BRUCE WATZMAN
Senior Vice President, Regulatory Affairs

December 15, 2015

Ms. Sheila McConnell
Acting Director
Office of Standards, Variances and Regulations
Mining Safety and Health Administration
201 12th Street South, Suite 4E401
Arlington. VA 22209

Re: Comments of The National Mining Association on MSHA's Proposed Rule, "Proximity Detection Systems for Underground Mobile Machines in Underground Mines: RIN 1219-AB78; 80 Fed. Reg. 53,070 (Sept. 2, 2015)

Dear Ms. McConnell:

These comments are submitted on behalf of the members of the National Mining Association (NMA) in response to the Mine Safety and Health Administration (MSHA) proposed rule, "Proximity Detection Systems for Mobile Machines in Underground Mines," (80 Fed. Reg. 53,070). We appreciate having the opportunity to comment on this important rulemaking.

General Comments

NMA supports the goal of the proposed regulation, namely to "strengthen protections for miners by reducing the potential for pinning, crushing or striking accidents in underground coal mines." We maintain however that the technology available to comply with the rule has not been sufficiently tested, in actual mining applications, to ensure that it will perform as anticipated across the wide-array of applications where it will be required. This raises the potential for "false positives" that will increase the potential for miners to place themselves in dangerous conditions. As such we recommend the agency withdraw the proposed rule to permit additional research to be conducted upon which a new proposal can be put forth. Even if the agency proceeds with the rule as proposed, we believe it is unachievable within the timeframes proposed and contains performance requirements that will unnecessarily introduce confusion and controversy in the premature roll out of technology that should advance miner safety.

AB78-COMM-22

As discussed in the NMA written statement submitted to the House Subcommittee on Workforce Protections on Oct. 21, 2015, "While proximity technology was proven on an earlier category of equipment, the technology is not seamlessly transferable to the latest category of equipment contemplated by the proposed rule." For example, the technology has intermittent electrical interference problems that affects performance and known limitations of the technologies application on diesel-powered equipment must be overcome before its use is required.

Despite knowledge of interference problems in some applications MSHA, and only MSHA, has deemed the technology ready for application across the underground coal industry. This determination is inconsistent with the decision of the National Institute for Occupational Safety and Health (NIOSH) who recently initiated a research project to examine, among other things, outstanding questions regarding interferences that may impact system reliability and stopping distances. A copy of the NIOSH Project Planning and Management document is attached. Importantly, the project includes external partners, including the Mine Safety and Health Administration, as a project evaluator. Simply put, MSHA's decision to advance this rulemaking, in the absence of NIOSH completing its research, is unwarranted and jeopardizes the successful deployment of technology that can protect miners.

Despite the lack of research and performance verification by our nation's preeminent mine safety and health research agency, NIOSH, MSHA's proposal will impose unrealistic deadlines for operators to install and implement the technology. Additionally, the proposed rule will punish early adopters by imposing harsh and completely unrealistic deadlines for system upgrades. This despite the agency encountering the same problem upon issuance of the final rule requiring the installation of proximity detection systems on continuous mining machines in underground coal mines.

As discussed below, current rebuild schedules will not, in all but a few isolated cases, align with the proposed deadline for the installation of systems on existing machines. This will result in disruption of production schedules as machines are prematurely removed from service to the surface for installation of the proximity systems. Moreover, this proposal will further deter companies, in the future, from installing new technology in advance of MSHA rulemaking. The proposed rule, if finalized as is, will punish companies that took voluntary, proactive efforts in advance of the agency's promulgation of regulations, while rewarding those choosing to await the agency's actions. This is not warranted or justified. This rule and future technology forcing rules should reward early adopters to conduct early trials/testing instead of punishing them.

Lastly, unlike the proposed continuous mining machine rule which had the benefit of literally hundreds of pieces of equipment having been equipped and tested by industry, equipment manufacturers and NIOSH researchers this rule lacks a similar experiential basis. The application of proximity detection technology on the category of machines envisioned in this rule is not nearly as vast as was the case with the prior rule. The

continuous mining machine rule was predicated on a learning opportunity before a regulation was written – something lacking in the development of this proposal.

