TRANSCRIPT OF PROCEEDINGS

IN THE MATTER OF:

PUBLIC HEARING ON PROXIMITY DETECTION SYSTEMS FOR CONTINUOUS MINING MACHINES IN UNDERGROUND COAL MINES

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IN THE MINE SAFETY AND HEALTH ADMINISTRATION

IN THE MATTER OF:

PUBLIC HEARING ON PROXIMITY DETECTION SYSTEMS FOR CONTINUOUS MINING MACHINES IN UNDERGROUND COAL MINES

Washington, Pennsylvania
Tuesday
October 25, 2011

APPEARANCES

MSHA Panel:

ROSLYN FONTAINE, DAVE CHIRDON, WILLIAM BAUGHMAN, MATTHEW WARD

Speakers:

R. HENRY MOORE, Pennsylvania Coal Association
JAMES LAMONT, United Mine Workers Association
RON BOWERSOX, United Mine Workers Association
JOHN M. GALLICK, Alpha National Resources
TERRY J. THEYS, Alpha National Resources
TODD MOORE, Consol Energy Coal Operations
MODERATOR FONTAINE: Good morning. We're going to get started.

Good morning. My name is Roslyn Fontaine, and I am the acting Director for the Office of Standards, Regulations, and Variances for the Mine Safety and Health Administration.

I will be the moderator for this public hearing on MSHA's Proposed Rule On Proximity Detection Systems for Continuous Mining Machines in Underground Coal Mines. On behalf of the Assistant Secretary of Labor for Mine Safety and Health, Joseph A. Main, I want to welcome all of you here today.

I would like to introduce the members of the MSHA Panel. To my right, is Dave Chirdon with MSHA's Approval and Certification Center; to my immediate left, is Bill Baughman with the Office of Standards; and to my far left is Matt Ward with the Department of Labor and Office of the Solicitor.

In response to requests from the public, MSHA is holding public hearings on its Proposed Rule for Proximity Detection Systems for Continuous Mining Machines in Underground Coal Mines. This is the third public hearing on this proposal. The fourth hearing will
be held in Evansville, Indiana on Thursday, October 27th. The purpose of this hearing is to receive information from the public that will help MSHA evaluate the requirements in the proposal and produce a final rule that will improve safety conditions at underground coal mines.

As most of you know, the hearings will be conducted in an informal manner. Formal Rules of Evidence will not apply. The Hearing Panel may ask questions of speakers, and speakers may ask questions of the Panel.

Speakers and other attendees may present information to the court reporter for inclusion in the rulemaking record. MSHA will accept written comments for the record and other appropriate information for the record from any interested party, including those not presenting oral statements.

We ask everyone in attendance to sign in on the attendance sheet at the table to the right.

MSHA's proposal is to require use of proximity detection systems on continuous mining machines in underground coal mines, according to a phased-in schedule. This rule would help protect miners from pinning, crushing, and striking hazards that result from working too close with continuous mining machines in
underground coal mines. The proposal would also establish performance and maintenance requirements for proximity detection systems and require training for miners conducting installation and maintenance of these systems. The proposed rule is an important part in the Department of Labor's "Plan, Prevent, and Protect" strategy for protecting workers. MSHA requests comments from the mining community on all aspects of the proposed rule and is particularly interested in comments that address alternatives to key provisions in the proposal. Commenters are requested to be specific in their comments and submit detailed rationale and supporting documentation for suggested alternatives.

At this point, I would like to reiterate some of the requests for comment and information that were included in the Preamble to the proposed rule.

As stated in the proposal, MSHA proposes to phase in the use of proximity detection systems over an 18-month period. Continuous mining machines manufactured after the date of publication of a final rule would be required to be equipped with a proximity detection system three months after the date of publication of a final rule. Continuous mining machines manufactured on or before the date of publication of a final rule would be required to be equipped with a proximity detection system.
18 months after the date of publication of a final rule. The Agency requests comments on the proposed compliance dates, considering the availability of systems, the time necessary to process approvals for proximity detection systems, and projected time needed to install systems. MSHA proposes to require the use of proximity detection systems that cause a machine to stop no closer than 3 feet from a miner. The continuous mining machine operator would be allowed to be closer than 3 feet only when the machine is cutting coal or rock. However, the proximity detection system would be required to prevent contact with the machine operator. MSHA considered proposing other specific stopping distances and a performance-oriented requirement that would not have included a specific distance. MSHA requests comments on this proposed provision, including whether a greater distance or a performance-based approach would be effective alternatives to the proposed 3-foot stopping distance requirement. Some proximity detection systems on continuous mining machines are installed to stop machine tram movement and the conveyor swing function when the system is activated, while permitting other machine movement, such as rotation of the cutter head and movement of the gathering arms.
MSHA requests comments on whether all movement should be stopped or under what, if any, circumstances would be acceptable for continuous mining machines to continue moving.

The proposed rule does not cover full-face continuous mining machines. A full-face continuous mining machine includes integral roof bolting equipment and develops the full width of the mine entry in a single cut, generally, without having to change its location.

The Agency is interested in whether full-face continuous mining machines should be equipped with a proximity detection system; and, if so, why? Each of the three proximity detection systems approved for underground coal mines in the United States requires use of a miner-wearable component. These systems cannot detect a miner who is not wearing the component. MSHA solicits comments on which miners working around continuous mining machines should be required to have a miner-wearable component.

Most proximity detection systems alert miners who get within a certain distance of a machine before causing machine movement to stop. This provides an added margin of safety and is consistent with most standard safety practices. The Agency recognizes that the use of a proximity detection system that causes frequent machine
stops can result in frustration to miners, miners ignoring warnings, and can possibly lead to unsafe work practices. MSHA believes that an appropriate warning signal is necessary to optimize safety of miners when a proximity detection system is used. MSHA requests comments on this provision, including whether a greater distance or a performance-based approach would be effective alternatives to the proposed 5-foot distance requirement for the warning signal.

MSHA's estimates of the benefits and costs of the proposal are given in detail in the Preliminary Regulatory Economic Analysis and summarized in the Preamble. MSHA requests comments on the proposed estimated benefits and costs.

As you address the proposed provisions, either in your testimony today or in your written comments, please be as specific as possible. We cannot sufficiently evaluate general comments.

As I said earlier, please include any suggested alternatives, including those of a performance-based nature, your rationale, the benefits to miners, any technological and economic feasibility considerations, and data to support your comments. The more specific your information is, the better it will be for MSHA to evaluate and produce a final rule that will be responsive.
to the needs and concerns of the mining public.

You may submit comments following this public hearing by any method identified in the proposed rule, and must be received or postmarked by November 14th, 2011.

MSHA will make available a verbatim transcript of this public hearing approximately two weeks after the completion of the hearing. You may view the transcripts of all the public hearings and comments on MSHA's website at www.msha.gov and on www.regulations.gov.

We will now begin today's hearing. If you have a copy of your presentation, please provide it to the court reporter.

Please begin by clearly stating your name and organization, and the spelling your name for the court reporter to make certain we can obtain an accurate record.

Our first speaker today is -- okay. Our first speaker today is Chris Hamilton. And I don't see him here, so I'm going to move to the next speaker, who is Hank Moore.

MR. HENRY MOORE: Thank you. I am Hank Moore. Actually, R. Henry Moore. I am here on behalf of the Pennsylvania Coal Association. George Ellis, the president of the Coal Association, was not able to be
here today.

We appreciate this opportunity to testify on behalf of our members regarding the Proposed Proximity Detection Rule.

PCA is an association that represents the majority of underground and surface coal mine operators in Pennsylvania. It represents large longwall mines, as well as single section continuous miner mines. It represents mines that work in the Pittsburgh seam, and it represents low seam mines.

At the outset, I would like to say that we appreciate the fact that the rule is being developed to notice and comment rulemaking. We've heard that an earlier proposal to utilize the emergency temporary standard-making power was being considered. Given some issues as to the timing of the implementation, as well as other issues, we think this is appropriate to use, notice, and comment rulemaking. It will necessarily strengthen the rule by the participation and input of the stakeholders in the process.

We view the use of the emergency temporary standard as inappropriate in many cases. It leads to hastily promulgated rules and causes problems in implementation. PCA strongly believes that where a standard-making power is vested in an executive agency,
due process and the Administrative Procedure Act demand that notice and comment rulemaking be utilized to create valid new rules in the regulations. We believe that notice and comment rulemaking is appropriate here because the rule needs to be fleshed out.

At this point, there are ambiguities and gaps in the rule. For example, it does not indicate where the sensors might be on the machine; how many sensors there should be; where the 3 feet is to be measured; and similar types issues.

I think a judge looking at the rule as it is currently written would consider it ambiguous. And, as we know, under the Doctrine of Judicial Deference, that means operators lose the interpretation battle, if there is one. We do not think that any rule should have to be interpreted in post-promulgation questions and answers or other policy. The rule itself should say what is meant; clear and understandable and unambiguous rules of advanced mining safety. Operators want to comply, and in order to do that, the rule has to be clear and unambiguous.

