

UNITED STATES OF AMERICA  
US DEPARTMENT OF LABOR  
MINE SAFETY & HEALTH ADMINISTRATION

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PUBLIC MEETING ON  
REQUEST FOR INFORMATION ON  
EXPOSURE OF UNDERGROUND MINERS  
TO DIESEL EXHAUST

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Thursday, August 4, 2016

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Meeting Rooms N & O  
Sheraton Birmingham Hotel  
2101 Richard Arrington, Jr. Boulevard  
Birmingham, Alabama

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12:00 p.m.

FACILITATOR:

SHEILA McCONNELL, Director,  
Office of Standards, Regulations & Variances  
Mine Safety & Health Administration

PANEL MEMBERS:

MOHAMED ABOELMAGD  
ALFRED D. DUCHARME  
SAM PIERCE

ALSO PRESENT:

PAMELA KING

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

(12:05 p.m.)

MS. McCONNELL: Good afternoon. My name is Sheila McConnell, and I am the director of the Office of Standards, Regulations & Variances for the Mine Safety & Health Administration. I am the moderator of this public meeting on the agency's Request for Information on exposure of underground miners to diesel exhaust. The RFI was published in the Federal Register on June 8, 2016.

On behalf of Assistant Secretary Joseph Main, I want to welcome you all here today and thank you for your attendance and participation.

First I'd like to introduce the members of our panel. We have Sam Pierce, Southeastern District Manager for Metal and Nonmetal Mines. We have our health specialist, Mohamed Aboelmagd, from Coal Mine Safety and Health. We have Al Ducharme on my left, Office of the Solicitor. Again I'd like to introduce

1 Pamela King up front, who works for MSHA's Office  
2 of Standards.

3 This is the fourth and final public  
4 meeting on the Request for Information. The  
5 first three took place on July 19 in Salt Lake  
6 City, Utah; July 21 in Pittsburgh, Pennsylvania;  
7 and July 26 at MSHA Headquarters in Arlington,  
8 Virginia.

9 The purpose of this public meeting is  
10 to receive information from the public that will  
11 help MSHA evaluate the agency's existing  
12 standards on the policy guidance on controlling  
13 miners' exposures to diesel exhaust to evaluate  
14 the effectiveness of the protections now in place  
15 to preserve miners' health.

16 This meeting will be conducted in an  
17 informal manner. Speakers and other attendees  
18 may present information to the court reporter for  
19 the rulemaking record. MSHA will accept comments  
20 and other information for the record from any  
21 interested party.

22 If you have not already done so,

1 please sign the attendance sheet at the back of  
2 the room so that we may have an accurate record  
3 of your attendance.

4 We have copies of the Request for  
5 Information also in the back of the room, and a  
6 verbatim transcript may be viewed at  
7 regulations.gov and on MSHA's website.

8 As I have noted before, MSHA will be  
9 issuing an extension notice in the next week or  
10 two that extends the comment period from  
11 September 6, 2016, to November 30, 2016.

12 Before we hear from you, I want to  
13 provide some background on why MSHA is reviewing  
14 the agency's existing standards.

15 MSHA regulates miners' exposures to  
16 diesel exhaust to reduce the health risk and to  
17 prevent material impairment of health in miners.  
18 Diesel engines are widely used in mining  
19 operations because of their high power output and  
20 mobility.

21 Many mine operators prefer diesel-  
22 powered machines because they are more powerful

1       than most battery-powered equipment and can be  
2       used without electrical trailing cables that can  
3       restrict equipment mobility.

4               In March 2012, the National Institute  
5       for Occupational Safety and Health and the  
6       National Cancer Institute completed the Diesel  
7       Exhaust in Miners Study. This epidemiological  
8       study was conducted to determine whether  
9       breathing diesel exhaust could lead to lung  
10      cancer and other health outcomes.

11             In June 2012, the International Agency  
12      for Research on Cancer concluded that there is  
13      sufficient evidence of carcinogenicity in humans  
14      from diesel exhaust exposure to upgrade its  
15      classification of diesel exhaust to classify  
16      diesel exhaust as a human carcinogen.