It is well-known that currently approved proximity detection systems are not perfect. They are 'best effort' systems which are dependent upon the mechanical systems (drive and braking) and control system (if any) present on the haulage vehicle to effectuate effective slowdown and stoppages. Currently approved proximity systems use low frequency magnetic fields subject to interference from mine infrastructure, geology, or other to-date unidentified environmental factors. The proposed rule requires the installation of proximity system technology on a vast array of faster-moving mobile equipment currently deployed in underground mines where practically every application is unique and most remain untested. This is especially true for braking systems, which are not present on continuous miner applications, and magnifies the importance of NIOSH's on-going research activities.

Before providing comments on the specific regulation, we want to address the agency's request to provide comment on extending the proposal to underground metal/non-metal mines. We endorse and incorporate by reference the comments submitted by NMA member Barrick Gold and specifically their conclusion that "these technologies are not yet intelligent and reliable enough for the metal/nonmetal environment..." We, like they, believe additional research and development work is necessary before the agency considers extending this requirement to the metal and nonmetal sector. Like the agency we believe the potential hazard profile in underground metal and nonmetal mines differs greatly than that of underground coal. Should the agency determine that application of this technology is appropriate and necessary for the non-coal sections an examination of the costs and benefits, focused solely on its application in these sectors, must be undertaken. Failure to include such an analysis in this proposal precludes the agency from extending this rule to the non-coal sectors.

The following are specific comments on the proposed rule.

I. Implementation Schedule

As published, the proposed rule provides two implementation schedules. First, an 8-month period, following the publication date of the final rule, for installation of proximity detection systems on newly manufactured coal haulage machines and scoops and machines with systems not meeting the requirements of the rule and secondly, a 36-month period for installation of proximity detection systems on coal hauling machines and scoops not equipped with an existing and this equipped with a non-compliant proximity detection system that requires removal to the surface for installation.

At each of the public hearings and in written submittals on the proposed rule, mine operators have expressed concern with the overly optimistic assumptions the agency employed in arriving at the implementation schedule as proposed. While the preamble

accompanying the proposal discusses the agency's estimate, based on conversations with proximity system manufacturers, of the time necessary to manufacture a sufficient number of systems, it is devoid of estimates of the time that will be required to retrofit the existing fleet of coal haulage machines and scoops in use across the underground coal industry.

We, like other commenters, have significant doubts regarding the ability of the industry (mine operators and equipment manufacturers) to achieve compliance with the proposed implementation schedule and importantly, believe it demonstrates a fundamental misunderstanding of the rebuild schedule for the type of equipment covered by the proposed rule.

Contrary to the rebuild schedule for continuous mining machines which, because of their usage require more frequent for rebuilding, coal hauling machines and scoops are normally scheduled for rebuild every 5 years. However, due to coal market conditions, haulage rebuild schedules are now being extended and a 6 to 7-year re-build schedule is not uncommon. The proposed 8 to 36 month time-frame for installation of proximity systems which require installation while the machines are on the surface will create a significant hardship for operators. (See testimony of Jeff Yates, Paramount Coal, Deep Mine 41 at Public Hearing on Proximity Detection Systems for Mobile Mining Machines in Underground Mines, Oct. 19, 2015, at pages 36-37) (See also testimony of Todd Moore, CONSOL Energy, Id at page 53).

During the field hearing conducted on Oct. 29 in Indianapolis, MSHA received testimony from representatives of Peabody Energy who shared their experience installing proximity technology systems, across a variety of mines and geologic conditions. As reflected in the testimony of Calvin Melvin, Peabody has found "no current technology that will operate effectively on mobile equipment in the different mining environments. (Public Hearing on Proximity Detection Systems for Mobile Mining Machines in Underground Mines, Oct. 29, 2015, at page 21). Significantly, Mr. Melvin testified that Peabody's experience demonstrated that, "The system is influenced by the pyritic content of the coal seam, [t]he wire mesh used to support the roofs, and the energized power cables that are used to provide power at the continuous miner roof-bolting machines. (Id at page 23). Of critical importance Mr Melvin noted that, "These influences do not allow the system to locate the miner variable component with any accuracy or consistency, making it nearly impossible for the hauler to work in close proximity to the continuous miner or operator." (Id at page 23)

During consideration of the proposed rule for the installation of proximity detection technology on continuous mining machines the agency received testimony regarding the implementation schedule for retrofitting the existing fleet of machines. Using the same approach and the agency's estimate of 1,987 machines impacted by the rule, 248 machines will have to be retrofitted per month to comply with the proposed 8-month implementation schedule. We question whether or not there is enough capacity to

handle that [rebuild] workload and whether the wide-array of rebuild facilities have the expertise and technical capability to install systems on rebuilt machines at the rate required to achieve compliance with the proposed implementation schedule.

