UNITED STATES DEPARTMENT OF LABOR

MINE SAFETY & HEALTH ADMINISTRATION

HEARING ON PROPOSED RULE FOR LOW AND MEDIUM-VOLTAGE DIESEL-POWERED GENERATORS

NOVEMBER 4, 2004

1 P.M.

LITTLE AMERICA HOTEL 500 SOUTH MAIN STREET SALT LAKE CITY, UTAH 84101

P.M. Panel: Rebecca J. Smith, Mediator Ronald Ford Arlie Massey Michele Curran

Speakers: Tain Curtis William Farrar Jeffrey Anderson

1	PROCEEDINGS
2	l p.m. November 4, 2004
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4	MS. SMITH: Good afternoon. My name is Becky
5	Smith and I'm deputy director of MSHA's Office of
6	Standards, Regulations and Variances. On behalf of Dave
7	Loriski, assistant secretary of labor for Mine Safety &
8	Health, I'd like to welcome you all to this public hearing
9	this afternoon.
10	This is the first of four hearings. The other
11	hearings will be held as follows: On November the 16th in
12	Birmingham, Alabama; on November the 18th in Lexington,
13	Kentucky; and on November the 30th in Morgantown, West
14	Virginia.
15	The purpose of these hearings is to obtain input
16	from the public on a proposed rule that was published in
17	the Federal Register on June 25th, 2004. That rule would
18	allow the use of low and medium-voltage diesel-powered
19	generators as an alternate alternative means of
20	powering electrical equipment. The generators are
21	portable and are used to power electrical equipment in,
22	out and around underground coal mines. Copies of the
23	Federal Register notice containing the proposed rule are
24	available at the registration table.

with me today. On my left is Arlie Massey, who is with our technical-support organization. Michele Curran is with our solicitor's office, and Ron Ford is with our office of standards.

> This hearing is being held in accordance with Section 101 of the Federal Mine Safety and Health Act of 1977. As is the practice of MSHA, formal rules of evidence will not apply, therefore, cross examination of the hearing panel members will not be allowed but the panel may explain and clarify provisions of the proposed ruling. As moderator of this public hearing, I reserve the right to limit the amount of time each speaker is given as well as the questions of the hearing panel.

Those of you who have notified us in advance of your intent to speak will be allowed to make your presentations first. I will call speakers in the order that requests were made. Following these presentations, others who request an opportunity to speak, will be allowed to do so. We invite all interested parties to present their views at this hearing and if you are sitting in the audience now and wish to speak, please sign in at the registration table. We will remain in session today until everyone who desires to speak has had an opportunity to do so. Also, if you are not speaking today, we would

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like for you to sign in at the attendance sheet so we will

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have an accurate attendance record of today's hearing.

We will accept written comments and information at this hearing from any interested party, including those who are not speaking. When I call on you to speak, please come to the speaker's table and begin your presentation by identifying yourself and your affiliation for the record. If you have a prepared statement or any supporting documents that you would like to submit for the record, please leave a copy with us today. You can give written comments on this hearing to us today or you can send them to MSHA's office of standards electronically, by fax, by regular mail or hand carry using the address information in the Federal Register notice. The postcomment period on this proposed rule will end on December the 10th and submissions must be received by that date.

A verbatim transcript of this hearing will be made part of the record and it will be posted on MSHA's Web site. If you would like a copy sooner, you can make your own arrangements with the court reporter.

Before the speakers begin their testimony, I would like to give you some background on the proposed rule we are addressing today. Currently, 30 CFR, Section 75.701 and Section 75.901 establish the grounding requirements for electrical equipment and low and

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years mine operators have been using portable low and medium-voltage diesel-powered electrical generators as an efficient means of providing a portable source of power to move electrical equipment, however, when using these generators, mine operators are unable to comply with the electrical protection requirements of these two standards. To address their inability to comply, mine operators have requested petitions for modification from existing MSHA standards.

