November 28, 2011

Ms. Roslyn Fontaine  
Acting Director  
Office of Standards, Variances and Regulations  
Mining Safety and Health Administration  
1100 Wilson Boulevard  
Arlington, VA 22209


Dear Ms. Fontaine:

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 Continuous Mining Machines in Underground Coal Mines,” (76 Fed. Reg. 54,163). We appreciate having the opportunity to comment on this important rulemaking.

The National Mining Association supports the goal of the proposed regulation, namely to “strengthen protections for miners by reducing the potential for pinning, crushing or striking fatalities and injuries to miners who work near continuous mining machines.” We maintain however that the rule, as proposed, is unachievable within the timeframes proposed and contains performance requirements that will unnecessarily introduce confusion and controversy in the introduction of technology that all agree will advance miner safety.

By way of background, in 2008 NMA issued the first of what has become a series of hazard alerts to the mining community. The first of these alerts, “Stay Away: Stay Alive” was designed to remind miners and mine operators of the potential hazards working around continuous mining machines. Designed as an educational tool, the poster, hard-hat stickers and training video recognized that behavior’s and personal decision-making are critical factors to prevent injuries and fatalities when working...
around continuous mining machines. We recognized then, and its remains a truism today, that miner training is an essential element to prevent the injuries and fatalities that have been discussed in the preamble. Indeed, we share the views of many that proximity detection technology is a high-tech training tool that teaches miners where to locate themselves during machine movement to prevent injury with an accompanying fail-safe mechanism in the event that an individual ignores the training they have received. It is with this background that we offer the following comments which focus on three elements of the proposed rule: implementation schedule, stopping distances and machine maintenance and removal from service.

I. Implementation Schedule

As published, the proposed rule provides two implementation schedules. First, a 3-month period, following the publication date of the final rule, for installation of proximity detection systems on newly manufactured continuous mining machines and secondly, an 18-month period for installation of proximity detection systems on machines manufactured on or before the date of publication of the final rule. While the wording of the proposed rule and preamble has caused some confusion, we believe the opening statement offered at each of the four public hearings held by the agency on the proposed rule has corrected any misunderstanding caused by the drafting errors in the Federal Register notice and this interpretation will serve as the basis for these comments.

Irrespective of the exact wording of the regulation and the accompanying preamble, we like other commenters have serious reservations regarding the ability of the industry (mine operators and equipment manufacturers) to achieve compliance with the proposed 18-month implementation schedule for continuous mining machines manufactured before the publication date of the final rule.

At each of the four public hearings and in written submittals on the proposed rule, mine operators and the manufacturers of continuous mining machines have expressed concern with the overly optimistic assumptions the agency employed in arriving at the 18-month implementation schedule. 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 to outfit the entire fleet of existing and newly manufactured continuous mining machines, it is devoid of continuous mining machine manufacturer estimates of the time that will be required to retrofit the existing fleet of 1,150 place-change continuous mining machines in use across the underground coal industry.

In the absence of such documentation we find the testimony of Mr. Brian Thompson, Joy Mining Machinery, offered during the public hearing conducted on Oct. 20 in Charleston, W.Va. instructive and compelling. First, with regard to the actual installation of proximity systems on existing equipment Mr. Thompson
suggests that doing so underground “in one midnight shift”, as one commenter has suggested (Fed. Reg. 54,167) is “not the best environment to be doing large amounts of cutting and welding and multiple shifts-style working” (Tr. at 31) and that “proper function of the systems which is directly related to the quality and installation” can best be achieved in a “workshop environment”. (Id) These same concerns were also addressed by Mr. Aric Pryor, Matrix Design Group, a manufacturer of one of the MSHA approved proximity detection systems, who at the public hearing conducted in Denver, Colo. on Oct. 18 stated, “...we are not recommending anybody install our system in the field ... it needs to come through a rebuild shop to be installed properly,” (Tr. at 40) Discussions with another continuous mining machine manufacturer have indicated similar concerns regarding the installation of proximity systems during non-production shifts underground.

