

That airspace extending upward from the surface up to and including 2,500 feet MSL within a 4.7-mile radius of the Northwest Florida-Panama City International Airport. This Class D airspace area is effective during specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.

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*Paragraph 6005 Class E Airspace Extending Upward From 700 Feet or More Above the Surface of the Earth.*

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#### ASO FL E5 Panama City, FL [New]

Northwest Florida-Panama City International Airport, FL

(Lat. 30°21'28" N., long. 85°47'56" W.)

That airspace extending upward from 700 feet above the surface of the Earth within a 7.2-mile radius of the Northwest Florida-Panama City International Airport.

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Issued in College Park, Georgia, on January 21, 2010.

**Michael Vermuth,**

*Acting Manager, Operations Support Group, Eastern Service Center, Air Traffic Organization.*

[FR Doc. 2010-2005 Filed 1-29-10; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF LABOR

### Mine Safety and Health Administration

#### 30 CFR Parts 57 and 75

#### RIN 1219-AB65

#### Proximity Detection Systems for Underground Mines

**AGENCY:** Mine Safety and Health Administration, Labor.

**ACTION:** Request for information.

**SUMMARY:** The Mine Safety and Health Administration (MSHA) is requesting information regarding whether the use of proximity detection systems would reduce the risk of accidents where mobile equipment pins, crushes, or strikes miners in underground mines and, if so, how. MSHA is also requesting information to determine if the Agency should consider regulatory action and, if so, what type of regulatory action would be appropriate.

**DATES:** Comments must be received by midnight Eastern Standard Time on April 2, 2010.

**ADDRESSES:** Comments must be identified with "RIN 1219-AB65" and may be sent to MSHA by any of the following methods:

- *Federal E-Rulemaking Portal:* <http://www.regulations.gov>. Follow the

on-line instructions for submitting comments.

- *Electronic mail:* [zzMSHA-Comments@dol.gov](mailto:zzMSHA-Comments@dol.gov). Include "RIN 1219-AB65" in the subject line of the message.

- *Facsimile:* 202-693-9441. Include "RIN 1219-AB65" in the subject line of the message.

- *Regular Mail:* MSHA, Office of Standards, Regulations, and Variances, 1100 Wilson Boulevard, Room 2350, Arlington, Virginia 22209-3939.

- *Hand Delivery or Courier:* MSHA, Office of Standards, Regulations, and Variances, 1100 Wilson Boulevard, Room 2350, Arlington, Virginia. Sign in at the receptionist's desk on the 21st floor.

#### FOR FURTHER INFORMATION CONTACT:

Patricia W. Silvey, Director, Office of Standards, Regulations, and Variances, MSHA, at [silvey.patricia@dol.gov](mailto:silvey.patricia@dol.gov) (e-mail), 202-693-9440 (voice), or 202-693-9441 (Facsimile).

#### SUPPLEMENTARY INFORMATION:

##### I. Availability of Information

MSHA will post all comments on the Internet without change, including any personal information provided. Access comments electronically at <http://www.msha.gov> under the "Rules and Regs" link. Review comments in person at the Office of Standards, Regulations, and Variances, 1100 Wilson Boulevard, Room 2350, Arlington, Virginia. Sign in at the receptionist's desk on the 21st floor.

MSHA maintains a list that enables subscribers to receive e-mail notification when the Agency publishes rulemaking documents in the **Federal Register**. To subscribe, go to <http://www.msha.gov/subscriptions/subscribe.aspx>.

Information on MSHA-approved proximity detection systems is available on the Internet at [http://www.msha.gov/Accident\\_Prevention/NewTechnologies/ProximityDetection/ProximitydetectionSingleSource.asp](http://www.msha.gov/Accident_Prevention/NewTechnologies/ProximityDetection/ProximitydetectionSingleSource.asp).

##### II. Background

###### A. Review of Proximity Detection Technology and Proximity Detection Systems

Proximity detection is a technology that uses electronic sensors to detect motion or the location of one object relative to another object. Although the technology is not new, application of this technology to mobile equipment in underground mines is new.

