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PUBLIC HEARING
ON
MSHA'S PROPOSED RULE FOR REFUGE
ALTERNATIVES FOR UNDERGROUND COAL MINES

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AUGUST 5, 2008
9:00 A.M.

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HILTON SUITES LEXINGTON GREEN
LEXINGTON, KENTUCKY

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MODERATOR

Ms. Patricia W. Silvey
Director, Mine Safety and Health Administration
Office of Standards, Regulations and Variances

PANEL MEMBERS:

Mr. Larry Davey
Mr. Howard Epperly
Mr. Eric Sherer
Mr. Ronald Ford
Mr. Steve Turow

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1 MS. SILVEY: Let's get started this
2 morning. Good morning. My name is Patricia W. Silvey.
3 I am the Director of the Mine Safety and Health
4 Administration Office of Standards, Regulations, and
5 Variances. I will be the moderator of this public
6 hearing on MSHA's Proposed Rule on Refuge Alternatives
7 for Underground Coal Mines. On behalf of Richard E.
8 Stickler, the Acting Assistant Secretary of Labor for
9 Mine Safety and Health, I want to welcome all of you to
10 today's hearing.

11 Before we get started for this
12 hearing, and as we approach the one-year anniversary of
13 the Crandall Canyon accident, I would like to ask all
14 of you if you would pause with me and the panel for a
15 moment of silence in memory of the dedicated miners and
16 the heroic efforts of the rescuers, of the three
17 rescuers who lost their lives in the Crandall Canyon
18 accident; and as many of you know, including one of
19 MSHA's own. I would also ask you to take this memorial
20 pause in memory of all the miners who have lost their
21 lives working in the mines in this country from the
22 beginning of time and throughout the world. And as I
23 know we will hear later on this morning, and take a
24 particular reflection of the miners who lost their
25 lives in the Kentucky Darby mine explosion. So if you

1 would pause with me for a moment of silence. Thank
2 you.

3 At this point I'd like to introduce
4 the members of the MSHA panel, and members of this
5 panel were instrumental in drafting the document that
6 serves as the agency's proposal. To my right is Howard
7 Epperly, and Howard is the team leader of this project.
8 He is with the MSHA's Approval and Certification Center
9 in the Office of Technical Support. To his right Larry
10 Davey. And I'd like to introduce Larry. Larry
11 actually is a member of Occupational Safety and Health
12 Administration, or as I call it OSHA, and he is on
13 detail to MSHA so we -- to help us develop this rule
14 and get it out in a quick period of time.

15 To my left, Eric Sherer. Eric is
16 with the Office of Coal Mine Safety and Health. To his
17 left Ron Ford. Ron is an economist in my office. And
18 to his left Steve Turow. Steve is with the Department
19 of Labor's Office of the Solicitor.

20 This is the third, as many of you
21 know, of four public hearings on the proposed rule. We
22 held hearings in Salt Lake City and Charleston, West
23 Virginia last week and the fourth and final hearing
24 will be in Birmingham on Thursday, August 7th. The
25 comment period for the proposal closes on August 18th.

1 MSHA must receive your comments by midnight Eastern
2 Daylight Savings Time on that date. You can view any
3 comments on the agency's website at www.msha.gov. And
4 in the back of the room we have a few copies of the
5 proposal and the Preliminary Regulatory Economic
6 Analysis.

7 The proposed rule, as many of you
8 know, would implement the provisions of Section 13 of
9 the Mine Improvement and New Emergency Response or the
10 MINER Act of 2006 and would apply only to underground
11 coal mines.

12 The MINER Act requires that the
13 National Institute for Occupational Safety and Health
14 conduct research on refuge alternatives. NIOSH issued
15 its report in January of 2008.

16 MSHA's proposed rule is based on the
17 agency's data and experience, recommendations from the
18 NIOSH report, research on available and developing
19 technology, and regulations of several states.

20 Before I start to discuss the
21 proposal, I want to reiterate and underscore an
22 important mine emergency principle embodied by both
23 MSHA and the mining community, it is a longstanding
24 principle that in the event of a mine emergency
25 underground the first line of defense is for the miner

1 to try to escape. Only if escape is impossible would
2 the provisions of the proposal come into play.

3 Under the proposed rule a refuge
4 alternative would provide a protected secure space with
5 an isolated atmosphere that creates a life-sustaining
6 environment to protect miners and assist them with
7 escape in the event of a mine emergency.

8 The proposed rule allows the use of
9 several types of refuge alternatives and includes
10 requirements that the manufacturer or third-party test
11 the refuge alternative and its components prior to
12 obtaining MSHA approval.

13 Under the proposal three types of
14 refuge alternatives would be allowed, a prefabricated
15 self-contained unit; a secure space constructed in
16 place; and materials prepositioned for miners to use to
17 construct a secured space.

18 Some of the major provisions of the
19 proposed rule are refuge alternatives would need to be
20 at least 15 square feet of floor space and 60 cubic
21 feet of volume per person.

22 The capacity of refuge alternatives
23 near the working section would be the maximum number of
24 persons that can be expected. The capacity of refuge
25 alternatives in an outby area would be the maximum

1 number of persons assigned to work in the area.

2 Refuge alternatives would be located
3 between a thousand feet and 2,000 feet from the working
4 face and where mechanized mining equipment is being
5 installed or removed. For outby areas, refuge
6 alternatives would be located within one-hour travel
7 distances, however, the operator may request and the
8 district manager may approve a different location based
9 on an assessment of risks to persons in outby areas.

10 Refuge alternatives and their
11 components would need to sustain persons for 96 hours
12 or 48 hours if advanced arrangements are made for
13 additional supplies, particularly air from the surface.

14 Food, water, lighting, sanitation,
15 and a two-way communication system would need to be
16 provided.

17 Refuge alternatives approved by
18 states or by MSHA in the Emergency Response Plan prior
19 to promulgation of the final rule would be allowed
20 until replaced or a ten-year maximum. And the refuge
21 alternative components approved by states or by MSHA in
22 the Emergency Response Plan would be allowed until
23 replaced or a five-year maximum.

24 The location, capability, and
25 capacity of refuge alternatives would be addressed in

1 the written Emergency Response Plans.

2 Training of miners to locate,
3 transport, activate, use, and maintain refuge
4 alternatives would be integrated into existing
5 quarterly drills and annual expectations training.

6 Pre-shift examinations of refuge
7 alternatives would be required.

8 Refuge alternatives would need to be
9 located on mine maps.

10 MSHA has estimated the economic
11 impact of the proposal and has included a discussion of
12 the cost/benefit impact on small mines and paperwork
13 requirements in the preamble to the proposal and the
14 Preliminary Regulatory Economic Analysis of the
15 preamble. The preamble assesses the provision in the
16 rule and includes a complete discussion of a number of
17 specific requests for comment.

18 I would like to briefly mention some
19 of them here. MSHA requests comments on the estimated
20 service life of prefabricated self-contained refuge
21 alternatives and estimated service life of components;

22 The proposed definition for
23 breathable oxygen as 99 percent pure oxygen with no
24 harmful impurities; also the proposed minimum of 96
25 hours of breathable air;

1 The sources of heat generation within
2 a refuge alternative, methods for mitigating heat
3 stress and heat stroke, and methods for measuring heat
4 stress on persons occupying refuge alternatives;

5 The proposal would require that the
6 apparent temperature within refuge alternatives in use
7 at full capacity not exceed 95 degrees Fahrenheit. And
8 I would like to note that Footnotes 1 and 2 in the
9 preamble should have cited the NIOSH report as the
10 basis for the agency's proposal on apparent
11 temperature.

12 We also request comments on whether a
13 requirement that refuge alternatives be designed with a
14 means to signal rescuers on the surface should be added
15 in the final rule. This would assure that rescuers on
16 the surface could be contacted if the communication
17 systems become inoperable.

18 Also, whether the final rule should
19 include a requirement that the manufacturer design
20 refuge alternatives with a means to signal underground
21 rescuers with a homing device. This would assure that
22 rescuers could detect trapped miners within the mine.

23 The proposal would require that a
24 refuge alternative provide a two-way communication
25 facility that is part of the mine communications system

1 which can be used from inside the refuge alternative,
2 and an additional system as defined in the operator's
3 approved Emergency Response Plan, or ERP.

4 I would also like to clarify that the
5 proposal approval requirements in 7.504(c)(1) should
6 reflect the same requirements as the proposed safety
7 standards.

8 We also ask for comments on the
9 types, sources, and magnitude of lighting needed for
10 refuge alternatives.

11 Footnote 3 in the preamble should
12 have cited Pages 124 and 25 from the August 23rd, 1999
13 revision of the Department of Defense Standards, the
14 proposed minimum space and volume requirements and the
15 feasibility of using certain types of refuge
16 alternatives in low coal mines.

17 We also ask for comments on the
18 proposed minimum flow rate of 12.5 cubic feet per
19 minute of breathable air for each miner.

20 We also requested comments on the
21 proposed setting for pressure relief and whether a high
22 pressure relief should be required. The proposal would
23 require that fans or compressors provide positive
24 pressure and an automatic means to assure that the
25 pressure is relieved in the refuge alternative at 0.25

1 PSI above mine atmospheric pressure;

2 The proposed requirement for carbon
3 monoxide detectors and for compressors or fans at the
4 surface, and that they provide automatic and visual
5 alarms if carbon monoxide levels in supplied air
6 exceeds ten parts per million;

7 The visual damage that would be
8 revealed during pre-shift examinations;

9 The proposed rule would require that
10 refuge alternatives be designed to provide a means to
11 indicate unauthorized entry or tampering and allow for
12 pre-shift examination or critical components without
13 entering the structure.

14 The agency is concerned with the
15 feasibility and practicality of visually checking the
16 status of refuge alternatives without having to enter
17 the structure or break the tamper-evident seal.

18 We also ask for comments on the
19 proposed requirement for locating refuge alternatives
20 in inby areas as well as the ultimate provision
21 discussed in the preamble that would allow refuge
22 alternatives in these areas to be located up to 4,000
23 feet from the working face, depending on mine-specific
24 conditions if they are connected to the surface with
25 bore holes;

1 The proposed approach to the capacity
2 of refuge alternatives in inby and outby areas, and the
3 proposed approach to locating refuge alternatives in
4 outby areas including minimum and maximum distances.

5 We ask for comment on whether the
6 final rule should contain a requirement that advance
7 arrangements specified in the ERP include a method for
8 assuring that there would be a suitable means to
9 connect the drilled hole to the refuge alternative and
10 that the connection be made within ten minutes;

11 The proposed training requirements
12 for persons assigned to examine, transport, and
13 maintain and repair refuge alternatives and components
14 and whether it would be more appropriate to include
15 this training under the training provisions of 30 CFR
16 Part 48.

17 And just equally as important, we ask
18 for comments on the proposed approach to annual
19 expectations training for miners in construction, where
20 applicable, activation, and use of refuge alternatives
21 and components. Comments should address the proposed
22 strategy and the proposed elements of training.

23 The agency is also soliciting
24 comments on proposed information collection
25 requirements. Please provide comments on all data and

1 assumptions the agency has used to develop estimates of
2 information collection as well as estimates of cost and
3 benefits in the proposal.

4 As you address these provisions,
5 either in your testimony to us today or in your written
6 comments, please be as specific as possible including
7 alternatives, your suggested rationale, safety and
8 health benefits to miners, technological and economic
9 feasibility, and data to support your comments.

10 The agency will use this information
11 to help evaluate the requirements in the proposal and
12 produce a final rule that will improve safety and
13 health for underground coal miners in the event of a
14 mine emergency in a manner that is responsive to the
15 needs and concerns of the mining public.

16 As many of you know, this hearing
17 will be conducted in an informal manner and formal
18 rules of evidence will not apply. The panel may ask
19 questions of the witnesses. The witnesses may ask
20 questions of the panel.

21 MSHA will make a transcript of the
22 hearing available on the agency's website within one
23 week of the hearing. And as most of you know, time is
24 of the essence in developing the final rule which must
25 be finalized by December 31, 2008.

1 If you wish to present written
2 statements or information, please clearly identify your
3 material and give it to the court reporter. You may
4 also submit comments, as mentioned earlier, following
5 this hearing by any of the methods identified in the
6 proposal.

7 We also ask that everyone in
8 attendance, if you would sign the attendance sheet in
9 the back of the room. If you have a hard copy or
10 electronic version of your presentation we would
11 appreciate it if you would provide the court reporter
12 with a copy.

13 We will now begin today's hearing.
14 And if you would clearly state your name and
15 organization and spell your name for the court reporter
16 this will help assure an accurate record. And at this
17 point we will start today's hearing.

18 Our first speaker is Connie Hendren
19 with CD Safe Shields, Inc. Mr. Hendren.

20 MR. HENDREN: Good morning. Is it
21 on?

22 MS. SILVEY: Yes.

23 MR. HENDREN: Good morning. My name
24 is Connie Hendren with CD Safe Shields. That's
25 C-O-N-N-I-E, H-E-N-D-R-E-N. With me is -- I can't

1 spell your last name.

2 MR. GEVEDON: Hank Gevedon with PSR.
3 I'm here for technical support.

4 MR. HENDREN: Spell your name.

5 MR. GEVEDON: H-A-N-K, G-E-V-E-D-O-N
6 with PSR Group.

7 MR. HENDREN: And Clark Johnson with
8 Carroll Engineering. We appreciate this opportunity to
9 be able to talk with you-all for just a few minutes.
10 Since this is informal and since I have never done
11 anything like this before, you-all stop me when you
12 want to, once I get started talking I may be here for
13 awhile.

14 So just tell me, is fifteen minutes
15 too much or what is the normal -- I would have loved to
16 have been second or third.

17 MS. SILVEY: That's okay. Just go
18 ahead.

19 MR. HENDREN: Go ahead?

20 MS. SILVEY: Yes.

21 MR. HENDREN: Okay. We're here today
22 to talk about a mine refuge chamber. PD3 has been
23 working with CD Safe Shields. Our company is located
24 in Mount Vernon, Kentucky. And we've been doing some
25 research on this for over twenty months to date.

1 We've been working with mine
2 operators, mine safety operators, mine owners, and with
3 insurance companies. We have taken a little bit
4 different approach.

5 We went to Triadelphia, West Virginia
6 two weeks ago on the 24th and met with Joe Judeikis,
7 and a group which included Mr. Epperly, and had a
8 wonderful three to four-hour question and answer
9 session concerning the project that we have.

10 One of the features that we have that
11 is rather unique is that we have a modular device unit
12 that will withstand the MSHA standard of PSI -- 15 PSI,
13 yet it can be made into a two-foot, three-foot,
14 four-foot, five-foot unit. We'll be able -- we have a
15 unit sitting out front of the Hilton Suites and at your
16 convenience sometime we would like to be able to show
17 you and walk you through this unit and be able to
18 describe to you what we've been able to do.

19 We've tried to utilize the panels
20 within the unit itself for storage capacity. We
21 realize that the breathable air, that the gasses, the
22 coolant, is the most important part of the things that
23 will need to be done. We also understand that we have
24 the food, water, medical supplies, waste disposal, and
25 that's all included in our units.

1 This unit is prepared to withstand up
2 to 2,000 pounds roof load. We have reinforced the
3 sides. We have a quarter-inch steel sled that you will
4 see that it can be pulled from one area to another.

5 And what we're suggesting, we can
6 make it any height and any width that you want. The
7 unit we have out here is a six-person unit that is
8 eight-feet wide. Because most of the cuts are
9 twenty-foot wide you can pull our units through there,
10 the mine, and you do not have to wait for a crosscut.
11 When you get to a point to where it's up to 2,500 feet
12 or whatever MSHA finally approves that you need to stop
13 there and bring another unit in, you have two choices:
14 You can pull that unit forward and bring a new unit
15 behind it or you can actually bring another unit in by
16 pallets. Our units can be palletized.