17             Following the International Agency for  
18      Research on Cancer classification of diesel  
19      exhaust as a human carcinogen, MSHA issued two  
20      health hazards: one on diesel exhaust and diesel  
21      particulate matter in underground coal and metal  
22      and nonmetal mines, and one on nitrogen dioxide

1 emissions in underground coal mines.

2 MSHA issued the first health hazard in  
3 partnership with OSHA on January 10, 2013. MSHA  
4 issued a second health hazard alert on August 6,  
5 2013. This alert reinforced the dangers of  
6 platinum-based particle filters as a source of  
7 increased concentrations of nitrogen dioxide in  
8 underground coal mines.

9 The Request for Information seeks  
10 information and data on the effectiveness of the  
11 existing standards in controlling miners'  
12 exposures to diesel exhaust, including diesel  
13 particulate matter.

14 MSHA specifically requests information  
15 on a series of questions related to the  
16 following:

17 The use of nonpermissible light-duty  
18 diesel-powered equipment in underground coal  
19 mines.

20 Maintenance of diesel-powered  
21 equipment in underground coal mines and  
22 recordkeeping requirements.

1           The type and effectiveness of after-  
2 treatment and engine technologies used in both  
3 coal and metal and nonmetal underground mines.  
4 MSHA is interested in best practices for  
5 selecting and using after-treatment devices.

6           Under MSHA's existing standards for  
7 metal and nonmetal underground mines, total  
8 carbon measurements are used as a surrogate for  
9 diesel particulate matter when determining  
10 miners' exposure. MSHA is seeking information on  
11 alternative surrogates, other than total carbon,  
12 to estimate a miner's diesel particulate matter  
13 exposure.

14          MSHA is also seeking information on  
15 the advances in sampling and analytical  
16 technology and other methods for measuring a  
17 metal and nonmetal miner's exposure to diesel  
18 particulate matter.

19          MSHA is also interested in data and  
20 information on existing controls that were most  
21 effective in metal and nonmetal miners'  
22 exposures, and what are the technological



1 challenges and relative costs of reducing diesel  
2 particulate matter exposure limit from the  
3 existing standard of 160 micrograms of total  
4 carbon per cubic meter of air.

5 MSHA is interested in receiving any  
6 other data or information that may be useful to  
7 MSHA in evaluating miners' exposures to harmful  
8 diesel exhaust emissions, including the  
9 effectiveness of existing control mechanisms for  
10 reducing harmful diesel emissions and limiting  
11 miners' exposures to harmful diesel exhaust  
12 emissions.

13 At this time we will hear from our  
14 first presenter, Daryl Dewberry, United Mine  
15 Workers.

16 MR. BLANKENSHIP: He didn't make it  
17 back.

18 MS. McCONNELL: He didn't make it  
19 back.

20 Then I guess that's to you, then, Mr.  
21 Blankenship. You're second on the list.

22 MR. BLANKENSHIP: James Blankenship,

1 B-L-A-N-K-E-N-S-H-I-P, UMWA International Safety  
2 Rep, District 20 representative. Again, thank  
3 you for coming to Birmingham.

4 It pleases me to hear that the agency  
5 has decided to take steps into reviewing its  
6 current rules and regulations pertaining to  
7 miner's exposure to diesel exhaust.

8 As you may know, since MSHA's final  
9 rules in 2001 for underground coal mines and in  
10 2006 for metal and nonmetal mines, studies from  
11 NIOSH have proven that exposure to diesel exhaust  
12 increases miners' chances of contracting lung  
13 cancer.

14 Studies have also shown that  
15 underground miners can be exposed to up to 100  
16 times more of the typical environmental  
17 concentration of diesel particulate matter, DPM,  
18 and more than 10 times that might be found in  
19 other occupations.

20 What with an ever-increasing amount of  
21 diesel equipment being used in underground mines,  
22 the agency must act quickly to address this issue

1 to protect the miners from such negative health  
2 effects. As such, MSHA rules need to parallel  
3 the Pennsylvania and West Virginia mining laws  
4 pertaining to underground diesel equipment  
5 emissions.

6 As you know, these agencies have  
7 created laws that are much more stringent than  
8 the current federal laws and are the gold  
9 standard when it comes to diesel rules in  
10 underground mines.