We believe it is appropriate at this time to focus this rule on continuous mining. The majority of injuries and deaths have occurred to operators who normally control the continuous mining machines' movement.
with a handheld remote control. It is also my understanding that the majority of those operators or injuries are to the person used in a remote control box. The majority of events have arisen as a consequence of miners being pinned by the machine they are operating against a rib while the machine is trammed or moved from one location to another. Now, we have to concede that significant progress had been made over the last two decades concerning the prevention of red zone injuries.

While there are different injury and fatality statistics that have appeared in literature about red zone injuries, it appears there has been a significant decline. This evidence highlights the strides the operators have made on this issue and the power of training, education and elimination of red zone hazards. It also serves to illustrate the benefits of state and federal agencies working cooperatively with operators to attack this problem. Working together, we were able to successfully reduce red zone injuries and fatalities.

The consciousness of red zone injuries is ubiquitous. If you go into any mine office in this country, you will see somewhere on the wall a red zone poster. Whether it's MSHA's poster or another type poster, it will be there. Much of the progress has been
made because of the use of administrative controls. We believe proximity detectors will add a significant layer of additional protection. But I would note that, on occasion, MSHA personnel have said that administrative controls are sufficient.

Given the advancements and the potential for educational and training solution of red zone hazards, some will reasonably voice concerns about the necessity of the implementation of the proposed proximity systems. We support the rule. We believe that the proximity detection systems can serve an important function in accomplishing the goal of eliminating red zone injuries and death. We also note that the introductions of such system will perhaps eliminate disputes about whether a miner is in the red zone.

There have been several cases involving alleged violations of the red zone, and they are often evolved into a he said/she said-type, which provide low sense of fairness to the miner who is accused of being in the red zone.

While we support the use of proximity detection systems, we have reservations about the rule, as proposed. The first issue PCA would like to highlight is the 18-month implementation period. We believe that the 18-month schedule is based upon assumptions that have not
been fully considered. It is overly ambitious, in our view.

PCA believes that most of the significant problems implementing the rule can be addressed with additional time. However, if more time is not provided, we are concerned that some mines will be unable to complete the installations and times, and others will be forced to rely on inexperienced third parties and opportunists that will perform inadequate installations that can compromise the safety benefits of the new systems.

MSHA estimates there are approximately 1,150 place changing continuous mining machines in the nation that will need to be fitted with proximity detection systems. Averaging slightly more than two mining machines a day, this does not sound overly daunting, but the reality is otherwise. Eighteen months is not enough time. It is still unclear whether the developers of the approved systems will be involved in the installation or working to license the technology to others. In either case, PCA believes that serious delays will inevitably result while this is worked out.

In support of the 18-month period, MSHA cited comments it received in response to its request for information indicating that a proximity detection system
can be installed and calibrated on a remote control continuous mining machine in one midnight shift. We believe this is a gross underestimate of the time required. We are even more concerned about the efficacy of underground installation and calibration. Consistent with the testimony of the Joy representatives, PCA members think it would be best to install and calibrate the new equipment in a shop or during rebuild to ensure the installation is performed properly and to minimize mining disruptions.

Many of PCA's members rely on continuous miners to mine 36-inch seams. Repairs on such continuous miners can be challenging, and the installation of new technology in the mine's environment will be more of a challenge than is envisioned by MSHA.

MSHA stated in its Preamble that the proper functioning of a proximity detection system is directly related to the quality of the installation. That's, I think, something no one can argue with. We believe that this can only be accomplished by equipping the continuous miners with proximity detection systems during initial construction or during a rebuild.

It is our understanding that Joy has testified about their capacity for installing the systems. We understand it will take a number of years for Joy to
provide properly installed proximity systems during replacement or rebuilds through their certified facilities for all machines. We believe that Joy's testimony is the realistic testimony.

It is assumed, of course, that some PCA members will use local shops, which have a pre-existing relationship for performing installation. Where the installation occurs when a rebuild is undertaken, the shop may be occupied for more than a week on a single continuous mining machine. If a miner is going to be pulled from a mine and transported to a shop, it makes no sense to simply install the detection system.

We were talking this morning before I came here that it may be a six-week period for you to remove the miner from the mine, transport it to whatever shop it is going to be, and then return it to the mine. And, of course, that doesn't even address the issue that if you have a replacement miner, what the approved ventilation and dust control planning will be. Moreover, these shops tend to be small, local businesses without necessarily the ability to easily expand operations to be in excess demand. As such, these shops are going to be operating at capacity to perform the required installations.

The proposed rule may also lead to mine operators accelerating their own schedule of rebuilds and
other significant maintenance, adding to the scheduling difficulty. These installations in a shop will obviously result in mining machines being out of service for significantly longer than if they were performed underground, as it appears MSHA contemplates. It will also strain the capacity of vendors to keep up with demand.

To the extent that misconceptions guided MSHA's selection of the time frame, it should be reconsidered. To the extent that these sorts of misconceptions form the basis of the economic analysis, they should also be reworked. We believe it grossly underestimates the actual costs. We believe that the analysis underestimates the cost of the installations, as well as the cost of lost production.

In addition, while MSHA has sought to temper concerns about interference, the Proximity Detection Systems will only be one of several devices operating underground at risk for interference.

As I indicated, our miners operate a number of low-seam mines. There is limited, if any, experience to date with proximity detection in low-seam mines. Understand the way the experimentation and trial had been done in mines; it isn't easy to maneuver in. We are not sure that interference will not occur when the detection
device is present with a loop of cables kneeling in close proximity. In addition, we have concerns about the availability of the specialized parts and equipment needed to install the proximity systems.

In the Preamble to the proposed rule, MSHA indicates that manufacturers have indicated they can collectively produce about 350 units per month. MSHA specifies that manufacturers can increase production to 400 to 600 per month, if necessary. It is unclear if this is MSHA's own forecast or it is based on MSHA's consultation.

At present, there are only three approved, or almost approved, proprietary proximity systems; and each has its own unique installation parts, software and hardware. Any supply shortfalls will inevitably lead to significant shortages and ultimately with delays in installation. The shortages and delays would be exacerbated further if one of the proximity systems proves more popular for reasons of either availability, viability, or support. Despite these variables, there is no indication that MSHA has made a significant inquiry into the capacity of the manufacturers to perform the number of units indicated, let alone the number MSHA has specified.

We also believe that the 18-month period fails
to fairly consider the time necessary for MSHA in the state-approved approvals. Operators will be required to get approvals for all such field modifications, obviously. PCA members are concerned that MSHA's Triadelphia office will be overwhelmed and unable to respond in a timely manner to the massive influx to the request for evaluation and approval that's soon to be inundating that office.

But even more importantly, in Pennsylvania, we have separate approvals by the state for electrical equipment. The state has limited resources. Like every other state, we have a budget shortfall. That may make this process in the state more protracted and more difficult. Allowance for these and additional approvals are necessary by MSHA.

Based on our concern, we ask you to reconsider the 18-month implementation period. We propose, or suggest, a 36-month period to better ease the transition.

We are concerned about a number of other points in the rule. We are concerned about the recordkeeping requirement for training as to the installation of the system. Most of the training, as we understand it, would be done by third parties, such as equipment manufacturers. We think it's somewhat impractical for mine operators to keep track of that training.
We are further concerned about the records that will be required of the daily checks and maintenance. At this point, we've heard a 75.362 pre-operational parameter check is not recorded in the book. The rule for proximity detection requires the recording in the book and countersigning by various upper management people. We think that exceeds the bounds of necessity and logic.

We also think that it should be made clear in the rule that out-by-construction continuous miners should be equipped only after all full-face miners are equipped. We also believe that the future rules, which address full-face miners, should only apply when tramming from place-to-place.

We are also concerned with the removal from service provision in 75.1732(b)(4). As proposed, the rule requires a continuous miner with malfunctioning proximity detection to be immediately removed from service. PCA believes that such a result is unnecessarily severe and provides little benefit to miners, given the progress that has been made overall in reducing injuries. The deployment of this novel technology underground will be subject to error and problems. Perhaps, five years afterward, we will be through that period, but there's obviously going to be an

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initial learning curve.

In addition to software issues, there are also likely to be problems with the hardware, as the harsh operating conditions impact the systems' proper function.

If the final rule remains as proposed, it will significantly impact mine operations. Operators are dependant upon the use of continuous mining machines to allow production to occur. If a continuous mining machine is removed from production, the entire section will very likely have to be shut down. Only if the use of administrative controls were going be discontinued, would it make sense to remove the miner from service. There is no indication in the rule that administrative controls will no longer be in place.

We believe the rule should be revised to prevent the operators to use the mining machine until the following maintenance shift. In the event of a system malfunction, miners will be alerted by the use of a distinct audio and visual cue. As such, they will be aware that the red zone proximity is not operating normally.