From January 1990 through October 2003, there 10 11 were 63 petitions requested and granted under 30 CFR, Section 75.701 and 75.901, affecting 56 underground coal 12 mines. MSHA may grant a petition for modification of an 13 existing standard as long as the alternative method 14 15 proposed by the mine operator achieves the same measure of protection afforded miners at all times under the existing 16 standard or the application of the existing standard 17 reduces safety to miners. 18

When MSHA grants a petition for modification, it applies only to the individual mine. Before we granted these petitions we evaluated the use of diesel-powered electrical generator equipment. We recognize that diesel-powered electrical generator equipment with sensitive electrical circuit protections reduces fire,

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petitions, we included in the approval the requirements that the operator must follow to maintain the protection afforded by our existing standards.

The major provisions of the proposed rule would require three main things. Number one: The grounding resistor to limit ground fault current to 0.5 amperes under a ground fault condition. Number two: The grounded face protection device to cause the circuit interrupting device protecting the electrical circuits to open and shut down the diesel-powered generator when not more than 90 milliamperes of fault current is detected by the system. And number three: The use of equipment testing devices and procedures that are designed to facila- -- facilitate safe testing of the diesel-powered electrical circuit prior to moving each piece of equipment or performing the work.

We believe that this proposed rule increases miner safety by limiting the amount of voltage and current that miners can be exposed to under a ground fault condition and by reducing the possibility of a fire, shock or burn hazard through the safety features for personnel and equipment required by the standards.

> Our first speaker today will be Tain Curtis. MR. CURTIS: Again, for the record my name is

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for Local 1769 of the UMWA. I represent 268 miners at the 1 Deer Creek mine. We produce 4 million tons annually, 2 4-million-plus tons. We have three CM units and one 3 4 longwall. From the portal -- from the Deer Creek portal 5 to the farthest penetration of the face is probably approaching 11 miles at our mine. So a diesel generator 6 for moving equipment would probably be beneficial. At 7 this time we do not have one. We do not use one. 8 In Tain Curtis's opinion he sees no use for one 9 because -- and this has nothing to do with the grounding 10 11 issue, it has to do with the diesel emissions, the diesel particulates in particular that are -- that is emitted 12 into the atmosphere of the coal mine. Everything that 13 goes into the atmosphere upwind, we breathe downwind. So 14 15 using a diesel generator for whatever reason would add to those emissions. 16 Secondly, there is no provisions on this for the 17 equipment that is being used. For example, if you was to 18 use a long- -- use a generator to move a miner, there's no 19 mention of any provisions of the requirements for moving 20 that miner. The miner has got water jackets on the tram 21 22 motors that require water to keep them under a safe operating temperature. There's no standard anywhere that 23

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I'm aware of that would require anybody to put water onto

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that miner to keep the tram motors cool.

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I understand the complexity of the grounding 1 2 issue. Anytime you have a generator, you are moving the ground continually, which, in my opinion, 15 years of 3 4 being a mechanic, you are opening Pandora's Box, essentially, to the grounding issue. You're moving the 5 equipment, it's going to be bounced around, your terminals 6 can become loose, there's -- there is the stipulation in 7 the provision that it be checked, that everything be 8 checked prior to running it, which is a good idea, but, 9 you know, anytime you go to move it, there's no -- nothing 10 11 in the standard that says that it needs to be checked during that shift that it's being used. 12 I feel that it opens the door for the use of 13 this equipment to be used outby simply because you don't 14 15 want to take the time to put a transformer in. You could use it -- there's nothing in the standard that tells how 16 to exhaust the fumes into the returns. If it is used in a 17 stationary position outby, that would be something that 18 would be very beneficial to the miners, if it was vented 19 to the return. 20 There's so many things that are attached to the 21 22 diesel, when you say the word diesel, that is detrimental

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to the health of the miners. I'm not saying that our

company may not want one, but right now the horsepower

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requirements for a diesel generator are such that it's

