions. I have
7 several. First, ---.

8 MR. COOPER:

9 Can you do them one at a time, sir?

10 MR. THAXTON:

11 They will be one at a time. First, I'd
12 like to ask you, you indicated that you did this work
13 independently. Did Murray Energy review your review
14 prior to presenting it here today?

15 MR. COOPER:

16 Murray obviously helped. They were very
17 helpful in providing the data. To my knowledge, they
18 have not seen this presentation. This was something
19 that we finished just recently.

20 MR. THAXTON:

21 So they're not aware of any of your data
22 and findings that are presented in this document?

23 MR. COOPER:

24 They provided all of the data for the
25 information that was provided in this information.

1 They are aware in the fact that they provided that
2 information, what it contains, but not in this
3 analysis.

4 MR. THAXTON:

5 I'd like to go back and start out with
6 slide six. You used slide six and you mentioned it a
7 couple other places throughout the presentation, the
8 fact that the CPDM collects mixed dust samples. Do
9 you understand what the Mine Act requires of the coal
10 mine industry? What standards we actually set? We
11 don't set the --- we set a standard based in the Mine
12 Act. The standard is set for all coal mines. Do you
13 understand that that's what that standard is?

14 MR. COOPER:

15 Yes, sir. And it is mixed dust, and that
16 terminology came out of the QRA, which is why it's
17 being used here. I do understand that there are a
18 number of different concerns which have to do with
19 coverage issues that would mitigate a section, a
20 particular standard for a particular region.

21 MR. THAXTON:

22 It's your understanding that the
23 regulations are actually set up --- we set a standard.
24 It is a respirable coal mine dust standard. All the
25 dust on the coal mine property is under two milligrams

1 respirable dust standard, as we treat it right now.
2 The proposed rule would continue that on a new
3 standard to either one milligram or .5 for any
4 location in the mine. So that any dust on mine
5 property that CPDM or the gravimetric sampler is
6 designed to collect, and that is what we're interested
7 in?

8 MR. COOPER:

9 Yes, sir. With the exception, of course,
10 of measuring the silica content within the dust, which
11 can --- obviously with the gravimetric sampler, that
12 is a methodology to take the filter out and send that
13 in and have the sampling done doing the CPDM to
14 analyze for silica, sir.

15 MR. THAXTON:

16 And you understand to reduce that silica
17 --- reduce the silica, a new standard would be applied
18 to the CPDM so that really silica remains the same
19 would result in people being protected from silica as
20 well?

21 MR. COOPER:

22 Yes, sir.

23 MR. THAXTON:

24 Okay. In relation to your slide number
25 nine, you were asked some questions about support in

1 relation to the training. I'd like to go a couple
2 steps further on --- and this is inclusive of slide
3 nine and slide ten since they both discuss the set for
4 wearing the CPDM units by Murray Energy personnel. Do
5 you know which specific miners were wearing the units?
6 Were they all designated occupations?

7 MR. COOPER:

8 A significant number of them were
9 designated occupations. It was mostly longwall,
10 bituminous mining operations. But as I indicated,
11 there were some samples being taken from individuals
12 in equipment compartments, so that involves scoops and
13 shuttles. That would be different from portal to
14 portal.

15 MR. THAXTON:

16 Okay. Can you provide data? Do you have
17 it broke down that you would be able to provide us the
18 breakdown of the data from each type of occupation?

19 MR. COOPER:

20 Yes, I believe that the majority of that
21 data exists within the records. I've reviewed it for
22 the dust sheets that I had available to me. It's not
23 summarized here, but that's something that could be
24 provided.

25 MR. THAXTON:

1 Okay. As far as an individual miner
2 wearing the PDM unit, can you tell us how long any
3 individual miner wore the unit? How many shifts, how
4 many weeks, months, whatever?

5 MR. COOPER:

6 The number of shifts, sir, are indicated
7 on the number of total samples which were taken during
8 this 18-month period, which was 166.

9 MR. THAXTON:

10 But I'm saying one particular miner. Did
11 Joe, the continuous miner operator, the MMU, how many
12 shifts did that individual wear the CPDM?

13 MR. COOPER:

14 I don't have that information here, sir,
15 today. But I believe the number starts at one and
16 goes up from there. In some cases, it is pure
17 continual, and in some cases, the individual asked to
18 wear this handed it back to the certified dust manager
19 and said thanks, but no thanks. I don't want to wear
20 this again. So in that case, a different miner or a
21 different designated operator would have been asked to
22 wear the unit.

23 MR. THAXTON:

24 There's only one designated occupation on
25 an MMU. So if the guy that's the designated

1 occupation refuses to wear it or doesn't want to,
2 there is no other designated occupation so you would
3 have to be picking somebody else that is not a
4 designated occupation.

5 MR. COOPER:

6 Sir, the mine offers three shifts with
7 multiple MMUs per mine, so there's plenty of
8 opportunity for a designated operator for three
9 shifts.

10 MR. THAXTON:

11 So if the guy on one shift didn't want to
12 wear it, you're saying that a designated occupation on
13 the next shift would be asked to wear it?

14 MR. COOPER:

15 That certainly was available to Murray
16 and how they can --- it worked out to 166 samples,
17 yes, sir.

18 MR. THAXTON:

19 Okay. You indicated that there were
20 three shifts. Do you have a breakdown of which shifts
21 the PDM were worn on? How many times were they worn
22 on the dayshift, the evening shift, midnight shift?

23 MR. COOPER:

24 I'm going on memory here, most of the
25 samples were collected on either the first shift,

1 which started at 8:00, or on the second shift. That
2 is my number, but we could break that down.
3 Specifically, there's a time stamp on all dust
4 monitors, so this isn't a matter of somebody coming up
5 with a recollection. It's a matter of record.

6 MR. THAXTON:

7 You were asked if the miners were
8 trained, and I take it that they were given some
9 instruction on the use of the PDM before they actually
10 wore it. Can you specify the type of training, the
11 extent of the training, what was covered with the
12 individual miners prior to them wearing the unit, or
13 was that training given to them at the same time that
14 they were given the PDM to wear it?

15 MR. COOPER:

16 Well, that's a very good question. I
17 think as I answered Mr. Ford, it's my understanding
18 that that information was given to them at the time
19 that they were provided with the unit. Now, the
20 gentlemen who would wear it a second time or a third
21 time would obviously have more experience with the
22 unit and would have more ability to converse back and
23 forth with the certified dust manager who was
24 providing the unit to him. But the first time --- we
25 can certainly check that piece of information out, but

1 it is my understanding that that would have been
2 provided when the unit was provided, which may
3 represent a much more typical situation within the
4 mines.

5 MR. THAXTON:

6 Wouldn't it be typical giving them the
7 training at the time that the unit is presented to the
8 person?

9 MR. COOPER:

10 I only understand that there's training
11 that's required for the --- there's a one-hour time
12 period of training that's required for the folks that
13 are wearing this within the proposed rule; is that
14 correct?

15 MR. THAXTON:

16 The proposed rule actually requires that
17 the miners be trained in a number of issues prior to
18 them even being asked to wear it or instructed to wear
19 a unit.

20 MR. COOPER:

21 Is the time frame provided for that, sir?

22 MR. THAXTON:

23 No. Also, then in relation to training
24 them, at what level and how much training and when was
25 the training provided to the personnel that were

1 actually charged with maintaining the unit, setting it
2 up, preparing it and taking --- downloading it at the
3 end of the shift?

4 MR. COOPER:

5 I believe we answered that question when
6 Mr. Ford asked. Folks that were the certified dust
7 managers would have available to them the information
8 from their --- from the mail and from their --- I
9 guess you would call it their corporate safety and
10 health personnel, who would send those units into the
11 individual mines and provide them to the certified
12 dust managers. In addition to that information, which
13 is not robust, they would have access to the folks
14 that provide the phone service for TSI. And if they
15 had questions about this or they could share amongst
16 themselves because in several locations there's
17 multiple mines that are close by and hence they have
18 the opportunity to not only share units but share
19 information that they gathered with respect to those
20 units.

21 MR. THAXTON:

22 So to your knowledge then, no Murray
23 personnel actually attended the training classes in
24 relation to the use of the CPDM?

25 MR. COOPER:

1 I don't have that information, but we
2 will check that, sir.

3 MR. THAXTON:

4 Okay.

5 MR. COOPER:

6 And by training classes, I'm assuming you
7 mean a manufacturer training class?

8 MR. THAXTON:

9 Yes. You have mentioned several times a
10 certified dust manager being used. And I before asked
11 the person that's doing the maintenance on the CPDM,
12 which is the certified maintenance person, what
13 certification did the personnel that handles the PDM
14 hold?

15 MR. COOPER:

16 With respect to the mine industry, please
17 understand my answer would be they had a card from the
18 MSHA certified dust manager course which they
19 attended. And they should have gotten documentation
20 that they had attended that course.

21 MR. THAXTON:

22 Certified dust sampler or certified dust
23 maintenance and calibration? There are two different
24 certifications.

25 MR. COOPER:

1 It's my understanding that they had both
2 as that's what they needed to hold that position with
3 Murray. But we can check that, sir.

4 MR. THAXTON:

5 You would agree that the people that are
6 actually certified on --- right now on the gravimetric
7 sampler has --- there's no training whatsoever within
8 that training that would make them better qualified to
9 handle the CPDM unit?

10 MR. COOPER:

11 No, sir, I would not agree with that. I
12 think there is training within that that would make
13 them better qualified to work with the CPDM. And
14 certainly the technology is not there, but the other
15 aspects of communicating components of it to the
16 miners, how the unit is to be used and where the
17 sampling mechanism goes on the cap light, those are
18 the components which would be reciprocal in the
19 gravimetric and the CPDM.

20 MR. THAXTON:

21 Okay.

22 MR. COOPER:

23 The maintenance certainly would not be.

24 MR. THAXTON:

25 Would you include that in your

1 documentation, the fact whether those personnel
2 actually attended a class on the certification of
3 those areas or whether they simply took the MSHA
4 examination and passed the test only?

5 MR. COOPER:

6 I'm not quite sure I understand the
7 question, sir. When you say did they attend the
8 course and pass the test, the answer's yes. What was
9 the first part, please?

10 MR. THAXTON:

11 Whether they attended a class on those
12 areas to be certified by MSHA or did they simply take
13 the test to be certified? In other words, they didn't
14 attend the training at all, other than just going
15 through and taking the test administered by MSHA and
16 certified.

17 MR. COOPER:

18 They took the class, sir. I did ask the
19 question and asked for the binder of information that
20 you got when you took the class. And they indicated
21 that they'd gone through --- I believe it's a one-hour
22 or one-day class. And without my memo or my notes, I
23 don't quite remember. My understanding is that they
24 did take the class, but we can clarify it.

