From: Stan Popich <Stan.Popich@rosebudmining.com>
Sent: Wednesday, December 09, 2015 10:00 AM
To: zzMSHA-Standards - Comments to Fed Reg Group
Subject: Emailing: Rosebud Mining Comments to the Proposed Proximity Rules
Attachments: Rosebud Mining Comments to the Proposed Proximity Rules.docx

DEC 09 2015

To Whom It May Concern:

Please see the attached comments concerning the proposed rule for Mobile Machines in Underground Mines.

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Rosebud Mining Comments to the Proposed Proximity Rules

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AB78-COMM-36-1

December 10, 2015

Mine Safety and Health Administration
Office of Standards, Regulations and Variances
1100 Wilson Boulevard
Arlington, VA 22209

Re: Proximity Detection Systems for Mobile Machines in Underground Mines
RIN 1219-AB78

To Whom It May Concern:

Rosebud Mining Company ("Rosebud") offers the following comments to the Mine Safety and Health Administration ("MSHA") concerning its Proposed Rule entitled "Proximity Detection Systems for Mobile Machines in Underground Mines," 80 Fed. Reg. 53070 (September 2, 2015).

Rosebud Mining Company was established in 1979, and currently owns and operates approximately twenty-three underground bituminous coal mines and various coal preparation plants throughout Pennsylvania and Ohio. Rosebud's underground mines extract coal from the Kittanning and Freeport coal seams, with the coal seams generally measuring between 32 and 48 inches thick. Rosebud's mines use continuous haulage systems exclusively for the transportation of coal from continuous mining machines to the belt.

I. Introduction

On September 2, 2015, MSHA published its Proposed Rule on Proximity Detection Systems for Mobile Machines in Underground Mines. 80 Fed. Reg. 53070. The deadline for submitting comments is December 1, 2015. The proposed rule seeks to require coal mine operators to equip proximity detection systems on coal hauling machines, including continuous haulage systems, and scoops on working sections using continuous mining machines. The proposed rule also includes a progressive compliance phase-in period of 8-36 months depending upon the date of manufacture and installation of proximity technology in advance of the final rule. MSHA requests comment on numerous items including those not explicitly included in the proposed rule. For these comments, Rosebud focuses

primarily on the proposed rule's application to continuous haulage systems. The failure to address any issue within these comments does not constitute a waiver of any such issue.

II. Section-by-Section Analysis.

A. Rosebud opposes 30 C.F.R. § 75.1733(a) which would require the use of proximity detection on continuous haulage systems.

The proposed rule would require coal mine operators to equip coal hauling machines (shuttle cars, ramcars, and continuous haulage systems) and scoops on working sections using continuous mining machines with proximity detection systems. The proximity detection systems proposed by the rule are similar to those required for continuous mining machines and include machine mountable and miner-wearable components. The proximity detection systems proposed by the rule provide both a warning and will stop equipment. In support of requiring proximity detection systems on coal hauling machines and scoops the proposed rule relies on data from 1984 to 2014, related to accidents and fatalities purportedly caused by such equipment. Additionally, the preamble includes MSHA's familiarity with the use of proximity detection systems outside of the United States.

Absent from the proposed rule, however, is any meaningful discussion regarding the mining industry's or MSHA's purported experience or observations of proximity detection systems in use on continuous haulage systems. In fact, the proposed rule states that MSHA is merely "aware" of one instance that a manufacturer installed machine mounted proximity detection on a continuous haulage system and then demonstrated it to a mine operator. See 80 Fed. Reg. 53074. The proposed rule provides no information about that demonstration including whether or not it was successful. What the proposed rule states is that MSHA has not even observed, let alone tested and researched, the use of proximity detection on continuous haulage systems. See 80 Fed. Reg. 53074. What's more, the proposed rule concludes that MSHA anticipates challenges with "adapting proximity detection systems to continuous haulage systems" due to the unique characteristics and use of the machines, but it provides no examples of such issues.

Implementing proximity detection on equipment that presents a significant crushing and pinning hazard should be a long-term goal given the potential safety benefits, but with respect to continuous haulage systems, the data does not support implementing a rule. Most continuous haulage systems are cat-mounted, and by

design, move much more slowly than other equipment. Sudden movement is not a concern because of the slow tramming capability. There is also limited access or exposure to these machines due to their size and the width of the entry in which they travel. Lack of visibility also is not an issue, with comprehensive visibility of areas maintained during operation through the use of multiple operators.