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almost too big of an engine to have because of the 1 2 deregulation that has to occur to a diesel engine. Having a diesel -- having a diesel, anytime you 3 4 use a diesel, this is attached to a generator so that 5 means it has to run at a certain RPM for the frequency of the generator to work properly so a fire issue comes into 6 play because usually this is on the top end of the idling 7 -- the RPM area of the generator. And I understand that 8 we have diesel regs that would protect that but this would 9 be a nonpermissible piece of equipment so it would not 10 11 fall underneath the requirements for the safe operating temperature that is under -- that is in place for 12 permissible equipment. 13 I have a question to ask: Would this be 14 15 classified as a heavy-duty piece of equipment? MS. SMITH: You want to answer that one, Ron? 16 MR. FORD: I don't know the answer to that 17 18 question. MR. CURTIS: Okay. I understand the 19 requirements for diesel equipment and I'm not sure where 20 this would fall under, for heavy duty or light duty or 21 22 those areas.

MS. SMITH: We'll take the question as part of the record and make sure that we address it --

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1MS. SMITH: -- in the preamble of the final2rule. Thank you.

MR. CURTIS: I would like to say that as far as the issue with the grounding goes, again, you know, you are moving the grounded field and to the workers around it, that becomes more dangerous because it's moving with the equipment. I don't see any stipulation to have a solid ground between the generator and the piece of equipment being moved that is independent from the one in the cable.

And, again, would encourage to look at the new technologies for diesel engines, the electrical engines burn better, burn cleaner. To me this is all part of a package for a diesel generator. The grounding issue is one that has been around for a long time, but to me the greater issue is the diesel motor.

Again, I appreciate your time, your coming to Utah to hear from us and thank you for that opportunity.

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 MS. SMITH: Thank you for -- you mind taking a

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 question or two?

MR. CURTIS: Okay.

MS. SMITH: Thank you.

PANEL MEMBER: Tain, could you expand upon your statement concerning the grounding, how you feel people

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are exposed to added dangers there?

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1 MR. CURTIS: Okay. I'm not an electrical 2 engineer but I understand that when you ground, you move -- the ground field is going to be -- with an 3 4 earth-ground system you have a way for the current to go 5 back to earth without exposing a person or an individual to that current; is that correct? I mean, I'm not an 6 electrical --7 PANEL MEMBER: Somewhat correct. 8 MR. CURTIS: Okay. With a diesel generator this 9 ground -- you have no field ground or earth ground, it is 10 11 moving with the generator. So you eliminate that way for the current to get back if there is a disruption in the 12 current flow. If my understanding is correct. 13 I worry about roadways and things like that, the 14 15 disruption that would happen because of vibrations, that happens in all equipment. I've not ever seen it as a big 16 problem because of vibrations. I worry about the 17 ground, grounding resistor, the connections made, the 18 ground. I mean, it would be a case ground, it would have 19 to be some way to prevent it from being able to be 20 vibrated loose, because not only is the generator going to 21 22 be vibrating from the elec- -- from the diesel generator, but it will also be vibrating because of the movement of 23 24 dragging it along. So I don't know if that answered your

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question.

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PANEL MEMBER: Yes, it did, but I have another. 1 2 MR. CURTIS: Okay. PANEL MEMBER: So you're worried that the 3 4 resistor itself would become detached and that the system 5 would not be grounded back to the neutral of the transformers. Is that your alarm? 6 7 MR. CURTIS: That's part of my concern. Because this is different. In the electronics of the mine, the 8 power circuits at the mine, power centers don't generally 9 There's only one ground that moves with the 10 move. 11 equipment and that's on the end -- that's at the end of the trailing cable. Now we're moving -- not only moving 12 that grounded connection but we're also moving the one on 13 the end of the generator also just because we're simply 14 15 moving it down the entry as we're tramming it along. And that does raise more of a concern because now you've got 16 two potentials instead of just one. 17 PANEL MEMBER: You answered my question. Thank 18 19 you. MS. SMITH: Okay. Others? Thank you very much, 20 Mr. Curtis --21 MR. CURTIS: Okay. Thank you. 22 MS. SMITH: -- we appreciate your testimony. 23 24 Our next speaker is William Farrar. NEAL R. GROSS

