



Alpha Natural Resources

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November 28, 2011

Ms. Roslyn Fontaine, Acting Director
Office of Standards, Regulations, and Variances
Mine Safety and Health Administration
1100 Wilson Boulevard, Room 2350
Arlington, Virginia 22209-3939

Re: RIN 1219-AB65 Comments on Proposed Rule on Proximity
Detection

Systems for Continuous Miners in Underground Coal Mines

Dear Ms. Fontaine:

Alpha Natural Resources (“Alpha”) on behalf of itself and its affiliates offers the following comments to the Mine Safety and Health Administration (“MSHA”) concerning its Proposed Rule for Proximity Detection Systems for Continuous Miners to supplement Alpha’s testimony at hearing on October 25, 2011. The proposal was published at 75 Fed. Reg. 54163 (August 31, 2011).

Alpha’s affiliates 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. Alpha’s affiliates operate underground coal mines in Pennsylvania, West Virginia, Kentucky and Virginia.

While Alpha supports the use of proximity detection systems, we have reservations about the rule as proposed.

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We believe that the provision of the 18 month implementation schedule for existing continuous mining machines as provided at 75.1732(a) must be changed. We believe that the 18 month schedule is based upon overly optimistic assumptions. In our testimony we outlined many of the reasons for extending this deadline: the necessity of modifying existing machines during a rational rebuild process, the unavailability of parts and qualified personnel to perform the work, and the necessity of both federal and state approvals. We offer some additional comments in this area.

We believe that it is critical that the systems be installed properly. MSHA agreed with this premise in the preamble under 75.1732(b) that the "proper functioning of a proximity system is directly related to the quality of the installation . . ." We believe that this can only be accomplished by equipping the continuous miners with a proximity system during initial construction or during a planned rebuild at a designated re-build shop. For low seam mines this may be particularly critical because of the limited underground working space. Installation of such a system is not similar to simply adding a device to the continuous miner but of rewiring it to integrate all the components of the system into the electrical system (and then getting approval of the reconfigured system). Also as depicted in the Joy Mining Machinery presentation at the Charleston, WV public hearing significant modifications to machine bumpers and the addition of component guarding requiring major burning and cutting must be made to provide proximity detector units protection from the day to day rigors of mining. Installation during rebuild or replacement also permits state agencies the optimal inspection conditions before the machine goes underground, a prerequisite in Pennsylvania.

In addition if systems are installed in fashion which requires an extended period underground to work out the "kinks," the miners operating the machines will not develop the necessary confidence in the systems. Nuisance tripping of the systems because of poor installation does not serve the purpose of the rule. In support of the 18 month time period, MSHA has 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 controlled continuous mining machine in one midnight shift" (76 FR 54167). Any installation must be completed in a manner that assures to the extent possible that the device will be

mine worthy with minimal downtime. Alpha is very skeptical about the efficacy of underground installation and calibration.

If an approach is taken that assumes the proximity systems will be installed during replacement or rebuild of existing miners the 18 month period in the Proposed Rule is too short. At present Alpha has approximately 230 (215 Joy and 15 CAT) place change continuous miners in operation on any given day and is currently operating approximately 215 active place change continuous miner MMU's. The other 15 of the 230 CM's are being used for construction type activities.¹ The rebuild / replacement schedule is based on between 1.5 and 3.0 million raw tons mined taking into consideration the geology of the mine (% coal / % rock being mined) with the timeframes being accelerated at operations cutting a high percentage of rock. The current rebuild / replacement schedule is:

Year	Rebuild	Replace	Total
2012	17	17	34
2013	30	32	62
2014	30	30	60
2015	30	30	60

Continuity of production during the rebuild cycle is accomplished through a very thorough rebuild/replacement planning procedure to ensure that face-ready replacement continuous miner is available for use prior to taking a continuous miner out of service for rebuild.

It should be clear that even with a 36 month phase-in schedule Alpha and the rest of the industry is proposing that this schedule would require acceleration of rebuilds and replacements.

We also reiterate our comment from our testimony that the rule should not apply to full face miners. The schedule proposed by industry is robust

¹ We believe that the rule should specify that face miners be given priority over construction miners.

enough for re-fitting the place change miners. There has been no test work yet done on full face miners. As discussed in the Washington, PA hearing there is a minimal risk associated with these miners as they move from entry to entry a minimal number of times. Their use is different and there is not the same potential hazard from the frequent changing of places. Too many issues also remain for such machines to address the difference between when mining and bolting is occurring as opposed to the moving of the miner. Any attempt to develop a standard without the necessary testing and development may well result in the "law of unintended consequences" in that an untested rule may create a problem that doesn't presently exist.