Moreover, one of the benefits of the system will be to further train miners to avoid red zone areas. In fact, I know that some of the equipment manufacturers have seen it more as a training device than otherwise.
The continuous miner shuts down when the miners are within 3 feet. It can properly be assumed that operators will work to ensure that they can continue to operate without having the machine stop.

In a sense, the detectors will reinforce all the training we have been getting for the last several years. It will create new habits. We anticipate most miner operators will work entire shifts without activating these systems. That will remain an immediate removal that is not necessary.

I also want to address the enforcement again. As proposed, 75.1713(b)(1), under that rule, a proximity detection system must cause a machine to stop no closer than 3 feet from a miner, except as otherwise provided.

Once the system is approved and implemented, it is subject to visual examination before each working shift, and a more thorough examination on a weekly basis. The visual examination requirement requires the miner to look at a visual signal that indicates the system is functioning properly.

PCA is concerned that operators will be cited for violations of the proposed standard when an inspector believes the machine is stopping within the 3 feet provided; if it stops within greater than 3 feet, rather than within the 3 feet. It is unclear from the rule how
the 3 feet for stopping and 5 feet for warning is measured. It is also not clear where the system must simply stop; whether the system must simply stop or whether the machine will shut down, recognizing that stopping may be subject to some movement of the machine when the motors are off.

These are large machines. Some of them don't even have brakes, and for particular seams that are steep, we may have an issue, which the Joy representatives also identified. We have already seen litigation over disputes of whether a miner was in the red zone. We anticipate disputes as to whether the system detects within 3 feet, precisely.

Operators are left with an environment in which they are subject to violation based on the possible vagaries of the electromagnetic fields upon which the systems rely and the vagaries of where the miner positions the sensor on his body. PCA instead believes that the proposal should be clarified to provide that once an approval system is installed and calibrated, the visual signal could be relied upon by the operators. Where the visual signal indicates proper operation, the system should be assumed to be operating properly and no violation would issue absent compelling evidence of an operator's knowledge of a deficiency.
In addition, we believe that MSHA's training assumptions are unrealistic and inconsistent with the 18-month implementation period. Specifically, MSHA again appears to be relying on anecdotal evidence from a commenter that one hour of training for machine operators and four hours for maintenance training will be adequate. PCA members believe these approximations are too short and significantly underestimate the amount of time that will be necessary to provide adequate training.

PCA members call upon MSHA to update its estimates to more accurately reflect the actual time training will require. In addition to the added time that will be required to provide training, PCA members are concerned with ensuring that adequate numbers of trainers are available.

I would also, in the rest of my comments, I'd like to highlight on other issues; namely, the use of deep or extended cuts. Several PCA members have received permission to perform extended cuts and achieved greater production while improving safety. As MSHA has specified in their support for the proposed proximity detection rule, the moving or tramming of mining equipment, especially continuous miners, creates significant hazards to miners and is the primary safety concern that the rule seeks to address.
PCA believes that extended cuts are objectively superior to conventional 20-foot cuts, and MSHA should be doing more to champion their use wherever possible. The most obvious and relevant safety benefit of deep cuts to the present conversation is that extended cuts reduce the number of equipment moves required.

For example, a 40-foot extended cut would involve half of the equipment moves that a 20-foot cut would necessitate. I know I've seen figures that cuts the exposure by greater than 50 percent, but that's enough of a calculation for my purposes here. It is during the equipment moves that operators are most at risk.

Safety data taken from the mines with extended cuts supports its superior safety. There has been a reduction in fatal accidents from mining of face equipment since the advent of 40-foot cuts. PCA believes this trend of safety improvements will continue if MSHA liberalizes the use of extended cuts nationwide. We recognize that the proximity detection is not a fail-safe engineering solution to the issue of this type of injury. We believe that the use of extended cuts is another factor that has not been taken into account.

We support working to end red zone injuries. We believe that the proximity detections can serve to
help work towards that goal. We believe that if MSHA gives us more time to install the system and works with mine operators to address our concerns regarding deep-cut enforcement and malfunctioning systems, the rule will be improved. Thank you very much.

Are there any questions?

MR. CHIRDON: Yeah. I have just a couple questions for you.

You mentioned early on in your comments that there have been conflicting accident data that --

MR. HENRY MOORE: That's my understanding.

MR. CHIRDON: Oh, okay.

MR. HENRY MOORE: I don't pretend to have analyzed it all.

MR. CHIRDON: Does the Pennsylvania Coal Association have any data that they will be submitting with their comments, so we could also look at it?

MR. HENRY MOORE: We have no separate data from what's available out there on this.

MR. CHIRDON: Okay.

Now, also, during your comments, you mentioned the question regarding our 18-month time frame, and you -- I believe you suggested 36 months?

MR. HENRY MOORE: Yes.

MR. CHIRDON: Will the Pennsylvania Coal
Association be submitting written comments? Do you know?

MR. HENRY MOORE: We can, yes.

MR. CHIRDON: Okay. Because I would be interested to see what calculations you would use to arrive at that 36 months, as well as -- and you mentioned that we need to revisit our costs based on some flawed assumptions.

If there was anything that -- any data that you can provide, as far as how you think our economic analysis might be flawed, that would be very helpful, as well.

MR. HENRY MOORE: And I will tell you that, by looking at the analysis, it looked to me like it was underestimating, based upon what I had heard in the industry of what it will actually cost to put the systems in and get them up and running, so that they will do what they're supposed to do. We all want them to do what they're supposed to do. That's our concern, is to put them in right and use them right, so that we have another effective tool.

MR. CHIRDON: And one last question. You brought up the concern about how we would determine the 3-foot stopping distance.

MR. HENRY MOORE: Yes.

MR. CHIRDON: When you submit written comments,
any suggestions as to a method that the Pennsylvania Coal Association thinks would be appropriate would be helpful --

MR. HENRY MOORE: Okay.

MR. CHIRDON: -- as well.

MR. HENRY MOORE: We'll do that.

MR. BAUGHMAN: Do you have an extra copy?

MR. HENRY MOORE: Sure.

MR. BAUGHMAN: Thank you.

MODERATOR FONTAINE: Thank you.

Our next speaker will be Jim Lamont, UMWA.

MR. LAMONT: If there will be no problem, Roslyn, for Ron Bowersox and I, together, do this.

MODERATOR FONTAINE: Oh, sure, sure. Don't forget to please spell your name for the court reporter.


MR. LAMONT: Okay. Not a whole lot to add.

Basically, this rule is something that we've been waiting to see for a long -- quite some time.

I know Dennis O'Dell, with our International Health, addressed you guys last week in Charleston. So,
basically, I don't have a whole lot to add to it, other
than something in the form of a question.

Under 1732(b)(1), the 3-foot stopping distance,
the word "stop," I'm not real sure of what that means.
Does that mean when the machine, the body, the frame of
the machine gets within 3 foot of the miner or the
tailpiece; when it's swinging, gets within 3 foot of the
miner; does that mean the machine will shut off right
then and there, or will it just stop the function of
tramming or the tail swinging; or will the machine be
totally de-energized?

MR. CHIRDON: The intent of that, Jim, was that
the machine movement would stop, would cease, all machine
movement. Any movement that could come in contact with
the miner would stop. Again, that's something that we're
Looking for commenters' input on, as well.

MR. LAMONT: So that, basically, would be all
hazardous movement in itself would be stopped, preventing
the machine from touching the miner, whether it be the
body of the machine or the tailpiece?

MR. CHIRDON: Correct.

MR. LAMONT: Okay. Full-face mining machines.
I just want to touch on that real quick.

In most cases, what I've seen, as far as the
full-face mining machine -- this would be under 1732(a) --
whether the machine is wider than the normal continuous mining machine or is it just the width of the entry, the full-face miner cuts the width, basically, of what the machine is. So, hence, when you're tramming from one entry to another, you're going to have less clearance in those developed sections than you would with a regular continuous miner. So we would be in full favor of having the proximity detection on the full-face miner, also.

And the last thing I would have is that I would believe -- I know Ron is going to touch on some other stuff, but the rule itself should be expanded, also, to surface machinery and equipment. If we're going to start it on one, let's complete it and do it with all of them.

MR. BOWERSOX: Okay. These numbers have been repeated quite a bit. I don't have the exact numbers, but I have -- since 1984 to present, there have been 34 fatalities with continuous miners. You had 12 with shuttle cars. I think the numbers total 70 with all different types of equipment.

Recently, we had two serious injuries, one in District 9 and District 10. District 9, we had a miner who was bolting a roof when he was struck by a scoop that was delivering material to the to the face. The victim was in his mid 20s; had both legs amputated above the knee. He told others that he never seen the scoop
approaching. District 10, we had a section foreman sitting next to a rib taking notes when he was struck by a scoop. He has a fractured pelvis and internal injuries; indicated his recovery will be lengthy.

I'm disappointed that MSHA was not requiring proximity devices on all other mining equipment and would urge the rule to be expanded to shovel cars, scoops, loading machines, and new equipment. What I mean by "new equipment" is, I set the Pennsylvania diesel approvals, and a lot of operators now -- and they are nice pieces of equipment.