17 And I would like to -- in talking
18 with Mr. Judeikis, he gave us and his staff, I guess
19 we've passed back and forth 15 to 20 e-mails since
20 we've been up there, and he has given us a lot of good
21 suggestions on what we need to do.

22 One of the things that we're going to
23 do starting the last week of August is we're going to
24 drag our unit through a rock quarry. Mr. Judai cus has
25 suggested that these units are going to have a lot of

1 wear and tear on them if, in fact, they stay for ten
2 years. So what is going to happen to the pan on a unit
3 since as this. So we're going to start -- there's a
4 rock quarry across the road from our facility in Mount
5 Vernon that is -- has one of the shafts that's two and
6 a half miles long. We're going to monitor this and
7 send information back to MSHA as to what happens
8 through the wear and tear of this.

9 At this time in addressing the
10 breathable air and the cooling system and the gas
11 monitoring system, I'd like if Hank would talk a little
12 bit about that.

13 MR. GEVEDON: Following the
14 regulations that were set up in relationship, we've
15 gone through the process of finding systems that are
16 compatible. We still have several systems that are up
17 for MSHA approval and we'll be moving for that.

18 But in to relationship to the removal
19 of CO₂, we have a system in place according to that.
20 You asked a question earlier about the lighting, that
21 is set up. We're using a 12-volt cooling system. Many
22 of the systems that -- we're using the regulations
23 actually as our guidelines so I would hope that our
24 report to you would be more formalized in terms of
25 answers to direct questions.

1 The overall goal, of course, is to
2 provide a flexible system that will allow for mine
3 safety and optimize the amount of breathable air down
4 there. Temperature control, we have several systems in
5 relationship, of course, for sanitation, breathable
6 air, removal of CO₂, food, overall ease of use.

7 We have some monitoring systems that
8 monitor both the interior and exterior of the airtlock
9 as well as the outside systems. And we have several
10 things that are going into this particular model that
11 with MSHA approval should make it a reasonably diverse
12 unit and also give us some different shapes.

13 The ability to make a unit for four
14 people, six people, eight people, ten people, or to
15 allow a unit to grow, we believe looks at addressing
16 the needs for having the exact size unit you need there
17 in relationship to the number of people working.

18 I could go on and talk about it. A
19 little later if you have an opportunity to step out and
20 look at it, it's much more self-explanatory than me
21 trying to explain the elephant to you from here when
22 you can actually go look at it.

23 But any specific questions you would
24 have in relationship to the concerns you just brought
25 up, we'll be glad to ask. There's also representatives

1 from our group outside with the unit. So at any point
2 in time you can ask them, please feel free to ask them
3 any questions about the construction, its design,
4 lifespan, and those types of questions.

5 MR. HENDREN: In addressing the needs
6 for this unit we've looked at three or four different
7 things. First of all, Clark Johnson is here as
8 president of Carroll Engineering. Carroll Engineering
9 is well known in the mining safety field. They're
10 going to be doing our maintenance on our units. We
11 wanted to get someone with a sterling reputation and we
12 feel like in working with Carroll Engineering we have
13 done just that.

14 In coming up with a product we've
15 taken a little bit different approach, and if you would
16 just bear me out on this because it may seem a little
17 bit different. But we've looked at this as a
18 three-prong approach. We, first of all, have to answer
19 MSHA's requirements, that's a must. In order to be
20 approved we have to make sure that we answer your
21 requirements.

22 Secondly, we have to have a product
23 that is going to be relatively simple for the mine
24 companies to understand and be able to put out for
25 their miners. We can sit here today in a nice cool

1 atmosphere and make decisions easily. There's no
2 pressure at all. What happens in a panic situation?
3 And we put this together with a worst-case scenario.

4 In dealing with the mine companies
5 the first thing everyone wants to do, of course, is you
6 have got to find a way out, that's the first thing
7 anybody is going to do. If there's not a way out this
8 is the last resort, so to say. So we want to make this
9 as easy as possible to operate.

10 In meeting with Mr. Judeikis and his
11 group up there, one of the things that he suggested
12 besides wear and tear on this, he said go to a 5th or
13 6th grade class, teach them what you want to do, about
14 opening the doors, about reading the gas sensors.
15 Because when you have a pressure situation you can't
16 make good judgment decisions.

17 I'm nervous right now talking with
18 you. If we were in an atmosphere one-on-one out at a
19 table there I would be able to tell you a lot more of
20 what I feel, but I'm in a semi-panic mode.

21 I can't imagine what it would be to
22 be in a hole four-feet high that has collapsed back
23 there that gasses unknown to you are out there and you
24 don't know whether you are going to live or die. You
25 can't make good judgments, quick judgments at that

1 time.

2 So what we've tried to do is tried to
3 eliminate a lot of thinking in order to get this done.
4 With seven turns of a dog ear -- you will see what a
5 dog ear out there is, you turn seven screws and you are
6 inside the unit. Can you see it? Well, if it's a lot
7 of dust and you can't see the beacon going, you can
8 hear it. You are within fifty feet of the thousand
9 feet of where you are working, and pardon the
10 expression, all hell breaks loose and you have got to
11 get somewhere, you can hear it or you can see it.

12 Once you get to it, you turn seven
13 knobs, two minutes, and you will be inside the
14 antechamber. The first thing you do inside the
15 antechamber, you check your monitor on the gas. More
16 than likely I would be using the chemical toilet first.
17 But anyway, you would check the gas to see what you
18 have got inside there. These are all things that you
19 don't have to be a very educated person, and I'm not,
20 to be able to see this.

21 We were told by MSHA that one out of
22 five miners are color blind. So inside of having
23 Christmas tree lights to monitor the gas, there will be
24 a light on that will show gas is good, caution, or bad.
25 And you will be able to read those lights rather than

1 just have the light itself. We're trying to make this
2 as user-friendly as possible. Because that way not
3 only the mine owners will accept it but the miners will
4 accept it.

5 Twenty years ago no one wanted to use
6 seat belts, and look what's happened. It's evolved
7 over that. I think you-all are in a primary stage of
8 being able to set forth now something that ten to
9 fifteen years from now is going to be a way of life and
10 we all have to live with it.

11 Now, the third prong of this is
12 insurance companies. If I'm a mine owner and I'm going
13 to spend \$75,000 to \$100,000, what am I going to get?
14 I'm going to get safety for my men, and that's number
15 one. But if you are an insurance company and you look
16 at this product and say hey, they've tested this,
17 they've had a manned-test unit. And that's what we
18 want to do.

19 We want to put four to six men in a
20 unit in a mine and have it tested. And if there's a
21 manned-tested unit, we've talked to three different
22 insurance companies, and this could make a difference
23 in their policy as a mine owner and it could be able to
24 pay a large portion of what these units are going to
25 cost over a period of a long time.

1 So we're trying to design something
2 that's MSHA-approved, user-friendly, and that insurance
3 will make take a second look at and perhaps give them a
4 break.

5 Now, lastly, you talked for a minute
6 about being able to communicate. On our unit we have a
7 sonic thumper, the minute the doors are closed there
8 are three radiowaves that go to the surface. With a
9 seismograph you can triangulate and be within five feet
10 of where this unit is sitting. This gives the miner
11 inside there another comfort level. I know when I've
12 shut the doors that immediately something has happened,
13 they know where I am.

14 This is also equipped with a system
15 that if you don't reset this system every twelve hours
16 it will go off automatically. So if something should
17 happen and they're incapacitated at the time at least
18 you will know where that unit is. Clark, do you have
19 anything else?

20 MR. JOHNSON: I don't think so.

21 MR. HENDREN: Hank, if you have
22 anything.

23 MR. GEVEDON: I don't think so.

24 MR. HENDREN: I'm ready for
25 questions. Whatever you can do or want to do.

1 MS. SILVEY: As you stated, Mr.
2 Hendren, at some point in today's proceedings we're
3 going to break and the panel is going to go out and
4 take a walk through the unit that you have outside.

5 MR. HENDREN: Yes, ma'am.

6 MS. SILVEY: But I do have just one
7 question. You mentioned that at some point you were
8 going to take four to six persons in a mine and have
9 the unit tested. I take it that you haven't done this
10 yet. When do you plan to do this?

11 MR. HENDREN: We plan to do that when
12 we get permission.

13 MS. SILVEY: After it's approved?

14 MR. HENDREN: Yes, ma'am. Yes,
15 ma'am. Our insurance company has taken a rather dim
16 view of that until we get approval.

17 MS. SILVEY: Right.

18 MR. HENDREN: But we do think it
19 needs to be done. To me, buying a unit right now
20 without a manned test is like buying a car with no
21 steering wheel: It may run good but you won't know
22 whether it will turn or not until you try it.

23 MS. SILVEY: All right. Okay. So
24 that everybody in the room understands, if after we go
25 out and have the walk-through then if we could reserve

1 if we have any questions of you after we see it and
2 everything, then we'll bring you back and whatever
3 questions we have so everybody will be able to hear it.

4 MR. HENDREN: That would be fine.
5 And we will walk through and give you another
6 presentation out there and go over everything and then
7 whatever questions we'll be glad to come back and
8 answer.

9 MR. GEVEDON: From a development
10 standpoint, the unit outside is basically a large
11 model. It's a lot easier to understand. We've had
12 some people ask some questions, about half a dozen
13 components are still actually in manufacture and
14 outsourcing. So if you see something that looks like
15 it's made out of a piece of plywood and should be
16 replaced with a piece of aluminum, it's merely being
17 sourced. So please ask questions about those. Will
18 this be look like this or will this be like this?

19 But we found it much easier to
20 explain to bring a large model and bring it. So it was
21 very explanatory in relationship to how the system
22 works. So please ask those pointed questions, if we
23 say that unit is being developed in aluminum right now,
24 bear with us. You'll see it very shortly.

25 MS. SILVEY: Thank you very much.

1 Thank you all. Before we get our next group I
2 didn't -- I should have introduced another person who
3 is responsible for helping work on this proposal who is
4 in the audience, and that's David Hershfield. David is
5 here and he is an economist in my office. So I should
6 have done that in the beginning.

7 Now we will have our next group. And
8 the next will be a group. We have Tilda Thomas who is
9 the widow of Paris Thomas, and he was one of the miners
10 who lost his life in the Kentucky Darby disaster.

11 We have Tracy North, the daughter of
12 Paris Thomas.

13 And accompanying them is Tony
14 Opeppard. And Tony is an attorney in the Lexington,
15 Kentucky. So we will now have our next speaker.

16 MS. THOMAS: That's my husband. My
17 name is Tilda Thomas and I'm the widow of Paris Thomas.
18 And this is our daughter, Tracy North. And my husband
19 and I had been married for thirty years. He had just
20 turned 53 when he got killed. And he died on our
21 grandson's first birthday, my oldest grandson, which
22 turned a year old when his grandfather died. And my
23 daughter here was pregnant with her second son when her
24 father died. And our grandsons are three and two now.
25 And we miss him very much. He was, you know, a big

1 part of my life.

2 I've knowed him -- I started dating
3 him when I was sixteen, and we were married for thirty
4 years. And he just was the foundation of my -- my best
5 friend, my everything. And it's hard without him. It
6 really is. It's hard adjusting to a different life
7 after -- and he was a good, hard-working man, a decent
8 man. And he went underground in 1984 I think, and he
9 had worked for like 27 years underground. And he said
10 I go to work, I work for my family, so my family can
11 have, you know, things.

12 And everyday it's hard. He's been
13 gone two years now. Sometimes it feels like forever
14 that he's been gone and some days it feels like
15 yesterday, you know, constant thoughts. We also -- I
16 had a son named after his father, Paris Lee Thomas, he
17 died eight years ago. We just had my son and my
18 daughter.

19 I just feel like -- and I have two
20 brothers that are disabled coal miners. And I have a
21 younger brother -- well, he's like 40 but he's my
22 younger brother, and he's working underground now. And
23 I just want, you know, want anything that can make it
24 safe for the miners and be able to be safe for them and
25 be able to work under the safe conditions, you know I'm

1 all for it. You know, these men risk their lives
2 everyday for their families and they work hard. My
3 husband would go to work lots of times when his knees
4 and stuff was hurting him so bad. But he would go on
5 and say, you know, I'm working for my family.

6 And he would have been 54 April 28th
7 of this year. I just -- like my younger brother, he
8 stayed out a week after my husband died -- I mean a
9 year. He quit working in the mines and was going to
10 try to not go back, but he went back because of the
11 money and to support his -- raise his family. And I
12 worry about him, like all of the men underground that
13 are just hard-working men.

14 And I just hope that they can get
15 these chambers to work. If something like this does
16 happen again that they will be able to be safe and will
17 be rescued. Because my husband and the other men, they
18 died a horrible death. I think about it a lot and him
19 dying in there alone, you know. And my grandson, he
20 was just a year old but he remembers his grandfather
21 and he talks about him all the time. But the second
22 grandson don't know him.

23 MS. NORTH: My name is Tracy North.
24 And it hurts as bad today as it did the day that it
25 happened. And it's really hard for me without my dad.

1 I wish that he had a place where he could have went to
2 be saved. He may still be here today. And I just -- I
3 hope that this goes through for the other miners, so
4 that their families don't have to experience the loss
5 that we have.

6 MS. SILVEY: I was just going to say
7 to both you, Ms. Thomas, and Ms. North, that again, we
8 at MSHA, and I'm sure I speak for everybody in this
9 room when I say this, we -- you know, you say a lot of
10 times that you can feel somebody's pain, but you really
11 can't really feel it. But in any event, we empathize
12 with you and, again, express our sympathy.

13 And just like you said, you probably
14 put it better than I can put it, and that is that one
15 of the purposes of this rule is to try to develop some
16 place they could go to at least be saved, or as you put
17 it, until they're rescued. So again, on behalf of us,
18 we express our sympathies to you and to your entire
19 family. And just wish you the best.

20 MS. THOMAS: Thank you.

21 MS. SILVEY: And thank you for
22 coming. We appreciate your testimony.

23 Our next speaker is Mr. Paul Ledford
24 and Mr. Ledford is the sole survivor of the Kentucky
25 Darby accident. Mr. Ledford.

1 MR. LEDFORD: My name is Paul
2 Ledford. And I'm the survivor of the Kentucky Darby
3 explosion. I worked in the mines about fifteen years.
4 And I believe these chambers will help save lives in
5 the future if they're used by the coal operators. They
6 will be a safe haven for the miners in case of an
7 emergency. They will not have to decide whether to
8 barricade themselves and hope someone will rescue them
9 or try to make it out alive.

10 When me and my buddies at Darby would
11 get together and eat lunch, we'd talk about Sago and
12 how long it took the rescuers to get the men out. We
13 decided if anything happened we'd try to make it out
14 instead of barricading. If we had a refuge chamber we
15 would have waited in the chamber until the rescuers
16 come and helped us out. There would have only been two
17 fatalities that day if we had a refuge chamber. And
18 there would have only been one fatality at Sago instead
19 of twelve if they had refuge chambers.

20 In the proposal they were to be
21 within a thousand foot of the working face. I believe
22 they need to be closer than that. I believe they
23 should be 200 to 300 feet behind the section center but
24 no further than 500 foot. According to the MSHA
25 report, one of the Kentucky Darby deceased barely made

1 it a thousand foot. A thousand foot is too far to
2 travel at a time of emergency. There would be no sense
3 in having the rescue chamber if the men can't make it
4 to them.