25 MR. THAXTON:

1 If you would, please. Slide 11, you
2 indicated that the PDM does not provide instantaneous
3 readings for miners. That doesn't allow them really
4 to evaluate specific locations where they're standing
5 so that they can actually tell whether it would be
6 beneficial for them to move. Are you familiar with
7 the short-term monitoring capabilities of the CPDM?

8 MR. COOPER:

9 We did not use the short-term monitoring
10 capabilities of the CPDM when I used the unit
11 underground, nor were they being used when the samples
12 were taken by the mines for the five mine study. So
13 whereas there may be other displays that are being
14 used that were provided by TSI, that's not what the
15 common practice was and was not used by these folks,
16 which is why it's not mentioned.

17 MR. THAXTON:

18 Okay. Would you agree that there are
19 means available for miners to find out what their
20 exposure is for standing in a particular location
21 while performing a function if they so choose?

22 MR. COOPER:

23 Where there is that capability, sir, the
24 difficulty there --- I'm very sensitive to what that
25 takes to do and how that manipulation would take place

1 in the underground mining department. You can
2 demonstrate that with a classroom-type setting much
3 easier than you can if you're operating a remote
4 continuous miner or a longwall operation.

5 MR. THAXTON:

6 You realize that that is a requirement of
7 the proposal that miners are to be specifically
8 trained on that short-term function before they're
9 permitted to use a CPDM unit?

10 MR. COOPER:

11 With respect to the proposed rule, of
12 course. However, in the situation where this study is
13 being done prior to the rule, which is what our
14 exception is, this is how the work was actually being
15 performed within the guidelines, so ---.

16 MR. THAXTON:

17 Slide 14, you indicate that one CPDM was
18 provided to you to use at your facility?

19 MR. COOPER:

20 Yes, sir.

21 MR. THAXTON:

22 What training did you all receive on CPDM
23 before you started using it?

24 MR. COOPER:

25 I did not receive any training on the

1 CPDM unit. It was from the conversations with TSI.

2 MR. THAXTON:

3 Would you be providing specifics of your
4 testimony that you did in your facility as opposed to
5 the five mine studies?

6 MR. COOPER:

7 We're not done. So what I hope to do is
8 to be able to complete that work and then provide that
9 prior to the requirement for when the information is
10 requested by the Committee.

11 MR. THAXTON:

12 You indicated several times there's lots
13 of information that NIOSH used, it was that limited
14 study, and it really didn't encompass a large amount
15 of data to do the evaluation of failures on the unit
16 or error rates and such and the ability of the unit to
17 operate. Your study, though, reflects five Murray
18 Energy Corporation mines over a period of time. But
19 those five studies only accomplished 166 samples.
20 Would you consider that a large study, a significant
21 number to make decisions on or is that also a small
22 study?

23 MR. COOPER:

24 Sir, I believe the number of hours used
25 in the NIOSH study for total work was approximately

1 11,000 hours and underground mining was --- if my
2 memory serves me, it was about 8,000 hours. The five
3 mine Murray Energy study was about 1,000 hours, so
4 approximately one-eighth of that. So it was smaller.
5 NIOSH used 2,500 different CPDMs for 110 mines. We
6 looked at five mines with five different CPDM units.
7 So that is a smaller situation.

8 But if your question is, is that sampling
9 reasonable to make a conclusion or decisions from in
10 regard to that? It certainly is, because it would be
11 reflective of the conditions within the mine to which
12 these units may be used if the proposed rule moves
13 forward in its present state, barring, of course, the
14 comments that have been made on the training on it,
15 respective of the folks that were administering the
16 CPM units and the folks that were actually wearing the
17 units themselves,

18 MR. THAXTON:

19 Have you made a determination and
20 analysis of the comparison between the Murray Energy
21 mines and the things that were conducted in relation
22 to all other mines, coal mines in the United States
23 and how they compare size wise? Since that was one of
24 our concerns, the number of units that would have to
25 be taken by production people? Have you considered

1 how those mines that you looked at, the size, in that
2 study compare to other mines in the United States?

3 MR. COOPER:

4 That I think is a very interesting
5 question. And on the last slide we indicated that
6 we're trying to find out what other mines have
7 experienced with the CPDM units that would be more
8 than, you know, a couple of months' worth of time that
9 they've been using these and then being able to
10 aggregate the data but having the original dust card
11 information being provided so that we had it.
12 Obviously, we don't want to rely on someone's memory
13 on what happened. We want to rely on a piece of
14 information that's been downloaded from the particular
15 program. So that information's been requested. We
16 don't have access to that through the manufacturer
17 regarding, for example, information that comes back
18 through their repair type situation. But we may be
19 able to get that information from the comments that we
20 heard from Mr. Morton today. And it's the ability to
21 coordinate not just data but their experience in using
22 the CPDM units and look at how many hours and how many
23 samples were taken from the fault rates to be. But
24 I'll certainly get back to how much --- how often the
25 unit is required to be sent back to the factory or

1 some sort of situation that could not be resolved by
2 the mine itself.

3 MR. THAXTON:

4 Slide 34 is the capability --- you
5 compared two mines, mine one and mine three.

6 MR. COOPER:

7 Yes, sir.

8 MR. THAXTON:

9 Those are the two Murray Energy mines?

10 MR. COOPER:

11 Yes, sir.

12 MR. THAXTON:

13 Do you know which mines those are?

14 MR. COOPER:

15 Yes, sir.

16 MR. THAXTON:

17 Would you mind telling me?

18 MR. COOPER:

19 Yes, sir, I will.

20 MR. THAXTON:

21 Do you mind telling me?

22 MR. COOPER:

23 Yes.

24 MR. THAXTON:

25 Okay. Just as a matter of information

1 then, do you have the number of operator samples at
2 both these mines exceeding one milligram or exceeding
3 two milligrams?

4 MR. COOPER:

5 Yes.

6 MR. THAXTON:

7 And you're saying seven percent and six
8 percent of the operator samples respectively exceeded
9 two milligrams; right?

10 MR. COOPER:

11 Yes, sir. This is obviously publicly
12 obtainable information. The only reason to be coy
13 about which particular mines is some of these issues
14 may be under current situations where Counsel is
15 looking at things. To be honest, ---.

16 MR. THAXTON:

17 I'm going to tell you ---

18 MR. COOPER:

19 Yes, sir.

20 MR. THAXTON:

21 --- it's going to be a matter of
22 litigation. And yes, it's true I think about
23 providing samples.

24 MR. COOPER:

25 Yes, sir.

1 MR. THAXTON:

2 The only thing I'm asking is we do know
3 several mines and we know the size of the mines and it
4 makes a difference in what the situations are in those
5 mines.

6 MR. COOPER:

7 I can provide the sizes of the mines,
8 sir, in terms of production volume.

9 MR. THAXTON:

10 It's not necessary. The thing I'm trying
11 to point out is would you agree that both these mines,
12 they have an incentive right and the knowledge that
13 they need to meet the two milligram standard?

14 MR. COOPER:

15 Without question, sir.

16 MR. THAXTON:

17 So when you compare and say this number
18 is over one milligram, they have no reason right now
19 to be at one milligram; is that correct?

20 MR. COOPER:

21 No, sir. I would heartedly disagree with
22 that statement. I think their motivation is not in
23 this current situation to be a particular number
24 dealing with the health and safety professionals. And
25 I'll speak from that side point that there's not a

1 sticking point that I approach the industry with, the
2 goal is to reduce the incidence of disease and reduce
3 exposure of miners to the mixed coal dust.

4 MR. THAXTON:

5 So that really --- I mean, if you're
6 looking at the data, this really doesn't tell you the
7 feasibility of meeting standards at these two mines.
8 The mines have shown a remarkable ability to meet the
9 two milligram standard. And you don't --- we do not
10 believe that they've tried just as hard to meet the
11 one milligram standard that's actually the legal
12 standard in place?

13 MR. COOPER:

14 No, sir, I would disagree with the
15 statement, and let me start at the beginning of it.
16 The numbers do show a common point of feasibility and
17 that's the current situation, which is, A, that
18 reducing miners' exposure overall within the mine. It
19 is indicated that it is not feasible based on some of
20 the comments that were expressed by your colleagues on
21 the Committee relating to the fact that it's not a
22 stayed state and that there are significant changes
23 with time that can occur. And this would indicate
24 that there's some variability and the ability to meet
25 a one mg per meter cubed in this particular case says

1 that over 30 percent at least of these given samples
2 are not meeting the one mg per meter cubed. That is a
3 very different situation from making assumptions with
4 the data that the QRA in 2010 indicates that the
5 mining is not permanently meeting the one mg per meter
6 cubed standard on the --- of a very average basis. In
7 particular mining situations exemplified here, they're
8 not meeting it on at least a 30 --- between 30 and 40
9 percent of the valid samples that were taken by the
10 gravimetric readings.

11 What they do show, if you'll allow the
12 comparison, is if you switch to that CPDM on the slide
13 35, these are not comparing apples to apples, but the
14 sample of 118 values looking at similar types of
15 operations. They are not correlated to each other,
16 which indicates that they would meet POS value of one
17 mg per meter cubed at least on a percentage basis on
18 the lower basis. But that raises a number of
19 questions which we're not going into at this
20 particular point. But I think it does speak to
21 feasibility because if they're --- if the goal is to
22 approach it as an --- as lowest as reasonable
23 achievable, that's what's being done currently. And
24 with the two mg per meter cubed, that would be
25 compliance implications of that two mg per cubic meter

1 cubed. By setting the standard to something that is
2 50 percent of that does not necessarily change the
3 ability of the mine to engineer out from an
4 engineering control cite themselves, but rather which
5 would meet that one mg per meter cubed.

6 The assumption is from the industry's
7 perspective, I'm assuming, as a health and safety
8 professional, is that they're trying to reach that
9 goal as well as reasonably achievable at the current
10 time, and has been for some time.

11 MR. THAXTON:

12 And this goes back to why I asked if you
13 had compared these mines from Murray Energy that you
14 looked at with other mines throughout the United
15 States, simply because if you actually look at the
16 data, there is an enormous number of mining operations
17 in the United States that not only meet the one
18 milligram, but they meet it on each and every sample
19 collected from each and every MMU at those mines. And
20 there are lot of mines that do that. And actually
21 there are a lot of mines that turn in samples to the
22 Agency as representative samples that are below the .5
23 on a routine basis, each and every shift that they
24 sample.