committeeman also, UMWA, worked at Deer Creek 29 years. 1 2 I've been a diesel mechanic for about the last 15 years. And I've got a couple of safety issues that I would like 3 to be required on the amendment that you guys are putting 4 5 in for this. The first one is require CO and NO monitoring on 6 the inby operator where all the air that's over the 7 equipment being moved is being monitored continuously 8 while they're taking stuff in and out of the mine. Like 9 Tain says, when they're moving a miner, you'll have one 10 11 piece of equipment dragging a 5,000-gallon water tank, you'll have one pulling the generator because the miner 12 will heat up if they're trying to pull that generator. 13 You'll have several pieces of equipment. You might have 14 15 half-a-million cubic feet of air in certain places in the mine, but we got three intakes coming into our mine. For 16 example -- a lot of mines are like ours I'm sure, there's 17 a lot of dead air spaces in there. These guys that's 18 moving this equipment are the ones that's getting the 19 harmful effects of the diesel emissions, the CO and the 20 NO, and I'd like to see it required that it be monitored 21 22 when they're moving the equipment. Okay. And my second one is our mine's a big 23

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mine, like Tain was saying, it's 10, 11 miles in.

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they're dragging equipment like a miner, miners are big,

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1	you can't get out of the way and our intake is our main
2	escapeway. I would like to have a requirement that if
3	you're moving equipment, that you have a transport vehicle
4	on the outby side in case anything happens in the mine
5	where any emergency or to where somebody's got to get
6	out. Let's see, how did I have it put? Well okay.
7	I'm not good at this but
8	MS. SMITH: Take your time. We got lots of
9	time.
10	MR. FARRAR: Several times I mean, they break
11	down, the equipment breaks down, it's blocking the primary
12	escapeway. When you're tramming a miner, a great big
13	feeder, you're pulling the shear, whatever you're pulling
14	in there, we need to have an emergency vehicle on the
15	outby side to transport people in case of an emergency or
16	an accident.
17	MS. SMITH: Okay.
18	MR. FARRAR: And really that's my only two major
19	concerns on that.
20	MS. SMITH: Okay. Questions for Mr. Farrar?
21	PANEL MEMBER: Can I ask a question, Bill?
22	MR. FARRAR: Yeah.
23	PANEL MEMBER: The I'm not quite certain I
24	understand what you want this emergency vehicle to do if

1	equipment that I'm taking inside or
2	MR. FARRAR: Or behind
3	PANEL MEMBER: you're going to be following
4	me inside with this emergency transport?
5	MR. FARRAR: Within a certain distance so that
6	if something somebody gets hurt or if there's a mine
7	emergency, that there is transportation, because you can't
8	get a miner out of the way, I mean, within a few minutes
9	or whatever and there should be something behind it.
10	We're doing it right now at our mine. If we're moving a
11	miner in a section that's four miles in there, we'll talk
12	to our boss, we need to have a vehicle behind us because
13	there's a section in there cutting the coal, anything
14	could happen if an emergency happens, there's something
15	out there to get them out.
16	PANEL MEMBER: I think I understand. I I
17	think you did a good job but I do want to make sure that I
18	do understand. Okay. The purpose of this emergency
19	vehicle would be when I come to the blocked intake, all I
20	have to do is walk around it and I can get in the other
21	emergency vehicle and be transported outside; is that what
22	you're telling me?
23	MR. FARRAR: That's what I'm saying.
24	PANEL MEMBER: Okay. Very good. That's the
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only question I had.