MSHA conducted tests in collaboration with proximity detection manufacturers and mine operators at mine sites from 2002 to 2006. The National Institute for Occupational Safety and Health (NIOSH) has

conducted research on proximity detection technologies independently at various times since the mid 1990s to present day. The technologies include radio, ultrasonic, radar, infrared, and electromagnetic field based systems. After reviewing the different types of systems, MSHA determined that the electromagnetic field based system offers the greatest potential for reducing pinning, crushing, and striking hazards to: (1) Remote control continuous mining machine (RCCM) operators and (2) other miners working near RCCMs.

An electromagnetic field based system consists of a combination of electromagnetic field generators and field detecting devices. One example of an electromagnetic field based system uses electromagnetic field generators that are installed on a RCCM and electronic sensing devices that are worn by persons operating the RCCM or working near the RCCM. Another electromagnetic field based system uses field generators worn by the operator of the RCCM and persons working near the RCCM and the sensing devices are installed on the RCCM. These electromagnetic field based systems can be programmed to provide warnings to affected miners or stop the RCCM, or both, when the RCCM operator or other miners get within the predefined danger zone of the RCCM.

In 1998, MSHA studied accidents involving RCCMs and determined that a proximity detection system has the potential to prevent accidents that occur when an RCCM operator or another miner gets within the predefined danger zone of the RCCM. In 2002, in response to an increase in accidents involving RCCMs, MSHA initiated a project in cooperation with a proximity detection system manufacturer and an underground coal mine operator. The Agency's goal was to have the manufacturer develop and test an electromagnetic field based system on an RCCM in an underground coal mine. In 2004, MSHA assisted a second manufacturer with the development of an electromagnetic field based system. The field tests of these two systems focused on addressing hazards to the RCCM operator, but the systems could be adapted to address hazards to other miners working near the RCCM.

MSHA approved both of these systems in 2006 and a third system in 2009 under existing regulations in 30 CFR part 18. These approvals ensure that the systems will not introduce an ignition hazard when operated in potentially explosive atmospheres. The three approved systems are:

- The Frederick Mining Controls, LLC, HazardAvert™ System,

- The Nautilus International, Coal-Buddy System, and
- The Matrix Design Group, M3-1000 Proximity Monitoring System.

#### *B. Review of Proximity Detection Systems and RCCMs in Underground Coal and Metal/Nonmetal Mines*

MSHA's experience with proximity detection systems relates to RCCMs. Approximately 95 percent of the continuous mining machines used in underground coal and metal/nonmetal mines are remote controlled, and most RCCMs do not have an operator's compartment. The RCCM operator controls the machine using a remote control unit that directs movement and other functions of the machine. The remote control unit communicates with the RCCM using radio waves or a cable.

Moving an RCCM through a mine requires that the RCCM operator observe, plan, and use judgment with respect to the surrounding area. The RCCM operator must move the machine through the underground mine in areas with limited clearance. To observe the area around the machine, RCCM operators are often inadvertently exposed to pinning, crushing, or striking hazards. RCCM operators cannot always monitor the entire area surrounding the machine or communicate with other miners that work near it.

MSHA evaluated pinning, crushing, and striking accidents involving RCCMs that have occurred since 1983. Although the evaluation revealed that work practices were contributing factors in all of the accidents, the Agency believes that proximity detection systems may provide a necessary and additional margin of safety to RCCM operators and other miners who work near RCCMs.

In 2004, MSHA implemented a Remote Control Continuous Mining Machine Special Initiative to inform underground mine operators and miners about the dangers of pinning, crushing, or striking hazards while working near RCCMs. This initiative included outreach efforts to educate the mining community about these hazards through webcasts, special alerts, videos, and bulletins. Despite these outreach efforts, accidents involving RCCMs are still occurring. The Agency believes that training and outreach alone may be insufficient to prevent these accidents.