25 MR. COOPER:

1 And sir, I appreciate that. And that is
2 very important information. The only thing to
3 consider, however, is that that's based on the old
4 rule --- excuse me, on the current rule in terms of
5 number of samples that are being looked at. They're
6 not looking at it from every shift. And they're
7 certainly not looking at every shift per MMU. So
8 based on that review, it's a bit rarified to say that
9 you would be able to go from being a mine that is not
10 seeing any samples above the one or .5 mg per meter
11 cubed under the current standard scheme. And that's
12 addressed, we'd have to significantly enhance the
13 sampling scheme, that you were still being --- have to
14 take it within the same ranges. That would be ---.

15 MR. THAXTON:

16 My question, though, is in relation to
17 the data that you had in that slide which said that it
18 is the current sampling scheme as well. So it's
19 comparing the same type of data between mines?

20 MR. COOPER:

21 Yes, sir, it is. That is correct.

22 MR. THAXTON:

23 Let's move to your slide 37. I would
24 like you --- can you tell me again how many CPDMs that
25 you concluded would be necessary to collect these

1 samples?

2 MR. COOPER:

3 Yes, sir. There was five mines and one
4 CPDM unit per mine.

5 MR. THAXTON:

6 So for this particular slide you had ---
7 you came up with the data for the 7,155 samples per
8 year, can you tell us how many CPDMs?

9 MR. COOPER:

10 I'm sorry, sir. I was referring to the
11 prior slide. Slide number 37 with the coal ---.

12 MR. THAXTON:

13 Yeah.

14 MR. COOPER:

15 Up in the upper right-hand corner, based
16 on reading through the proposed rule, on a per MMU
17 basis, the assumptions made are, hopefully, clear from
18 the slide. The assumptions were that there's one DO
19 and two ODOs per MMU without a designated area. So
20 that would be --- those samples would be three
21 samples. There's five different MMUs per mine and
22 there's three shifts per mine --- excuse me, per MMU.
23 So on the one mine basis, that would be three samples
24 times the three and then multiply that up through the
25 years, whatever that number comes in.

1 MR. THAXTON:

2 I'm not asking for the number of samples.
3 I asked --- you gave the number of the PDM units. It
4 does not look like that had ---. Could you tell me
5 that number, please? It's not on the slide.

6 MR. COOPER:

7 No, sir, it's not on the slide. I think
8 the logic behind the number of CPDM units is something
9 that we can provide in the comments forthcoming. But
10 to the back of the envelope calculation is
11 approximately ten CPDM units per MMU.

12 MR. THAXTON:

13 If you would, please, I'd like you to
14 provide us the data, what you analyzed to come up with
15 that number. Also in relation to the number of
16 samples under the old rule, the 264 samples per year
17 that you come up with, I'd like to know how you came
18 to that number. Because if we're using your five MMUs
19 at the mine and an MMU collects five samples each
20 two-month period, that's 30 samples per year. With
21 five MMUs, that's 150 samples.

22 MR. COOPER:

23 Yes, sir. Again, we can try to stand
24 here and give oral testimony where the 264 came from.
25 We went through each of the MSHA designated mining

1 numbers that we had available to us. Found out how
2 many samples were taken. I believe it was a
3 three-year period, from 2008 to 2010. That gave us
4 the number for --- this was done based on the three of
5 the mines. There were some changes in the MSHA
6 identification numbers that occurred, which is why
7 only three were used. That total number was then
8 divided by three to get the 264. Now, that may be a
9 higher representative number than the calculation that
10 you just made based on the DOs. But at worst case, it
11 is a --- it's the number of record on average that
12 this mine would have collected samples for within a
13 three-year time period.

14 MR. THAXTON:

15 So that old number for the current
16 sampling program is assuming that they had
17 non-compliance or overexposures during the year as
18 well because that's the only reason they got the other
19 samples and compared them?

20 MR. COOPER:

21 Sir, that may well be the case. I don't
22 --- I'm not sure that I have the information to give
23 to explain how it got it from a 180 to 264. What I do
24 have is the assumption that extra samples wouldn't be
25 required. So perhaps your point, sir, being that

1 7,000 samples would not take that into account either,
2 so that number may be lower.

3 MR. THAXTON:

4 So if you could provide the information
5 and the data that you summarized and come up with 264
6 as well as the number that was used to develop the
7 7,155 per year plus the number of CPDM units that you
8 estimated. And if you can provide the specific data
9 that you used for the number of samples that you got
10 for the three mines.

11 MR. COOPER:

12 Your last question?

13 MR. THAXTON:

14 You said you used three mines ---

15 MR. COOPER:

16 Yes, sir.

17 MR. THAXTON:

18 --- to get this number? Just provide the
19 data for the --- that is broke down by the three
20 specific mines ---

21 MR. COOPER:

22 Yes.

23 MR. THAXTON:

24 --- by whether they're DO samples, DA
25 samples.

1 MR. COOPER:

2 That information should be available.
3 The only thing is I think 7,155 is a low number for
4 several reasons. One would be that there's no DO
5 samples associated with that part of it and it could
6 become part of the proposal for that particular
7 operation.

8 MR. THAXTON:

9 My last question, ---

10 MR. COOPER:

11 Yes, sir.

12 MR. THAXTON:

13 --- you indicated that you had a limited
14 amount of time in the coal mine, ---

15 MR. COOPER:

16 Yes, sir.

17 MR. THAXTON:

18 --- just at one mine. Which mine did you
19 visit?

20 MR. COOPER:

21 Two mines, sir.

22 MR. THAXTON:

23 Two mines. Which mines did you visit?

24 MR. COOPER:

25 Two of the Murray Energy mines.

1 MR. THAXTON:

2 I'm asking which mine. Can you offer
3 perspective on the type of mine that's being ---?

4 MR. COOPER:

5 These were Southern Illinois bituminous
6 mines.

7 MR. THAXTON:

8 So one is Galatia 1 and one ---?

9 MR. COOPER:

10 One Galatia and the other one is the one
11 next to it.

12 MR. THAXTON:

13 That's all. Thank you.

14 MR. COOPER:

15 Thank you, sir.

16 ATTORNEY ROMANACH:

17 Javier Romanach from the Office of the
18 Solicitor. I just have a few questions. Do you have a
19 report from which your PowerPoint presentation was based
20 on or did you draft a particular report to that effect?

21 MR. COOPER:

22 Not at this point.

23 ATTORNEY ROMANACH:

24 Will you be drafting one? If so, we'd
25 like a copy.

1 MR. COOPER:

2 I think, sir, that the information will
3 be formulated in a non-PowerPoint presentation for the
4 comments that the Committee has asked for by May 2nd,
5 2011.

6 ATTORNEY ROMANACH:

7 Were you involved in the five mine study?

8 MR. COOPER:

9 Yes, sir.

10 ATTORNEY ROMANACH:

11 How were you involved, sir? Did you
12 conduct the study?

13 MR. COOPER:

14 Yes, sir.

15 ATTORNEY ROMANACH:

16 Did you draft a report pursuant to that
17 study?

18 MR. COOPER:

19 Sir, I think I just answered that
20 question.

21 ATTORNEY ROMANACH:

22 Your PowerPoint is that study?

23 MR. COOPER:

24 The PowerPoint represents what we found
25 in that study. The information in terms of writing

1 that report up has not been done to date. The census
2 could never be prepared before May 2nd.

3 ATTORNEY ROMANACH:

4 Is that because you stated that --- the
5 actual study, that you based the report on the various
6 studies?

7 MR. COOPER:

8 No, sir. I indicated that Murray
9 provided all of the information that we solicited for
10 that study. So everything that we asked for we got.
11 They provided the raw data and just review it.

12 ATTORNEY ROMANACH:

13 And who decided what raw data to require
14 --- to inquire to conduct the study?

15 MR. COOPER:

16 Myself and my colleague, Ms. McCarthy,
17 with Exponent.

18 ATTORNEY ROMANACH:

19 And is there a place where that raw data
20 has been compiled or a document detailing that raw
21 data?

22 MR. COOPER:

23 It's a large amount of raw data, sir.
24 It's either in my office or in Ms. McCarthy's office
25 at this point, so yes, we do have that information.

1 ATTORNEY ROMANACH:

2 Do you have --- do you know how were ---
3 for the particular five mines involved, how were they
4 determined to be the ones which the study was being
5 conducted? What was the basis for picking those
6 mines?

7 MR. COOPER:

8 They were five mines which Murray
9 indicated we can obtain the information in order to be
10 able to provide public testimony for this particular
11 meeting. And we could get all that information prior
12 to it and be able to analyze it. There is a request
13 out to --- I think from both Murray and the National
14 Mining Association to see if this could be extended to
15 pull in other information that was indicated by a
16 couple of Committee members.

17 ATTORNEY ROMANACH:

18 Were they all underground mines?

19 MR. COOPER:

20 The five mine study were all underground
21 bituminous coal mines, yes, sir.

22 ATTORNEY ROMANACH:

23 Were any of them local? Or out of these
24 five mines, were --- what was the height of these
25 mines? Were any three feet?

1 MR. COOPER:

2 You're asking for the width at the seam,
3 sir, or the height?

4 ATTORNEY ROMANACH:

5 The height.

6 MR. COOPER:

7 Average height between about six and six
8 and a half feet.

9 ATTORNEY ROMANACH:

10 Were any of these sampled miners --- are
11 you aware if any of them were management officials?

12 MR. COOPER:

13 I'm sorry, sir.

14 ATTORNEY ROMANACH:

15 Were any of the miners who wore the
16 CPDMs, were they management officials?

17 MR. COOPER:

18 Myself and my colleagues wore the CPDM
19 units when --- it's indicated by video, when we were
20 in the mines. My understanding is that they were
21 miners and that the certified dust managers who wore
22 them for the data cards that were collected. I did
23 ask the question whether any MSHA state or federal
24 inspector had ever been observed wearing a CPDM in any
25 of the five mines over the two-year time period. And

1 I was told that one was on one shift or one part of a
2 shift.

3 ATTORNEY ROMANACH:

4 In slide number 14, you said there was an
5 office setting where the concentration was one to two
6 milligrams. Where was that office setting? Was that
7 in the coal mine or was that outside the mine?

8 MR. COOPER:

9 No, sir. The question --- the office
10 that I'm referring there to, we had indicated we
11 shipped one of the CPDM units, the CPDM units which
12 was in use, in operation. It was shipped to a Menlo
13 Park. And it was my colleague's office in Highland,
14 Menlo Park in Oakland is where those samples were
15 taken. All the maintenance that I physically did on
16 the equipment at --- we physically did on the
17 equipment was done in a rather clean office setting
18 where light scattering dust tracker units would be
19 measuring in .01 to .005 mg per meter cubed. So we
20 ran the units side by side with the dust tracker
21 within that particular setting on a variety of
22 different time periods. Not for an entire shift but
23 for 15, 30 minutes, an hour's worth of time. So that
24 we were capable of looking at some comparison between
25 what we were used to using as a respirable dust 1.7 mg

1 per meter cyclone versus the unit that's impinged upon
2 with cyclone within the CPDM unit. That's where this
3 comparison comes from. Some of those results were
4 orders of magnitude out of range so that that begged
5 the question for the maintenance and begged the
6 question of the annual maintenance. It looked like
7 everything was fine and we were all done, but it
8 actually did fall within the mine itself, as
9 indicated.