5 The rescue chamber will save lives if
6 you make it a law that they'll have to be in the mines.
7 We know the coal operator is going to be against the
8 refuge chambers because of the cost. The cost of the
9 chamber is estimated between \$65,000 and \$100,000, but
10 most coal operators make that in a week. Besides, if a
11 chamber saves a man's life, there's no cost greater
12 than that.

13 Another one of the proposals is that
14 they could have the materials to build them a
15 barricade. In the time of that it's so smoky and dusty
16 you can't see to build one; and if you did, the smoke
17 would be in there anyway. You are so panicked and
18 don't make good decision.

19 And most coal operators would take
20 that proposal because it would be a lot cheaper on
21 them, but it wouldn't be as safe as the refuge
22 chambers. And a thousand foot, too, I think would be
23 too far, like I said, one died in the thousand foot
24 that he made it. That's just too far to go in an
25 emergency.

1 MS. SILVEY: Okay. Thank you, Mr.
2 Ledford. And we appreciate your coming forward and
3 your testimony and your comments. And we'll take them
4 into consideration. I don't have any questions. We
5 very much appreciate you coming. Thank you. Our next
6 speaker then is Kenny Johnson.

7 MR. JOHNSON: Pardon me. Good
8 morning. My name is Kenny Johnson, K-E-N-N-Y,
9 J-O-H-N-S-O-N. I'm nobody of note. I just come today
10 to offer my support and encouragement to those who are
11 engaged in this endeavor of making these coal mines
12 safer.

13 I started in the coal mine in 1970
14 folding top underground in a coal mine. I spent many
15 of those years since 1970 doing various jobs and met a
16 lot of the people, knew a lot of the coal miners. Went
17 to work for the United Mine Workers of America, met a
18 lot of coal miners in a lot of different states.

19 And one thing I learned is that coal
20 miners are pretty much the same everywhere. They go to
21 work and they work hard and they expect to come out of
22 that coal mine alive. They know that there is some
23 risk and they hope that that risk and that danger will
24 be addressed by people and by entities sometimes that
25 they have no control over. They put their faith, and

1 they put a lot of confidence in other people and the
2 coal company, in their union, in the state and federal
3 agencies. And on occasion we've seen good things come
4 from these entities.

5 I came to the Darby explosion, the
6 site and the scene of that disaster. I had been asked
7 to represent a family, just as a family representative,
8 not an attorney, of a family who had been left behind
9 by a miner at the Stillhouse mine in Harlan County,
10 Kentucky. So at the Darby disaster these families came
11 to me and asked me to help guide them because all of a
12 sudden their lives were transformed. They knew not
13 what to do, they were left behind. And I worked with
14 these families.

15 I saw some things develop after this
16 tragedy at Darby that no one would want to see. I saw
17 children being affected in ways that no child should
18 ever have to be, things that they should never have to
19 endure. Nervous problems, children pulling their hair
20 out in spots because of their nerves, because of what
21 they had gone through.

22 Now we're here and we could talk
23 about that all day. But I'm glad to see, as a retired
24 coal miner, as a former Deputy Commissioner of the
25 Kentucky Department of Mines and Minerals, as an

1 interested party, I'm glad to see that people are
2 stepping forth. A lot of people deserve credit for
3 that. There's elected officials that deserve credit
4 and the lobbyists that pushed these elected officials.

5 At Darby and other places of disaster
6 we have seen the best of MSHA, and in this case the
7 best of the Kentucky Department of Mines and Minerals
8 when they went in to rescue Mr. Ledford. I saw Mr.
9 Ledford's burn marks on his chest blistered and
10 infected for months from the rescue device that was
11 laying on his chest after he had lost consciousness.
12 And the brave rescuers put their life on the line to go
13 get him and my hat's off to them.

14 There's a lot of good folks involved
15 in this, and I would just come today to offer
16 encouragement. With any business there's always a
17 concern of cost, we understand that. But in this
18 industry -- we know that this industry is at a time of
19 record profits. We don't want it to be a time of
20 record deaths.

21 And this, because of the efforts of
22 many, may be a step in the direction that makes sure
23 that no other miner dies because they have no place to
24 go after an explosion or some other catastrophe in the
25 coal mine.

1 I have set many days and many hours
2 myself in a coal mine at a lunch hole, diner hole,
3 where we got to take a lunch when I worked in the coal
4 mine and thought about how I would get out of that coal
5 mine should there be an explosion while I was having
6 lunch; or if I go back and take up my job and there's
7 an explosion or something of that nature, how would I
8 get out of this coal mine.

9 But a refuge chamber was never an
10 option for me, and it hasn't been an option for these
11 other miners. It wasn't an option for these other men
12 that died, the colleagues and coal workers of Mr.
13 Ledford.

14 Now, in this rule I see a couple of
15 things, and I haven't studied this in depth, but the
16 idea of constructing a safe chamber after the fact, to
17 me, is not really reasonable. And I don't think that's
18 doable, I don't think that's workable. Because as the
19 gentleman testified earlier, once something has
20 happened like this there is going to be probably chaos.
21 Not in every case but in many cases, people may be
22 injured, sometimes they're very, very fatigued already.
23 And to construct a safe chamber after an explosion, I
24 think there's a better way, better ways to do that and
25 one of the things is prefabbed.

1 Now, the other thing that I noticed
2 was some reluctance to apply -- make this applicable to
3 small coal mines. I'm not an engineer, don't pretend
4 to be, I don't know exactly how that would be worked
5 out. But I would say for the record that a man, a
6 woman in a small coal mine deserves to come home to
7 their family, just the same as a miner in a large mine.
8 I think that needs to be addressed as well.

9 I would say for these brave families
10 and this miner who has come here today, I offer my
11 congratulations to them because it's folks like that
12 that's always going to get changes made. And they --
13 these folks and these miners are what it's really all
14 about. It's not about the coal companies, and it's not
15 about MSHA, and it's not about the state, it's not
16 about all of these -- every one is a part, lobbyists
17 and attorneys and all of us that do various things.
18 It's that miner that has to be protected. And they're
19 the ones that depend on others to look out for them.

20 They will go do their job, and
21 they'll do that job in some harsh conditions, but they
22 expect that someone is going to take care of them. And
23 they expect that should their lives be put in danger,
24 should they be cut off from the world, that somebody
25 will come and get them. And in this case maybe they

1 have an opportunity to stay alive until someone does.
2 Thank you very much.

3 MS. SILVEY: Thank you very much.
4 And you know, for all that you have done to assist the
5 families, we appreciate that too. One of the things I
6 do want to say is that this rule, so that everybody
7 knows, is applicable to all underground coal mines. I
8 think I said in my opening statement. So that
9 everybody knows that it will apply to all underground
10 coal mines. I don't have any other comments.

11 Our next speaker will be Wes
12 Addington, Appalachian Citizens Law Center.

13 MR. ADDINGTON: Good morning.

14 MS. SILVEY: Good morning.

15 MR. ADDINGTON: My name is Wes
16 Addington. I'm an attorney at the Appalachian Citizens
17 Law Center in Whitesburg, Kentucky. The law center
18 handles issues related to coal mining, including issues
19 of miner's health and safety. I hope to submit written
20 comments on this rule before the deadline.

21 In light of that, I would like to
22 make just a few comments on the rule here today. I
23 generally applaud the efforts that MSHA has undertaken
24 so far in working on this rule for refuge alternatives,
25 however, I do have some concerns.

1 Primarily, what Kenny had mentioned
2 earlier, is this third option of refuge alternatives
3 which is having materials prepositioned to be
4 constructed within ten minutes. I'm a little concerned
5 that materials prepositioned to be constructed is just
6 a euphemism for barricade. It sounds that way.

7 And clearly in the NIOSH report
8 that's referenced frequently in this proposed rule --
9 they clearly indicate that there's no evidence to
10 support the practice of barricading in monitored mining
11 operations, and barricading is not considered to be a
12 viable refuge alternative. So I'm concerned about the
13 reasonableness of that third option, whether it's
14 feasible, whether it's viable.

15 I'm also unclear, looking through the
16 rule, as to the terminology used in various sections of
17 the rule and consistencies there. For example, you
18 know, in looking at 7.505(b)(1) which talks about
19 activating without tools within ten minutes versus the
20 75.1507(c) which talks about materials prepositioned to
21 be constructed in a secure space within ten minutes. I
22 notice in that section that there's no mention of
23 tools.

24 In this rule is it -- are the -- is
25 the third alternative, is there any consideration that

1 there would be tools required to construct those
2 materials that are prepositioned?

3 MR. SHERER: Yes, there could be
4 tools involved.

5 MR. ADDINGTON: And that brings up
6 the inconsistency in having a prefabricated unit that
7 requires no tools versus having materials to be
8 constructed that may require tools. You know,
9 obviously miners in mines using different alternatives
10 would be faced with, you know, totally different
11 challenges in the event of a disaster and an explosion
12 which they would need a refuge alternative.

13 I'm also concerned throughout the
14 rule and the comments with the discussion of timing, in
15 terms of timing to get to a refuge alternative, in
16 terms of timing to construct, in terms of timing to
17 escape. In the comments there's talk of -- it seems to
18 be based on sixty minutes based on the lifespan of the
19 SCSR.

20 And then in the comments there's talk
21 of thirty minutes of timing which the miners would seek
22 to escape, and if that wasn't possible then they would
23 have thirty minutes remaining to go to the refuge
24 chamber, ten minutes to construct or to activate and
25 then twenty minutes for it to be fully functional.

1 You know, and then there's other
2 areas of the rule in which there's reference to being
3 within thirty minutes of a refuge chamber in an
4 outlying area. And I'm just wondering if the same time
5 periods aren't being applied consistently. For
6 example, if you are thirty minutes away from the refuge
7 chamber, depending on where it is in relation to your
8 position, and then you factor in thirty minutes for
9 escape, well, there's your hour.

10 So I would like to see a little more
11 explanation in terms of, you know, specifically how
12 it's designed, how these emergency escape plans are
13 designed in terms of timing in which you expect miners
14 to be -- what to be happening in all of these examples.

15 And obviously distance is a major
16 factor. As Paul testified, he feels like anything more
17 than a thousand feet would be very difficult to reach.
18 And I notice the West Virginia rule is less than a
19 thousand feet. I notice this rule is between 1,000 and
20 2,000 feet and you are asking for comments of
21 possibilities of up to 4,000 feet in distance from the
22 working face.

23 You know, and I guess that's
24 contingent upon there being extra locations of SCSRs
25 between the working face and the refuge chamber that

1 may be 4,000 feet away. I'm concerned that by
2 factoring in locations of SRSCs and locating refuge
3 chambers that you potentially would be creating
4 exceptions that swallows the rule, or the purpose of
5 having refuge chambers in the first place. If you
6 continually expect miners to be able to reach
7 additional locations of SCSR as their -- on their way
8 to a refuge chamber.

9 Finally, I'm a little curious in
10 terms of the research performed on evaluation of
11 accident and injury data in the comments to the rule in
12 which the MSHA estimates that a total of 221 lives
13 could have been saved over the 107-year period for
14 purposes of estimating the benefits of this proposal.

15 I note in the comments, in four of
16 the disasters that you referenced, just adding up the
17 number of miners who survived the initial explosion or
18 the initial fire, they're getting to the lower number
19 of lives that could have been saved under this
20 estimate. So I guess I'm curious how that data was
21 evaluated all of the way back to 1900 based on hordes
22 of explosions in the early part of the century and
23 fires in which, you know, scores and scores of miners
24 died. Does anyone know exactly how that data was
25 reviewed or evaluated?

1 MS. SILVEY: I think we took -- I
2 thought that we specifically said that from a certain
3 year's period -- I'm not sure exactly what the year
4 was, we took -- we took a certain number of the
5 accidents that we referenced in there for that period
6 of time and we looked at the reports and the report
7 showed the number of miners that had barricaded
8 themselves. So we knew if they survived the initial
9 explosion and that's how we came up with the -- that's
10 how we came up with the miners -- the estimate of the
11 miners that survived. That's basically all we did is
12 just looked at the accident reports.

13 MR. ADDINGTON: Okay. So if I
14 understand you correctly, you looked at a select number
15 of specific disasters; is that correct?

16 MS. SILVEY: Yes. We looked at all
17 of them, I think. I think we looked at all of them --
18 minus a certain number of them.

19 MR. FORD: Of the ones we could
20 identify, if we could tell that they barricaded, we
21 took those people that barricaded from that accident.

22 MR. ADDINGTON: Okay. I guess I
23 would like to see in the final rule, hopefully, that
24 more fully explained and reflected. Because it seems
25 to me, as you read this in a straight-forward manner,

1 it seems as though you have reviewed basically every
2 disaster that's occurred since 1900, and based on that
3 the assumption is a total of 221 lives could have been
4 saved and I think that's --

5 MS. SILVEY: I think we reviewed the
6 ones where we had accident reports that we could
7 review. And some of them didn't have -- I think if you
8 look in the Preliminary Regulatory Economic Analysis I
9 think that it goes into pretty much detail, doesn't it,
10 Ron?

11 MR. FORD: Yes, and the report that
12 we drew it from is listed in the very end under
13 references.

14 MS. SILVEY: There's a specific
15 report that discusses all of the accidents.

16 MR. ADDINGTON: Okay. I guess I
17 still would like to see, or would hope to see in the
18 final rule, in the summary at least, that more fully
19 explained. Because it just makes it appear as though
20 MSHA has reviewed, where they have good data, all of
21 the historical disasters.

22 MS. SILVEY: As Ron refreshed my
23 memory the report is in there, there's a reference in
24 the PREA or the Preliminary Regulatory Economic
25 Analysis. And that cites the report and when you read

1 the report the report goes into pretty much detail.

2 MR. ADDINGTON: Right, I understand
3 that.

4 MS. SILVEY: So you can look --

5 MR. ADDINGTON: I guess I'm just
6 thinking in terms of what's actually in this proposed
7 rule that jumps out at me and is actually more easily
8 accessible. That just sort of reflects, you know, what
9 was reviewed.

10 The more important thing that I
11 wanted to raise that I saw in the evaluation of
12 accident and injury data is the estimate of a low of 25
13 percent and a high of 75 percent that is estimated of
14 lives that could be saved under this new rule.

15 Those are very hopeful numbers to me
16 even at the low end of 25 percent, a one in four
17 survivor rate is really wonderful. So I think it's
18 worth proceeding. And I don't think cost is a factor
19 when you are talking about these types of percentages
20 of survival going forward. If you take a recent
21 disaster, Sago, Darby if you apply those percentages to
22 those disasters, there's no amount of money that would
23 be worth having those miners back.

24 And like I said, I would hope to
25 provide additional written comments before the

1 deadl i ne. Thank you.

2 MS. SILVEY: Okay. Well, we look
3 forward to getting your written comments. Just a
4 couple of things I wanted to comment on, particularly
5 where you have the areas of concern. If you have --
6 and I know you have heard me say this before, and you
7 have submitted your written comments.

8 So if you have alternative
9 suggestions, specific -- in the areas where you have
10 specific concerns if you would, please, get them to us
11 with your specific suggestions, we'd appreciate that.

12 When you talked about the location
13 between -- an inby location between a thousand and
14 2,000 feet, and just so everybody knows this, we know
15 that West Virginia is within a thousand feet. We heard
16 from West Virginia in Charleston so if anybody wants to
17 go on the website and look at the transcript, please
18 feel free to do that.

19 But, so in addition we have West
20 Virginia and, of course, as some of you may know
21 Illinois has a law and now Pennsylvania. Well, and we
22 also had, as you mentioned, Mr. Addington, we had the
23 NIOSH report as some other people mentioned. And the
24 NIOSH report so, you know -- so as you know, when we
25 come forward with this final rule we have all of these

1 various locations that we're going to have to reconcile
2 and put in the final rule. Because in the proposed
3 rule we obviously had to take into consideration the
4 NIOSH report.