They're building what they call a belt cleaner. It's a small-type scoop bucket. They're remote control, most of them, and they travel 60 feet per minute, so that's pretty fast. You've got confined areas, and that definitely should require a proximity device. You've got manhole cutters. Same thing. They're 14-foot in length. Some of these belt headings are 16 feet. So you can see the type of machine you may have there.

And like Jim said, I also believe full-face mining equipment should definitely have proximity, because you tram from one place to another; you got some tight situations there. Okay. You hear a lot of people saying that technology is not really here yet, but I was involved when the Sago disaster happened. I heard the
same thing about communications. And I'll tell you right
now, with tracking and communications, underground coal
mines is pretty good right now, and that's five years.
Proximity has been around for probably over 10
years now. Why should we take a back seat to countries
like South Africa, Australia, or Canada? We are
wondering what equipment we should put it on. So,
definitely, I think it should be on most all types of
mining equipment. And like Jim said, too, on the
surface, some of these big trucks, these dozers, they're
so big now. They're fast. So I think that should also
be expanded to surface.

Questions?
MR. CHIRDON: I don't have any.
MR. LAMONT: Thank you.
MR. BOWERSOX: Thank you.
MR. BAUGHMAN: Just one second, please.
MODERATOR FONTAINE: Thank you.
MR. BOWERSOX: Okay. Okay.
Our next speakers will be John Gallick and
Terry Theys.
MR. GALLICK: Okay. Are we ready?
We were going to -- we'll do it -- my name is
John M. Gallick -- G-A-L-L-I-C-K. I'm Vice President of
Safety and Health for Alpha Natural Resources.
MR. THEYS: I'm Terry J. Theys -- T-H-E-Y-S.

I'm Director of Safety and Engineering, Alpha Natural Resources.

MR. GALLICK: For the Panel, I'm going to read our prepared statement, and Terry and I will be available for questions, both back and forth, whatever comes forward.

MODERATOR FONTAINE: Okay.

MR. GALLICK: Good morning. I'm John Gallick.

I appreciate the opportunity to provide some additional information on the Proposed Rule on Proximity Detection Systems.

I am Vice President, Safety, for Alpha Natural Resources, and I'll be speaking for Alpha and its various affiliates.

Alpha's affiliates, as you know, operate a number of underground coal mines ranging in size from our large longwall operations to relatively small mines that depend on continuous miners to produce coal. We operate underground coal mines in Pennsylvania, West Virginia, Kentucky, and Virginia.

In my position, I oversee the safety processes of the company; including accident prevention, regulatory mine safety issues, compliance issues, interpreting, applying, and advising on compliance with regulatory
standards, and on mine rescue capability. I'm also involved in the litigation process for contests of citations and orders.

At the outset, I'd like to commend MSHA for seeking to implement the proposed rule via notice and comment rulemaking. It is far more appropriate for a proposed regulation that has been discussed back and forth for a number of years to move through the normal channels in the regulatory process. This allows the Agency an opportunity to hear from various stakeholders who, for the most part, I believe, will support the intention of installing proximity devices on continuous mining machines, but will recommend changes in timing and other issues in the proposed regulation.

The filing of notice and comment, rather than the use of the Emergency Temporary Standards, provides a proper setting to discuss these concerns in an open setting. Alpha submits that, as a consequence of MSHA's decision to proceed via notice and comment rulemaking, any resulting rule will be necessarily strengthened by the participation and the input of stakeholders in this process.

In addition to improving the results, Alpha strongly believes that where standard rulemaking power is vested in an executive agency, due process and the
Administrative Procedure Act demand that notice and comment rulemaking be utilized to create valid new rules and regulations and standards. Operators and miners are the ones who will be affected by any new rule, and it only makes sense that we would be able to provide input into that rule's creation.

Continuous mining machines have been involved in numerous injuries and fatalities over the years. The majority of injuries and deaths have occurred to miner operators who normally control the continuous mining machines' movement with a handheld remote control. The majority of events have arisen as a consequence of miners being pinned by the machine they are operating against a rib while the machine is trammed or moved from location-to-location. Significant progress has been made over the past two decades concerning prevention of red zone injuries.

I'm going to skip a few of the statistics, because that's already been talked about. So I'll just move on to another point.

This evidence of the various improvements involving red zone safety highlights the strides that operators have made on the issue and the power of training and education in the elimination of red zone hazards. It also serves to illustrate the positive
benefits of state and federal agencies working cooperatively with operators to attack this problem. Working together, we were able to successfully reduce red zone injuries and fatalities. While any injury or fatality is unacceptable, the joint efforts of the parties to train, remind, and observe miner operators concerning red zone hazards is part of any behavioral-based safety process. This behavioral safety approach is effective and needs to be incorporated with any engineering device usage.

While work remains to eliminate the occurrences of such events, we believe the record of progress suggests that the necessity of the proposed rule's timing for having proximity devices installed on all continuous miners within 18 months is not as clear, and a more rational implementation schedule can be incorporated into the regulation. I'll return to that schedule and my thoughts on that in a few minutes.

Alpha does not oppose the proposed rule. Rather, it believes that proximity detection systems can serve an important function in raising miners' awareness of red zone issues, with a goal of eliminating red zone injuries and deaths. While Alpha supports the use of proximity detection systems, we have reservations about the rule, as proposed.
I'd like to use the balance of my time and testimony to discuss Alpha's concerns about the proposed rule and our suggestions for its improvement.

The first issue that Alpha would like to highlight is the 18-month implementation schedule for existing continuous mining machines, as provided at 75.1732(a).

While Alpha represents longwall and room and pillar mines, continuous mining machines are essential to the operations of both. We believe that the 18-month schedule is based upon overly optimistic assumptions that have been adopted with little inquiry by the Agency. Alpha believes that the most significant problems implementing the rule can be addressed with additional time. However, if more time is not provided, we fear that some mines will be unable to complete the installations in a timely manner.

MSHA estimates there are approximately 1,150 place changing continuous mining machines in the nation that will need to be fitted with proximity systems in the 18 months following the final rule's promulgation. Averaging slightly more than two mining machines daily, this does not sound overly daunting, but the reality is otherwise. I can tell you with certainty that 18 months is not enough time. It is still unclear whether the
developers of the approved systems will be involved in the installation while working to license and technology others. In either case, Alpha believes that serious delays will inevitably result.

In support of the 18-month period, MSHA is citing comments it received in response to its request for information indicating that, quote, "a proximity detection system can be installed and calibrated on a remote controlled continuous mining machine in one midnight shift," unquote. That was found on 76 FR 54167. Alpha's dubious about the efficacy of underground installation and calibration.

Contrary to MSHA's assertion, our mines are likely, wherever possible, to install and calibrate the new equipment in a shop or during rebuild to ensure the installation is performed properly and to minimize proximity system failures. Installing the detectors during the rebuild process is by far the better way to accomplish this.

MSHA has stated in the Preamble, under 75.1732(b), that the, quote, "proper functioning of the proximity system is directly related to the quality of installation," unquote. We believe that this can only be accomplished by equipping the continuous miners with the proximity system during their initial construction or
during your rebuild.

For example, Alpha has in excess of 250 place change continuous miners, of which 15 are now currently prox ready. Sixty are scheduled for replacement and rebuilds in 2012. An additional ten are scheduled for rebuilding and replacement early in 2013. This leaves us with 165 machines currently not scheduled for rebuild or replacement by March 1st, 2013. The compliance date would need to be extended another 33 months, until approximately 12/31/2015, in order to properly install proximity systems on all of our continuous miners, according to the normal rebuild and replacement schedule.

Joy has plant and shop capabilities that permit about 120 new continuous miners to 130 rebuilds -- new continuous miners and 120 to 130 rebuilds per year. It would take in excess of two years for Joy to provide properly installed proximity systems during replacement and rebuilds through the certified facilities for all our machines if Alpha was their only customers.

It is assumed that some of our mines will use local shops with which they have a pre-existing relationship to perform the installation. If this approach is utilized, we estimate the proximity installation time frame to be approximately a week, based on the amount of cutting, welding, and fabricating.
required to temporarily install the system. Alpha estimates that the total time for out-of-service -- that's from leaving the section to returning back to production -- is six weeks for every machine. Moreover, these shops tend to be small, local businesses, and are not really of the ability to expand quickly to meet excess demand that's going to be short-term. The proper installation -- meaning, going to rebuild shops -- will result in mining machines being out of service for significantly longer than if they were performed underground, as it appears, I believe MSHA has contemplated. It will also strain the capacity of vendors to keep up with the demand. To the extent that these misconceptions guide MSHA's selection of the time frame, I think the time frame should be reconsidered.