10 ATTORNEY ROMANACH:

11 Who established the protocol for
12 conducting the study? Or was there a protocol
13 established for conducting the study?

14 MR. COOPER:

15 The maintenance work that was summarized,
16 is that what you're referring to?

17 ATTORNEY ROMANACH:

18 For the District in the study, the five
19 mine study, as to how it was to be conducted, was
20 there a particular protocol established as to the
21 criteria for what information to be gathered? And if
22 so, who made that determination?

23 MR. COOPER:

24 We were asked by Murray Energy
25 Corporation to provide an independent assessment so

1 that the study design throughout was myself and Ms.
2 McCarthy to determine what this unit looked like when
3 we compared it to a dust tracking unit. When we
4 looked at the unit, we checked for how it worked, for
5 the maintenance aspects of it, how it worked within
6 the mine itself. There were a number of different
7 components to setting design that we did not have the
8 opportunity to implement at this particular time.
9 Those may be forthcoming. And if they are, we will
10 certainly include them in terms of other studies. I
11 think I mentioned, one of them just looking at the
12 impact and effective relevance of humidity and
13 temperature on the results.

14 For most of these situations, we didn't
15 find literature information regarding this because our
16 sole source was the 2004 and the subsequent 2006 NIOSH
17 articles that were published on the pre-commercial
18 units.

19 ATTORNEY ROMANACH:

20 Again, is the PowerPoint the only report
21 that you presently have on which was done for that
22 particular study?

23 MR. COOPER:

24 Yes. This is what was presented,
25 provided in order to --- from the standpoint of what

1 the study looks like. At this point in time, I don't
2 have a written report.

3 ATTORNEY ROMANACH:

4 There's no other report summarizing the
5 results of the study?

6 MR. COOPER:

7 No, sir. Typically, in my line of work
8 we will get the information first, look at that
9 information, and then create a report subsequent to
10 what that looks like. We're not done with this study
11 yet, sir.

12 ATTORNEY ROMANACH:

13 I have no further questions.

14 DOCTOR WAGNER:

15 Thank you. Can you tell us at what point
16 you became involved in looking at this data?

17 MR. COOPER:

18 I'm sorry, sir. At what point?

19 DOCTOR WAGNER:

20 Yeah, like what month, year. When were
21 you hired?

22 MR. COOPER:

23 I believe it was November of '09, sir,
24 but I have to check the date.

25 DOCTOR WAGNER:

1 So ---.

2 MR. COOPER:

3 Excuse me, I said '09. I meant November
4 of '10, after the proposal was ---.

5 DOCTOR WAGNER:

6 November of '10 or '09?

7 MR. COOPER:

8 '10, sir.

9 DOCTOR WAGNER:

10 So what you're calling study, actually
11 the issue of the design of the data collection, any
12 protocol relevant to all the site training, frequency
13 of collection, the methods that would be involved in
14 assessing the hypotheses that would be tested through
15 this, you were not involved in any of that?

16 MR. COOPER:

17 No, sir. I was involved. I directly
18 worked with our statisticians on the components of
19 certain aspects of the slides that we have shown.
20 This is a work in progress. I think that's ---.

21 DOCTOR WAGNER:

22 Well, let me ask it a different way. In
23 your normal work, do you refer to yourself as a
24 scientist? Do you ordinarily collect data first and
25 then take a look at it and decide how it is that

1 you're going to analyze the segment? Or do you
2 establish a method for data collection and analysis by
3 protocol and then go through that?

4 MR. COOPER:

5 That's a very fair question, sir.
6 There's a typical way of doing it, which is the
7 latter. Which is you establish what --- if you're
8 doing a large study for looking at health effects from
9 airborne contaminants in Saudi Arabia, the design set
10 is extremely important, because how that is structured
11 and where your sampling components are from and how
12 you deal with stats, that has to be established
13 upfront. There's a well-defined protocol for dealing
14 with that within the firm that we rely on other
15 experts outside of my area of expertise in order to
16 define that.

17 In other cases, when we looked at
18 exposure concerns for military bases in Iraq and
19 Afghanistan, we had so little information to start the
20 information with, we had to go in a direction that
21 said let's get somebody on the ground to actually
22 collect information and then we can determine where
23 we're going to go from this.

24 DOCTOR WAGNER:

25 I don't want to minimize the value of

1 taking consistent data and trying to understand what
2 information you derive from it that would just
3 distinguish it from a hypotheses driven, protocol
4 driven study, if you will.

5 MR. COOPER:

6 That's a fair comparison.

7 DOCTOR WAGNER:

8 You said something about in order to be
9 able to answer specific questions. I'm going to skip
10 around a little bit. You referred in a couple places
11 to compliance sampling versus what would be researched
12 kind of sampling or sampling that's done in order to
13 establish a dose response relationship, for example.
14 Can you --- in your view, what's the purpose of the
15 proposed regulation? Is it to establish a dose
16 response relationship, or is it to determine
17 compliance with a new standard?

18 MR. COOPER:

19 That's a good question. But I think that
20 the answer is, from my limited viewpoint, is a lot of
21 information that's been --- that's on prior here. So
22 I am familiar a little bit with, quote, the literature
23 and some of the players and some of the history
24 involved, only from an outside observer's standpoint.
25 And I'll answer the question from that perspective.

1 California has the ability, good or bad, to set the
2 number of standards that have become the national
3 standards, both in the Fire Code and the Uniform
4 Building Code and some other instances. Many of those
5 deal with some of the types of industries that we have
6 in California. As such, typically those that have
7 happened at the local level with local regulators,
8 both in the county and state, before they became
9 pushed into the federal scene, on the national scene.

10 DOCTOR WAGNER:

11 Sir, maybe I was unclear, but I'm
12 actually asking about the specific environmental
13 monitoring sampling that is in the proposed rule, what
14 you see as its purpose?

15 MR. COOPER:

16 Its purpose would be to collect single
17 shift data so that there is information available for
18 compliance purposes and for information purposes for
19 the miners. That's my understanding.

20 DOCTOR WAGNER:

21 Okay. Thank you. Then to follow up and
22 go to the slides relevant to the feasibility. Can you
23 tell us what you mean by feasibility?

24 MR. COOPER:

25 Yes, sir. Having been involved with

1 setting recommendations for consideration for PELs for
2 a number of years, there is a difference between the
3 public process which sets a health-based standard
4 versus something that you implement down the road as
5 part of the policy that's an enforceable standard for
6 a PEL. I understand there are significant differences
7 between the jurisdiction and application of those
8 terms with MSHA and with OSHA. However, it appears
9 that the ability to look at the compliance part of
10 this needs to be a part of the feasibility discussion
11 in terms of not just how easy it is just to implement,
12 but whether or not it's actually feasible to comply
13 based on current technology. And then you layer that
14 with things like the cost, other issues of commerce,
15 components which may not be directly related to
16 determining the dose response relationship or factors
17 that influence prevalence or incidents of the disease.

18 DOCTOR WAGNER:

19 Is there a plain English meaning of
20 feasibility?

21 MR. COOPER:

22 From the office's standpoint?

23 DOCTOR WAGNER:

24 Yeah.

25 MR. COOPER:

1 Whether it would work to achieve the goal
2 for both the Agency and the industry.

3 DOCTOR WAGNER:

4 And so that's --- is that what you're
5 speaking to in your slides about feasibility?

6 MR. COOPER:

7 I am speaking to that in the broader
8 context, yes, sir.

9 DOCTOR WAGNER:

10 I'm not asking you to do this now, but I
11 just didn't want to let the request get lost as you're
12 preparing your written remarks. I think it would be
13 very useful for you to make any recommendations that
14 you may have based upon your experience and the
15 available data on possible sampling strategies that
16 could ensure compliance with whatever standard there
17 is. And just to help us out with that, similarly you
18 have a mix and match suggestion in here. If you could
19 be more specific about how those various things could
20 be mixed in a useable way to ensure health protection
21 for mines that is useful.

22 I want to make sure that I've got the
23 numbers right. The data collection of five mines, you
24 went to five mines, 18 months. Right so far?

25 MR. COOPER:

1 Yes, sir.

2 DOCTOR WAGNER:

3 166 samples, approximately nine samples
4 per mine per month?

5 MR. COOPER:

6 No, sir. I would not use the average of
7 nine samples per mine per month. I think the
8 frequency of the samples were not spread out evenly
9 over that time period. There was a significant number
10 of samples from the first about six to eight months.
11 The data seems to suggest there was a lull and then
12 another data collection of samples subsequent to that
13 to make up the total. I don't think I indicated that
14 there was an average frequency that was involved. I
15 think it had to do in part with the availability of
16 units, which you recall I did indicate that these
17 units had to be sent back and so that made delays in
18 whether or not they were available to do the work. In
19 one case, there was a little bit of confusion in terms
20 of which unit was being used at which mine. The data
21 cards are clear, so that's apparent. But the serial
22 number wore off one of the units by the time it got to
23 us, so there's just nothing on that plating that tells
24 you which unit it is. It's only when you start up the
25 unit that the software ---.

1 DOCTOR WAGNER:

2 I hear what you're saying, but I think
3 then what you're saying is just my numbers are right.
4 On average there were, over an 18-month period, nine
5 samples overall per month with five CPDMs
6 approximately doing the samples versus CPDM per month
7 over the --- over the --- excuse me, over that period
8 of time. If you were designing a study de novo where
9 you wanted to make intelligent recommendations of the
10 utility of a particular device, would that be where
11 you'd want to be?

12 MR. COOPER:

13 No, sir. It would need to be designed
14 upfront.

15 DOCTOR WAGNER:

16 I didn't quite ---.

17 MR. COOPER:

18 It would need to be designed upfront by
19 the --- based on the time frame of the number 2010
20 until this point in time. There is a difference of
21 what is available versus how do you design something
22 for you moving forward. A retrospective study,
23 however, I think is very useful, perhaps not limited
24 to the five mines but those that have experience of
25 CPDMs over time. Which according to the gentleman

1 from TSI that there's a number of units, over 200,
2 that have been out there for a period of time. I know
3 they're not required to be used. However, there's, I
4 believe, some collective experience with those which
5 might be very, very useful and would provide
6 additional information to either refute or confirm
7 some of the conclusions that were found here.