MSHA is working with the West Virginia Mine Safety Technology Task Force (Task Force) and NIOSH to evaluate proximity detection systems that use electromagnetic field based technology. The Task Force, with assistance from NIOSH, developed a field testing protocol that includes design considerations, implementation

plans, and field testing criteria. The Task Force, NIOSH, and MSHA began field testing of proximity detection systems using this protocol in July 2009. The test protocol was not able to be implemented in July 2009 because of problems with the proximity detection systems. Manufacturer improvements were necessary before tests could be re-initiated. Due to the results of the tests, manufacturers made refinements to the equipment. Additional tests will be scheduled in the near future.

#### *C. Review of Accidents*

##### *Review of Accidents With Fatalities Involving RCCMs in Underground Coal and Metal/Nonmetal Mines*

Since 1983, 31 miners have been killed in accidents where an RCCM has pinned, crushed, or struck the RCCM operator or another miner working near the RCCM. Thirty of these fatalities occurred in underground coal mines and one occurred in an underground metal/nonmetal mine. MSHA reviewed these fatalities and found that 24 involved RCCM operators. Of these 24, 17 involved operators moving the machine; four involved operators performing maintenance; two involved operators performing non-maintenance tasks, such as positioning the boom or trimming the mine floor; and one involved an operator whose machine was struck by another RCCM. The remaining seven fatalities involved other miners in or around the RCCM: Four miners handling the machine's trailing cable; two miners performing maintenance on the machine; and one miner who approached the RCCM without the operator's knowledge (this fatality occurred in a metal and nonmetal mine). Of the 31 fatalities, five involved a remote control unit that malfunctioned or had a safety mechanism deliberately overridden. In addition, poor work practices were contributing factors in all of these fatal accidents.

*Based on MSHA's experience gained from:* The field testing of proximity detection systems; the accident investigations; and communications with manufacturers and NIOSH, the Agency believes that a safety program based on sound risk management principles should include proximity detection systems, or some other engineering control that addresses the hazard at the source. MSHA's analysis of the 31 fatal accident investigation reports showed that, in most cases, a miner was in an area where a proximity detection system might have provided a warning or stopped the machine. In the remaining cases, a proximity detection

system might have prevented the RCCM from starting to move when miners got within the predefined danger zone, such as when a miner was on the machine performing maintenance.

##### *Review of Non-Fatal Accidents Involving RCCMs*

MSHA reviewed 67 non-fatal accidents that occurred in underground coal mines from 1999 through 2004. In these accidents, the RCCM pinned, crushed, or struck a miner during routine mining activities, such as: Production; moving the RCCM in the same production area; moving the RCCM from one production area to another; cleaning up loose material; and performing maintenance on the RCCM. Approximately half of the accidents occurred while the RCCM was being moved from one location to another.

*MSHA determined that other factors may have also contributed to these accidents:* Improper or complete lack of communication between coworkers resulting in the machine operator not being aware of the location of other miners in the surrounding area; and inadequate training, since many of the accidents involved experienced miners (miners with five or more years of total mining experience) who had less than one year of experience at the mine where the accident occurred, and who may not have been adequately trained in their tasks or the hazards at the new mine. Proximity detection systems might have helped prevent many of these non-fatal accidents by providing an additional margin of safety.

##### *Review of Accidents Involving Underground Mobile Equipment Other Than RCCMs*

Some fatal and non-fatal pinning, crushing, or striking accidents involved other equipment used in underground mining including shuttle cars, scoops, belt drives, feeders, loaders/muckers, track equipment, trucks, roof bolting machines, and mobile bridge conveyors. Based on conversations with proximity detection system manufacturers, MSHA is aware that they are adapting proximity detection technology to underground mobile equipment other than RCCMs. Proximity detection systems might help prevent accidents involving these types of underground equipment.

