



December 1, 2015

DEC 15 2015

Department of Labor
Mine Safety and Health Administration
201 12th Street
Suite 4E401
Arlington, VA 22209-3939

Via Electronic Submission

Dear Sir or Madam:

Re: Proximity Detection Systems for Mobile Machines in Underground Mines
Docket No. MSHA-2014-0019
RIN 1219-AB78

The Portland Cement Association (PCA) appreciates the opportunity to submit comments on the proposed rule, "Proximity Detection Systems for Mobile Machines in Underground Mines", published in the Federal Register on September 2, 2015. 80 Fed. Reg. 53,070 (Sept. 2, 2015).

PCA is a not-for-profit trade association that represents companies responsible for more than 80 percent of the portland cement production capacity in the United States. It conducts market development, engineering, research, education, technical assistance and public affairs programs on behalf of its member companies. PCA's mission focuses on improving and expanding the quality and uses of cement and concrete, raising the quality of construction, and contributing to a better environment.

The Mine Safety and Health Administration (MSHA) states that the proposed rule applies only to underground coal mines. However, MSHA requests comments regarding the potential application of proximity detection systems (PDS) on mobile machines in underground metal and nonmetal mining operations, and potentially requiring miners to wear reflective clothing in underground coal and metal and nonmetal mines.

PCA supports the goal of preventing "pinning, crushing, or striking hazards associated with mobile mining machines."¹ However, technology must not replace employee education as it relates to awareness of hazards when working around mobile underground equipment; miners must make individual decisions and engage in behaviors which ensure their personal safety. Proximity

¹ 80 Fed. Reg. 53,071 (Sept. 22, 2015)

detection systems may in some circumstances serve as a beneficial supplement to individual behaviors and safety programs.

Comments on Requiring Proximity Detection Systems of Mobile Machines in Underground Metal and Nonmetal Mines

The PCA believes that there is not enough information regarding the potential benefits and complications of PDS in underground metal and nonmetal mines to justify requiring their use. We recommend that MSHA engage in a study before taking further action. Although both coal and metal and nonmetal mining operations engage in room and pillar type mining, there are significant differences between the two.

The typical layout of underground coal mines tends to require relatively close clearance for individuals traveling and/or working by foot or machine. In contrast, underground metal and nonmetal mines tend to have a more expansive arrangement and lack the congested environment found in coal mines. The more expansive layout may render PDS equipment less effective and less likely to provide the safety improvements that the equipment might provide to underground coal mines.

Additionally, equipment used in underground metal and nonmetal mining operations likely would interfere with PDS. For example, Mr. Brian Thompson, of Joy Mining Machinery (one of the vendors who provide PDS equipment), has testified that “coiled trailing cable, large metal objects, and power centers” can cause interference with the proximity detection system. All three are found in underground stone mines, and therefore, interference into the reliable and safe operation of PDS is expected from these other electrical systems. In the final rule requiring PDS on continuous mining machines², the MSHA disregarded the comments by this individual by stating the “MSHA has not experienced issues with adverse interference, with or from other electrical systems, associated with 425 systems in use on continuous mining machines in underground coal mines.”³ MSHA’s lack of experience with these issues does not mean they do not exist. Mr. Thompson, the expert, states that the problems can occur.

At this time, the available data on the potential benefits of PDS in underground metal and nonmetal mines is insufficient to justify requiring their use. MSHA must do additional work to study the potential benefits and costs of this equipment before imposing further obligations. PCA strongly recommends that MSHA work with the National Institute for Occupational Safety and Health (NIOSH) to analyze the use of PDS in underground metal and nonmetal mines. The mining safety group at NIOSH is uniquely equipped and qualified to conduct such a study.

Comments on Requiring Miners to Wear Reflective Clothing in Underground Coal and Metal and Nonmetal Mines

² 80 Fed. Reg. 2,188 (January 15, 2015)

³ Id at 2,195

Employees working in heavy manufacturing today generally wear reflective clothing as a visible indicator of their presence to other individuals working in the area. All miners working in an underground coal mine must wear a hard hat that has six square inches of reflective material on each side and the back of the cap.⁴ In addition, miners often wear reflective clothing on other personal protective equipment, such as coveralls.⁵ Wearing reflective material on clothing is not unique to the mining industry. Many additional industries, such as road and building construction, have a general safety requirement that employees wear reflective material. The PCA supports a requirement for employees to wear reflective materials while working in underground metal and nonmetal mines.

Conclusion

Metal and nonmetal mines are configured differently than underground coal mines. In addition, MNM mines utilize different types of extraction equipment than coal operations. The existing information on PDS use in coal mines is not a substitute for conducting a full analysis of the costs and benefits of using PDS in underground metal and nonmetal mines. The available information suggests that the costs and likelihood for complications do not warrant requiring PDS in underground metal and nonmetal mines. PCA strongly recommends that MSHA work with NIOSH to study and analyze the use of PDS in underground MNM mines.

When MSHA finalized a rule requiring PDS on CMM in underground coal mines, expert testimony in public hearings revealed that interference from other systems, such as trailing cables, large metal objects and electrical power centers, can occur in electromagnetic based systems such as PDS. Given the differences between underground coal and metal and nonmetal mining, the installation and use of PDS in metal and nonmetal mines will likely have different and additional challenges and outcomes than those in underground coal.

Finally, PCA supports a requirement for miners working in underground metal and nonmetal mines to wear reflective material as part of their personal protective equipment.

Thank you,



Michael Schon
Thomas Harman

⁴ Title 30 CFR 75.1719(4)(d)

⁵ "Assistant Secretary Main leads group to view mine safety technology in action at the Pinnacle coal mine in WV", <http://www.msha.gov/newsinfo/2015/0826-pinnacle-mine/0826-pinnacle-mine.asp>