8 DOCTOR WAGNER:

9 Can you review all of the data that is
10 collected, that's been available to you?

11 MR. COOPER:

12 I am quite comfortable that question has
13 been asked in a number of different settings. I am
14 not dealing with the upper management of the company.
15 I'm dealing with the folks like myself, safety and
16 health professionals.

17 DOCTOR WAGNER:

18 Any idea --- you mentioned early on a
19 concern about a single source for the CPDMs. You
20 might have mentioned that in passing in discussion.
21 So do you know the number of suppliers for the cyclone
22 measurement devices that are currently certified in
23 the market for use in underground coal mining?

24 MR. COOPER:

25 No, sir, I do not know that data. I

1 don't think those are admitted. There's a lot of
2 cyclones that are out there that are based on the
3 Dorr-Oliver (phonetic) or some of the original ones
4 like the Anderson. But that are certified by MSHA?
5 No, sir. In fact, I actually tried to look for that
6 information on the website, I was not able to find it
7 when I searched on the ---.

8 DOCTOR WAGNER:

9 I think the answer is one.

10 MR. COOPER:

11 Thank you.

12 DOCTOR WAGNER:

13 But I believe that others in the room may
14 --- no. One. I'm getting the ---.

15 MR. COOPER:

16 Yes, I believe the answer should be one,
17 but I couldn't confirm that directly from MSHA.

18 DOCTOR WAGNER:

19 Yeah. If you could, when you provide
20 your written comments, if you could --- do you have
21 any information that might be relevant on production
22 levels when the mines were being sampled by the
23 devices? How the five mines compare to the production
24 of other Murray mines? What the basis was for
25 choosing these particular five mines? Any additional

1 information that you have that could help us and
2 others who will be reading your written comments to
3 really understand the context in which this --- these
4 observations were being made in your data collected.
5 And just the general request is to be able to provide
6 some information as you can so that we can, you know,
7 be able to look at both the --- learn what we can also
8 from the study. Can you describe a little bit of the
9 strengths and weaknesses of this kind of an
10 observational retrospective evaluation of your data
11 stuff, I guess?

12 MR. COOPER:

13 Well, sir, the strengths are sometimes
14 one goes with what information is available.

15 DOCTOR WAGNER:

16 Uh-huh (yes).

17 MR. COOPER:

18 The ability to have some of the
19 components of information not being historically based
20 or based on folks' memories or notes was better in
21 this particular situation, because we have dust cards
22 that were --- I've printed out and that we extracted
23 from the units themselves. Maybe it was limited, but
24 we did collect all of the information from the units
25 themselves or from ones that had actually been

1 provided.

2 The weaknesses of this, of course, is
3 that we're looking at one particular company, their
4 particular experience. We're looking at a particular
5 type of mine, a particular type of heights of human
6 use of production, et cetera. The goal, as indicated,
7 and this was ongoing, would be to look at this side
8 much more broad based. And I think there was a way to
9 take this from the kind of retrospectives that we're
10 looking at right now and be able to move that in a
11 direction and say what information would we collect,
12 pieces of information that we would put in place or
13 request to be put in place would be some information.
14 There's not a requirement in the proposed rule which
15 indicates that one has a database and keeps track of
16 the maintenance that was performed and what the ending
17 point of that maintenance is for an average shift.
18 Speaking of somebody who works a lot with that
19 equipment, that's kind of a really interesting point
20 to be able to have. And so if you were going to
21 design something forward, you would want to do the
22 data collection a little bit better now. I would also
23 probably have taken more time to work on the kinds of
24 questions that --- and the ability to put the
25 questions to the specific audience that we were trying

1 to answer and solicit, to one of these types of mines
2 that would be present, you know.

3 DOCTOR WAGNER:

4 Okay. So I gather from compressed carbon
5 says that the issue is because of the narrowness of
6 one company, one small set of mines, one narrow range
7 in high coal, but make the results just not
8 necessarily be generalized coal ---?

9 MR. COOPER:

10 Well, that answer, sir, that the sampling
11 says of five CPDM units at over 1,000 hours' worth of
12 time is not --- I mean, there's some comparisons to
13 that with the way that NIOSH did the study, ---

14 DOCTOR WAGNER:

15 Uh-huh (yes).

16 MR. COOPER:

17 --- used two mines, 25 units and ---.

18 DOCTOR WAGNER:

19 So you might not get the same?

20 MR. COOPER:

21 Well, I will be --- if you ask for a
22 hypothesis, I would be very surprised if you told me
23 that there was a set of data out there of 1,000 hours
24 and 25 units in mines and that a ten percent sampling
25 of that over an 18-month period didn't fall within the

1 realm of the range of data that was being expressed.
2 And that's apparently what we've done.

3 DOCTOR WAGNER:

4 And last, I just want to confirm, you
5 gave us a slide with a number of safety and health
6 personnel concerns. Were those safety and health
7 personnel the Murray Energy folks you were working
8 with?

9 MR. COOPER:

10 Yes, those were based on interviews with
11 those individuals. That particular slide also, I
12 guess, I would call it the ---.

13 DOCTOR WAGNER:

14 Yeah. And I just wanted to make sure
15 that you didn't develop the extent of your data
16 collection beyond that group.

17 MR. COOPER:

18 No, sir. But that would --- that's,
19 again, a highly useful recommendation.

20 DOCTOR WAGNER:

21 Well, I'm going to thank you,
22 specifically thank you, for the specificity with which
23 you shared specific data recommendations that were
24 based upon the data, and we look forward to the
25 additional information you can provide to this

1 rulemaking. Thank you.

2 MR. COOPER:

3 Thank you for the opportunity.

4 DOCTOR WAGNER:

5 Now, I'm going to try to just tell
6 everyone there's only one more person who has signed
7 up in advance for speaking. My preference --- I know
8 that some of the requests that people have is to give
9 as many people the opportunity to listen to everyone.
10 After this speaker speaks, we will call for anyone
11 else who wants to give comments that hasn't signed up
12 in advance. And depending upon the number of people,
13 I can be persuaded to either break or not. But my
14 preference right now is to call our last signed-up
15 speaker. If that's --- so I will do that. E.L.
16 Petsonk? Please, sir, start with stating and spelling
17 your name and your organization.

18 MR. PETSONK:

19 My name is Edward L. Petsonk. I'm with
20 West Virginia University, professor of medicine. I
21 live in Greene County, recently I moved to Greene
22 County, Pennsylvania. I have taken care of a lot of
23 coal miners and examined hundreds and hundreds of coal
24 miners and have been involved in etiology and field
25 research for 38 years as a physician. And well, I've

1 been a physician for 38 years, and for about 33 years
2 involved in pulmonary disease research and lung
3 diseases.

4 And just I wanted to make a few comments
5 relevant to the Black Lung issues. I think as a
6 physician who has had to take care of miners whose
7 lungs were deteriorated and who eventually passed away
8 from Black Lung, I think it's really important for us
9 to keep that personal story in front of us as we talk
10 about controlling the dust.

11 The topic of Black Lung is here today.
12 There are miners getting sick now as we speak and who,
13 over the next few years, will begin to become
14 symptomatic, eventually disabled and some will die
15 from the disease. So as a physician, I have to say
16 it's very, very frustrating to take care of a patient
17 whose disease is entirely preventable. Of course, in
18 medicine not --- there's other diseases that are
19 entirely preventable, the tobacco-related diseases and
20 substance abuse, alcohol and so on. But the important
21 thing in dealing with a patient is that they have to
22 acknowledge their problem and cause of the problem.

23 I think one of the things that was a
24 little disheartening to me today was to hear
25 representatives from the coal mining industry

1 basically say, well, we're not too sure there is a
2 problem with Black Lung disease. And I think that
3 until the industry is forthright in acknowledging the
4 continuing problem of severe disabling Black Lung
5 disease is occurring here in Pennsylvania and
6 throughout the United States, we're not going to get
7 solutions. And that --- as a physician and someone
8 who's familiar with the data, that's really the basic
9 point that I want to say.

10 If we look at the numerous studies that
11 have been quoted, the 1995 Coal Mine Dust Criteria
12 Document, as well as in the revision of that document
13 that was posted on a website and published and other
14 studies that have come out since that time, there's a
15 very consistent story. And that story is that there
16 are increasing prevalences of severe Black Lung that
17 goes on to be a disabling and often painful disease.

18 So I guess my major point here is that if
19 the coal mining industry has credible scientific
20 reports that can refute this, we'd like to see them.
21 But all the medical evidence right now is entirely
22 consistent and coherent, and that is the problem.
23 It's here, it's continuing and it's due to dust.
24 There is no other potential explanation for the types
25 of disease that we're seeing. There are, of course,

1 patches like cigarette smoking that can cause lung
2 disease and does cause lung disease in coal miners.
3 But the type of severe massive fibrosis that Doctor
4 Wagner showed on his x-ray --- on the slide show, the
5 x-rays, can only be caused by inhaling too much dust.
6 So you must reduce the amount of dust that coal miners
7 are inhaling if you want to control this disease.

8 And that's --- I endorse what you're
9 doing. And I guess my one concern, which has been
10 mentioned before, is that all of the approaches that
11 have been proposed at this point do not address the
12 issuance of silica. And I think that it is important
13 that we realize that although reduction in dust
14 standard and the continuing dust monitoring will
15 certainly help control disease --- excuse me, dust
16 exposures, the magnitude of silica exposure is still
17 not going to be dealt with and there is scientific
18 evidence that that's at least part of what we address
19 and at least part of what's going on right now. So
20 with that, I will stop and answer any questions that
21 the panel has.

22 DOCTOR WAGNER:

23 Thank you very much.

24 MS. OLINGER:

25 Just to point out, I'm sure you're aware

1 that there will be a proposal developed on silica
2 exposure.

3 MR. NIEWIADOMSKI:

4 I have one question for you, Doctor
5 Petsonk. In previous public hearings, and probably in
6 this one, it was mentioned that it was quite a bit of
7 --- at least a report of NIOSH that has the data that
8 NIOSH has presented of a reference of the so-called
9 hot spots, okay. And that the focus should be really
10 on those hot spots. And this is what we got from
11 other parts of the country, that we don't have the
12 level of disease that you see in the hot spots. So
13 why don't you just focus on that? And of course, two
14 milligram standard is the same issue that was raised
15 back in 1969, where in fact, high levels of disease
16 were in Pennsylvania where most of the mining was
17 occurring. They certainly did not decide at that
18 time, well, let's set the standard for Pennsylvania
19 and forget about Colorado. This is the question
20 that's --- how would you address the critics that say
21 let's focus on the hot spots and leave the other areas
22 alone, as far as reducing the standard?