5 So for everybody I'm saying, if you
6 have suggestions on location and you have specifics,
7 please get those to us. But recognizing that where we
8 are on that we have some different -- sort of some
9 different things that we have to reconcile as we move
10 to the final rule.

11 On the issue of the 4,000 feet, you
12 were saying you were concerned that the exception
13 becomes the rule. I just want to iterate to people
14 that that was a suggested alternative that we raised in
15 the preamble, but it was only in the event that a mine
16 had a connection to a bore hole, that there was a
17 connection to a bore hole that could obviously
18 immediately deliver fresh air to the underground area.
19 So that's -- that alternative was limited in that
20 situation.

21 I don't have any more comments. Does
22 anybody have any more comments?

23 MR. ADDINGTON: Then briefly just to
24 follow-up on the NIOSH report, and I was talking about
25 timing and I neglected to mention this. I noticed in

1 their testing, and I know this is ongoing and is
2 developing, that a few of their refuge chambers took
3 more than thirty minutes to become operational. So my
4 concern is that in terms of the sixty-minute window
5 that this rule seems to operate around that there be
6 enough time allotted to contingencies, to problems with
7 activation, you know, rather than assuming a best-case
8 scenario that it's going to operate as hoped.

9 MS. SILVEY: Okay. Thank you.

10 MR. ADDINGTON: Thanks.

11 MS. SILVEY: And last of this group
12 we have Tony Oppegard who is an attorney in Lexington,
13 Kentucky. Tony.

14 MR. OPPEGARD: Thanks, Pat. If it's
15 okay with you, I'm going to ask Paul Ledford to come
16 back up. And if it's okay with you at some point I
17 would like to ask him a couple of questions about the
18 Darby accident in terms of this issue, would miners
19 have the wherewithal to be able to construct some type
20 of refuge chamber.

21 MS. SILVEY: That's fine.

22 MR. OPPEGARD: My name is Tony
23 Oppegard. I'm an attorney in Lexington representing
24 miners and their families. It's O-P-P-E-G-A-R-D.

25 There's a couple of widows of the

1 Kentucky Darby disaster who couldn't be here today who
2 intended on being here, Mary Middleton and Priscilla
3 Petra. Mary's husband, Roy, died of carbon monoxide
4 poisoning and Priscilla's husband, Bill, died of carbon
5 monoxide poisoning along with Paris Thomas after the
6 disaster.

7 And Kenny Johnson and I were both
8 representing the families. And I think one of the
9 important things today is to try to put a human face on
10 this problem and the folks that you-all are trying to
11 help. And I do appreciate the efforts of MSHA and each
12 of you individually in promulgating this rule. And I
13 know there's a lot of different considerations and
14 factors and agendas that people have, and you are
15 trying to do the best you can.

16 So what I want to do is just go
17 through some of the parts of the rule and make some
18 comments. I'm not a scientist or an engineer either,
19 and I must say a lot of this is very technical when you
20 read it. And it's things that I don't readily
21 understand but I appreciate the effort that has gone
22 into it.

23 In terms of putting a human face on
24 it, right after the disaster Kenny and I were meeting
25 with the families of the Kentucky Darby miners just

1 really indescribable when you are underground and see
2 that devastation.

3 And I asked the person from the
4 company who was assigned to be with me to take me
5 around and show me where each of the miners -- where
6 their bodies were found. And that's a -- again, it's a
7 very somber experience. And you are trying to
8 reconstruct in your mind how this certain miner reached
9 this point and what he felt as he was trying to make
10 his way out of that mine in the chaos where, as Paul
11 would say, you couldn't see a foot in front of your
12 face.

13 A couple of general comments I had
14 about the rule before I go into some specific sections.
15 In reading through your preamble, one of the real
16 concerns I have is the part in 75, I guess it's 1506,
17 where it says -- in your comments you say the proposed
18 rule would not require refuge alternatives for miners
19 who can reach a surface escape facility within thirty
20 minutes. In talking with and representing Kentucky
21 Darby families, and in representing Paul, I know that
22 all of them believe that had there been a refuge
23 chamber in the Darby mine that Paris and Roy and Bill
24 all would have survived. They would have been able to
25 get to that refuge chamber. They would have been

1 rescued probably sometime that night. And Paul, you
2 know, I think is very brave to come up and testify.
3 It's not an easy thing for him to do to speak about the
4 disaster.

5 MS. SILVEY: I agree.

6 MR. OPPEGARD: And I have great
7 admiration for him.

8 MS. SILVEY: I agree.

9 MR. OPPEGARD: But I must tell you
10 also that Paul is suffering from post-traumatic stress
11 disorder from having gone through the trauma of this
12 explosion and trying to make his way out of the mine
13 and losing consciousness, ultimately regaining
14 consciousness and crawling a little further and then
15 being rescued. But he also has a severe breathing
16 impairment from the inhalation of carbon monoxide.

17 And the thing that strikes me about
18 this, I can ask Paul, and I think I know the answer,
19 how long would it have taken you under, you know, not
20 after an explosion, just under regular conditions to
21 walk out of the mine?

22 MR. LEDFORD: Twenty minutes.

23 MR. OPPEGARD: So the mine wasn't
24 that far underground. And I guess one question I had,
25 when you say it wouldn't require a refuge chamber for

1 miners who can reach a surface escape facility, does
2 that mean within thirty minutes under emergency
3 conditions, or under your everyday travel conditions?
4 Because I'm not sure.

5 MR. SHERER: That's explained in the
6 emergency evacuation rule that we referenced, and
7 that's thirty minutes under normal conditions.

8 MR. OPPEGARD: See, that's my problem
9 then. Because in Kentucky Darby they probably would
10 not have been required to have a refuge chamber under
11 the rule as it is now written. And I really think you
12 need to change that thirty minutes to make it a lot
13 shorter than that. I was in the Darby mine, it was not
14 that far to get outside. I mean we could ride out
15 in -- I'm assuming it was less than ten minutes to get
16 outside and you probably could have walked out, as Paul
17 was saying, in twenty or twenty-five minutes.

18 But nonetheless, when you look at the
19 MSHA report, Paul referenced that one of the miners, I
20 think it was Bill Petra, he only traveled 1,048 feet
21 before he died. Roy Middleton traveled 1,243 feet
22 before he died. And Paris Thomas traveled 1,468 feet
23 and he died. And I guess to me there's an
24 inconsistency if you say you don't have to have a
25 refuge chamber if you can walk out in thirty minutes

1 but then you realize that all three of these miners who
2 under normal conditions could have walked out in less
3 than thirty minutes did not survive.

4 So I really think that number needs
5 to be cut probably down to ten minutes or something
6 like that where you are going to require refuge
7 chambers in most cases. Paul traveled 1,595 feet. He
8 traveled farther than anybody else, and he would not
9 have made it out had it not been for the mine rescue
10 teams coming in.

11 One other concern I have, again, is
12 what other people have talked about, the refuge
13 chambers having to be located between a thousand and
14 2,000 feet from the face. And again, I understand some
15 of the concerns about if you are too close to the face
16 a refuge chamber might be damaged by an explosion, I
17 understand that. Not all refuge chambers though are
18 going to be used just after explosions. I mean you
19 might have a mine fire, you could have an inundation or
20 something else where miners need to get to a refuge
21 chamber.

22 So I don't think that the concern
23 about explosions is going to apply to all refuge
24 chambers. And my gut reaction is it probably -- again,
25 looking at the distances that the miners traveled, now,

1 they -- you know, they didn't -- they all made it
2 between a thousand and 2,000 feet and they all
3 perished.

4 MS. SILVEY: Right.

5 MR. OPPEGARD: But what if an
6 operator decides to make it 1,800 feet away, none of
7 those miners would have even made it to the refuge
8 chamber. And I tend to think that that distance needs
9 to be reduced. I've not read the West Virginia rule
10 but I've see where they require them within one
11 thousand feet and I tend to think that that's probably
12 a better idea.

13 Mr. Ledford, speaking from
14 experience, when he said he thinks they need to be
15 closer. But again, I don't think it would have helped
16 the Kentucky Darby miners had there been a refuge
17 chamber that met the requirement of this rule but was
18 say 1,500 or 2,000 feet away.

19 My third general comment, before
20 going to some specifics, and I think Kenny has
21 addressed this and Wes Addington has addressed it, is
22 Section 75.1507, again, third time. With all due
23 respect to your panel, and again, I know you have
24 worked hard, I really think that that needs to be
25 scrapped, this thing about building a refuge chamber

1 underground or building -- again, I think it's
2 barricading too, whatever it is, it doesn't make any
3 sense to me. That you are going to expect miners in a
4 panic situation who can't even see, who are maybe
5 hyperventilating, disoriented -- how do you expect them
6 to take tools and build something.

7 What I think you are doing here, I
8 can almost guarantee you if that rule goes through,
9 that part of the rule, you are going to have a lot of
10 small operators in Eastern Kentucky who aren't even
11 going to think about refuge chambers, that's what
12 they're going to do. They're going to latch on to
13 that.

14 And can you imagine how it's going to
15 look if we have another Kentucky Darby disaster and
16 everybody dies because there's not a refuge chamber and
17 they have this alternative provision where they could
18 build something and they weren't oriented enough to
19 build it.

20 I also don't understand, you say
21 build it in ten minutes. You may not have ten minutes'
22 time to build something if you are being overcome by
23 carbon monoxide. So again, this is not rehearsed, Paul
24 has been through this experience. I mean it would be
25 good for you to talk to him.

1 Paul , do you think that you could
2 have built some type of barricade or refuge chamber
3 underground the day of the accident?

4 MR. LEDFORD: No. You can't hardly
5 see your hand in front of your face. If you did build
6 it there, you have all of that smoke in there behind
7 that -- with you anyway -- you'd be in there with all
8 of that smoke breathing anyway after you did barricade
9 yourself.

10 You-all seen in the report that
11 people died -- going back to the explosion and
12 barricade and all of them died, that you-all was
13 talking about that was barricaded. So it would be the
14 same thing, they can be barricading themselves and they
15 are just going to lay there and die too because the
16 rescuers can't get to them in time.

17 MR. OPPEGARD: In Eastern Kentucky a
18 lot of families depend on mining for a living, I'll use
19 Paul's family as an example. His mom now has seen one
20 son killed in a mining accident, another permanently
21 disabled in a roof fall. This was before the Kentucky
22 Darby accident. And now Paul permanently disabled and,
23 you know, barely surviving an accident. And Paul has
24 worked for a bunch of different coal operators, small
25 operators in Harlan County so, again, this is not

1 rehearsed.

2 But let me just ask you, Paul, do you
3 think that in the mines you worked at in Harlan County,
4 which are small operations, if an operator had a choice
5 between paying for a refuge chamber or having the
6 materials available to construct something in case of
7 an emergency, which do you think they're going to use?

8 MR. LEDFORD: Buy an \$80 roll-up
9 curtain and two timbers instead of a \$65,000 refuge
10 chamber. It's common sense. They claim they're broke
11 all the time, barely making it. They say they're not
12 making hardly any profit running the coal mines.
13 They're going to take the option of getting the curtain
14 and the two or three timbers set up, and there you go,
15 barricade yourself and be sitting there waiting to die
16 is what you would be doing.

17 MR. OPPEGARD: We have some good coal
18 operators and we have some outlaws and the outlaws are
19 going to do the cheapest thing they can. And maybe if
20 you have some good coal operators they're going to
21 invest in what's safest for the men, but I don't think
22 you can count on that. And that's why I think this
23 part of the rule just needs to be done away with. I
24 don't think it should be an option.

25 Let me ask Paul another question I

1 guess before I turn to some specific regulations.

2 Paul, just generally, there was you
3 and Bill and Paris and Roy all trying to escape from
4 the mine after the Darby explosion, can you talk about
5 whether you were ever disoriented or whether you were
6 able to keep your wits about you or just how you felt
7 when you were trying to escape.

8 MR. LEDFORD: First I kept my mind to
9 me, I knew where I was going and what I was going to
10 do. And then after we was separated I just kept going
11 and going and I kept getting tireder and tireder. And
12 then I realized, it just hit me that I was going to die
13 in there that night. And I asked the Lord to help me
14 so I could raise my family -- which is hard to -- it's
15 hard to go on everyday, to try to keep going. And I
16 obviously realized I was going to die that night. I
17 tried to stand up -- before I laid down I asked him to
18 help me so I could raise my family.

19 MR. OPPEGARD: And you know, I know
20 you-all know this, but all of those miners had SCRS
21 too. So they already had some assistance to try to get
22 out of the mine, and it still wasn't enough. Let me go
23 through a few -- I don't want to just concentrate on
24 the negative things or the problems we have with the
25 rule but be supportive of some things that I think are

1 very good.

2 And I know you-all took a lot of
3 criticism in West Virginia for the rule. I was not
4 sure after reading it, and then I heard some reference
5 to it today about if you already have a refuge chamber
6 in your mine you can keep what you have now, is it
7 grandfathered in for a certain period of time?

8 MS. SILVEY: It's grandfathered if
9 it's approved by the state, and the only state now that
10 has approved refuge chambers is West Virginia. So if
11 it's approved by the state or approved by MSHA in the
12 Emergency Response Plan.

13 And now, you might ask me why would
14 it be approved by MSHA, some of MSHA is allowing refuge
15 style plans, and I don't know how many have refuge
16 alternatives of refuge chambers to satisfy the
17 breathable air requirement. You-all know about the
18 breathable air requirement that's in place now.

19 MR. OPPEGARD: If a refuge chamber,
20 for instance, in West Virginia is grandfathered in, how
21 long is that good for?

22 MS. SILVEY: It will be until it's
23 replaced, or for the refuge alternative -- now, mind
24 you, West Virginia only has the prefabricated type. So
25 you don't have to -- in West Virginia, not the other

1 two alternatives that we included.

2 So they would be grandfathered until
3 replaced, or for a maximum of ten years for the
4 self-contained refuge alternative, and then for the
5 components until replaced or a maximum of five years.

6 MR. OPPEGARD: I think you need to
7 consider cutting down that grandfathering time from ten
8 years to a lower amount because I sort of feel the same
9 way Kenny Johnson does when he is saying that a miner
10 in a small mine deserves the same protection as the
11 miner in a large mine. I think a miner in West
12 Virginia deserves the same protections as any miner in
13 the United States. If you finalize a rule that
14 requires more space, for instance, or a longer supply
15 of food and water, I mean I support the 96 hour rule as
16 opposed to the 48 hour rule.

17 And I understand the whole theory
18 behind grandfathering, and they've already invested the
19 money and all of that, I understand that. But I think
20 you ought to cut down that grandfather period. Again,
21 I think it would be a big mistake if we have a disaster
22 in a West Virginia mine and they already have a
23 prefabbed refuge chamber and guys are in there and
24 there's 48 hours of breathable air and food and water
25 and you can't get to them for six days and they have

1 died. I mean that would look pretty bad. And I don't
2 see the point of saying just because we've built
3 something that we think is good enough that it is good
4 enough if the federal agency has a stronger
5 requirement.

6 And that's no different than any
7 other standard. If MSHA would pass a regulation
8 tomorrow that you have to have a bolting pattern every
9 three feet instead of every four feet, every state
10 would have to do that. And I don't see where it's any
11 skin off the nose of the West Virginia inspectors to
12 have a more stringent requirement. If anything it
13 should make their job easier. If you have to bolt
14 every three feet and in West Virginia you only have to
15 do it every four feet, well, they don't have to worry
16 about someone violating the roof control plan because
17 if you have to bolt every three feet it's going to
18 easily pass West Virginia.