11 MSHA needs to take a hard look at what  
12 they have done and model our rules and  
13 regulations after them. Some of these state  
14 regulations and requirements include an exhaust  
15 emissions control and conditioning system that  
16 dilutes DPM to .2 milligrams when diluted by 100  
17 percent of the MSHA-approved inhalation rate; a  
18 DPM filter capable of reducing the diesel  
19 particular matter by at least 75 percent; an  
20 oxidation catalyst capable of reducing carbon  
21 monoxide emissions to 100 ppm or less; a system  
22 capable of reducing the exhaust gas temperature

1 below 302 degrees; an automatic engine shutdown  
2 system that would shut off the engine before the  
3 exhaust gas reaches 302 degrees; a spark and  
4 flame arrester system; a sampling port of  
5 measuring of undiluted exhaust gases as they  
6 leave the engine and also before they enter the  
7 mine atmosphere; and onboard engine performance  
8 and maintenance diagnostic system capable of  
9 monitoring engine speed, operating hours, intake  
10 restrictions, exhaust back pressure, coolant  
11 exhaust gas temperatures, coolant temperature,  
12 oil pressure and oil temperature.

13 Exhaust gas limits for the mine  
14 atmosphere of 35 ppm for carbon monoxide and 25  
15 for nitric oxide and 3 ppm for nitrogen dioxide;  
16 the requirements of an operator to develop a  
17 detailed and comprehensive maintenance plan;  
18 strict recordkeeping requirements of all emission  
19 tests and maintenance and repairs; complete  
20 examination maintenance performed every 100  
21 hours; eight hours of diesel training every year,  
22 separate from the requirements under 30 CFR Part

1 48.

2           These states have these regulations in  
3 place for many years with much success, as well  
4 as producing over 172 million tons of coal in the  
5 year 2014. This proves these regulations can be  
6 enforced, while at the same time the mines can be  
7 safe, productive, and competitive.

8           The current federal law is nowhere  
9 near stringent enough to adequately protect  
10 miners from the negative health effects of diesel  
11 particulate matter in underground mines.

12           The miners we are charged to protect  
13 deserve to have better protection in place for  
14 their health, not just protection from  
15 pneumoconiosis caused by coal dust but also from  
16 lung cancer caused by diesel particulate.

17           On page 36830, number 8, you wanted to  
18 know what are the advantages or safety and health  
19 benefits of light-duty equipment powered on a  
20 weekly -- being tested on a weekly basis.

21           Light-duty equipment is abused  
22 underground more than heavy-duty equipment,

1 because everybody uses it. It's out-by stuff;  
2 it's nonpermissible. Everybody in the world just  
3 grabs it and does what they want to with it and  
4 parks it in the crosscut.

5 It's not maintained properly. It  
6 needs to be tested and maintained, just like  
7 permissible equipment, because it puts off a lot  
8 more emissions. To make the operators do it the  
9 same way that they do permissible equipment would  
10 be a plus for the miners' health and safety.

11 And number 10 on that page talks about  
12 should MSHA require diagnostics system tests.  
13 That's the same thing they've got in the West  
14 Virginia and Pennsylvania laws, definitely,  
15 because you can have an early warning if an  
16 engine's going bad, something's happened to it,  
17 before it starts putting a lot of emissions into  
18 the atmosphere. You can catch it ahead of time  
19 and save the miners from having to breathe a lot  
20 of emissions, and you can fix the problem.

21 And number 11 talks about  
22 recordkeeping. Keeping records on the diesel

1 engines gives you a history of what that engine's  
2 going to be -- what the engine's done, how far it  
3 came off of its -- when it was new, and it gives  
4 you an idea of when it needs to be changed out a  
5 lot quicker before it actually does harm.

6 Recordkeeping and maintenance is a  
7 key. It tells you -- gives you definitely a  
8 heads-up on what's going to happen with that  
9 engine, and it keeps emissions, particulates from  
10 getting in the air that miners have to breathe.

11 The miners in Alabama need the laws  
12 just like West Virginia, because our state laws  
13 are ancient. Our laws still call for more air  
14 for a mule than it does a miner. So without MSHA  
15 protecting their livelihood, we're up the creek  
16 without a paddle, because our laws are so  
17 outdated.