We recognize that a commenter stated the system will be added in a shift, but we have never seen that in practice. While MSHA may believe that an eight-hour shift underground is adequate to perform an installation and calibration, Alpha's certain that this is not the case. Proper installation is required, since reliability of the system is the most critical issue. Without proper protection, the machine-mounted components for reliability will never be accomplished. There is a significant amount of cutting and welding required to the
recess, mount, and protect the exterior components.

Wiring must be routed internally in conduits. Cross machine wiring must be in conduits throughout the machine's frame center section. This work cannot be done properly underground, let alone in a single shift. This is especially true in low seams, where the work described above would be extremely difficult, at best.

While MSHA apparently believes that no problems will arise, that is contrary to our experiences. When performing these sorts of installations with novel technology, bugs and errors are inevitable. In addition, while MSHA has sought to temper concerns about the interference, the proximity detection systems will only be one of several electrical devices operating underground at risk for interference. We fear that MSHA's forecast will be proven false, and that operators will be left scrambling to comply within the time frame that was inadequate from the start.

We operate a number of low-seam mines. There is limited, if any, experience to date with proximity detection in low seems. We're not sure the interference will not occur with the detection device when kneeling in close proximity to loops and cables. In a final analysis, Alpha is concerned that MSHA has simply not done enough to confirm the facts upon which it's relying.
It appears that this may have been based on certain vendor statements while virtually ignoring the other fact-based information. To date, successful underground installations have only been achieved through proper installations; those done in properly equipped shops by thoroughly trained technicians. Trying to do the installations any other way is foolhardy. The question I have for the Panel is: Are any of you aware of any vendor who has actually installed a proximity system underground? And, if so, how reliable has that system been?

Alpha views MSHA's failure to seriously address these practical issues as a serious shortcoming in the 18-month period selected. MSHA needs to figure out how long it will take to perform a single installation and a calibration, and then determine how many providers will be capable of performing these fixes.

A more detailed analysis will reveal the 18 months is untenable and will highlight the limited number of facilities and persons certified to perform installations. As it stands, there will be long waiting periods because of the limited number of shops and trained individuals who are capable of performing the proximity installation and calibration.

In addition to these concerns regarding

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manpower facilities, there's also the issue of
availability of specialized parts and equipment needed to
install proximity systems.

In the Preamble to the proposed rule, MSHA
indicates the manufacturers have indicated that they can
collectively produce approximately 350 units per month.
MSHA specifies the manufacturers can increase production
to about, quote/unquote, 400 to 600 a month, if necessary
(76 FR 54168). It is unclear if this is MSHA's forecast
or it's based on MSHA's consultation with all of the
manufacturers. In either case, I believe the 18-month
schedule listed in the proposed regulation was developed
using the vendors' capability in supplying proximity
devices as a timing consideration, and not the amount of
work the mining machine would need to assure a properly
installed proximity unit.

The units need to be installed so they are
mine-worthy. The work needed to install mine-worthy
devices and the logistics of scheduling and providing
shop space and trained installers should be the driver of
appropriate timing for completion of the proximity
devices on continuous mining units. Frankly, this is one
of the critical flaws in the timing issue in the proposed
regulation, in my opinion.

Even taking the vendors' production figures at

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face value, at present, there are only three approved proprietary proximity systems available. Each has its own unique parts, software, and hardware. Any supply shortfalls will inevitably lead to significant shortages and, ultimately, with delays in installations. These shortages and delays could be exasperated further if one of the proximity systems proves more popular than anticipated by the manufacturer.

Despite these variables, there's no indication that MSHA's made significant inquiries into the capacity of the manufacturers to manufacture and install the number of units indicated, let alone the number that MSHA has specified.

In addition, Alpha believes that MSHA's training assumptions are unrealistic and inconsistent with the 18-month implementation period selected. Specifically, MSHA again appears to be relying on anecdotal evidence from a commenter that one-hour training for machine operators and four hours for maintenance training will be significant. That was found on 76 FR 54171. Alpha believes these approximations are way too short and significantly underestimate the amount of time that will be necessary to provide adequate training. Alpha calls upon MSHA to update its estimate to more accurately reflect the actual amount of time

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training will require.

In addition to the added time that will be required to provide training, Alpha is concerned with ensuring that the adequate number of trainers are available to provide that training. Further, we believe it should be recognized that mine maintenance personnel will not perform complex computer total adjustments. Mine-level maintenance should be limited to troubleshooting and component changes.

We are also concerned about the recordkeeping requirements for training, as to the installation of systems. It's impractical for mine operators if the installation is performed by third parties. Alpha's also concerned that the 18-month period fails to fairly consider the time MSHA approvals will take.

The installation of each detector will be a modification that will require approval. MSHA permissibility approvals will include evaluation of proximity device detection systems and the addition of the systems to MSHA-approved continuous mining --

(Mr. Gallick: -- sorry, I knew I should have turned that off -- machines leaving aside the obvious question of whether MSHA is doing enough to ensure the effectiveness of the proposed proximity systems, Alpha's
concern that MSHA's Triadelphia office will be overwhelmed and unable to respond in a timely matter to the massive influx of requests for evaluation and approval that will soon be inundating the office. Alpha believes that with additional time and resources, the Triadelphia office could be more able to respond to all the requests.

MSHA also had not taken into account, I believe, state approvals of the system. In Pennsylvania, this could be a protracted process because of the technical committee that will need to develop criteria. West Virginia's recently circulated information that all proximity systems must be tested and approved by their own agency. I'll let the states respond to how they're set up, but it seems to me that that's going to be another issue.

Based upon our concerns, Alpha calls upon MSHA to really reconsider its 18-month implementation. We're recommending an extended period to at least 36 months to better ease the transition to the new systems. We also believe the rules should make it clear that out-by construction continuous miners should be equipped only after all the face equipment is done.

We are assuming that the mining machine total listed in the proposed regulation Preamble is for mining
machines working in coal cutting faces, MMUs. There are another group of machines that are used for construction purposes. Proximity devices should be installed on these machines, either when the machine is sent for rebuild or no earlier than after all the face machines are completed. This schedule should be part of the regulation.

The Agency asked commenters to discuss full-face mining machines. Clearly, these machines are unique, and the risk of pinning an employee with these machines is a lower risk probability. I don't think the risk is such that these type of mining machines need to be considered for proximity detection.

With that said, if the Agency determines that these machines should be equipped with proximity devices, I would modify the regulation concerning the installation proximity on full-face miners to when tramming from place-to-place only. This needs to be very clearly stated in any regulation.

Also, since the risk of work or harm with these machines is relatively low, I would list the installation date to be when the new machine is purchased or the machine is rebuilt. I would stay away from setting an installation date, an arbitrary installation date, on full-face miners.
Alpha's also concerned with the removal from service provision provided in Sections 75.1732(b)(4). As proposed, the rule requires a continuous miner with a malfunctioning proximity detection to be immediately removed from service. Alpha believes that such a result is unnecessarily severe and provides little benefit to the miners. The deployment of this novel technology underground will be subject to errors and problems that will need to be addressed.

In addition to software issues, there is also likely to be problems with hardware, as the mining operating conditions impact the system's functionality. If the final rule remains as proposed, it will significantly impact mine operations. Operators are dependant upon these machines, obviously, to provide production. If a continuous mining machine is removed from operation, it is likely that, obviously, that whole section will be down until it's repaired. Alpha believes the rule should be revised to allow operators to use the mining machine until the following maintenance shift.

In the event of a system malfunction, or as 75.1732(b)(4) specifies, miners will be alerted by the use of distinct audio or visible alarm. As such, they will be aware that the red zone proximity is not operating normally. Moreover, the primary benefit of the
system will be as a training tool that will alert miners, via audio or visual cues, when a miner is located or in a red zone area. The miner shuts down when the miner is within 3 feet. It can be properly assumed that continuous miner operators will work to ensure that they can continue to operate without running a foul system or depending too much upon its proper operation for their safety.

We are also not working with a blank slate. Mining machine operators are aware of the dangers involved and have reduced the number of red zone events precipitously over the vast period of time. Thus, even if the system is temporarily unavailable, miners will still benefit from not only having the distinct warning, but also from their prior experience, as well as their work with proximity detection systems.

Lastly, the condition will be addressed on the first non-production shift. As such, the condition should be removed within 24 hours of its occurrence. Alpha believes a modification rule to permit limited production would ensure that the safety of miners is protected while improving the operational efficiency and down time.

Alpha would like to address the enforcement of the Act. As proposed in 75.1732(b)(1), to be approved, a
proximity detection system must quote, "cause a machine to stop not closer than 3 feet from a miner," unquote, except as otherwise provided. Once the system is approved and implemented, it is subject to visual examination before each working shift, and a more thorough examination on a weekly basis. The visual examination requirement proposes at 17. 75.1732(b)(3) requires a miner to look at a visual signal that indicates the system is functioning properly. That's 5076 FR 54170.

Alpha's concern is that operators will be cited for violation of the proposed standard when the inspector finds that a machine is stopping within the 3 foot provided. It's unclear from the rule how the 3-foot for stopping and 5 feet for warning is going to be measured. It's also not clear whether the system will simply stop the machine's movement or totally shut it down.