A review of the data related to accidents and fatalities involving continuous haulage systems demonstrate that there is not a significant crushing or pinning hazard. From 2000 to 2015, out of the twenty-three fatalities involving shuttle cars, coal haulers, scoops and continuous haulage systems, only three were associated with continuous haulage systems. And of those three fatalities, proximity detection was not necessary to prevent any of them. In 2000, a machine operator was killed when he leaned out of the operators' compartment and crushed himself while tramming the equipment. In 2006, a miner fell onto a moving belt and was found lodged between the belt and the mobile bridge conveyor's discharge assembly. In 2006, a miner was killed after leaving his equipment to work on the systems conveyor chain without locking or tagging out the equipment.

Proposing a rule before MSHA has determined whether proximity detection on continuous haulage systems will work puts the cart before the horse. It would appear that neither MSHA nor the mining industry, including proximity detection manufacturers, have conducted meaningful research or testing. At the public hearing in Denver, Colorado on October 6, 2015, Mark Walling of Strata Corporation (one of two approved proximity manufactures) stated that "Continuous haulage proximity systems require additional approval." To date, Rosebud is unaware of any approval. Additionally, at the public hearing in Beckley, West Virginia on October 19, 2015, a commenter testified that in testing a proximity system on a continuous haulage system, he experienced unwanted equipment shutdowns caused by a person located in close proximity to the cable in an outby area.

Rosebud is aware that the proximity detection systems may be adversely affected by the geology of underground workings. Rosebud is also aware that energized power cables and the use of wire mesh as roof support have caused interference with proximity detection systems resulting in a failure of the system to locate the miner-wearable component reliably. Rosebud anticipates that the design and use of continuous haulage systems will lead to similar issues. One commenter at the October 29, 2015, public hearing in Indianapolis, Indiana, described instances where a continuous mining machine cable shut down a coal hauler when

the coal hauler traveled approximately six to eight inches from the cable. Continuous haulage systems are all attached to a steel-framed belt assembly. Additionally, for certain continuous haulage systems the power supply for the continuous mining machine is maintained within the structure of the system. In that case, the continuous mining machine's power cable is carried in "troughs" along the continuous haulage system up to the cable entrance of the continuous mining machine. Rosebud anticipates that continuous haulages will experience significant electromagnetic interference from power cables, which may be exacerbated by the steel framing. And even in instances where continuous haulage systems are "detached," e.g., the miner is separated from the continuous mining machine, but it is attached to the framework of the belt, Rosebud is aware of no data regarding interference.

Rosebud also anticipates that miner exposure will also adversely affect the operation of continuous haulage systems. While continuous mining machines are operated typically by a single operator located a measured distance away from the machine, some continuous haulage systems require the operator to crawl beside it in close proximity to the controls. Moreover, Rosebud is aware that entry height affects the performance of the proximity detection stop zones for certain types of equipment. Because Rosebud's operations typically have entry heights below 48-inches, Rosebud expects to encounter stop zone issues due to entry height. Rosebud urges MSHA to conduct additional testing before implementing a rule requiring proximity detection on continuous haulage systems.

The proposed rule requests comments about modifications to machines already equipped with proximity detection, but clearly from the proposed rule MSHA is not aware of continuous haulage machines equipped with such technology in a production capacity. The comment request also assumes that the systems required by the proposed rule are sufficient, which according to the proposed rule is unknown.

MSHA also solicits comments for alternatives to proximity detection, but as previously stated Rosebud is unaware of proximity detection systems that are proven to work. And at least one of the two manufacturers has indicated additional approval is necessary for continuous haulage systems. In any event, MSHA should determine whether the use of proximity detection is viable for continuous haulage systems before seeking alternatives.

1. A proximity rule should exempt long wall sections.

MSHA also solicited comments on whether the proposed requirements should apply to any mobile machines, other than coal hauling machines and scoops, in use on or off the working section. Rosebud again states that the statistics provided in the preamble, like those for continuous haulage systems, do not support the need to equip all mobile equipment in outby areas of mines. Further, as detailed above, the technology is not sufficiently developed to implement such a requirement.