23 MR. PETSONK:

24 Well, I think I start with the premise
25 that the problem there is excessive dust exposure.

1 When you analyze the regional patterns of disease,
2 yes, there appears to be greater amounts of disease in
3 Pennsylvania, West Virginia, eastern Kentucky and
4 Virginia. But on the other hand, when you look at the
5 dust levels, you don't really see any dramatic
6 differences in dust levels. So I'm not sure how a
7 focus on one area without reducing the dust levels is
8 going to make an overall difference.

9 The second issue is that, in fact, dust
10 levels are increasing in many areas of the country ---
11 not dust levels, disease levels. The dust levels are
12 not increasing, the disease levels are increasing.
13 And it's happening in Pennsylvania. It's happening in
14 the Appalachian states and so on. And you know, I
15 can't find another approach aside from giving each
16 mine the day-to-day knowledge of their dust exposures
17 as a tool to, you know, manage the exposures. I don't
18 see any other approach myself. I'm a physician, and
19 you know, there may be other engineering approaches
20 that we don't know about. But from what I see, we see
21 severe disease, we see a rapidly progressing disease
22 here in Pennsylvania. There are hot spots in
23 Pennsylvania, as you know, and in other areas of the
24 country.

25 So if there were a scientific basis upon

1 which to determine how the specific dust level has a
2 greater potency or whatever in causing disease, then
3 there might be a basis upon which to act in that
4 fashion. But we don't have that. I'm not aware of
5 any, let's say consistent basis to regulate coal mine
6 dust aside from the respirable reduction and the
7 silica.

8 MR. NIEWIADOMSKI:

9 Thank you.

10 MS. OLINGER:

11 I don't know if you're aware of the
12 proposed rule expands the periodic examinations of
13 surface coal miners and not only requires x-rays,
14 chest x-rays, but also a spirometry test and
15 occupational history. Can you give me your thoughts
16 on that part of the proposed rule, please?

17 MR. PETSONK:

18 Well, I certainly support that. And part
19 of my professional activities in the past several
20 years has been involved in trying to enhance the
21 technology that's available to permit healthcare
22 professionals in occupational settings to utilize
23 serial lung function studies to protect lung health.
24 There is no question that coal miners develop
25 accelerated losses of lung function, either some may

1 have radiographic evidence of pneumoconiosis and some
2 do not. Just this past week, I took care of a miner
3 who had 30 years of coal mine exposure, severe
4 obstructive lung disease, never smoked and whose
5 health might have been preserved if his lungs had been
6 monitored using spirometry earlier in a career.

7 So is it effective? We know that
8 accelerated lung function decline occurs in some coal
9 miners and leads to severe and disabling and fatal
10 disease. We have published articles demonstrating
11 that. The early recognition has been improved in
12 terms of identifying individuals before they have
13 disabling lung disease. And I think it's very
14 feasible to do this. It's done in other industries.
15 And I think the group of individuals who do not
16 develop x-ray changes of pneumoconiosis are those who
17 will benefit from this. And I support them.

18 MS. OLINGER:

19 And do you have thoughts on how to
20 increase miner participation in the periodic
21 examination?

22 MR. PETSONK:

23 I think historically the miners have been
24 reticent to participate for, I think, basically two
25 reasons. One is they were very concerned about

1 confidentiality of their health information and I
2 think that remains the concern. But over time, we've
3 developed additional techniques. The HIPAA Act has
4 significant penalties for the violation of
5 confidentiality. So that's one issue that I think
6 needs to be addressed as you implement spirometry and
7 other health monitoring.

8 I think the second issue is --- relates
9 to the actual Workers' Compensation laws of the
10 various states. In some states, a radiographic
11 abnormality that is consistent with pneumoconiosis
12 starts the clock for applying for compensation. The
13 miners know this, even though early disease may have
14 no symptoms and no measurable impairments. If you
15 want to catch the disease, if you have it identified
16 and you do not file, the clock is running and whether
17 it's three years or whether the statute of
18 limitations, the miner becomes ineligible to prevent
19 this. So then there is a very negative feedback. If
20 I find out I have Black Lung, I must apply in three
21 years, but since I'm actually early in my disease, I
22 won't be eligible. So I apply, I get refused, and
23 then of course, the employer's notified and the
24 individual becomes, you know, potentially
25 discriminated against because of your health.

1 MS. OLINGER:

2 Thank you.

3 DOCTOR WAGNER:

4 Thanks a lot for ---. You mentioned that
5 the disease prevalence is rising, yet the measure of
6 recorded dust levels aren't. Do you have any thoughts
7 about why this --- the disease levels are going up, so
8 that MSHA can make sure we can address those?

9 MR. PETSONK:

10 Well, I think we probably --- although
11 it's hard to document what a patient's telling me,
12 that the dust levels are measured in unrepresentative
13 ways. We hear this --- now, that's something that's
14 only allegation, and I know that when I make it in
15 public, it's sort of put --- you know, it's hard --- I
16 can't substantiate that. I can tell you that's what
17 they tell me. They say that they're told to stand in
18 fresh air over by the intake when the sampling is
19 going on, that the production is changed or the
20 ventilation is improved. But on days where there's no
21 sampling, if the brattice cloth is flopping in the
22 breeze, they don't fix it until it's time to sample.
23 Now I hear this. And this is what --- you know, this
24 is hearsay, and I can't say anything about that.

25 But I do believe that the dust levels ---

1 we know the epidemiology of Black Lung pretty well.
2 It's been studied in many countries in Europe and
3 North America. So we know the relationship between
4 dust and disease quite well. Well, something's
5 changed recently. The dust levels are staying the
6 same, but disease levels are going up. I have to
7 believe that what's happening is those dust levels are
8 not representative of the actual ongoing exposure to
9 miners. Because if they were, they would be going up
10 with the disease levels.

11 So my first hypotheses, which as a
12 physician, I can only guess, is that the dust sampling
13 protocols that are in place right now are not
14 adequately representative of the true ongoing chronic
15 exposure that the miners are experiencing.

16 Now, could there be other things going
17 on? Again, I'm not a mining engineer. Could changes
18 in mining technology be making, for example, dust more
19 fine, penetrating more deeply into the lungs? That's
20 a possibility. Certainly I think that the easy coal
21 was mined earlier, the harder coal with more rock
22 extrusions, lower, you know, roofs and so on, make the
23 generation of silica dust more likely. I'm trying to
24 do a study right now to look at that issue, but we're
25 just in the early phases of it. I don't have any

1 answers on that.

2 Other things, well, we know that over the
3 past several years, the number of hours worked has
4 gone from like 1,900 up to almost 2,400 on the MSHA
5 website, the hours recorded by operators in quarterly
6 reports. So miners are spending a lot more, maybe 25
7 percent more time, in the mines. And of course,
8 they're inhaling 25 percent more disease --- more
9 dust.

10 The other thing, though, that happens is
11 on impairment is that if you work a double shift, you
12 only have eight hours to clear your lungs. And so in
13 addition you're getting twice as much inhaled dust.
14 The clearance mechanisms only have half the time to
15 clear the dust out. So whether that's --- that's
16 certainly happening. We know that from the reports.
17 Whether that is an important factor, I cannot say.
18 I'd like to get the data, try to get information that
19 could actually confirm that.

20 DOCTOR WAGNER:

21 Okay. Thank you. Thank you very much
22 for your time here. We appreciate it. There's one
23 other person that I have that signed up now. It's
24 Dennis O'Dell. When he's done, if anyone else wants
25 to speak, you can.

1 MR. O'DELL:

2 Good afternoon. Again, my name is Dennis
3 O'Dell, D-E-N-N-I-S, O, apostrophe, capital D, E-L-L.
4 And I'm here today on behalf of the United Mine
5 Workers of America. I've worked in the coal industry
6 since 1977. First as an underground coal miner with
7 close to 20 years experience. Then a mine inspector
8 and currently as the administrator for the past five
9 years for the United Mine Workers Department of
10 Occupational Health and Safety. I'd like to thank you
11 for the opportunity to address an issue that has been
12 a problem with United Mine Workers for many years.
13 For far too long we were watching our nation's miners
14 suffer and die from Black Lung disease, an illness
15 that is unnecessary and totally preventable. We are
16 grateful MSHA has taken these steps toward serious
17 measures to prevent this unnecessary suffering and
18 death.

19 I grew up in a coal community in West
20 Virginia and personally watched the pain and suffering
21 this horrid disease inflicted on me, members of my
22 community, as well as my whole family. So this issue
23 is a personal one for me, as well as a professional
24 one.

25 You've already heard me go over these

1 specific issues at the Beckley hearing. So since that
2 is already a matter of record, I won't read each one
3 of those. I'll just touch on some of these. I should
4 begin by saying that the United Mine Workers overall
5 are supportive of MSHA's proposed rule and we are glad
6 that the government is finally taking concrete steps
7 toward preventing this dreadful disease.

8 Let's talk about some other non-data.
9 We've heard that word used today. Black Lung is
10 critical and killed tens of thousands of miners over
11 the years. According to NIOSH studies, between 1987
12 and 1996, at least 18,245 deaths occurred from Black
13 Lung. The latest study shows after a long period of
14 time, the prevalence of Black Lung. Recent
15 surveillance data indicates that it's rising again.
16 Coal miners are developing Black Lung at relatively
17 young ages, below 50 years of age. What is concerning
18 about this is the connected increase in years of
19 potential life loss due to Black Lung in these young
20 miners. So not only are the cases of Black Lung on
21 the increase, but miners lives are being shortened
22 more now than ever before.

23 Adding insult to injury, those filing
24 claims for Federal Black Lung Disability Compensation
25 face a harsh and unfair system. Nearly 87 percent of

1 the claims filed for Black Lung are rejected. The
2 UMWA is more than pleased to see the federal
3 government finally step up after years of senseless
4 pain and suffering inflicted on the mining community
5 and our brothers and sisters and that you're taking a
6 serious step towards preventing Black Lung.

7 However, even though we are supportive of
8 most of the proposal, there are key issues that we
9 would like to take issue with. One issue is the
10 trouble --- one issue which troubles us is that under
11 this proposal, the sampling program is to be placed in
12 the hands of the coal operators. The federal
13 government regulatory programs that protect miners
14 from exposure to unhealthy coal mine dust has failed
15 to protect miners through the years. Since the
16 passage of the Federal Mine Health Safety Act of 1969,
17 coal mine dust sampling programs have been subject of
18 much criticism. Reports of cheating and fraud in the
19 coal mine dust program, leaving miners' exposure (sic)
20 to unhealthy levels of mine dust have been commonplace
21 over the years. In 1971 and 1975, the U.S. General
22 Accounting (sic) Office and the National Bureau of
23 Standards reported documents that documented serious
24 problems with the miner operator coal mine dust
25 sampling program. The reports identified widespread

1 fraud in the program. Since 1990, over 160 companies
2 and individuals have been criminally prosecuted for
3 fraudulent coal mine dust sampling in the nation's
4 coal mines. And in-depth investigation report
5 published by the Louisville Courier Journal in 1998
6 cited widespread corruption with coal mine dust
7 sampling program. Miners and their representatives on
8 numerous occasions have provided evidence on the
9 flawed system.