Additionally, the proposed 8-month implementation schedule for certain pieces of coal hauling machines and scoops will disrupt normal rebuild schedules as operators, in order to comply with the implementation schedule, will be forced to remove these machines from service solely for the purpose of installing proximity control systems. Consider for example a re-built shuttle car returned to service 30 or 60-days prior to publication of the final rule. Under the proposed rule this machine would have to be withdrawn from service long before its next scheduled rebuild. While this may seem insignificant to the agency, we recommend this be viewed not only from the perspective of the safety benefits introduced by installation of the new technology but also from the perspective of the safety hazards that will be unnecessarily introduced during the process of removing the machine from the mine and preparing it for transport to the rebuild facility.

In sum, we believe the agency has proposed an overly optimistic compliance schedule that is unrealistic, unachievable and threatens to undermine the quality control installation processes required for a system that miners and mine operators can rely upon. While we share the agency's desire to see that systems are installed as expeditiously as possible, we encourage the agency to be guided by those who will be called upon to install these critical safety systems in a manner that ensures that they are functional, reliable and mine worthy. We cannot afford hastily made decisions merely to comply with an arbitrary compliance schedule.

If the agency decides to issue a final rule, we recommend that the timeframes for implementation be revised as follows:

a. 18 months after publication of the final rule all newly manufactured coal haulage machines and scoops must be equipped with proximity detection technology; and
b. 60 months after publication of the final rule all coal haulage machines and scoops in use must be equipped with proximity detection technology.

II. Equipment Reliability

Proposed § 75.1733(b)(4) delineates system reliability requirements. As we remarked when commenting on the proposed rule for the installation of proximity detection systems on continuous mining machines, this proposal would permit movement of haulage machines and scoops only for the purpose of relocating a machine from an unsafe location for repair where the proximity detection system prevents movement due to system failure.

As proposed the rule would require that haulage equipment and scoops machines with malfunctioning proximity detection systems or control system integration failures be immediately removed from service until repairs are completed. We believe this provision is overly onerous, that alternative protective measures can be successfully employed until repairs are performed during the next maintenance shift and that the agency has ignored to potential impact of this requirement.

We expect, as in the case when introducing new technology, that systems and integration-point malfunctions, however remote, will occur. The currently approved systems are not perfect. They are 'best effort' systems which are dependent upon the mechanical systems (drive and braking) and control system (if any) present on the haulage vehicle for effective slowdown and stop functionality. Currently approved proximity systems use low frequency magnetic fields subject to interference from mine infrastructure, geology or other to-date unidentified environmental factors. The proposed rule requires the installation of proximity system technology to a vast array of faster-moving mobile equipment currently deployed in underground mines where practically every application is unique and most are still untested. This is especially true for braking systems which are not present on continuous mining machines.

The agency's solution where this occurs is to require the operator to remove the equipment from service and potentially curtail production on that producing section. This approach ignores practices in place today that permit operators, in other instances, to continue operating provided alternative safeguards are employed. Industry has never assumed that the proximity systems would be a standalone safety device. Rather it has been the industry's view that the proximity devices would supplement already robust safety systems and training programs. Assuming that operators continue to maintain their red zone training regime, an operator should be provided the opportunity to operate when the machine' proximity system malfunctions. This can be limited until the next maintenance shift.

NMA members recommend that the final rule be amended to permit mine operators to continue to operate haulage machines and scoops with malfunctioning systems, under limited conditions, until the following maintenance shift and that such machines not be returned to service until the functionality of the system has been restored.

In closing we want to reiterate our support for the goal of the proposed regulation. Injuries resulting from working around coal haulage machines and scoops can be prevented and we look forward to working with the agency to achieve this objective in a manner that does not unnecessarily burden operators during this difficult period.

Sincerely,

Bruce Watzman

National Mining Association 101 Constitution Avenue, NW | Suite 500 East | Washington, DC 20001 | (202) 463-2600