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1	MS. SMITH: Mr. Farrar, thank you very much. We
2	appreciate your testimony.
3	MR. FARRAR: Okay.
4	MS. SMITH: Our next speaker is Jeffrey
5	Anderson.
6	MR. ANDERSON: Ms. Smith, ladies and gentlemen,
7	I'm Jeff Anderson, I work at the Deer Creek coal mine for
8	Energy West, member of Local 1769.
9	Couple of concerns I'd like to bring up. First,
10	the petition deals mainly with grounding. And one concern
11	is in that grounding it talks about all the tests that are
12	to be done on this grounding system each and every time
13	this piece of equipment's used. Nowhere in there I may
14	have looked over it but is it possible if that
15	grounding resistor fails, can the frame of the machine
16	become live from a conductor? The reason I say that is
17	because all the tests are to me appear to be done with
18	power already on this machine with the electrical system.
19	How do I ensure this grounding resistor is intact prior to
20	even starting the machine? Everything is chassis
21	grounded, the way this design looks to me. That's the
22	only concern I have.
23	If there's some way we could put a look-ahead
24	system, anything in there to ensure this grounding

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machine is ever started to, you know, avoid the potential of the frame of the machine becoming hot.

Another thing it talks about is not only using diesel generator for move -- transporting equipment in and around the mine, it also talks about using it for nonpermissible equipment in other parts of the mine, which to me states it could be a stationary piece of equipment. It doesn't state, you know -- it talks about nonpermissible equipment, it doesn't really outline what type of equipment that would be. To me in our mine all our belt drives are nonpermissible. And the way this is wrote, it doesn't make a stipulation of what type of equipment.

So, in fact, could I not take a diesel generator 14 15 in and, say, run a belt drive, if for whatever reason I've lost power to my main power source, or even at an extreme 16 extent make that a permanent power supply for a belt 17 drive? I didn't see anywhere where it says, you know, as 18 far as temporary operating for repairs or whatever else. 19 Maybe there needs to be something in there that talks 20 about a time limit to use a diesel generator to operate 21 22 outby equipment. Because currently the way it looks to me is I could set it there and leave it set up there for so 23 24 long.

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know, when it talked about the grounding and it's still
 only frame grounded, if it's sitting in a stationary
 location, it should be earth grounded, I feel. It would
 be a better protection.

Also, you know, they talked about the diesel and the emissions, I'd just like to make one comment on that. The current regulations, an example being, we have 30 --30 exit scoops diesel powered that we move large equipment with. The engine in that piece of equipment will produce 300 horsepower. They've been tuned to a hundred horsepower to meet the regulations. To me that's making a very inefficient engine. And going with the diesel generator, to run a generator, we're going to do the same thing. If I have a generator that requires 300 horse to run, am I going to have to triple the size of my diesel engine to run that generator like we are with our equipment now?

So -- and there is -- you know, talking to my maintenance superintendent, there are diesel engines out there now that will produce two-thirds less emissions than what we're currently running. But the approval process of getting them is -- you know, the mining industry is a very small portion of manufacturers' total business as far as diesel engines go. Now, the regulations and the standard

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1	there's a problem, I think, of getting those diesel
2	emissions those diesel engines approved, you know, for
3	the safety and the well-being of the miners. That's all I
4	have.
5	MS. SMITH: Thank you, Mr. Anderson. Questions
6	for Mr. Anderson?
7	PANEL MEMBER: I don't have any.
8	PANEL MEMBER: I just have one question. I just
9	wanted to ask: Are you saying that the the turning of
10	better diesel engines, that could reduce emissions that
11	are not getting into the mines, the manufacturers just
12	don't have an incentive to come in and get the approval up
13	for that?
14	MR. ANDERSON: I don't think they do. I think
15	the mining industry is such a small portion of their
16	business
17	PANEL MEMBER: Right.
18	MR. ANDERSON: that, you know, the way
19	current things are now, that it's more of a hassle for
20	them and it's nonprofitable where maybe if we could look
21	at, all right, here's the standard, even if at a mine
22	by bringing an engine in there and the operator goes ahead
23	and does the study on that and that engine meets the
24	standard, that that should be able to be approved there

and possibly not at the manufacturer.