Second, and of equal importance, is Mr. Thompson’s testimony related to the 18-month implementation schedule for retrofitting the existing fleet of continuous mining machines with proximity detection systems. Using the agency’s estimate of 1,150 place-change continuous mining machines in use throughout the underground coal industry, Mr. Thompson calculates that 64 machines would have to be retrofitted per month to comply with the proposed 18-month implementation schedule. This stands in stark contrast to Joy’s normal rebuild schedule of 11 machines per month (see PowerPoint accompanying testimony at 8). Understandably, Mr. Thompson concludes “there’s not enough capacity in the U.S. market to handle that [rebuild] workload.” (Id.) Additionally, the proposed 18-month implementation schedule will disrupt normal rebuild schedules as operators, in order to comply with the implementation schedule, will be forced to remove continuous mining machines from service solely for the purpose of installing proximity control systems. Consider for example a re-built continuous mining machine 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 schedule 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 continuous miner 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. 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. Such was the case with the introduction of new technology to comply with the MINER Act and the
industry continues to suffer the unfortunate consequences of those decisions as product recalls and hazard alert bulletins have ensued due to equipment malfunctions.

Based on conversations with the manufacturers of continuous mining machines and with mine operators regarding rebuild cycling schedules we recommend that the timeframes for implementation by revised as follows:

a. 6 months after publication of the final rule all newly manufactured continuous mining machines must be equipped with proximity detection technology; and
b. 36 months after publication of the final rule all continuous mining machines in use must be equipped with proximity detection technology.

II. Proposed Performance Standards – Zone Determinations

The second issue of concern is § 75.1732(b)(1). As was the case with regard to the implementation schedule, witnesses at each of the four public hearings have expressed concerns with the prescriptive nature of this provision that will require a proximity detection system to cause a continuous mining machine to stop no closer than three feet from a miner, except in certain limited circumstances.

As testified to by Mr. Aric Pryor, Matrix Design Group and Mr. Phil Rosenstein, Joy Mining at the public hearing conducted in Denver, Colo. on Oct. 18, 2011, the proposal as written presents operational and design challenges that will be difficult, if not impossible, to guarantee on an absolute basis. Mr. Pryor’s acknowledgment that, “We cannot control if the machine continues to move” (Tr. at 12) raises significant concerns regarding a mine operator’s ability to ensure compliance with the strict nature of the proposed regulation. This, when considered in combination with Mr. Rosenstein statement that “The personal-wearable device may be read differently at different times based on environmental conditions or even at some height can vary it. That could affect this 3-foot stopping distance even on perfectly level ground.” (Tr. at 14) increases the possibility that miners will be provided a false sense of security that a continuous mining machine will cease movement within a defined distance when in fact evidence indicates otherwise.

In light of these concerns we endorse the recommendation presented by Mr. Bert Hall, Peabody Energy Corporation, at the public hearing conducted in Evansville, Ind., Oct. 27 that the final regulation should require the "machine must stop before contacting any person during the normal place change operation of a continuous mining machine." (Tr. at 13) Adoption of such a performance standard will, we believe, provide miners the protection intended by the proposed rule while permitting mine operators to define safe “red” zones responsive to the environmental and operational conditions of their mines. Such an approach is consistent with the views of the National Institute for Occupational Safety and Health who, in response to the “Request for Information” issued on Feb. 1, 2010
maintained that the “goal of a proximity detection system should be to prevent machine actions or situations that injure workers while not placing restrictions on how the workers do their jobs.” We agree.

III. Equipment Availability

Proposed § 75.1732(b)(4) would permit movement of a continuous mining machine 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 continuous mining machines with malfunctioning proximity detection systems 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 system malfunctions, however remote, will occur. 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 industry’s assumption that the proximity devices would supplement an already robust red zone training process that has been in place. 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 continuous mining machines 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 continuous mining machines can be prevented and we look forward to working with the agency to achieve this objective.

Sincerely,

Bruce Watzman