### **III. Information Request**

MSHA is requesting information from the mining community regarding whether the use of proximity detection systems would reduce injuries and fatalities in underground mines and, if so, how. MSHA is particularly

interested in comments addressing pinning, crushing and striking hazards to miners working near RCCMs. The Agency is also interested in whether the application of this technology to other underground equipment might help reduce the risk of injuries and fatalities and, if so, how.

Please provide sufficient detail in your responses to enable proper Agency review and consideration. Where possible, include specific examples to support the rationale for your position. Please identify the relevant information on which you rely. Include experiences, data, models, calculations, studies and articles, and standard professional practices.

#### *Proximity Detection Systems*

Proximity detection systems must perform reliably and effectively to successfully prevent accidents. MSHA is requesting information to assess whether this technology can perform effectively with underground mining equipment to improve safety in underground mines. The information requested will be useful in determining whether regulatory action is needed and, if so, what type of regulatory action would be appropriate. MSHA does not anticipate the need for new approval regulations to address the design of proximity detection systems.

1. Please provide information on the most effective protection to miners that you believe proximity detection systems could provide, *e.g.*, warning, stopping the equipment, or other protection. Include your rationale.

2. Other than electromagnetic field based systems, please address other methods for effectively achieving MSHA's goal for reducing pinning, crushing, and striking hazards in underground mines.

3. In general, reliability is defined as the ability of a system to perform when needed. Please provide information on how to determine the reliability of a proximity detection system. The Agency would appreciate information that describes reliability testing, how reliability is measured, and supporting data.

4. Manufacturers should design their systems to be fail-safe. Please provide information on how miners would know when a proximity detection system is not working properly. Include suggestions for what works best, including your experience, if applicable.

5. Please describe procedures that might be appropriate for testing and evaluating whether a proximity detection system is functioning properly. Include details such as the frequency of tests and the qualifications

of persons performing tests; include specific rationale for your suggestions.

6. Some proximity detection systems provide a warning before the equipment shuts down. An excessive number of warnings can cause miners to become complacent and routinely ignore them as nuisance alarms. Please describe any experience you have had with nuisance alarms and how you addressed these alarms to assure an appropriate level of safety for miners. In addition, please provide suggestions for minimizing nuisance alarms.

7. How should the size and shape of the area around equipment that a proximity detection system monitors be determined? What specific criteria should be used to identify this area, *e.g.*, width of entry, seam height, section type, size of equipment, procedures for moving equipment, speed of equipment, and related information? Please provide any additional criteria that you believe would be useful in identifying the area to be protected.

8. Proximity detection systems can be programmed and installed to provide different zones of protection depending on equipment function. For example, a proximity detection system could monitor a larger area around the RCCM when it is being moved and a smaller area when the machine operator is performing a specific task, such as cutting and loading material. How should a proximity detection system be programmed and installed for each equipment function?

9. Since 1983, six fatalities occurred while miners performed maintenance on RCCMs. The fatalities involved three miners crushed in the machine and three miners pinned between the machine and mine wall or roof. Please provide specific information, including experience, on how a proximity detection system might be used to protect miners during maintenance activities and why the system would be effective in each situation.

10. Some proximity detection systems include an override function that allows the system to be temporarily deactivated. Please provide information on whether an override function is appropriate and, if so, please provide information on the circumstances under which such a function should be used. Please provide information on the types of procedures or safety precautions that could be used to prevent unauthorized deactivation of a proximity detection system.

11. MSHA found, in its field testing experience, that the use of some new technology for controlling motor speed, like variable frequency drives, could result in nuisance or false alarms

(shutdowns) from the proximity detection system. Please provide information on other sources of interference, if any, that might affect the successful performance of proximity detection systems in underground mines. In addition, please provide information on whether a proximity detection system might adversely affect other electronic devices, such as atmospheric monitoring systems, used in underground mines. Please provide specific circumstances including: (1) Types of equipment; (2) adverse effect; and (3) how the adverse effect could be minimized.