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1 PANEL MEMBER: Now, are these engines for mobile 2 diesel pieces of equipment or used also for --MR. ANDERSON: The ones I've talked to, mainly 3 4 the superintendent, yes. 5 PANEL MEMBER: But you're not talking about the generator. 6 7 MR. ANDERSON: Well, I think the same would apply with the generator. 8 9 PANEL MEMBER: It would apply to a generator, too? 10 11 MR. ANDERSON: I'm sure the emissions standards, 12 as it talks in here, are the same. It has one paragraph in this approval that talks about the emission standard of 13 the diesel -- of the generator and the diesel emissions, 14 15 which would apply to that as well as any other piece of diesel equipment. 16 17 PANEL MEMBER: Okay. So, you know, the technology's MR. ANDERSON: 18 out there that we can improve our emissions and the health 19 and welfare of our miners by looking at that. 20 21 PANEL MEMBER: Okay. Thank you. 22 MR. ANDERSON: Thank you. 23 MS. SMITH: I'd like to ask, Mr. Boring, 24 Mr. Stahlhut, do either of you have any questions of any NEAL R. GROSS

PANEL MEMBER: I still have one, if it's okay, 1 2 Jeff. Have -- are you aware of any applications for electronic-approved engines that are not being processed 3 4 quickly or anything of that nature where applications have 5 been made and they're just not going through? MR. ANDERSON: Well, currently at our mine site 6 we have, for an example, four Dodge pickups. 7 The engine approved -- the ones we were running were approved a 8 certain year, a certain time. They've made all the 9 10 necessary adjustments to these engines and that to meet 11 the parameters of the approval that whatever it is, we have four new trucks in there that we can't use because, 12 you know, the -- yes, they fall within the parameters of 13 what's allowed but yet we don't have the approval on them. 14 15 PANEL MEMBER: Are you saying that you don't have the Part 7 approval on these engines? 16 MR. ANDERSON: Yeah. 17 PANEL MEMBER: Okay. And they're Dodge trucks 18 so we're talking about the Cummins engine. 19 MR. ANDERSON: Yes. As I say, it's the same 20 type of truck we're currently running, it's just a 21 different year/model. 22 PANEL MEMBER: And I understand it. Another 23 24 question that I would like to clarify, if I could NEAL R. GROSS

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with detuning engines because of the altitude. Are you 1 2 asking if the same requirement would apply to a diesel engine turning a generator, was that your statement? 3 4 MR. ANDERSON: Yes, you know, if we have an 5 engine capable of doing the work. So currently by detuning those engines, instead of using one piece of 6 equipment to move something, we use two. So to do that 7 same work, we're using two pieces of equipment instead of 8 Where one, if it was not detuned, could do that job. 9 one. You know, with the diesel, if we're going to 10 11 detune that engine so much, it's going to take so much horsepower to turn that generator, and if I need a hundred 12 horse to turn the generator but I have to detune an 13 engine, I can't use a hundred horse gen- -- motor for a 14 15 generator, I have to go to a 300 horse. PANEL MEMBER: I understand. Thank you. 16 That was all I had. 17 MS. SMITH: Mr. Anderson, thank you very much 18 19 for your testimony. 20 Thank you. MR. ANDERSON: MS. SMITH: Do we have any other individuals in 21 22 the audience who would like to present testimony at this time? If not, I think we'll go off the record until a 23 24 quarter after two and at that time we'll come back on the

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record to see if we have anyone else who has come in that

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1		would like to add additional comments. And if not, then
2		we'll close this hearing at that time. Thank you very
3		much.
4		(Off the record.)
5		MS. SMITH: I'd like to go back on the record
6		and ask if there's anyone in the audience who would like
7		to provide further testimony at this time?
8		Given we have no further speakers, we will close
9		the record on this hearing. Thank you very much.
10		(The P.M. Proceedings were concluded.)
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