10 For decades the miners and the United
11 Mine Workers has demanded that the respirable coalmine
12 dust program be reformed. As far back as 1977 and
13 1978, miners have testified in several public
14 regulatory hearings to make major changes in the
15 program. Among the changes miners sought were full
16 mine inspections to oversee the coal mine dust
17 sampling, a government takeover of the sampling
18 program and devices installed in the mines that
19 constantly report coal mine dust levels. We applaud
20 the Agency for the requirement of the use of
21 continuous personal dust monitor in response to one of
22 those concerns, but the UMWA still believes that the
23 sampling program should not be left in the operator's
24 hands.

25 Many coal companies do the right things

1 to comply within the standards. However, even with
2 the use of the CPDM, we know that there are renegades
3 in the coal industry who will find ways to cheat the
4 system. The United Mine Workers of America wants to
5 see the Agency play a bigger role in the sampling
6 program and to at least adopt the Dust Advisory
7 Committee's recommendation for funding such programs
8 and to give MSHA a bigger role in the dust sampling
9 process.

10 Paragraph B and C in the recommendation
11 number 16 of the Dust Advisory Committee recommends,
12 B, the Committee believes that any MSHA resource
13 constraints should be overcome by a mine operator's
14 support for MSHA compliance sampling. The Committee
15 recommends that to the degree that MSHA's resources
16 cannot alone serve the objective identified, resource
17 constraints should be overcome by mine operator
18 funding for such incremental MSHA compliance sampling.
19 One means of obtaining the support could be a
20 reasonable and fair operator fee based on the hours
21 worked for other equipment means designed to cover the
22 cost of the compliance sampling. Any operator in the
23 program should include an accountability system to
24 ensure the uniform applicability of the program
25 throughout the industry. The fee shall only be

1 utilized for the specific purposes of required
2 compliance sampling.

3 C, the Committee considers it the high
4 priority of MSHA to take full responsibility for all
5 compliance sampling at a level which ensures
6 representative samples of respirable dust exposures
7 under usual conditions of working. In this regard,
8 MSHA should explore all possible means to secure
9 adequate resources to achieve this and without adverse
10 impact on the remainder of the Agency's resources and
11 responsibilities. Since compliance sampling will be
12 carried out 24/7, the operators and MSHA should adjust
13 their resources to make sure the integrity of the
14 program is protected. Furthermore, the miners'
15 representatives would be and should be afforded the
16 opportunity to participate in these inspection
17 activities as provided in Section 103 of the Mine Act.

18 The United Mine Workers of America
19 believes that one of MSHA's highest priorities must be
20 to restore the confidence of miners and mine operators
21 in respirable coal mine dust sampling programs. We
22 believe that MSHA should take full responsibility for
23 the task of compliance sampling and overseeing other
24 aspects of the sampling programs as well.

25 Another problem with the proposal is

1 something that I spoke on in Beckley, and that is the
2 formulas that are set forth in the rule for
3 calculating equivalent permissible concentrations on
4 miners that work for an extended shift. These
5 formulas are too complicated and confusing. Although
6 our nations miners are very skilled at their trade and
7 are the most productive miners in the world, we're not
8 mathematicians. The Union would recommend at least
9 calculations be simplified and set forth in an
10 easy-to-read chart. The UMWA appreciates the Agency
11 taking into account the fact that most miners work
12 more than eight-hour shifts, but there must be a
13 simplified way to arrive at permissible concentrations
14 than that currently stated in the proposed rule.

15 Next, what the proposed rule fails ---
16 I'm sorry, falls under Section 70.208 paragraph H.
17 Under this section, when an operator is unable to
18 maintain compliance with the applicable standard on an
19 MMU and makes a determination that all feasible
20 engineering or environmental controls are being used,
21 they may request approval to the district manager to
22 use supplemental controls, including worker rotation,
23 to reduce effective miners' dust exposure. The UMWA
24 understand that the intent of this proposal is to
25 remove the infected miner from a dusty environment.

1 However, this practice would be completely contrary to
2 the requirements and spirits of collective bargaining
3 agreements in place at all UMWA representative mines
4 that protect job bidding and seniority. But it also
5 undermines the intent of the Mine Act that states
6 compliance for the mine operator as well as the miner.

7 The proposed rule that undermines our
8 contractual rights for miners to routinely be rotated
9 from their job classification for six months or
10 whatever the case may be is totally unacceptable. The
11 UMWA has historically stood firm that respirable dust
12 must be controlled through engineering and
13 environmental measures. Rotating the miner out of
14 their normal job duty is not the solution.

15 Another problem with this provision is
16 that it gives the operator the exclusive right to
17 determine that all feasible engineering or
18 environmental controls are being used or have been
19 exhausted. When the operator determines that he has
20 done all he can to control the dust through an
21 engineering or environmental controls, he then simply
22 asks the MSHA district manager to approve a plan that
23 permits worker rotation. We would like to question
24 what program is in place in making the determination
25 that all feasible engineering or environmental

1 controls have been exhausted. That decision must not
2 be left entirely up to the operator. MSHA must play a
3 role in determining that all such measures have
4 completely been exhausted to control the dust through
5 engineering and/or environmental controls.

6 Again, at the Beckley hearing, I gave
7 comments about the areas specifically that we
8 supported in the proposed rule. Those which we still
9 stand behind. I'm quite bothered and was not able to
10 speak about the remarks made on behalf of the West
11 Virginia Coal Association and today by the
12 Pennsylvania Coal Association, that the approach is
13 simply pull the rule and start over. I continue to be
14 bothered by other MSHA folks that have also since
15 testified to this at hearings that have followed such
16 as the ones from Kevin Dillon to pull the rule, pull
17 the rule. This makes me wonder if the operators out
18 there really care about addressing this problem and
19 making a more healthy environment for the nation's
20 miners. We do not and will not support pulling the
21 proposed rule and starting over. This would only
22 further delay protections that our miners deserve.
23 Much of this rule can be effectively put into place
24 while gathering real data for the PDM to see what the
25 actual exposure to miners should be. I spoke to you

1 about that issue in Beckley.

2 Early on as a joint effort, the United
3 Mine Workers and our partner, the Bituminous Coal
4 Operators Association, presented a plan to MSHA. This
5 was done with the previous administration and recently
6 with the current administration. We did that with the
7 purpose in mind that we draft a regulation based on a
8 plan of ideas as agreed on by labor and industry.
9 Although we're not able to agree on all issues, we had
10 agreed in concept on a number of issues we felt it
11 would take to make this rule become effective.

12 With that, I would like to add some other
13 comments since I spoke to you at Beckley and ask the
14 Agency to collect real data with the PDM to see what
15 is actually feasible. Why not entertain the idea of
16 implementing the rule into effect and allow that time
17 period to collect real time data with the PDM and also
18 allow Thermo the time to make adjustments that have
19 been brought forward about the PDM to be more
20 worker-friendly.

21 Comments that I've heard on PPEs. We
22 must, as you pointed out, control the mine environment
23 as per the Mine Act. And personal protective
24 equipment fails to do this. If we have people out
25 there that think that PPEs is okay while allowing the

1 mine atmosphere to be dusty, I'd like to remind
2 everyone here today of what we just witnessed at the
3 Upper Big Branch Mine where 29 miners were killed.
4 I'm a little surprised that the Agency hasn't spoken
5 more forward on comments and questions from the
6 industry about the use of the scrubbers. I keep
7 hearing the industry speak that they should be allowed
8 to use the scrubbers, yet you haven't really
9 responded. It's my understanding that there are
10 operators out there who have approved plans with the
11 use of scrubbers. The only ones that have not or have
12 had their plans revoked are those ones that are not
13 able to comply.

14 As far as the PDM, I heard today that
15 this should be used as an individual surveillance
16 tool. And many MSHA folks have suggested that. When
17 questioned by you today whether each individual should
18 be provided with one, they failed to answer.

19 Well, let me answer that question on
20 behalf of the United Mine Workers. If these PDMs are
21 going to be used as individual surveillance tools,
22 then every miner that works in the coal mine should
23 have one, because every miner that works in the coal
24 mine has the potential to be exposed to dust. Miners
25 deserve a healthy place to work, and we support a

1 reduced standard. The use of the PDM will allow us to
2 get there.

3 Look, we know that when sampling first
4 took place in the coal mine industry, there were a lot
5 of concerns by the industry. There were a lot of
6 problems with the gravimetrics. Everybody thought
7 that this was going to shut the coal industry down, it
8 was going to be a huge hardship, because it was
9 something new, something that had to be developed, it
10 had to be tweaked. Well, we got past that. It didn't
11 shut the industry down. And we were able to help
12 protect miners from the disease maybe being worse than
13 what it could have been. But this current sampling
14 system that has helped as we know today is working.
15 For a miner to have to wait two weeks to get his
16 results back after he has been sampled is a little too
17 late, especially since we know that we have a tool
18 that could give us and empower the miners to know what
19 their exposures would be and to actually do something
20 at that moment to control their exposures.

21 I have many concerns about the unit
22 itself. Again, any time we have new technology, it
23 will have to be tweaked, and I'm sure federal will
24 address those concerns. When I first started in the
25 coal mine working on the longwall, we needed shots to

1 support the roof, one of the most dangerous things
2 looking back now that we could have had is to crawl up
3 between the shots and set the cribs to protect the
4 roof as the rocks fell all around us. Well, we were
5 approved on that. Now, we have shields to protect
6 miners. The miners aren't exposed to those kind of
7 conditions. But we've made adjustments to make
8 improvements. But this was done for productivity. If
9 we can do that and address those issues in
10 productivity and improve our mining with this, because
11 if you look at it now, we're one of the most
12 productive people in the world as far as coal mining.
13 And we've been able to do that because smart people
14 put their heads together to come up with technology
15 that helps increase productivity. We should be able
16 to do that with the health issues. We always find
17 ways to improve mine extracting equipment. Now, we
18 have to do the same thing with health improvements.

19 I heard someone say today that the
20 industry's already been heavily regulated, yet we
21 still have miners dying today on the job as well as
22 miners dying afterwards from Black Lung. Maybe it
23 isn't as regulated as some suspect. There's always
24 room for improvement. And there's room for
25 improvements for our guys that put their lives on the

1 line every day. To protect, we have a duty. We have
2 a duty as an industry, as workers, and as an agency to
3 protect these guys that put their lives on the line
4 every day so that this country can enjoy the
5 electricity that we produce, the comforts that we use,
6 the use of our computers, the use of lights. The
7 simple things that people take for granted.