19 So I think you need to err on the
20 side of the coal miners and not worry about what West
21 Virginia officials feel which is really just, in my
22 view they were carrying the water for the coal
23 operators in West Virginia. I think the coal operators
24 should have come and talked for themselves.

25 Going through some specific

1 requirements, the -- again, the 96 hour period, and I'm
2 speaking on behalf of the Kentucky Darby families now
3 that I'm representing. We support that requirement.

4 The requirement that a telephone or
5 an equivalent two-way facility that can be used from
6 inside, I think that absolutely should be in there.
7 That's an excellent requirement as well as the two-way
8 wireless system. This is in 7.504.

9 And 7.505, the requirement that the
10 airlock has to be configured to accommodate a stretcher
11 without compromising its function, I think that's
12 absolutely necessary. I think you realize, and most
13 people realize, that because you make it to a refuge
14 chamber doesn't mean that you have made it to a refuge
15 chamber without injury. You might have severely
16 injured miners who finally make their way there.

17 I think the requirement that there
18 has to be a measurement of outside gas concentrations
19 without exiting the structure or allowing entry of the
20 outside atmosphere, that's absolutely essential.
21 Again, these are things that I don't understand exactly
22 how you do it but I appreciate seeing it in the rule.

23 I'll mirror the same comments that
24 Wes made about trained persons can fully activate the
25 structure without the use of tools within ten minutes.

1 When I first read this I thought, well, this isn't as
2 bad as I thought it was. I thought they were saying
3 that you could just build something and that's not
4 really what it's saying. It's saying that you have to
5 be able to activate it in ten minutes. And then I saw,
6 oh, indeed, there is a process in there for building
7 something. I think they sort of conflict.

8 Again, under Section 7.505, the
9 requirement that the chamber, you be able to conduct a
10 pre-shift exam without entering the structure, I think
11 is essential, again, that you have to pre-shift these.

12 7.506, only uncontaminated breathable
13 air is allowed to be supplied to the refuge
14 alternative. I think that's absolutely essential. And
15 that the breathable air has to sustain each person for
16 96 hours is important. And we support those. I like
17 the part of your 7.506 where you are requiring fans or
18 compressors to be equipped with carbon monoxide
19 detectors located at the surface, I think that's a good
20 provision.

21 The -- in 7.507, Subsection A, each
22 refuge shall have an air monitoring component that
23 provides persons inside with the ability to determine
24 the concentrations of carbon dioxide, carbon monoxide,
25 et cetera, inside and outside. I think that is very

1 good. You need to keep that for sure. As well as the
2 Section 7.508(a)(1) where you are talking about purging
3 or other effective methods being provided for the
4 airtlock to dilute the carbon monoxide concentration. I
5 think that certainly needs to be retained.

6 Going to Part 75, the mandatory
7 safety standards, 75.360, the pre-shift exam at fixed
8 intervals, Subsection D, the person conducting the
9 pre-shift exam shall check the refuge alternative for
10 damage, the integrity of the tamper-evident seal, and
11 the mechanisms required to activate the refuge
12 alternative, and the ready availability of compressed
13 oxygen and air. I think that's essential to your rule
14 and I would want to compare that to what all of you
15 know has happened with SCSRs where when these checks
16 are made, frequently we have found SCSRs that are no
17 longer in working condition. And we certainly don't
18 want to require refuge chambers to be built and then
19 have something wrong with them when you go to use them.
20 So I think that provision for the pre-shift at fixed
21 intervals needs to be kept.

22 75.1505, Subsection B requiring that
23 all maps shall be kept up-to-date and any changes, et
24 cetera, et cetera, including the refuge alternatives
25 must be shown on the map at the end of the shift in

1 which the change is made. I think that's a good
2 requirement and I think that's something that MSHA
3 inspectors need to be aware of. If I'm not mistaken in
4 Kentucky Darby the escapeways were not properly marked
5 on the maps. And you know, one of the problems we
6 have, particularly in Eastern Kentucky is the failure
7 to really do quality training, for instance, on
8 escapeways.

9 I sat in on those Kentucky Darby
10 interviews and they were all over the board when they
11 asked the miners, tell us what a green symbol is in an
12 escapeway, or blue or red, or how were your primary
13 escapeways and secondary escapeways marked. And people
14 just didn't know. Some of them might have known but if
15 you took all of the answers, they were certainly not
16 consistent. They had not been adequately trained on
17 those escapeways. And the maps were not current. And
18 I think miners knowing where these refuge chambers are
19 is very important.

20 In 75.1506 I've already talked about
21 that, where the refuge chambers have to be located.
22 And I really think you need to revisit this, that they
23 could be located up to 2,000 feet away from the face.
24 And I guess one other point I want to make about that
25 is I'm not sure if there's an assumption built in here

1 that most explosions occur at the face, but that's, for
2 instance, Kentucky Darby that's not where the explosion
3 occurred. It was nowhere near the face. You know,
4 there's other instances too, for instance, if you have
5 a fire it's more likely to occur on the belt line,
6 somewhere that could be -- you could be a long way away
7 from the face and you have a fresh air fire.

8 So I don't think that there should be
9 an assumption that most disasters originate at the face
10 because most of them do not. We support the part of
11 the rule in 75.1506 where you are requiring a sign or
12 marker clearly indicating refuge posted conspicuously
13 at each chamber. I think that's a good idea. I would
14 like to see -- well, you say reflective material, I
15 guess I would like to have you talk with Mr. Hendren
16 and see how theirs are marked and just come up with the
17 best thing so that miners are able to see it in, again,
18 chaotic and dark and dusty conditions.

19 75.1507 about the prepositioning of
20 materials to construct a secure space -- I'm getting a
21 little confused, is that the part where you can have
22 the secure space or, again, is this for something you
23 would build within the ten minutes.

24 MS. SILVEY: Which one?

25 MR. OPPEGARD: 75.1507(a)(1), you are

1 saying Emergency Response Plan shall include the
2 following. I guess it is, again, for the
3 prepositioning and we've already said we don't support
4 that and think that needs to be withdrawn.

5 I also have reservations or we have
6 reservations about -- I'm trying to give you the right
7 number, it's 75.1507(d), Subsection D. If the refuge
8 alternative sustains persons for only 48 hours, the ERP
9 shall detail advanced arrangements that have been made
10 to ensure that persons who cannot be rescued within 48
11 hours will receive additional supplies to sustain them.
12 And then you talk down in Paragraph 2 about an analysis
13 to indicate about the surface terrain, the strata, the
14 capabilities of the drill rig and all other factors
15 that could effect drilling.

16 We're very dubious about that part of
17 the rule, again, I would really prefer to see you have
18 to have a refuge chamber underground and not opt for --
19 give operators an option to opt for something that to
20 me is pretty speculative. I mean we've all seen roof
21 control plans and other plans get passed around and
22 they've been Xeroxed a hundred times from mine to mine.
23 Some miners never even get to see them, even if they
24 ask to see them, and operators don't even know what's
25 in them sometimes. And I see the same thing happening

1 there, where you are going to say, well, we're going to
2 take a cheaper alternative so we're going to say we can
3 promptly drill into this secure location within 48
4 hours and, you know, you are going to borrow a plan
5 that some guy in the next county told you about and you
6 are not really on top of the situation.

7 And again, I don't think we need to
8 be in a situation where we have people in a quote,
9 unquote, secure place, that's a permanent location with
10 the capability to drill and they're in there and
11 they're injured. And then when it comes to drilling
12 you have all sorts of problems, you know, you haven't
13 made arrangements with a drilling rig or the strata
14 is -- the drill bits break. I'm just thinking about
15 all of the problems they had at Quecreek drilling down.

16 And I've been to that site too, it's
17 near my hometown, and it's right near the surface. And
18 there was a road right next to it. I mean it was like
19 the ideal situation to get a drill rig in there and
20 still they had problems. I think it's risky having
21 that in there and, again, I think too many people are
22 going to rely on that and may not be able to follow
23 through when an emergency actually takes place.

24 In conclusion, I think if we had had
25 refuge chambers at Sago and at Kentucky Darby, we

1 probably would have fourteen miners alive today who are
2 not. And you know, their families would have been
3 spared untold grief. And that's what we're trying to
4 do and what you are trying to do.

5 And so we appreciate your work on the
6 rule and ask you to take our comments into
7 consideration and do what's best for coal miners.
8 Thanks.

9 MS. SILVEY: Thank you, Tony. One of
10 the things in my opening statement I said -- I
11 mentioned that the approval requirements for the
12 communication facility should have been the same as
13 they were in Part 75. So I just want to bring that to
14 your attention because you commented on 7.504 which was
15 the communication one. You said the two-way wireless
16 but I just want you to know that the communication,
17 that provision should have been the same as it was for
18 75.1600 on that. It was a two-way communication
19 facility but the wording was supposed to be the same as
20 in 75.1600.

21 On the location of the refuge
22 alternative, I want everybody to hear this, and we take
23 into consideration what you said about, you know,
24 facilitating the location, these alternatives being
25 marked, and later we'll talk about that. But just so

1 you know, and I'm sure some of you do know this, that
2 other proposal that we have out now which we're going
3 to take comment on, have public hearings on in a couple
4 of weeks from now, as a matter of fact, we'll have
5 another hearing here in Lexington. That proposal does
6 have a provision in there to help facilitate the things
7 in the escapeway including the location of the
8 refuge -- some marking for the refuge alternative.
9 There are things in there to better facilitate escape
10 in terms of standardized signals, in terms of the means
11 of egress, how to get out of the escapeway. But also
12 tactile indicators.

13 And somebody -- I had to ask somebody
14 when we were writing the rule, what do you mean this
15 tactile indicator. And you-all probably know, but I'll
16 be honest, I have to confess, I really didn't. And
17 somebody said, well, you can feel the difference. So
18 anyway, the refuge alternative or the refuge chamber, I
19 should have brought one with me but for the next
20 hearing we'll take one. But it's a spiral-type
21 indicator, wire spiral thing so you can feel and you
22 know that you are approaching the refuge chamber. And
23 there are other things in there that you feel for and
24 you know what that means, you are getting to an
25 impediment in an escapeway. I don't want to turn this

1 hearing into that one but that part of it does relate
2 to a refuge alternative and it is a provision in there.

3 I want to ask you just one thing,
4 with respect to the -- with respect to the
5 prearrangements that you commented on, the
6 prearrangements, and I look forward to your comments
7 too, your specific -- hopefully before the record
8 closes. If the operator had the prearrangements
9 already made for connecting up to a bore hole, I mean
10 you know, everything prearranged, what's your feeling
11 on that for the connection to a bore hole?

12 And now I mean everything arranged,
13 not even having to go out and get the drill but have
14 the arrangements for everything, the contract in place,
15 et cetera, et cetera.

16 MR. OPPEGARD: This would be for the
17 secure place that's permanent; right? You are talking
18 about the bore hole that would be drilled?

19 MS. SILVEY: The bore hole.

20 MR. OPPEGARD: So am I correct
21 that --

22 MS. SILVEY: The bore hole would be
23 providing the breathable air. And supplies, it could
24 provide supplies too.

25 MR. OPPEGARD: So they would only be

1 required to have the 48 hours.

2 MS. SILVEY: Right. Or you can let
3 me know what you feel about that before --

4 MR. OPPEGARD: I think I probably
5 need to think that over.

6 MS. SILVEY: Sure, think that over
7 though. I don't want to put you on the spot. That's
8 the only thing I had. Did anybody else have anything?

9 MR. SHERER: I've got a couple of
10 things.

11 MR. OPPEGARD: Kenny just wanted to
12 make another comment if that's okay.

13 MR. JOHNSON: I meant to say it
14 earlier and I neglected to do that. About the hearing
15 itself. I had to start about 5 a.m. this morning.
16 Paul the same. We drove from Harlan County back in the
17 coal fields. Just the physical location of the hearing
18 itself is a problem. I think there would probably be
19 more actual coal miners attend this type of hearing if
20 it was held in closer proximity to where they live.
21 And it would be less burdensome on them financially.
22 Speaking for myself as well. Thank you.

23 MS. SILVEY: Okay.

24 MR. OPPEGARD: I think we had
25 mentioned that several times but it tends to fall on

1 deaf ears. And I know you-all have travel restrictions
2 too. But you never have many coal miners testify at
3 these things. I mean hardly ever. And we had two
4 widows who wanted to be here and they had car problems,
5 but they probably could have been there if it were in
6 Harlan. They could have found a way there but, you
7 know, traveling three hours or three and a half hours
8 is a whole different matter. And it would really, I
9 think, speak well for the agency if you made an effort
10 to inconvenience, although, it would inconvenience
11 yourselves it would be more amenable or more convenient
12 for coal miners and maybe would have some miners
13 testify. Because those are the people you need to hear
14 from more than anyone. Thank you.

15 MS. SILVEY: Thank you. Eric had
16 something.

17 MR. SHERER: If you don't mind.
18 First of all, I really appreciate your input and your
19 comments. Mr. Ledford, I especially appreciate your
20 input, I think you are in a unique position to help the
21 agency protect miners in the future.

22 As you know, we've got a new
23 regulation that we've put in place a couple of years
24 ago as far as emergency evacuation with life lines and
25 an additional SCSR. So if that would have been fully

1 implemented you would have hopefully had more
2 opportunities to get out.

3 Can you help us as far as addressing
4 where to put these emergency refuge alternatives,
5 particularly for outby people, I understand that you
6 were working outby, and how to get to them? Can you
7 help us out with some comments on that, please?

8 MR. LEDFORD: Can I get back with you
9 later and think about that a little bit?

10 MR. SHERER: Sure.

11 MR. LEDFORD: I'm going to think
12 about that.

13 MS. SILVEY: Anybody else have
14 anything? Okay. Well, Tony then on behalf of MSHA I
15 want to say that we appreciate, for you and for your
16 entire panel -- and to, again, to Ms. Thomas and Ms.
17 North, I didn't have to look down, I was trying to
18 remember, we appreciate very much your testimony.

19 And to Mr. Johnson, your assistance.

20 And then finally, Mr. Ledford. So on
21 behalf of MSHA, for you and your entire panel, we
22 appreciate it, again.

23 And we look forward to getting
24 comments from you, Mr. Addington, and also from you,
25 Tony, before the record closes on August the 18th.

1 Thank you.

2 MR. OPPEGARD: Thanks.

3 MS. SILVEY: At this point I guess
4 people are sort of looking at me. And they are
5 probably saying that they would like to take a break.
6 So you know, we had planned -- you know what they say,
7 that we'd sort of go on here. But I think I probably
8 should take a ten-minute break.

9 So please, within ten minutes if we
10 could reconvene here. We're just going to take a
11 ten-minute break and come back. I'm asking everybody
12 now, please. Thank you.

13 (A brief break is taken.)

14 MS. SILVEY: We will now reconvene
15 the Mine Safety and Health Administration's Public
16 Hearing on the agency's Proposed Rule on Refuge
17 Alternatives for Underground Coal Mines. Our next
18 speaker will be Stuart McLean, Mine Site Technologies.

19 MR. McLEAN: I provided these records
20 last week but I'd like these ones to be the ones I
21 officially enter.

22 MS. SILVEY: So the record will show
23 that the graphics which Mr. McLean is giving us today
24 will be the ones that are officially a part of the
25 public hearing record on the agency's proposal on

1 refuge alternatives. And that's today's date, 5
2 August, 2008.

3 MR. McLEAN: Firstly, thank you for
4 the opportunity to address the panel and yourself, Ms.
5 Silvey. As MSHA was soliciting comments on the
6 proposed two-way communication facility, Mine Site
7 Technologies is attending MSHA's public hearings and
8 making comments to inform MSHA that MST are actually
9 working on a dedicated and truly wireless solution for
10 communications with refuge structures.