18 So it's up to MSHA to protect their  
19 lungs and their livelihood from diesel emissions.  
20 And I will answer any questions, and I appreciate  
21 your time.

22 MS. McCONNELL: Thank you for your

1 testimony, Mr. Blankenship. I've got to turn to  
2 my colleagues.

3 Have anything, Mo?

4 MR. ABOELMAGD: No.

5 MS. McCONNELL: Al?

6 MR. DUCHARME: Nothing.

7 MS. McCONNELL: What is your -- I  
8 guess the thought about the light-duty equipment  
9 currently -- the nonpermissible light-duty  
10 equipment currently used in underground mines,  
11 are they typically -- in your experience as in  
12 underground mines or as a representative, is your  
13 experience that they are older engines that are  
14 being repaired and modified, or do you find it --  
15 I guess my sense is giving -- trying to figure  
16 out a sense of what are the difficulties for the  
17 underground mines to upgrade the older  
18 permissible light-duty equipment with newer  
19 machines?

20 MR. BLANKENSHIP: We were having  
21 trouble getting the engines. That used to be Jim  
22 Walter 4 where I worked. I was a diesel



1 mechanic, working on underground equipment. I  
2 was outside; they brought it out to us.

3 We were having problems getting the  
4 engines, so we was having to just repair what  
5 they had.

6 MS. McCONNELL: And the problems were  
7 associated with -- why were they --

8 MR. BLANKENSHIP: Supply.

9 MS. McCONNELL: Supply. Okay.

10 MR. BLANKENSHIP: Couldn't get --  
11 couldn't find them, couldn't get them, according  
12 to what they told us, anyway, as the mechanics.

13 MS. McCONNELL: Right.

14 MR. BLANKENSHIP: So we were just  
15 repairing them and sending them back underground.  
16 And the thing about light-duty out-by equipment,  
17 like I said earlier, it doesn't belong to  
18 anybody. I mean, what I meant by that is if  
19 you've got a ramcar operator who runs that ramcar  
20 every day, he takes care of it. A miner operator  
21 takes care of his miner.

22 The people who run those out-by

1 equipment, they might see it one time a week,  
2 couple of times a week. They run it, do their  
3 job, and they're gone. They don't take care of  
4 it. It doesn't get the proper maintenance that  
5 the other equipment gets.

6 MS. McCONNELL: What type of equipment  
7 is -- what type of equipment are you talking  
8 about?

9 MR. BLANKENSHIP: Low-tracks, scoops,  
10 versa-tracks, that effect.

11 MS. McCONNELL: So are there a lot of  
12 diesel-powered scoops? Are they --

13 MR. BLANKENSHIP: There's a couple.  
14 Mostly low-tracks and versa-tracks and some  
15 Bobcats.

16 MS. McCONNELL: Okay. That's the only  
17 questions I have, and so I thank you.

18 MR. BLANKENSHIP: Thank you.

19 MS. McCONNELL: Is there any other  
20 individual who'd like to talk to us about our  
21 Request for Information, for either the metal and  
22 nonmetal side or the coal side?

1 (No response.)

2 MS. McCONNELL: I'm just going to  
3 pause as everybody thinks about it. There's not  
4 that many people here, though.

5 (Pause.)

6 MS. McCONNELL: So as I mentioned, the  
7 comment period will be extended to November 30;  
8 the notice is forthcoming. But since I don't see  
9 anyone interested in speaking today, I'm going to  
10 conclude MSHA's public meeting on the request for  
11 information on exposure of underground miners to  
12 diesel exhaust.

13 On behalf of Secretary Joseph Main, we  
14 appreciate your participation in this rulemaking  
15 process and encourage you to submit your comments  
16 on or before November 30.

17 The meeting is now concluded, and  
18 thank you for your participation.

19 (Whereupon, 12:26 p.m., the public  
20 meeting was concluded.)  
21  
22

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Information on Exposure of  
Underground Miners to Diesel Exhaust

Before: US DOL/MSHA

Date: 08-04-16

Place: Birmingham, AL

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

  
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Court Reporter

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