2. The statistics and data do not support a requirement to equip all mobile equipment with proximity detection systems.

The statistics provided in the preamble do not support a need to equip all mobile equipment with proximity detection. Similar to continuous haulage systems, equipment such as feeders and roof bolting machines do not typically pose a crushing or pinning hazard during use or when moving into position for use. And requiring the implementation of proximity detection on equipment (continuous haulage systems and diesel powered coal haulers) that MSHA has not even observed, let alone researched or tested, is improper. See 80 Fed. Reg. 53074-53075.

MSHA based its cost assessments by estimating that the average working section consists of seven miners, but Rosebud's sections typically consist of approximately 10-13 persons per section. Further, because of the miner-wearable component, Rosebud would likely have to purchase units for each miner in the mine to ensure compliance. Therefore, MSHA's cost assessment figures are unrealistic.

3. Proposed phase-in schedule is not feasible and should not differentiate between equipment.

The proposed rule provides that the final rule will be phased-in over a period of 8-36 months depending upon the date of manufacture and installation of proximity technology in advance of the final rule and whether the equipment can be worked on underground. Rosebud believes that under no circumstances could an 8-month timeframe work, and believes that it would be practically impossible to comply with a 36-month timeframe. Rosebud has approximately 30 sets of

continuous haulage equipment potentially affected by the rule. Such equipment has no regular schedule for rebuilds, and work is conducted based on need. The proposed rule is also silent as to who determines whether a piece of equipment can be equipped with proximity detection underground, but Rosebud anticipates that all of its units would require above ground work. The phase-in schedule should also not differentiate between equipment already installed with proximity detection because it may discourage much-needed testing of proximity detection until the promulgation of a final rule.

B. Any proximity detection rule should be performance based.

The proximity detection systems proposed by the rule are similar to those implemented on continuous mining machines and include machine mountable and miner-wearable components. The proposed rule states that proximity detection systems will provide both a warning and will stop all movement of the machine. The machine would remain stopped while a miner is within a programmed "stop zone." Without having the benefit of testing and research, Rosebud would agree with NIOSH that the functions of the proximity detection should be performance-based. As stated above, Rosebud is aware that stop zones are affected by mining conditions and entry height. Utilizing a performance-based standard determined by the operator and equipment manufacturers would allow mine operators to establish the safest and most efficient use of proximity detection.

Additionally, Rosebud does not support the total de-energization of all functions of the equipment. The hazards the proposed rule seeks to alleviate are crushing and pinning injuries. To the extent equipment functions do not contribute to such hazards, there is no reason to include it in the rule.

C. MSHA must explain the procedure for functionality checks under 30 C.F.R. § 75.1733(c).

The proposed rule would require that operators designate a person to perform a check on the machine mounted component to verify that the system is functioning at the beginning of the shift, or before use, whichever occurs first, and one hour before a shift change if shifts overlap. Rosebud is unsure how MSHA proposes to test the functionality of the proximity detection given that such testing presumably includes operating the equipment and exposing the miner-wearable sensor to it to see if the machine stops. MSHA cannot expect each miner to test each wearable sensor to each machine mounted component. Like determining whether proximity detection is even feasible on continuous haulage systems,

Rosebud believes that MSHA should conduct additional testing and research on this issue.

D. Creating and retaining records used under proposed 30 C.F.R. § 75.1733(d) is unnecessary.

The proposed rule would require for a certified person to check the equipment, provide a date, time and initial of such check, and record any defects and corrective measures. The rule would also require a record of defects and corrective actions for the miner-wearable component. Records would be required to be kept for a period of one year.

Rosebud already conducts examinations required by 30 C.F.R. Section 75.512 and retains records of such examinations. Rosebud does not believe that additional testing or records are needed beyond those recorded during weekly examinations performed by certified electricians.

III. Conclusion

Rosebud Mining Company believes that the safety and health of its employees is best achieved through intelligent action, cooperation, and an understanding of safe work practices. The fact that there has been no meaningful testing or development of proximity detection systems for use on continuous haulage or an attempt to understand the unique problems associated with the use of proximity systems on continuous haulage does not further that tenet. Additionally, a review of the available historical data does not demonstrate that the use of proximity detection systems on continuous haulage will make miners safer. Therefore, the benefits of a proximity system on continuous haulage systems are suspect at best. For these reasons as well as those set forth in more detail above, Rosebud opposes the adoption of the proposed rule and submits that MSHA should exclude all continuous haulage systems from the proposed rule.

Thank you for the opportunity to comment on the proposed rule.

Very truly yours,

Stan Popich

Rosebud Mining Company