11 Mine Site Technologies has spent
12 twenty years designing and developing mining-specific
13 communication systems dedicated for use in underground
14 coal environments, and always with an emphasis on
15 safety.

16 MST has been widely known for their
17 through-the-earth communications technology, and recent
18 collaboration with Australia's Commonwealth Scientific
19 and Industrial Research Organization have developed and
20 demonstrated a "Proof of Concept" two-way system highly
21 suited to refuge environments.

22 MST proposes a communication system
23 suited to a refuge and rescue environment consisting of
24 a near field bi-directional synchronous
25 through-the-earth communications link.

1 This link will provide the miner
2 retreating to a refuge with the ability to send and
3 receive text messages from the surface without any
4 dependence on extensive underground infrastructure such
5 as antennas, cables, or numerous underground nodes or
6 devices that would possibly be destroyed or severely
7 disabled in any major incident underground.

8 The communication link's proprietary
9 protocol and modulation scheme are noise-tolerant,
10 advantageous, self-adjusting, and specifically devised
11 to provide a robust transfer of data considerate of the
12 noise and geophysical strata typically associated with
13 underground coal mining environments.

14 The system consists of a permanently
15 fixed refuge based unit. We call this a slave, whilst
16 there will be a master on the surface. And it is
17 intended to be portable and will be deployed on the
18 surface above the refuge. The master could also be
19 deployed beside the refuge in case there was like a
20 rock fall or mine collapse or hazard.

21 Other than the different requirement
22 the components of the system are primarily what we call
23 a high sensitivity magnetic moment receiver, or a
24 receiving device; simple single turn transmit loop,
25 which is a coil of wire or just one turn of wire away

1 from the refuge bay, and within the actual refuge bay
2 would be the hardware and electronics and user
3 interface for the miner to use.

4 I have a few more points on this
5 piece of paper but they're probably a bit too technical
6 for this forum. And I'd like to invite everyone that
7 around lunch time we will set up a system to
8 demonstrate the principle operation of the system to
9 show you that we have proven concept system, that a
10 system exists, and we can explain to people how the
11 system is being used and employed.

12 And that's pretty much it for me.
13 And we'll set up the system at lunch time for people to
14 view.

15 MS. SILVEY: As we all know, Mr.
16 McLean, you testified at one of our prior hearings, I
17 believe our hearing in Charleston.

18 MR. McLEAN: Yes.

19 MS. SILVEY: West Virginia. And I
20 just have one comment really, as you said you want this
21 to be the graphic that was entered and part of the
22 record, but we're talking about a wireless
23 communication system and this graphic that -- with your
24 key notes here, I would just like to -- I know
25 everybody in the room is not looking at it, but --

1 MR. McLEAN: If I can anticipate your
2 question --

3 MS. SILVEY: You do, I know you can.
4 If this is marked, and I believe it's different from
5 the one you had the other day because I think it was
6 No. 8 that had this marking on the one the other day, I
7 might be wrong, and this one is Key No. 9 which shows
8 the permanent refuge loop, and you have here, usually
9 buried. So there is a part of it that is a wire loop
10 that's buried?

11 MR. McLEAN: The term wireless
12 communications simply infers there is no wires
13 connecting the transmit aspect of the system with the
14 receive aspect of the system. So I am talking to you
15 without wires as such but I need tools to talk to you.
16 Here we're using ears and a mouth. In these systems we
17 run a transmit antenna which would be the mouth, and a
18 receive antenna which would be the ears for each
19 system.

20 But in the current view of wireless
21 with a lot of underground systems that run
22 comprehensive backbone or infrastructure, the system
23 has no reliance on underground infrastructure that
24 would be a part of providing communications to a miner.
25 So this system is distinctly different but other than

1 what's there and around the refuge there is no reliance
2 on anything else.

3 MS. SILVEY: Except for this buried
4 loop, that's what I'm talking about.

5 MR. McLEAN: Yes. The loop is the
6 trick, the loop provides that magnetic moment to
7 transmit our signal up to the surface and vice versa,
8 from the surface back down. It's the type of antenna
9 that are used with those very special low frequency
10 systems.

11 MS. SILVEY: Okay. Thank you.

12 MR. McLEAN: Thank you. We'll see
13 you at lunch time then. Thank you.

14 MS. SILVEY: Our next speaker is Bill
15 Caylor with the Kentucky Coal Association. Mr. Caylor.

16 MR. CAYLOR: Madam Chairman and
17 Member of the Committee, my name is Bill Caylor. It's
18 spelled C-A-Y-L-O-R. I'm President of the Kentucky
19 Coal Association. The Kentucky Coal Association is the
20 trade association comprised of surface and underground
21 coal operations in both the Eastern and the Western
22 Kentucky coal fields. Our members mine a major portion
23 of Kentucky's coal.

24 The very first thing I would like to
25 say today is express my deepest condolences to the

1 families here today who have recently lost loved ones
2 and the many in the audience who have lost fathers,
3 grandfathers and relatives to accidents, mining
4 accidents over the many years. And let's also not
5 forget the other workers across America like
6 construction, manufacturing, farming, and a host of
7 other industries where many more lives have been lost
8 compared to coal mining. We need to strive today to
9 make all workplaces safer for workers, both coal and
10 non-coal.

11 Our industry is a very modern high
12 tech industry today compared to what it was many years
13 ago and we take great pride in workplace safety. We
14 have seen dramatic safety changes and improvements over
15 the coal miners' workplace over the years. Our
16 fatalities have continued to decline and we believe we
17 will see a year when we have no fatalities at our
18 workplace. And that date cannot come too soon as far
19 as I'm concerned. Our workplace injuries are
20 comparable to the average Kentucky worker. We have
21 fewer injuries than construction, manufacturing,
22 agricultural, and a host of other occupations.

23 On the handouts, I did this at 4:30
24 yesterday, and my secretary put in the wrong chart on
25 the left. I had actually done two charts, one that had

1 changed statistics. I did a seven-year chart on the
2 left, and then I did about a four-year chart on the
3 right. And the reason I changed the charts was because
4 they added health care and social assistance, and as
5 they modified the transportation warehousing so that it
6 wasn't apples and oranges. So I did a seven-year
7 period comparing injuries in the coal industry to other
8 occupations, and then I had to start brand new with the
9 latest four-year period comparing coal mining injuries
10 to other occupational injuries.

11 Now, this one on the left is a little
12 bit inaccurate so I want to get the correct one to you
13 at a later date. But both of them show that the
14 average coal miner in Kentucky, and these figures came
15 from US Department of Labor statistics, but the average
16 coal miner is as safe as the average worker when he
17 goes to work from injuries everyday.

18 And that holds true in the last four
19 years of statistics, that the average coal miner is as
20 safe as the average worker. Safer than construction,
21 manufacturing, transportation, agriculture, forestry,
22 fishing, and health care and social assistance. So
23 we've got to keep in mind that we are doing a good job
24 on improving workplace safety in the coal mines. We
25 don't want to lose sight of that.

1 But each fatality that we have is one
2 fatality too many and we strive for that day when we'll
3 see zero fatalities. On the next page you will see a
4 chart that we just graphed the number of fatalities
5 over the years. And you can see steady improvement. I
6 think that is due to a -- a lot of the credit of that
7 is due to the state and federal mine safety agencies as
8 well as the commitment to safety from coal companies.

9 We should never miss an opportunity
10 to inform the news press of our continuing improvement.
11 Last year we had two surface fatalities in Kentucky but
12 we had no underground fatalities. That was the first
13 year, I think -- it had been since November the 4th,
14 2006, and Johnny Green, you correct me if I'm wrong on
15 that date, but roughly that date, we went a full year
16 before we had an underground surface fatality. And
17 then we just had one a couple of weeks ago. So we went
18 at least one year, it was the first time since 1890, I
19 think 1890 when records were kept that we had zero
20 underground fatalities in Kentucky. And we were very
21 proud of that fact and, again, we are striving for no
22 fatalities because one fatality is one too many and
23 there's no excuse.

24 But when that was printed in the
25 press in the Herald Leader, we saw that, not on the

1 front section, but in the second section of the paper,
2 not on the front page but on the third page, and buried
3 at the very bottom of the third page. And we were very
4 frustrated that such improvements went unnoticed. And
5 I think that's a compliment to the industry, to state
6 safety agencies, and to MSHA for the hard work that
7 we've done over the years.

8 As an industry we are committed to
9 making refuge alternatives a viable option. As you
10 will note in our comments, we will express some
11 frustrations over the process and over some of the
12 specifications for the alternatives. Our intent is to
13 improve the function and sustainability of refuge
14 alternatives. Any quick solution to a problem brings
15 inherent logistical problems. These chambers and
16 alternatives are expensive and are a long way from
17 perfection. What we strive for are pragmatic solutions
18 that can improve and involve -- evolve overtime,
19 without unnecessary major financial expenditures.
20 These issues that we highlight do not argue against
21 safety of our miners, rather our comments argue for
22 building a better and sustainable refuge alternative.
23 Please keep this in mind when considering our comments.

24 The following are some general
25 concerns with the new proposed rule on refuge

1 alternatives: First I want like to speak to
2 grandfathering. Shelters good enough for existing
3 mines really should suffice for future mines when
4 they're moved. The proposed rules in the preamble are
5 confusing and they are in contradiction to the PIB
6 07-03. This PIB was issued and used by operators to
7 comply with the breathable air provisions of the MINER
8 Act. A great deal of money has been expended by coal
9 operators and vendors to provide refuge alternatives
10 much earlier, much earlier than the effective date and
11 now these refuge chambers appear to be required to be
12 discarded after five or ten years. The PIB 07-03 had
13 no guidance or requirements as to the surface area of
14 the volume for miners.

15 We question whether the requirement
16 for the ability to signal the surface from the refuge
17 alternatives should be required since this method has
18 not been deployed by MSHA in many years. The concern
19 is having to potentially leave the chamber to make
20 these signals. This could be unduly dangerous or
21 hazardous to the coal miner himself. The proposed
22 rules would require total redesign and reengineering of
23 the current refuge chambers/alternatives. And it is
24 unlikely these units that have been produced or are
25 currently in production could be modified to meet

1 proposed requirements. This requirement is viewed as
2 unduly penalizing those operators who, in good faith,
3 have ordered refuge chambers or constructed refuge
4 alternatives in advance to promote safety for their
5 workers.

6 Many coal companies have tried to be
7 proactive and be one of the first to comply with the
8 breathable provisions of the MINER Act, but now they
9 seem to be punished. These companies have dedicated a
10 lot of time and money and effort to constructing safe
11 havens and are confident they would provide a safe
12 shelter for miners for a proper period. They feel that
13 ten years should be a minimum length of time they
14 should be allowed to use their safe havens which have
15 currently been approved in their Emergency Response
16 Plans.

17 Grandfathered refuge chambers should
18 be allowed to be moved from mine to mine, if needed.
19 MSHA requests comments on the apparent temperature and
20 mitigation of heat stress and heat stroke. Comments
21 should address the generation of heat and the methods
22 for measuring heat stress on persons occupying the
23 refuge alternative. Another miner issue is lighting.
24 Lighting is an issue that was not initially addressed
25 but now is and we require design, engineering, and

1 retrofitti ng. MSHA shoul d consi der flexi bi lity on thi s
2 i ssue. Glow sticks, as an exampl e, are a very
3 effecti ve source of l ighti ng whi ch shoul d be consi dered
4 at l east. We al so bel i eve thi s proposal requi res
5 technol ogy that may not be currentl y availabl e. We
6 must be pragmati c i n our approach to solvi ng thi s
7 i ssue.

8 Now, unti l we have a hi story of how
9 refuge chambers hol d up we questi on why don' t we pl ace
10 a ten year replaceme nt. The proposed rul es woul d
11 requi re total redesi gn and reengi neeri ng of the current
12 refuge chamber al ternati ves and i t i s unli kely that
13 those uni ts al ready produced or currentl y i n producti on
14 coul d be modi fi ed to meet the proposed requi rements.
15 The proposal requi res technol ogy that many bel i eve are
16 not currentl y availabl e.

17 I n terms of needi ng addi ti onal ti me
18 for comments, MSHA acknowl edged i t had two years to
19 study thi s i ssue, and then to propose thi s rul e and to
20 expect the i ndustry to eval uate the comment wi thi n a
21 two-month peri od. We feel a l i ttle addi ti onal ti me i s
22 warranted for revi ew and comment, and respectf ul l y
23 request an extensi on on the comments peri od. And I
24 know we' ve got some restri cti ons from the MINER Act but
25 the abi lity to submi t some addi ti onal comments wi th a

1 little extra time, I think would be very helpful for
2 everybody.

3 In addition, the proposed rule has no
4 implementation schedule or effective dates but many
5 provisions that are not currently available and would
6 require extensive design, engineering, production and
7 implementation work, this needs to be addressed.

8 Now, regarding pre-shifting multiple
9 times daily. The proposed rule requires a pre-shift
10 examination. When in most cases the manufacture itself
11 requires only weekly examinations. The manufacturer's
12 recommendations we feel should be followed. It serves
13 no practical purpose to examine refuge chambers too
14 many times, especially when there are three shifts
15 working each day. This is a pragmatic problem. And I
16 want to give you an example of how it can be a
17 pragmatic problem.

18 There's one system currently in use
19 as a safe haven to provide breathable air that is not
20 hooked up to pressure gauges. The company stores
21 twelve compressed oxygen tanks in their safe haven, and
22 if they had to hook the pressure gauge up to each tank
23 every eight hours, which is every shift, which is the
24 time interval which is required for a pre-shift
25 everyday, it would leak valuable oxygen from the tank

1 that would be needed if an emergency did, in fact,
2 occur and they would have to eventually be replaced.

3 The company doesn't have time --
4 doesn't have their tanks hooked up during storage to
5 help prevent leakage, and they truly believe if the
6 tanks were hooked up a leak is more likely to occur.
7 Tanks that are hooked up during the transportation of
8 the safe haven sleds would have a much greater chance
9 to start leaking and, therefore, they believe that it
10 would not be of benefit for their employee's safety to
11 leave them hooked up during storage or transportation.

12 The oxygen tanks that are stored in
13 their safe haven sleds are fully enclosed and protected
14 in metal compartments and, therefore, the company
15 believes that if the tamper-evident seal is in place at
16 a weekly examination of a safe haven it would be
17 sufficient. And an examination after the safe haven
18 sleds are moved would be sufficient to ensure the
19 mechanisms required to activate the refuge alternative
20 and the ready availability of compressed oxygen and air
21 are in good working order.

22 Regarding expectation training, no
23 time frame, no implementation schedule has been
24 expressed. The requirement for expectation training is
25 complex and complicated. It would be difficult to

1 subject miners to the heat and humidity that miners
2 would be exposed to in the refuge alternative. No
3 expectation training is currently required and
4 simulators are not developed or available. The
5 proposed rules do not address an implementation
6 schedule in this area.

7 And I would like to make one note at
8 this point, where it was mentioned that there was a
9 failure of qualified training in east Kentucky, I don't
10 think that statement has any basis in fact. The MINER
11 Act has improved dramatically the training in smoky
12 conditions all over the United States and it is simply
13 unfair to try to single out east Kentucky as reportedly
14 showing having less training than any other area of the
15 United States.

16 The need to move refuge chambers from
17 section to section, there should be a maximum distance
18 for the refuge chamber to be located from the face but
19 there should not be a minimum. There should not be a
20 prohibition of placing the refuge alternative within
21 the line of sight of the bases due to mining plans and
22 conditions requiring such placement. There should not
23 be a requirement that a refuge alternative cannot be
24 placed within 500 feet radially of a belt drive, et
25 cetera, because limits imposed by mining plans or

1 mining conditions.