We believe that the estimates on the time it will take to accomplish the training are understated. Most operators are assuming a 2-3 week training period. As we see it training is more than an introduction into operation and maintenance training related to the proximity system. Joy estimates that its personnel would be on site for their systems for a period of 3-5 days. They will accomplish the training on the basic operation and maintenance of the systems. Once that is accomplished there will be additional training so that the miners who operate the machines accept and "buy into" the efficacy of the systems and the reason they have been installed. This worker training is a key part of the effort to not only install units on machines but to get workers to accept and use the units as a safety device to be embraced. We base these estimates on our experience to date as well as information provided by other coal operators with similar proximity system experience.

We believe that MSHA has underestimated the cost involved in the implementation of the rule. One major proximity supplier has estimated that the total cost of installation of system will be as much as \$100,000 per machine, \$75,000 for hardware and \$25,000 for installation and calibration. The lowest proximity system hardware only estimate we are aware of is approximately \$35,000 per machine. We believe that to Alpha alone the costs will approximate \$17-20 million. We also believe that the cost related to the number of personnel sensors that must be available on a section will be higher than MSHA believes. It appears that anyone who may be in the vicinity of a continuous miner will necessarily need a location sensing device. Also MSHA has based its cost estimates on the moving of machines out of the mines to shop locations that are part of rebuilding to be a neutral cost to the operator. As we have stated that

position is only correct if the installation timing is spread out to a 36 month window as we have suggested.

Alpha remains concerned with the removal from service provision provided in Section 75.1732(b)(4). As proposed, the rule requires a continuous miner with a malfunctioning proximity detection decision to be immediately removed from service. Alpha believes that the first line of defense for protection against miners being pinned is diligent red zone training and continued observation of miners while moving machines. Alpha's position is that proximity detection is a supplement to good red zone training. Alpha believes that provided the red zone training continues at operations, immediately removing a malfunctioning device from service is unnecessarily severe and provides little benefit to 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 are also likely to be problems with the hardware as the harsh operating conditions underground impact the systems' function. If the final rule remains as proposed it will significantly impact mine operations. Alpha believes that the rule should be revised to allow operators to use the mining machine until the following maintenance shift. At our mines there is normally one maintenance shift every 24 hours.

Alpha would like to address the enforcement of the Act. As proposed at 75.1732(b)(1), to be approved, a proximity detection system must "[c]ause a machine to stop not closer than 3 feet from a miner" except as otherwise provided. Sections 75.1732(b)(1)(ii) and (b)(2)(ii) allow for the machine operator to be closer than 3' / 5' respectively but must shut off machine operations and / or alarm if any other miners come into the designated 3' / 5' zones. None of the currently available proximity systems are realistically designed to do this. This would require reconfiguring the system each time a different operator takes the controls which occurs on regular basis especially on "super sections" Based on our conversations with the proximity system vendors it appears that technology for this type of requirement is not currently available with the approved systems.

Also, we understand the word "stop" in the proposed rule to mean that, rather than deenergization of the machine, stopping certain machine movements

or something similar. If the machine is deenergized and the power must be reset each time, it will encourage miners to create ways around the system because of the nuisance nature of such a requirement.

We remain concerned about measurement of the 3 and 5-foot distances. Alpha is concerned that operators will be cited for violations of the proposed standard when an inspector finds that a machine is stopping within the 3 feet provided. It is unclear from the rule how the 3 feet for stopping and 5 feet for warning is measured. As the proposed standard is unclear on how the measurements will be made it is likely that the zones may become an issue of contention with adjustments being made based on who is inspecting.

Apparently some MSHA personnel contemplate testing the system every shift by bringing a sensor on a stick within three feet of the machine. If MSHA is contemplating that sort of testing it should be clarified in the rule.

We would be remiss if we did not mention another means of reducing the 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 for the proposed proximity detection system 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. 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. It is during equipment moves that operators are most at risk. It is not during the maneuvering in the cut that mines have been using.

Reducing risk of mining machinery pinching/pinning accidents should be viewed in its totality. A well designed red zone training and enforcement process coupled with a well installed proximity device coupled with a minimum number of machine moves combine to reduce the risk of accidents.

In conclusion, Alpha supports working to end red zone injuries. We believe that the proximity detection systems can serve to help work towards that goal. Alpha further believes that proximity devices are a needed supplement to the people based approach to red zone accident prevention that the industry and other stakeholders have fostered. We believe that if MSHA gives us more time to install the systems and works with mine operators to address our concerns regarding deep cuts, enforcement and malfunctioning systems, the rule will be improved. Thank you.

Respectfully Yours,

A handwritten signature in cursive script, reading "John M Gallick". The signature is written in dark ink and is positioned above the printed name.

John Gallick