Operators believe they should be able to rely on the visual signal to establish a machine's proper function. Otherwise, operators are left with the environment in which they are subject to violations, based on the vagaries of the electromagnetic field upon which the systems rely. Alpha instead believes that the proposed rule should be clarified to provide that once an approved system is installed and calibrated, that the
visual signal can be relied upon by the operators to be sufficient. Where the visual signal indicates proper function of the system, it would be assumed to be operating properly, and no violation would be issued, absent compelling evidence of an operator's knowledge of such a deficiency.

Earlier, I said I would return to the issue of scheduling. The schedule needs to be extended to a more realistic time frame to accommodate a more normal rebuild schedule. I believe that Joy testified last week that that the time frame is closer to 38 months than to the 18 months in the proposed regulation. I would recommend that the Agency extend the time frame to install proximity units to 36 months to allow for a more logical schedule. I would couple this time extension with another round of red zone awareness training.

As stated in the Preamble, and I quote: "In 2004, MSHA initiated a safety campaign to raise the mining industry's awareness of pinning, crushing, and striking hazards associated with the remote control of continuous mining machines. There were no fatalities associated with the continuous mining machines between 2005 and 2007, indicating the safety campaign may have had a positive impact on fatal accidents." That was found on 76 FR 54168 and 69.
My suggestion is for the Agency, along with industry and labor, to reinitiate a strong behavioral-based approach to red zone issues and, at the same time, move ahead with proximity detection installation on a more reasonable schedule. Combining them together, I believe we can meet both needs, proper timing and the safety of our employees.

In my remaining time today, I'd like to highlight another underappreciated means of reducing potential for red zone injuries, namely, via the use of deep or extended cuts. Several Alpha mines have received permission to perform extended cuts and have achieved greater production while improving safety.

As MSHA has specified in their support of the Proposed Proximity Detection Rule, the moving or tramming of mining equipment, especially continuous miners, creates significant hazards to miners and is the primary safety concern the rule seeks to address. Alpha believes that the extended cuts are objectively superior to conventional 20-foot cuts. Rather than discouraging deep cuts in various ways, MSHA should do more to champion their use wherever possible. The most obvious and relevant safety benefit of deep cuts to the present conversation on proximity is that extended cuts reduce the number of equipment moves required. For example, a
40-foot extended cut would involve half the equipment
moves that a 20-foot cut would necessitate. It is during
equipment moves that operators are most at risk. It is
not during the maneuvering in the cut that the mines have
been using. The rule of this proposed regulation is to
reduce the risk of miners being pinned by mining
machines.

History has shown that this risk is most likely
to occur during place changing. If we are looking to
implement a system that reduces this risk, then we need
to review the system issue in a more holistic manner.
That is we need to combine the value training the workers
receive on red zone issues using the engineering design
of proximity detection and, where possible, reduce the
tramming by the use of deep cuts. Safety data taken from
mines with extended cuts supports a superior safety.

There has been a reduction in fatal accidents
from mining of face equipment since the advent of 40-foot
extended cuts. Alpha believes this trend of safety
improvements will continue if MSHA will liberalize the
use of extended cuts nationwide.

In conclusion, Alpha supports working to end
red zone injuries. We believe that the proximity
detection system can serve to help work towards that
goal. We believe that if MSHA gives us more time to
install the systems and works with the mine operators to
address our concerns regarding the deep cuts, enforcement
and malfunctioning systems, and a new red zone training
initiative, the rule can be improved and mining can be
done safely during that period. Thank you.

Now, I'd like to add a couple questions for the
Panel, and then I know you're going to have questions for
me.

I'm going to mark this one under the Law of
Unattended Consequences. The accelerated rebuild
schedule will require operators to either idle a session
while the mining machine is being modified or another
mining machine will need to be used as a replacement.
Logical.

Has the Agency considered the impacts of that
transfer? For instance, prescribe the LUST plan and
controls for different MMUs, etc. We anticipate an
administrative nightmare switching machines around. You
know, they will not be the normal -- we'll have machines
switching from mine-to-mine, which brings different plans
and different administrative stuff that we'll have to
deal with the respirable dust level with the Agency.
And my next question is: Has the Agency considered
some type of system approval to minimize individual
inspector enforcement? You know, I'm thinking of some

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system, such as the SDE lighting, where the system is
checked and in place. Then individual measurements are
not part of the enforcement process, as long as the SDE
is in place.

I know I spoke to that earlier about setting a
calibration, and once it's set, as long as it stays
there, we're not measuring 2'11" versus 3'1". You know,
that type of thing that inspectors can get into involving
individual stuff. If they can support it, we can think
about those questions. I know Terry had another one,
also.

MR. THEYS: Yeah. Basically, we've got
multiple machine manufacturers. To name a few, we've got
Caterpillar. We have Joy. We got Sandvik. We have
Fairchild. We've got three different proximity systems;
Nautilus, Strata, and Joy available on the market. And
you can take any one of those seven names and come up
with various combinations.

And my question is: Has MSHA considered the
time required for the various machine manufacturers to
work with the proximity vendors to incorporate their
systems on each individual machine? We have some
experience now with trying to make the Caterpillar
machines accept the Joy system. Believe me, the time
involved between the engineers at Caterpillar and Joy, as
well as getting people down into the shop to actually make this thing prox ready has been extensive. And I've got real concerns with the various machines that we have out in the field and the various proximity vendors, of how we're going to take the engineering time into consideration on what's needed to actually install these systems.

MR. GALLICK: This is my last comment. Not a question. Just a comment.

We do intend to put written comments in and detail more discussion of some of the questions that the Panel has asked and try to get some of that looking forward.

Do you have any questions for us? We're finished.

MR. CHIRDON: Yeah. I do have a couple, John. I appreciate those comments.

First of all, in response to your questions, we have spent a lot of time looking at the approval issues that would arise out of this Proximity Detection Rule, and we have developed a Proximity Detection Acceptance program.

Manufacturers like Strata, Matrix, Nautilus can get their own acceptance number for their system, which includes a complete intrinsic safety analysis. And then
all that's necessary for the continuous mining machine is
that Joy, Bucyrus, Caterpillar or Voest Alpine would just
submit a RAMP to us. And all it has to do is add that
proximity detection acceptance to the machine. And for
those older machines or the machines that the
manufacturers aren't interested in, or aren't interested
in submitting a RAMP, or they're no longer supporting
those machines, there is the field modification program.
But we're also doing work with the districts.
Not all of these are even going to require a field
modification. You can go through a district field change
and just notify your districts that you're adding a
proximity detection system to a machine. And that way we
can reduce the amount of approval burden. So this
addresses Hank's previous comments on the subject, as
well.
Now, a couple questions I had for you. You
don't need to answer these now; if you can just address
them in your comments; whatever you prefer.
MR. GALLICK: You're leaving me an outlet.
MR. CHIRDON: Nobody ever does that for us.
But the rebuild process, we'd be interested in hearing
more about how that actually works. What's the life of a
machine? How long until it goes out for a rebuild? How
do they maintain continuity of operations when that
machine goes out? So that would be good data to provide with your written comments, as far as that goes. You know, we've gotten a lot of input, as far as the rebuild process goes and that 18 months that we propose, we're going to, obviously, have to re-evaluate that. With that, the more data that you can provide, the better.

MR. GALICK: We'll be glad to. We've talked to our maintenance people and scheduling. We'll put that into a, hopefully, clearer picture.

MR. CHIRDON: And our economists, I think, would appreciate any impact on the economics, as well, when you submit that.

MR. GALICK: We can also do that, to some extent, I think.

MR. CHIRDON: Okay. Then just one other question.

MR. THEYS: Related to that, Dave, how do you want that addressed? What we have in hand is our rebuild schedule, based on an unemployed machine, that kind of thing.

The economics where it really is going to come into play is, if we can't follow that schedule and we have to start pulling other machines out of the face that are not scheduled for rebuild, that's where the true
economics would be a tough number to come up with. You
know, there's two ifs there. You know, if we can follow
our rebuild schedule, we can provide the data easily. If
we are forced into pulling machines out that are not
scheduled for that, then it's just going to be a ballpark
estimate of how long we think it's going to come out;
where we're going to get machines to put back in the
face; what kind of loss of production there is with it.
So --

MR. CHIRDON: Yeah. The best that you can
provide us is what we're looking for.

The other question, you mentioned maybe adding
a consideration to our schedule for out-by machines, for
machines used for construction. I'm curious of the
population of those machines.

Do you know, is that 1 percent, 5 percent, 10
percent?

MR. GALLICK: Yeah. We'll get you what we
have. What I wasn't sure of, Dave, where the number came
from; whether they were the MMUs that MSHA pulled up or
whether the vendor said: "These are how many machines we
have out in the field somewhere." So I wasn't sure -- I
assumed they weren't counted in that 1,150. That's just
a guess on my part. But I also assumed that they would
require proximity.
MR. CHIRDON: Yes. Yes, that's true. I'm not exactly sure. We'd have to go back and look at our numbers. But if you could provide us that --

MR. GALLICK: Our 265 number does not include those. I will tell you that. Those 265 are what we consider to be production machines. We'll get that number for you.