2 The provision requiring the location
3 of a refuge alternative where mechanized mining
4 equipment is being installed or removed would require
5 duplication and may affect fewer people than on a
6 normal active section. There may be only four to six
7 or fewer miners in these areas.

8 And I'd like to make another note at
9 this point, there is available rapidly inflatable seals
10 that inflate in a matter of one or two minutes which
11 seal off areas very, very tightly. They are safe and
12 quick alternatives available. We try to conduct
13 quarterly problem solving meetings down in Hazard,
14 Kentucky where we involve MSHA, the State, and the
15 mining industry. And many times we'll have vendors
16 come in. And we did have a vendor come in, and it's
17 almost like an inflatable life raft, that thing went up
18 immediately and it's a very tight seal. So there is
19 some very pragmatic solutions without having to
20 actually construct, take and try to construct an
21 alternative. So there is a lot of very valuable and
22 very effective alternatives in the marketplace today.

23 The need to tie refuge chamber
24 location from section, there should be a -- excuse me,
25 I just went over that --

1 There should not be a requirement
2 that miners be evacuated if the refuge chamber is
3 removed from service for some reason. The operator
4 should be able to provide an alternative that would
5 provide the same level of protection and continue to
6 operate.

7 Now I'd like to touch on the capacity
8 of the refuge chamber. The refuge alternative is an
9 emergency life saving product that should not be
10 required to be this spacious. The required 96 hours of
11 oxygen seems to be excessive and we recommend that it
12 be reduced to 48 hours. MSHA has not demonstrated the
13 need for 96 hours in its preamble in the proposed
14 regulation through example, incident, or research.

15 The use of 48 hours appears to be
16 confirmed as a reasonable value based on Table 4 on
17 Page 22 of the 2007 Foster Miller Phase II Chapter 3
18 study which was commissioned by NIOSH under the MINER
19 Act. In this report, NIOSH examined a total of twelve
20 past mining disasters where refuge stations would have
21 had a positive impact on saving lives. Table 4 of the
22 study indicates in all but one of the twelve cases
23 rescuers would have made contact with trapped miners
24 within 48 hours. We feel this indicates a substantial
25 safety factor compared to the proposed present 96 hours

1 and that as time increases so does the complexity of
2 sustaining trapped miners.

3 There have been many enhancements to
4 mine emergency programs and rescue capabilities over
5 the past two years. There has been a substantial
6 increase in the number of mine rescue teams since 2006
7 and the response time has been cut in half. There has
8 been a substantial increase in the number of SCSRs and
9 distribution of the SCSRs along escapeways. Additional
10 life lines, wireless communications, which are still
11 proving to be somewhat problematic, and individual
12 mine-tracking devices have been installed.

13 Substantial improvements in training
14 allows miners to better understand their escape
15 options, and there are many other improvements which
16 collectively will reduce the miners' need to barricade
17 as well as reduce rescue response time.

18 The proposed requirement of 15 square
19 feet and a minimum of 60 cubic feet of usable volume
20 per person is based more on comfort rather than
21 providing life-sustaining atmosphere to trapped miners,
22 and if implemented as currently written will
23 unnecessarily de-rate the occupancy and in some cases
24 preclude the use of these devices, especially in
25 thinner seams.

1 The other issue, miner issue, is
2 lighting. This issue was not initially addressed but
3 is now and would require design, engineering, and
4 retrofitting of existing refuge chambers.

5 I'd like to touch briefly on issues
6 that may arise on tracking and communication devices.
7 Communication devices are required in the refuge
8 alternative and MSHA seeks comments on this proposal
9 but there has not been a resolution of the wireless
10 communication required in the open portions of the
11 mines. We need to keep that in mind at this point.

12 We were pleased to see that the
13 proposed rule purports to grandfather state-approved
14 units, and we feel it is imperative that the final rule
15 clearly and unconditionally accepts current
16 state-approved units as meeting all requirements of
17 MSHA's rule on refuge alternatives, especially the
18 square footage and the volume requirements found in the
19 proposed rule. And that such grandfathering extends
20 for the life of the units or for a ten-year maximum
21 period at the minimum. Many states do not approve
22 refuge chambers and I think that includes Kentucky.
23 The proposed rule is not clear on this point as it
24 needs to be, and consequently widespread confusion
25 reigns within the industry as to the agency's intent on

1 this issue.

2 The question is very simple, will
3 breathable air solutions that have been approved in
4 mine-specific emergency action plans be acceptable?
5 Many of the chambers and alternatives have been
6 approved by MSHA in various states.

7 In closing I'd like to make three
8 points. Number one, the state mine rescue team concept
9 is very important. I feel like Kentucky has the best
10 state mine rescue teams or the best state rescue teams
11 in the nation. We're very proud of what Kentucky has
12 done and we would ensure that these teams remain
13 available. I think they're critical for mine rescue.
14 These are the guys that have the guts to go in, just
15 like firemen, into dangerous situations and rescue
16 people and many, many times they do not show concern
17 for their own safety like firemen. But they go after
18 people and try to rescue people and I'm very proud of
19 our state run rescue team.

20 The second point I'd like to mention
21 today is the need to focus on behavior modification. I
22 truly believe in my heart if we're going to take safety
23 to another level, we need to focus on the education of
24 the individual miner; not just for the miner himself or
25 for the operator, but more importantly for his family.

1 We need to teach the miner safe work habits. MSHA has
2 an excellent program of the "Walk and Talk" where we
3 sit and observe the miner as he works and try to teach
4 the miner safe work habits. We need to be more
5 teachers and less policemen writing tickets. I think
6 that's the way that we're going to take safety to the
7 next level.

8 And we can do that and we can do that
9 through what I call behavior modification. That is
10 scientifically -- that was shown to me by Dr. Hank
11 Cole, a doctor from the University of Kentucky many
12 years ago. And he sold me on that concept. And I
13 think that concept needs to be constantly reinforced,
14 like with MSHA's work on problems. I think we can do
15 more to teach safety principles and keep people alive
16 and teach them why it's important to work safely. And
17 the most important reason is for their families.

18 The third point I'd like to make is
19 just a statement. I think that coal miners truly are
20 American heroes providing cheap, dependable energy for
21 our country. Thank you very much.

22 MS. SILVEY: Thank you, Mr. Caylor.
23 I have a couple of comments and, first of all, I want
24 to comment on MSHA's proposed -- what we said included
25 in the proposed rule for the grandfathering and what we

1 said for the estimated -- in respect to that we talked
2 about an estimated service life.

3 Now, first of all, I'm sure that for
4 the manufacturers who are in the audience, and I know
5 we have some manufacturers in here that when -- for
6 those who either, one, have refuge alternatives
7 approved, the prefabricated self-contained ones or even
8 portions of refuge alternatives, either constructed in
9 place ones -- if you have refuge alternatives or
10 components approved I'm sure that in your -- or
11 alternatively, no pun intended, if you have refuge
12 alternatives in the process of being submitted, in the
13 process of being approved, that when you -- when your
14 material is all submitted at the end of the day you
15 will have suggestions for what you consider to be an
16 estimated service life for that alternative. That's
17 the first thing I want to say. I'm sure manufacturers
18 will have that in their many sets recommendations for a
19 lot of things, how to use, you know, what people should
20 be trained on, the significant elements of the refuge
21 alternative, and that type of thing.

22 We asked in our opening statement for
23 suggestions on the estimated service life, you know,
24 when we talked about the grandfathering provision we
25 included, and I'm going to reiterate here, for the

1 prefabricated unit we said we were grandfathering in
2 the state-approved units or the units that were
3 approved by MSHA in the ERP for the prefabricated one
4 for the -- until replaced or a ten-year maximum. For
5 the components we said until replaced or a five-year
6 maximum.

7 If you have suggestions for -- and
8 suggested alternatives to that, if you would include in
9 your comments any suggestions that you have and
10 specifically why, and I think Mr. Addington commented
11 on that earlier. And so now you, Mr. Caylor, and if
12 anybody has any suggestions, would you do that before
13 the comment period closes on the 18th.

14 I want to now go to a second comment
15 which is not in the order in which you raised them but
16 because it's in the order that I'm thinking about them.
17 And that is -- so I take note of the fact that you
18 requested an extension of time, I think that my opening
19 statement I also said time was of the essence, and I
20 think everybody here understands that. I said time was
21 of the essence because we have to develop a final rule
22 by December 31, that includes developing, going back --
23 let's say hypothetically, and I'm going to say more
24 than hypothetically, the record closes on the 18th of
25 August, then we've got to go back and develop a

1 final -- we've got to evaluate the comments and the
2 record and we've got to develop a final rule and we've
3 got to develop the preamble, we've got to develop the
4 Regulatory Economic Analysis, we've got to send it
5 through the Labor Department, we've got to send it
6 through OMB, and then we have to send it to the Federal
7 Register.

8 So that may look like a lot of time
9 but for everybody who is being -- not that I'm sort of
10 defending ourselves, or setting up in advance, but
11 that's really a real short period of time for doing
12 what we have to do. And I guess I say that with all
13 due respect to your request here today, that's almost
14 impossible to do but we're going to do it because we
15 have to do it. So that's one of the reasons I did put
16 in my opening statement that time was of the essence
17 and we probably were not going to be able to allow any
18 extensions of time.

19 Now, to specific comments, one of the
20 things you said, so for anybody who says this, that the
21 PIB 07-03, and for those of you who don't know that
22 happens to have been the PIB on breathable air, had no
23 guidance or requirements as to surface area or volume
24 for miners. And it didn't have any guidance on surface
25 area volume because it was the PIB on breathable air,

1 it was not the PIB on refuge alternatives. Just so
2 people will know that. And you know it's hard -- I've
3 been saying that and saying that and saying that. So I
4 say it one more time. It doesn't hurt to say it one
5 more time.

6 On the -- if you have any comments on
7 the apparent temperature and mitigation of heat stress
8 and heat stroke, we ask for comments on that so if you
9 have anything that you intend any additional to get to
10 us, please do that. And I mentioned this earlier at
11 some point, I think we all take notice of the fact that
12 some of this -- some of the issues involved in refuge
13 alternatives do involve developing technology. So for
14 all of the people who are involved in this, we
15 appreciate your efforts but yet we know that by
16 December 31st we have to put something in place.

17 So for everybody here, and I say that
18 for everybody, I think what that means is we do make
19 the best decisions we can and do the best job that we
20 can, and particularly with respect to training and
21 other elements, and then, you know, because -- and
22 somewhat because it's developing technology. As I
23 said, we do the best we can and then if there comes the
24 time when we have to learn from that best, then we just
25 have to do whatever, you know, make whatever

1 improvements that we have to.

2 Mr. Caylor, when you said, and you
3 said this another time too, I'm going to get to it, the
4 proposal requires technology that many believe is not
5 currently available. And I believe over here somewhere
6 else you talked about the technology. If you would, in
7 anyplace where you think -- here it is, many provisions
8 that are not currently available. If there are any
9 specifics that you have where the proposal has
10 requirements that are not currently available, if you
11 would be as specific as possible with respect to those
12 provisions.

13 MR. CAYLOR: We will get that to you.

14 MS. SILVEY: Okay. And then finally,
15 on the -- I guess the last -- I have two more comments.
16 The last one is on the expectations training, and you
17 said there was no time frame. There was a -- we
18 proposed that that be annual expectations training for
19 the miners in the use, the activation, and there was
20 one other -- we said construction, if applicable. And
21 yet we understand several people's comments about the
22 ones to be constructed. But that was annual
23 expectations training.

24 And what we -- when we did our
25 estimate of the impact of the rule we estimated that

1 most operators would chose to do this annual
2 expectations training, to schedule it along with their
3 annual expectations training for the emergency mine
4 evacuation rule. And that they had to, because we
5 didn't require that they do that, but that's -- we
6 thought that they might schedule it at that same time
7 since it would be annual expectations training.

8 Now, while we're talking about annual
9 expectations training, because we do believe that that
10 is a very important element in the proposal, I would
11 also appeal to the manufacturer's again that as they
12 finish their units and with respect to their
13 recommendations, if they have any suggestions relative
14 to training if they would -- in their material, if they
15 would include that also.

16 And then the final thing, you
17 commented on the capacity of the refuge chamber, and
18 we've gotten comments on that. We got comments from
19 the state of West Virginia on that. And this goes for
20 anybody in the room too, if you have a suggestion to
21 the space and volume requirements that we included in
22 the proposal, would you be specific. I'm not asking
23 you to do it right now, I could ask you, do you have an
24 alternative suggestion to the 15 square feet of space
25 and the 60 cubic feet of volume that we included in the

1 proposal? But you know, I'm not putting anybody on the
2 spot. If you don't have a suggestion right now, if you
3 would provide that to us before the record closes on
4 the 18th I would be most appreciative of that.

5 MR. CAYLOR: Will do.

6 MS. SILVEY: Those are only comments
7 that I have. Do you-all have anything?

8 MR. SHERER: Mr. Caylor, at one point
9 in time you were talking about removing a refuge
10 alternative from service and allowing the operator to
11 continue to operate if some -- let's see, alternative
12 that would provide the same level of protection could
13 be available. Could you expand on that or tell us what
14 you mean?

15 MR. CAYLOR: Well, that could be like
16 the inflatable. If they had a sled, a chamber and they
17 took that out, they could put the inflatable unit in
18 that would inflate within a minute. There's other
19 alternatives that could go in that would be pragmatic
20 that may or may not be the best alternative but it
21 would be for a short-term alternative.

22 MR. SHERER: Thank you.

23 MS. SILVEY: Okay. Well, then, I
24 don't think we have any further comments or questions,
25 Mr. Caylor. But we would be, as I said earlier, we

1 would be most appreciative if on the things you
2 included in your comments and further comments I asked
3 you, if you would provide those specifics to us before
4 the record closes.

5 MR. CAYLOR: I will get this back to
6 the industry in general and we'll try collectively to
7 respond to those excellent questions.

8 MS. SILVEY: Okay.

9 MR. CAYLOR: Thank you very much.

10 MS. SILVEY: Thank you very much for
11 your comments. At this point I sort of have two
12 options here. And I'm looking at everybody and I sort
13 of know what option I would take. So maybe I will just
14 do that. And Mr. Hendren, where is Mr. Hendren?

15 MR. HENDREN: Right here, ma'am.

16 MS. SILVEY: The option is that we
17 would recess for a period of time, hopefully not too
18 long, and take a walk through the refuge chamber that's
19 out on the parking lot and then reconvene and have Mr.
20 Hendren come back, because I'm sure the panel will
21 probably have a few questions to ask you after the
22 walk-through.

23 And the other option is to reconvene
24 for lunch and then do this after lunch. Okay. Well, I
25 guess we could reconvene for lunch. And we'll

1 reconvene for lunch and come back after lunch. So
2 would people please come back after lunch at -- it's
3 about 12:05. Could you please come back in one hour,
4 please, and we will reconvene at that time.

5 (A brief break is taken at
6 12:05 p.m.)

7 MS. SILVEY: We will now reconvene
8 the Mine Safety and Health Administration Public
9 Hearing on the Proposed Rule on Refuge Alternatives for
10 Underground Coal Mines.

11 At this time the panel will take a
12 walk-through through a refuge alternative. CD -- at
13 this time the panel will take a walk-through through
14 the refuge alternative that has been brought here by
15 Mr. Connie Hendren of CD Safe Shields, Inc. After the
16 walk-through we will come back and we will be -- Mr.
17 Hendren will be available to answer any -- and
18 representatives of his company, to answer any questions
19 which the panel might have. So at this time we will
20 take a walk-through of the refuge chamber.

21 (A brief break is taken
22 at 1:07 p.m.)