8 We intend to speak again at Arlington and
9 we also intend to submit written comments when the
10 time comes. One of the things that I hope is that
11 somebody from NIOSH will be available to speak at that
12 hearing because we haven't heard from them in any
13 public setting, yet many have challenged what they've
14 put in writing. I hope they can be available to
15 address the challenges that have been made on their
16 document as what we heard at today's hearing as well
17 as previous hearings.

18 Again, I'd like to thank you for the
19 opportunity that you've given me today to speak about
20 this important issue.

21 DOCTOR WAGNER:

22 Thank you very much.

23 MR. THAXTON:

24 I just have one follow-up question. You
25 indicate that UMWA supports MSHA taking over

1 compliance sampling that was put into the criteria ---
2 or the Advisory Committee's report. The Advisory
3 Committee, though, also stated that mine operators
4 should be involved in a lot of samples. The Mine Act
5 actually says mine operators should be taking the
6 samples. So I guess my question to you is just that
7 we see still a role for miner operators as far as
8 collecting the samples. Would you be amenable to
9 something where mine operators be available to collect
10 the samples, those samples then are looked at and they
11 use them as information, that we would require them to
12 take appropriate corrective action based on those
13 results, much like we do with methane detecting? You
14 know, if the mine operator detects methane at a high
15 level, the fact that they can address that. But if
16 they failed to take corrective action to address that
17 level, then they would be in non-compliance with that
18 issue and as a means of encouraging them to take
19 samples, look at the data, evaluate that data and take
20 the appropriate action?

21 MR. O'DELL:

22 Many of the operators that I've been able
23 to speak with are actually excited about it. They're
24 excited about the use of the PDM. And I think that
25 they're going to do that anyway from what I've been

1 told. They have expressed, just in talking in
2 general, and when speaking --- and somebody from the
3 industry can correct me, but they address the fact
4 that they wanted to use this to be able to monitor
5 what's going at the mine for the sole purpose of
6 staying in compliance and not having to be cited by
7 the industry --- by the Agency. So what my fear is,
8 because I mean, Bob, you went through it, we fought
9 this battle of coal mine dust sampling and went
10 through this period of time where fraud occurred, you
11 know, the operator sampling was fraudulent, people
12 were cheating the system. What we suggest, what we
13 want is to make sure that the Agency oversees the
14 manner in which the sampling will be done. And so
15 it's kind of like you're caught in the corner. You
16 have to keep people honest, and that's what we see
17 your role as doing in that, in charge actually of the
18 compliance sampling. I understand that that means
19 that you have to have an inspector on property as
20 samples are being taken if this is going to occur
21 24/7. That's something that we're going to address in
22 our comments to you in Arlington and in our final
23 comments as to how we think that should work.

24 MR. NIEWIADOMSKI:

25 I just have a follow-up to that one

1 issue. You mentioned where you came in with the BCOA
2 and presented an agreement in some form on parts and
3 uses of the CPDM. Part of that was to be used as a
4 weekly exposure and we saw a calendar to that. Do you
5 still agree with the use of miners collecting samples
6 and making a weekly determination?

7 MR. O'DELL:

8 Here's what it is, here's where we're at,
9 as I told you at Beckley, I support --- the United
10 Mine Workers support what MSHA is saying and we also
11 support a weekly accumulated exposure limit like as
12 suggested by you and by what we have talked about.
13 Here's where our problem is, we --- the data --- and
14 you spoke about this earlier, the data that you talked
15 about as far as operator samplings that show that
16 they're in compliance of .05 or the one milligram
17 standard that have been collected throughout the years
18 is --- I mean, a typical --- you know, a typical day
19 is the MSHA inspector shows up on the property, they
20 set the box for a warm-up period while the safety
21 supervisor goes and gives whoever's going to wear the
22 dust pump that day, he goes to the safety office and
23 puts it on the individual who fills out the card. And
24 the guy goes out in the bathhouse to get ready to go
25 underground performing a job, which may be another 10

1 or 15 minutes. And then at that point, they'll get on
2 the elevator or get on the mantrip, however they're
3 going to go underground. And they wear that unit.
4 And in some cases they may have a cup of coffee or a
5 sandwich before they even start up or check their
6 cables or whatever, you know, hot seat exchanges.
7 They may not jump into productivity right away. And
8 this general scenario is what we're looking at today.

9 And then at the end of eight hours, the
10 MSHA inspector is looking at his watch and he says, I
11 have to collect these gravimetrics. I have to put
12 them back in the little box and take them outside and
13 shut them off after the eight-hour period. And the
14 miner is still left underground, you know, not being
15 sampled and really starting to get into full
16 production mode. So we're not really sure that the
17 data that you have today may really tell us what is
18 achievable for the true standard that should be set.
19 That's why we suggested further that maybe we could
20 look at models that the UMWA and the BCOA presented to
21 you and work with that in the interim while we collect
22 data for the PDMS to see what the actual exposure
23 limits should be. Because now we're going to see what
24 X miner has for this 10-hour shift or 12-hour shift or
25 what the weekend would address. And we'll look at the

1 data then and that will give us a better idea of what
2 we need. But I want to see what that means for a
3 rule. I think that can be implemented in one
4 particular rule. Because what it does do is not only
5 is it an eight --- two hour --- I'm sorry, eight-hour
6 two milligram standard, but we're going to look beyond
7 that because we're going to be sampling those guys for
8 the full shift they're underground, whether it be 10
9 hours or 12 hours. So if you work 16 hours, it's
10 going to be a one milligram sampling and so on and so
11 forth.

12 MR. THAXTON:

13 Thanks. I have nothing else.

14 DOCTOR WAGNER:

15 On the work rotation issue, ---

16 MR. O'DELL:

17 Right.

18 DOCTOR WAGNER:

19 --- are you familiar with any mines that
20 are --- if there's any mines where there is work
21 rotations being implemented that is consistent with
22 the collective bargaining?

23 MR. O'DELL:

24 Worker rotation? I'm sorry.

25 DOCTOR WAGNER:

1 Yeah.

2 MR. O'DELL:

3 Where they take one individual off a
4 piece of equipment?

5 DOCTOR WAGNER:

6 Yeah, where an individual may work a
7 different piece of equipment in the course of the
8 shift or in the course of a week?

9 MR. O'DELL:

10 Well, I think what occurs is a lot of
11 guys get bored with their jobs.

12 DOCTOR WAGNER:

13 They get what?

14 MR. O'DELL:

15 They get bored with their jobs, so ---
16 like when I used to pull shields and sometimes the
17 shearer operator would say how about I don't run the
18 shearer tonight and pull shields just to break up the
19 boredom. So sometimes we'll do that. On my section,
20 when I ran shuttle car, sometimes the bolter operator
21 would say, you know, I feel like maybe running the
22 shuttle car, can you bolt my place. And you switch
23 back and forth to do things like that. But it wasn't
24 something that was mandated, it was just a voluntary
25 thing that we did just to actually help each other

1 learn all the different jobs, plus it gave us a chance
2 to break up some of the boredom of your normal
3 day-to-day work routine performing that job.

4 Now, there's a so-called --- you hear
5 people talk about longwall guys that maybe work a half
6 shift on, a half a shift off, I've heard rumors of
7 that, but I can't substantiate that.

8 DOCTOR WAGNER:

9 Okay. Thank you. You raised the
10 possibility of an individual wearing a CPDM --- all
11 individuals wear the CPDMs. Do you --- have you
12 thought at all about both the environmental sampling
13 and the individual sampling being done?

14 MR. O'DELL:

15 In consult that --- I disagree with that
16 point because I think, you know, in our comments
17 earlier, we suggested that MSHA is going to be the
18 ones to determine what occupations should be sampled,
19 just as you did with the gravimetrics. We would like
20 to see it go further than that, though, not with just
21 the normal occupations that we monitor today. Because
22 that's --- we've heard Ron talk about earlier, the
23 guys that are on belt lines sometimes are exposed to
24 dust as opposed guys on the mine section. Or
25 sometimes guys over in the return or a rock duster

1 that's working by the fan. You know, sometimes those
2 are the guys that are getting more dust exposure than
3 the other miners. So we would like to see the Agency
4 look at all occupations and see which of those
5 occupations should have dust pumps or PDMs. I said,
6 if we're going to talk about these being the
7 individual samples, I don't know how you do that.
8 Because if I'm a shearer operator and I'm running a
9 shearer on an eight-hour shift, and you're just going
10 to sample me, you know, for my 20 years that I work as
11 a longwall shearer operator, yet you got somebody
12 that's working another job but still amounts to the
13 same number of years and maybe some days he works in a
14 dusty environment and some days he doesn't, you know,
15 you're not really collecting --- you're not really
16 doing a true service to all the miners that work in
17 the coal mine. It can't really be an individual
18 sampling. It has to be, you know, those occupations
19 that miners work at that are more dusty than others.
20 You can --- it's easy. I mean, it's easy to figure it
21 out. All you have to do is to go to the coal mines
22 and talk to the miners. They'll tell you right where
23 the dusty places are. The operators will tell you
24 where the dusty places are.

25 DOCTOR WAGNER:

1 I want to thank you very much for
2 speaking again. We look forward to your speaking in
3 Arlington next week. And we're looking forward to
4 your comments as well. Let me ask if there's anyone
5 who hasn't signed up who would like to make a
6 statement at this time? Well, if no one else wishes
7 to make a presentation, I want to again say the Mine
8 Safety and Health Administration appreciates
9 everyone's participation in this public hearing. I
10 want to thank those who made statements, but also the
11 rest of you by your presence are demonstrating an
12 interest and commitment to trying to help the Agency
13 move forward. I want to emphasize that everyone here
14 still has an opportunity to make comments, either in
15 person at the other hearings that are scheduled, or
16 written comments will be taken into consideration if
17 they are received or postmarked by May 2nd of 2011.
18 MSHA will take your comments and concerns in
19 consideration to develop the Agency's final rule. And
20 I want to encourage all of you to participate
21 throughout the rulemaking process. And with that
22 said, I'll ask one more time, if anyone else has
23 anything they need to say for the record? Seeing no
24 one, this public hearing is concluded. Thank you very
25 much. See you guys.

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* * HEARING CONCLUDED AT 3:00 P.M. * *

CERTIFICATE

I hereby certify, as the stenographic reporter, that the foregoing proceedings were taken stenographically by me, and thereafter reduced to typewriting by me or under my direction; and that this transcript is a true and accurate record to the best of my ability.



Court Reporter