MR. WARD: I have one question. Can you hear me?

COURT REPORTER: Barely.

MR. WARD: Just one quick question.

You also mentioned the training estimates for training in continuous machine operators and the training for maintenance personnel. If you could, provide estimates for those, as well.

MR. GALLICK: I will. I'm assuming you may get more of that on the evidence rule, also, from the fellows who have the most field experience.

MR. WARD: Thank you.

MR. GALLICK: I wanted to testify thereafter more, but I couldn't make my schedule work. But we will do that.

MODERATOR FONTAINE: Okay.

To follow up on what Matt just asked, could you also give a rationale as to what you think would be an
appropirate amount of time for the training.

MR. GALLICK: That's fine.

MODERATOR FONTAINE: Okay.

And as far as your comments on extended cuts, I want to thank you for that.

But the purpose of this hearing is to gather information on proximity detection technology.

MR. GALLICK: No. We understood that.

And what I tried to say was, if you look at pinning miners, workers being pinned, there were three or four pieces -- the proximity's -- our concern -- we didn't really -- maybe I didn't articulate it well enough.

Terry is pounding me hard on this, but -- is, are we -- our workers have to understand that, like any device, like a pull switch on a belt line, how much do you trust that switch? How much do you want to trust the proximity? You have to still be trained; you have to still be observed; and in our running safety process, we have to still require our workers to stay out of those systems, as part of their behavioral safety. What I'll call the people-side safety.

And what we said is, if you looked at this more multifaceted, then you would look at, what are the risks? Well, the risks are moving the machine. The fewer times...
we have to move the machine, the less likely someone is
going to be pinned. And, I think, frankly, that's one of
the issues of a full-face miner. When it moves after it
completes a full block of cutting -- granted it's pretty
big and you're not going to stand alongside of it, very
logically, but it's also the tramming. For foot of
production, the amount of tramming from place-to-place is
the lowest. The next lowest would be the deeper cut
mining systems. Therefore, we've reduced the risk each
time we can minimize the amount of tramming done. And,
you know, I appreciate, you know -- just want to clarify
that. Even though I'd like to make it a political
statement on that issue, that was not our intention.
MODERATOR FONTAINE: Okay.
MR. GALLICK: Wait a minute. Terry has
something to add.
MR. THEYS: Just kind of related to that.
Looking at this from a risk management side, the three
parts you have, you want to minimize your exposure, of
course. That's where the deep cuts come into play. You
have engineering controls where the work proximity comes
into play. And then, we have the behavior of our people.
And we need to work on all three of these. We can't just
focus on one.
Even though the rule is focusing on the
engineering control, as I refer to it, you have three parts there. And we want to be sure that we address all portions of this. And going into this just a little bit deeper, we need to work on all three of these, because we need to minimize the exposure, no matter what. That's where the deep cuts are.

The engineering controls, we're not against proximity. We're for proximity. We think it's a good idea, truly. But the behavior of our people is where our concern comes in, relating back to our time frame, also. The engineering controls, people are people. Even though we teach them they've got to stay out of there, people are going to take the easy way out in most cases, over time. And that engineering controls data proximity has to be reliable, because people will, over time, learn to trust that system.

And the first time that system fails and that person has maybe put his trust a little too deep on the engineering control side, we're going to have a serious accident. That's where the reliability comes into play. So they do all role together. We have to work on the behavior; we have to minimize the exposure; and then we need the engineering controls for the added layer of protection, but it can't be the only protection.

MODERATOR FONTAINE: Thank you. We're going to
take a five-minute break.

(Off the record.)

(On the record.)

MODERATOR FONTAINE: Okay. We're ready to get started.

Our next speaker will be Todd Moore from Consol.

MR. TODD MOORE: Good morning. Hello. My name is Todd Moore -- T O D D, M O O R E.

I am speaking here today as the Director of Safety for Consol Energy Coal Operations. I am also a member of the West Virginia Safety and Technology Task Force.

First, let me thank you for affording me the opportunity to make comment here today. I may also be submitting written comments before the November 14th deadline.

Secondly, I would like to thank you for following the prescribed method for rulemaking, as intended by Congress, instead of inappropriately using the Emergency Temporary Standard Approach.

Consol energy currently operates approximately 60 MMUs; 11 which are longwalls and approximately 48 continuous underground mining machines, of which 11 are place change miners, and 37 are full-face machines with
integral bolters.

We, at Consol, have been working with proximity manufacturers for several years and we are currently utilizing the Strata Proximity Detection System on a place change miner in our Buchanan Mine, and have been doing so continuously since March of this year. It should be noted that this system, as being operated in Buchanan, covers every person that may be exposed to hazards of the miner while working on this miner section, rather than a typical approach of covering only the miner operator in regard to providing crushing and pinning hazards.

We are also operating Strata Proximity Detection Systems on a Joy 14-BU loading machine, two Joy 10 SC-32 shuttle cars, and a 582 Sandvik battery scoop at our Bailey Mine. These systems have been in operation since July of this year. Again, these systems provide proximity detection for all individuals on this section, not only the equipment operator. We are currently in the process of equipping a Joy 14-BU loading machine, a Joy shuttle car, and a battery scoop in our new miner underground training section in our BMX Mine in Pennsylvania.

We have been and continue to install proximity detection hardware on all new and rebuilt place change
miners moving forward. As you can see, Consol Energy clearly supports the adoption of proximity systems on section equipment to provide training, alerts, and alarms to all miners, in order to prevent equipment-related injuries and fatalities to the underground mining environment.

Having said that, there are a few issues with the Proximity Detection Proposed Rule that I would like to expand upon.

I am concerned with the timeline that MSHA has proposed for proximity detection and adoption. I believe that the statement quoted by MSHA that a system can be installed in a single eight-hour shift has caused MSHA to miscalculate the actual installation time for a properly installed and maintainable system.

During the public comments last week in Charleston, West Virginia, we heard from one of the leading worldwide underground mining equipment manufacturers. He stated: "Proper installation requires multiple shifts of cutting and welding." This commenter went on to add that this work "must be completed in a workshop to ensure proper protection." Regarding training, this commenter stated that: "Training requires an absolute minimum of three days. Usually, more like two weeks." Those are quotes. We agree with this
commenter's statements on installation and training.

We have installed our systems during the normal rebuild process in an outside maintenance shop, and we certainly were not able to accomplish this in a single eight-hour shift. These installations took several days and required even longer to locate the optimal location for the cables and generators, and for the proper calibration of the system.

During our startup, we have found that after installation is completed and the equipment is moved underground and is ready for operation, the next step involves a one-week cold startup, during which time the employees wear their active personal wearable devices, PWDs, and the generator units are energized, but incursions into the warning and shutdown zones only result in audible and visual alarms on their PWDs, without actually stopping machine movement. We believe that this learning period allows the miners to become accustomed to the new system and ultimately results in better employee acceptance.

At the end of the one-week period, we activate the generators and begin stopping machine movement with any incursion into the machine stop zone. We have had good success with this training procedure, and we plan to continue the same process for our future installations,
if possible. We believe this two-week period is needed to provide for proper, reliable, and maintainable installation of the system for equipment operator training, maintenance employee training, parts management, troubleshooting, written system and documentation, cold start familiarization, component infant mortality failures, and employee acceptance.

Using the 1,150 place change miner number provided in the proposed rule, and assuming that industry equally place orders for the systems to the three currently MSHA-approved proximity manufacturers, this would result in 383 systems per approved manufacturer, which would, in turn, result in each manufacturer being required to install five systems per week, every week, in order to attain the 18-month proposed requirement. This requirement could result in poorly installed and unmaintainable systems, which could result in employee nonacceptance, and ultimately result in an improper usage and, thusly, slow the intended purpose of this proposal well beyond the time frame of a more reasonable installation time requirement.

Given the normal time for a new product to move through the MSHA approval process, it seems highly unlikely that the number of MSHA-approved proximity detection systems will increase substantially during the
18-month period. This seems like the appropriate time to suggest that the current MSHA approval system be thoroughly examined, and to suggest the possibility of MSHA accepting intrinsic safety, or IS, approval by other countries. The current system of MSHA approval seems to inhibit the development of new and emerging technologies that are being more readily utilized in other mining countries, and also slows the desire of new manufacturers to seek MSHA approval.

Perhaps MSHA IS approval could be achieved in new ways, provided by new technologies, such as improved barriers, redundant safety systems, or standardized protections and designs. I am not suggesting that the current level of IS safety be reduced, but, rather, I am suggesting that, if some type of technology is available somewhere in the developed world, the U.S. should not inhibit the adoption of that technology through a series of complex and antiquated requirements.