23 MS. SILVEY: At this time we will
24 continue with the Mine Safety and Health
25 Administration's Public Hearing on the agency's

1 Proposal on Refuge Alternatives.

2 I think we may have -- I first want
3 to say that we appreciate CD Safe Shield and the
4 walk-through that we got of the refuge chamber and
5 maybe some of us may have a few comments, questions
6 that we might want to ask. And that's where we are.

7 You heard this morning, I know
8 you-all sat through the testimony we heard this
9 morning. And I believe it was Mr. Caylor who made
10 comments on the examination and the pre-shift. And as
11 he did that I believe he was talking about one of the
12 chambers that was already in the mines. And he was
13 talking about the manufacturer had recommended weekly
14 examination of that particular chamber. And I was
15 looking at the one outside, do you-all make any
16 recommendations on examination of yours yet, or have
17 you?

18 MR. HENDREN: To date we're looking
19 more in the form of a monthly, rather than a weekly.
20 You can do whatever you want to do. I'll tell you,
21 from what I understand the reason that that particular
22 unit is needing to be examined on a weekly basis is
23 because the possibility of problems that could occur
24 with the system, the roof system itself, and them not
25 knowing. And I think that would be a smart move on

1 their part with doing that. If there's a problem with
2 our unit I think it could be checked from the exterior
3 and it could be seen from the exterior.

4 If there's a problem with the
5 inflatable unit, you can have a rip in it and not know
6 it until you go to inflate it. And NIOSH had a problem
7 with that when they started doing that. So I would
8 suggest for us on a monthly basis.

9 MS. SILVEY: Okay.

10 MR. GEVEDON: From a design
11 standpoint I don't think you could ever check a piece
12 of safety equipment often enough, just due to the
13 nature of it. But it's similar to your smoke detector,
14 you trust the batteries are in. There's a situation
15 where it's not, you are asking for logging and
16 monitoring that could be set up very simply in
17 relationship to testing this.

18 And actually, we've got it down to --
19 there's four applicable things that would need to be
20 viewed and inspected, you have got your voltage, your
21 air supply that guarantees you have got your pressures,
22 which is a pressure dial and your voltage unit, and
23 then you have the two subsequent tests.

24 Now, they are asking for a structural
25 test periodically so if you are testing fourteen times

1 a day you will have to replace your test air, but it
2 takes a very small amount of test air to actually test
3 the integrity of the two chambers. But that's not your
4 livable air, that's testing air.

5 So if periodically the unit needed to
6 be opened and the actual testing air replaced, that's
7 very doable and very simple in relationship to it.

8 MS. SILVEY: Well, you know the
9 saying, what is it, a picture is worth a thousand
10 words. So I will say that I was glad to walk through
11 that and see it. With respect to some of the things
12 that you showed us, for example, the CO₂ absorption
13 system and you had -- obviously you had the food and
14 the water. And it got me to thinking that there are
15 things that the miners have to do, it appears to me,
16 things that they have to be familiar with.

17 And then you heard me say this
18 earlier, have you-all thought about, and I didn't look
19 through your book yet, have you-all done any training
20 materials or have you thought about doing that?

21 MR. GEVEDON: If you will look
22 through, no need to thumb through that, it is fairly
23 healthy, but as you look through under those sections
24 we've outlined the type of pictorial training material
25 that we would prefer to use. It would all be charted

1 and hung. It was recommended that due to the
2 situation, basically the consultants we asked said
3 basically can you keep it completely pictorial? You
4 look at the picture and you do whatever the picture
5 shows. You don't have to read anything or calculate or
6 tabulate or these types of things, which is one reason
7 we moved away from gauges basically to indicator
8 lights, if all of your lights are lit and green, you
9 are in good shape; if you have got some yellow ones,
10 uh-oh, you have got a problem; you have got red ones,
11 do something about it now.

12 You will find through, I won't take
13 you to school on the book, but you will find some
14 examples of the type of cartoon we will use to
15 demonstrate these. And I'll give you an example, you
16 don't have to be able to speak English to pull the card
17 from the back of the seat on the airplane to look and
18 see how to get out of the slide. We will keep it
19 absolutely as simple as possible for the purposes of
20 making it as effective as possible, so there's very
21 little chance for someone to also -- most of the
22 systems are basically tamperproof. You can leave the
23 air but it will meter itself out and shut down, so
24 there's really nothing you can do under duress like
25 pull the wrong lever and have any difficulties

1 accordi ngly. I hope I answered your questi on.

2 MS. SILVEY: I think you have. I was
3 going to say, so we have this requirement in the
4 proposed rule, the proposal for annual expectations
5 training which said that miners will, you know, take
6 the training on actually -- sort of like simulated
7 process of what they will go through to get it started,
8 you know, if they were in an actual emergency
9 si tuati on.

10 You heard -- well, you may not have
11 heard because it might have been at the Charleston
12 hearing, one of the persons who testified said --
13 because we said -- one of the things we said that they
14 shoul d be exposed to actual heat and humi di ty
15 condi ti ons. One of the commenters said that they
16 didn't think that mi ners shoul d be exposed to the
17 actual heat and humi di ty condi ti ons. Do you have a
18 comment on that? Or if you don't have a comment now if
19 you have a comment before the record closes, because
20 I'm not trying to put anybody on the spot.

21 MR. HENDREN: Well, one thing I would
22 say, certainly, if they're exposed to this they would
23 be more likely to understand how they would react to
24 it. And when you get a controlled atmosphere, an
25 envi ronment, you are going to make deci si ons that you

1 are not going to make when it's not controlled. And
2 that's really -- I'm not trying to talk on both sides
3 of my mouth but that's how I would answer that
4 question.

5 MS. SILVEY: I don't have any more
6 comment. You have some comments. I might but I'll
7 think about it.

8 MR. EPPERLY: You made a comment
9 outside pertaining to the area and volume for that
10 particular unit, and from what I saw it looked like the
11 space for where the miners would be would be eight feet
12 by eight feet by four feet for this particular unit,
13 which is 256 cubic feet.

14 And you understand too, with our
15 process that if you don't agree with what the proposed
16 rules were pertaining to 15 and 60 -- I kind of got you
17 thought maybe those numbers you don't agree with. So
18 we'd like to -- if you do have comments we would like
19 to get those as to what you feel is the proper or
20 correct amount of space.

21 MS. SILVEY: Your recommended space
22 and volume.

23 MR. HENDREN: You understand what
24 we've done is we've put four people in that space and
25 then we've put six people in that space and, you know,

1 it's just a general -- not necessarily a disagreement
2 but an assumption on how you feel this space is used.

3 We feel like because a stool can be
4 placed on that area that you can have a place for your
5 feet, for your backside, and for your back and head
6 that four panels at two feet wide gives you 16 square
7 feet. And we will certainly send our recommendation to
8 that.

9 I certainly believe that it's way too
10 much personally, you do not need two panels wide to sit
11 on this and to move around on it, you know, but that's
12 our opinion. But we've tried it so many different
13 ways, and the thing about it is, of course, mine
14 companies want to get the most they can for their money
15 and everybody that we've shown it to feel like that one
16 seat per one person. And it certainly, you know, four
17 days may make a difference in how you are in there.
18 How many people are going to be in there four days. I
19 heard this morning that 48 hours would be enough air,
20 you know, it may be for them but if I'm in there I want
21 four days because I think it may take four days.

22 So one seat, we think, is wide
23 enough, big enough for it.

24 MS. SILVEY: I think then to
25 follow-up on what Howard was saying, that's kind of

1 what we wanted your recommendation, what you recommend
2 for the space and volume.

3 MR. HENDREN: We'll do that.

4 MS. SILVEY: If you want to submit
5 that to us, you can do that.

6 MR. HENDREN: Thank you very much.
7 Thank you.

8 MR. SHERER: I've got a related
9 comment. I notice that your airlock takes up quite a
10 bit of space, is there some way you could possibly
11 consider using that for shelter purposes, moving people
12 in and out of the different compartments as people need
13 to use the airlock.

14 MR. GEVEDON: Yes. This is -- and
15 the discussion that was started out there was the
16 airlock on that particular unit had been designed to
17 cycle people in and out and was approximately four feet
18 wide. The need for an airlock is not disputed. The
19 need for the change out and the wash out of
20 contaminants in the airlock are understood.

21 There are a couple of applications
22 that we're looking at that I am going to be submitting
23 that might look at a landscape that looks for the fact
24 that if we can minimize contamination of that it does
25 become a living area.

1 The reason that antechamber is so
2 long, according to the landscape now, we have to be
3 able to enter and exit cleanly, which means
4 non-contaminated, with a stretcher. So it's six feet
5 long for the purposes of getting two rescue people
6 and -- to give you an example, when we started building
7 doors our rescue consultants came in and said listen,
8 make them this wide and I said why? He said so I can
9 get through there with all of my gear on and actually
10 assist.

11 So the need for that stretched out in
12 relationship to getting a stretcher in and out. Now,
13 during our recommendation on some of that we're going
14 to show you some testing that we've been doing on
15 something that will allow me the ability to -- not wash
16 that out is important, but my ability to basically run
17 people into a safe environment as quickly and
18 effortlessly as possible.

19 And you will see during the white
20 paper our primary concern, the airlock itself currently
21 the way it sits is not technically living space due to
22 the fact that the redundancy of change outs in the air
23 would require you to keep it set up. Now, you open the
24 door between the living chamber and the airlock, you
25 immediately have warm air in there. So when you close

1 it you retain some. To give you an example though, we
2 at least did try to trap that. You noticed a venturi an
3 air system back in. If you were exiting the living
4 chamber and there's good air in the airlock, we can
5 pull that back in. And we can try to save some of that
6 by one way pulling it back in and then entering into
7 the airlock and moving out.

8 So I believe we have a couple of
9 recommendations that hopefully might make a little
10 better unit in relationship to getting people in and
11 out of it and conserving breathable air. So that's one
12 suggestion that we would very much appreciate the
13 opportunity to make because it might thin out a little
14 bit.

15 But if you notice however, our unit
16 currently meets specs. We can take a stretcher, we
17 have enough air to change it out three times, and it
18 does have doors that close on both sides. So we've
19 maintained some flexibility as this continues so that
20 we can try to meet whatever needs are required.

21 MR. HENDREN: When the unit went from
22 four to sixteen in order to carry the stretcher, not
23 only did you make the antechamber longer, you have got,
24 of course, more air to change out, so the calculations
25 moved all of the way around. So it was a trickle-down

1 effect.

2 MR. GEVEDON: Somebody had asked, if
3 you would like to look at Page 162, I won't monopolize
4 this, but when a question is asked and it can be
5 answered -- I'll save you the time and trouble. You
6 can see it here.

7 We're looking basically at using as
8 much graphic illustration as we can to show the
9 systems. So if I can minimize the language almost to
10 nil I will. So if you were a German visiting, a
11 Japanese person visiting or something it would be that
12 simple.

13 My end goal would be to have all
14 systems in operation on this, and we got talked to
15 about this pretty good by most of our consultants,
16 simple enough in an emergency situation for anyone to
17 try to understand. So like I said, we will be making
18 these systems as inherently simple as possible. If you
19 have to change a regulator or do this or do that,
20 hanging next to it will be the card that shows you how
21 to do this. And if we have to put in some verbiage
22 that's one thing, but like I said, I would like to see
23 these systems simple enough that these people don't
24 have to learn anything.

25 Now, that type of simplicity

1 hopefully would fall back under your training program
2 where most people understand you pull the pin, point
3 the fire extinguisher at the fire, and squeeze on the
4 handle. And you may not have done it but you have seen
5 it done and it would function. I would like to have
6 the system that simple for purpose of doing it so you
7 can't mess anything up.

8 MR. HENDREN: And an example of this
9 diagram versus being typed up. I can take my glasses
10 and read it typed up. If I'm in an incident in the
11 mine and break my glasses or lose my glasses, I can't
12 read this. But I can see the diagram on it. So we're
13 looking at all aspects of this.

14 MS. SILVEY: Okay. We appreciate
15 very much the demonstration as well as, you know, your
16 staying to answer any questions that we have. A couple
17 of questions, I think, we asked you if you would
18 provide them to us before the record closes. And if
19 you think about anything else that you think will be
20 useful in terms of some of the issues that were raised
21 this morning and the things that we talked about. And
22 particularly, training or any of the ways the chamber
23 was designed or anything like that, we would be very
24 interested and appreciative of whatever information you
25 might want to send.

1 MR. HENDREN: Thank you all so much
2 for your time and for listening to us.

3 MR. GEVEDON: Mr. Sherer, as we send
4 this information, the format, the person, the
5 website --

6 MS. SILVEY: Just follow the
7 directions in the proposed rule, please.

8 MR. GEVEDON: All right.

9 MS. SILVEY: Any one of the four
10 formats listed in the proposed rule because that will
11 efficiently get it to us and make it a part of the
12 record. And as I said earlier, all of the material
13 then will be eventually put on -- will soon be put on
14 our website.

15 MR. GEVEDON: We've also, if you
16 noticed, I don't want you to turn, but in the front of
17 the book we used the approval application listing an as
18 index. As we send you those for clarity we'll try to
19 refine it. If you did have a question about something
20 you were asking I believe this book was built as a
21 communications document.

22 We can say, listen, on Page 132 we
23 showed this but this is better or that's better. So
24 we'll try to be as specific as possible. And in
25 reviewing that you should be able to locate that

1 information very quickly for the purposes of
2 understanding the specifics of what we're asking or
3 what we're proposing.

4 MS. SILVEY: Then let's get one thing
5 very clear, so the document you gave us today you are
6 submitting that to us today then?

7 MR. HENDREN: We're submitting that
8 document for information purposes.

9 MR. GEVEDON: Only as a draft.

10 MR. HENDREN: You will see draft on
11 the front.

12 MS. SILVEY: So you are not
13 officially submitting that in the record?

14 MR. GEVEDON: It's a communications
15 document.

16 MR. HENDREN: If there's a question a
17 week from now you had about something that was said,
18 you can turn and get our answers to those questions.

19 MR. GEVEDON: And we were fortunate
20 enough to go to the MSHA people, and we used this
21 basically as a communications document so if we had a
22 question or they had a question we could refer to the
23 same information and be quote, unquote, on the same
24 page.

25 So this is merely an information

1 document, but when we submit we'll try to refer it back
2 to this section and this heading and keep it as concise
3 as possible for clarity.

4 MR. HENDREN: Thank you very much.

5 MS. SILVEY: Okay. Thank you.

6 MR. HENDREN: Are we excused?

7 MS. SILVEY: Yes. Thank you. At
8 this time is there anybody else in the audience who
9 wishes to make a comment, additional comment? Anybody
10 else?

11 If nobody else wishes to make a
12 comment, then I want to say on behalf of MSHA that we
13 appreciate your comment today. For those who came and
14 did not testify, we appreciate your attendance today
15 because that showed that you had an interest in this
16 rule making.

17 As I stated earlier we will take the
18 comments and testimony and we will go back and try to
19 develop the best and most appropriate final rule that
20 we can. For those of you who did state that you would
21 send us additional comments, please try to do so before
22 the record closes on August 18th.

23 Again, we appreciate everybody's
24 attendance and this hearing is now concluded.

25 (Whereupon, the hearing was concluded at 2:10 p.m.)

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STATE OF KENTUCKY)
COUNTY OF FAYETTE)

I, SUSAN R. ELSENSOHN, Certified Court Reporter and Notary Public, State of Kentucky at Large, certify that said testimony was taken down in stenotype by me and later reduced to typewriting, by computer, under my direction.

My commission expires: September 5, 2010.

In testimony whereof, I have hereunto set my hand and seal of office on this the ____ day of _____, 2008.

SUSAN R. ELSENSOHN
Certified Court Reporter
Certification No. 95010
Notary Public, State-at-Large