Evidence of the seriousness of this issue can be seen in regard to proximity detection person wearable devices, or PWDs. When we first began testing proximity detection systems, we thought that the best way to ensure that the miner would always wear his PWD was to integrate it into his cap lamp, like is currently being done in other parts of the world. We quickly found that the
approval process for cap lamps here in the U.S. appears to be much more demanding than the requirement in that country, and waiting for this approval would result in a serious time delay.

We decided to remove the cap lamp and cord to obtain an experimental approval for the modified PWD in order to expedite our system. This did help move our system test forward, and I would like to thank Dave Chirdon and the group at MSHA approvals for helping with the issue, but I think it highlights some of the issues and difficulties, which impede the new technology development.

Currently, the proximity system that we're installing includes an MSHA-approved belt-wearable PWD. We have some concerns that miners may, at times, feel the need or desire to remove the PWD from their belt, for some unknown reason.

While reinstalling the cap lamp to the PWD may not be the answer to this issue, I believe that the PWD might remain with the miner if it were attached to his helmet, as no miner moves very far without his helmet to protect his head. But this, too, will present issues, such as how to measure the 3-foot stopping distance from an employee's helmet. In either case, I have severe doubts that such a helmet-worn device could be approved.
before the passage and implementation of the proposed rule.

In addition to my concern regarding the 18-month installation requirement, I am equally concerned with the 3-feet stop movement and the 5-feet audible and visual warning alarm requirements. Electromagnetic fields can be influenced by many factors, including loops or coils of energized cables and large metal objects, as well as environmental issues, such as floor pitch and hardness.

The requirement for exactly 3 feet could allow for mischievousness in enforcement action, resulting in numerous violations being issued for a system that would adequately protect for warning and equipment movement stop before allowing accidental contact with the employee when, indeed, the actual intent of this proposed rule is to eliminate crushing and pinning-type accidents, not to create an additional avenue for violations.

Another item to be concerned before adopting the 3-feet zone for proximity detection is the term "cutting coal or rock." The operator must have an area in his current work location where he is safe from crushing and pinning accidents from shuttle car, ram car, scoop, or other coal conveyance systems. This area is usually alongside of the mining machine when he is
performing some function, other than cutting coal or rock, such as setting a machine over from one cut to another, conveying coal into a piece of coal-hauling equipment, or simply awaiting the arrival or departure of a piece of coal-hauling equipment. This 3-feet requirement, when combined with the "cutting coal or rock" definition, may actually force the operator to move away from the actual safe haven provided by the miner and into the actual red zone of the arriving or departing haulage equipment.

I believe that more study is required before deciding that 3 feet is the preferred stop distance for protecting employees working in all seam heights and entry widths.

In any case, I also believe that a silent zone, or zones, must be provided to prevent forcing the miner operator out of his safe area and into the red zone of another piece of equipment.

In addition to those issues, we must think beyond this proposed rule and think of future possible consequences caused by the 3-feet distance and the cutting coal or rock requirement. We must consider where the miner operator will stand after the installation of proximity detection onto place change miners now, and we must consider where the miner operator will stand when
proximity detection is required on all underground mining face equipment. Particularly, shuttle cars, ram cars, loading machines, and scoops.

The actual time that the miner is actively cutting coal or rock, unfortunately, is a very small percentage of the time during the shift. The vast majority of the time, the machine is in the process of waiting on haulage equipment, loading the cut coal out, or performing some other function. If the requirement remains that proximity must be acted any time other than when the miner is cutting the coal or rock, and the stop zone remains at 3 feet, this will require the operator to step at least 3 feet away from the machine to reset it each and every time that he disengages the cutter head. The consequences of this will most likely result in the operator spending a very significant time in the red zone of the coal haulage equipment.

While I support the requirement for a visual and audible alarm somewhere around the 5-feet zone, I do not believe that the failure to alarm at the 5-feet distance should always result in a violation. I also do not believe that the 5-feet visual and audible alarm should be continuous, but, rather, the alarm should activate to warn the employee that they are getting close to the machine, and then it should stop alarming until
the employee moves into the stop zone; at which time, the alarm should activate and remain activated and continuous until that employee moves back out of the stop zone.

Due to the width of some mine entries, depending on the seam being mined, some operators' work positions may require them to remain in the 5- to 3-feet zone for long periods while operating the mine. Allowing or requiring the 5-feet alarm to continue to sound and flash until the operator steps out of the 5- to 3-feet alarm zone could, and most likely would, result in operators either ignoring or circumventing the system.

Let me now address the issues concerning the possibility of requiring proximity detection on full-face miners with integral bolters.

First, let me say that, to my knowledge, there have been few, if any, issues during my career involving crushing-type injuries that were caused by the normal movement of a full-face machine with integral bolters. These machines are much larger and much slower than our place change miners. They are not equipped with the high-speed turbo tram, which I believe has been a factor in most place change miner accidents. These miners have limited space around them and they stay in the same mining place until that place is completed.

During the mining process, our full-face
machines will have as many as seven employees in close
contact with the machines while they are performing their
duties. One miner operator, two roof bolters, two rib
bolters, one tube man, and, at times, one foreman. These
individuals are always within 3 feet of the stopping zone
for their entire shifts. This makes proximity detection
impossible for these units during the actual mining
process. I have considered the possibility of providing
proximity detection during the moving from one place to
another, but that appears to be an issue in itself.
Namely, how would you activate the proximity system?
You could activate it by the reverse tram
feature, because we're in reverse many times during the
shift. You could not activate it by high tram, because
we rarely go into high tram, and that wouldn't cover
anyone while backing out. Also, during mining, the
tracks are sometimes driven in the higher speeds to spin
the track chain, or the cats, and dig down into the floor
for leveling the machine. So higher tram speeds are
required in the actual mining process at the face. You
could not activate it by the cutter head function,
because our roof bolter and rib bolter are continuously
in contact with the machine when it is cutting and when
it is not cutting coal or rock. You could not have a
proximity on-and-off switch that has to be activated
manually, because you would not trust that miners would
turn it on, when required. These are all issues that
should be resolved before deciding to require proximity
on full-face machines.

In closing, I want to say that I support the
installation of proximity detection systems for the
purpose for which they are intended; to provide an
additional training tool and warning device. I do not
believe that the current technology is sufficient to deem
proximity as a fail-safe system. Miners should never
rely on proximity detection to protect them from the
hazards of crushing and pinning-type accidents, just like
drivers should never depend on seatbelts or airbags to
protect them from injury resulting from unsafe driving.

Thank you for your time to listen to my
comments, and thank you in advance for taking time to
consider them before making your final determination of
this proposed rule.

MODERATOR FONTAINE: Thank you.

Do you have anything?

MR. CHIRDON: I do not have anything.

MODERATOR FONTAINE: Do you have anything?

MR. WARD: You said you had 11 place change
machines now with the proximity detection systems?

MR. TODD MOORE: I have 11 place change miners.
Not all of them. I have one miner equipped.

MR. WARD: And with the one equipped, at what point does the system stop? Do you use a 3-foot distance? Do you have a set distance?

MR. TODD MOORE: Yeah. The 3-foot is pretty close to where we have it set. It kind of varies around the area of the machine. The generators aren't consistent all the way around the machine. They're all through. Some on the left or the right. But 3 to 4 feet.

MR. WARD: And when the machine is cutting rock or coal, is it still 3 feet?

MR. TODD MOORE: We've tried a couple different approaches. We tried tying it to the low tram speed, and we've also tried tying it to the cutting. We have currently just switched it back to the cutting, so whenever the miner head is turning, the unit is off; the system is off.

MR. WARD: Okay. Thank you.

MR. CHIRDON: I don't have anything.

MR. TODD MOORE: You're too easy, Dave.

MODERATOR Fontaine: Thank you. Okay. We don't have anybody else signed up to present.

Is there anyone that would like to? No? Okay.
Well, if nobody else wishes to make a presentation, I, again, want to say that the Mining Safety and Health Administration appreciates your participation at this public hearing.

I thank everyone who has made a presentation, as well as those who did not present, for your attendance at this hearing and your interest in this rulemaking.

I want to emphasize that all comments must be received or postmarked by November 14th, 2011. MSHA will take your comments and your concerns into consideration in developing the Agency's final rule.

I want to encourage all of you to continue to participate throughout the rulemaking process.

This public hearing is concluded. Thank you very much.

(Whereupon, at 11:07 a.m., the hearing in the above-entitled matter was concluded.)
REPORTER'S CERTIFICATE

CASE TITLE: Public Hearing on Proximity Detection Systems for Continuous Mining Machines in Underground Coal Mines

HEARING DATE: October 25, 2011

LOCATION: Washington, Pennsylvania

I hereby certify that the proceedings and evidence are contained fully and accurately on the audio and notes reported by me at the hearing in the above case before the Department of Labor, Mine Safety & Health Administration.

Date: October 25, 2011

ANTHONY & ASSOCIATES, INC.

SHEILA A. ROZANC (Official Reporter)