#### *Application to RCCMs*

MSHA's experience with proximity detection technology and proximity detection systems has focused on RCCMs. An RCCM often has auxiliary equipment, such as roof bolting machines and mobile bridge conveyors, attached to it. The interconnection of this equipment can introduce additional pinning, crushing, or striking hazards.

12. Commenters who have experience with RCCMs, please describe: (1) any experience with pinning, crushing, and striking hazards, including accidents and near misses; and (2) any unique experience with an RCCM with auxiliary equipment attached.

13. How should the area that a proximity detection system monitors be determined on an RCCM interconnected with auxiliary equipment?

#### *Applications to Underground Equipment Other Than RCCMs*

MSHA requests information on whether proximity detection technology might be applicable to reducing the risk of accidents involving other types of underground equipment.

14. Describe whether there are safety benefits from applying proximity detection systems to underground equipment other than RCCMs. Describe your experience with pinning, crushing, or striking accidents and near-misses involving other underground equipment. Please provide examples identifying the specific types of equipment involved and how proximity detection systems may help provide an additional margin of safety to miners. Also describe any experience you have with respect to obtaining MSHA or other agency approval for systems designed for underground equipment other than RCCMs.

15. How might a proximity detection system for remote controlled equipment be different than one for non-remote controlled equipment?

16. Manufacturers are evaluating the use of proximity detection systems on

multiple pieces of equipment that operate near each other, such as RCCMs and shuttle cars. In your experience, what are the safety considerations of coordinating proximity detection systems between various types of underground equipment?

17. Describe your experience with the state-of-the-art of proximity warning technology. Include any experience related to whether the current technology is able to accurately locate and protect workers from all recognized hazards.

#### Training

18. What knowledge or skills would be necessary for miners to safely operate equipment that uses a proximity detection system? What knowledge or skills would other miners working near the equipment need?

19. Please provide suggestions on how to effectively train miners on the use and dangers of equipment that uses a proximity detection system. Please include information on the type of training (e.g., task training) that could be used and on any evaluations conducted on the effectiveness of outreach and/or training in the area of proximity detection (e.g., red zone warning materials). How often should miners receive such training?

#### Benefits and Costs

MSHA requests comment on the following questions concerning the costs, benefits, and the technological and economic feasibility of using proximity detection systems in underground mines. Benefits would include an increased margin of safety for miners working near machines equipped with proximity detection systems resulting in the reduction in pinning, crushing, and striking accidents. Your answers to these questions will help MSHA evaluate options and determine a course of action.

20. Please provide information on the benefits of using proximity detection systems with RCCMs. Please be specific in your response and, if appropriate, include the benefits of using proximity detection systems with other types of underground equipment. Include information on your experience related to whether proximity detection systems cause a change in the behavior of an RCCM operator. For example, would the operator need to operate the machine from a different location, such as one that might introduce additional hazards, to remain outside of a predefined danger zone? Please explain your answer in detail and provide examples as appropriate.

21. Please provide information on the costs for installing, maintaining, and calibrating proximity detection systems on underground equipment. What are the feasibility issues, if any, related to retrofitting certain types of equipment with proximity detection systems?

22. What is the expected useful life of a proximity detection system? Please provide suggested criteria for servicing or replacing proximity detection systems, including rationale for your suggestions.

23. Some proximity detection systems automatically record (data logging) information about the system and the equipment. Are there safety benefits to having a proximity detection system automatically record certain information? If so, please provide specific details on: (1) Safety benefits to be derived; (2) information that should be recorded; and (3) how information should be kept.

24. Please provide information on whether small mines or mines with special mining conditions, such as low seam or mine entry height, have particular needs related to the use of proximity detection systems. Please be specific and include information on possible alternatives.

25. What factors (e.g., cost, nuisance alarms) have impeded the mining industry from voluntarily installing proximity detection systems on mining equipment?

Dated: January 27, 2010.

**Joseph A. Main,**

*Assistant Secretary of Labor for Mine Safety and Health.*

[FR Doc. 2010-1999 Filed 1-29-10; 8:45 am]

**BILLING CODE 4510-43-P**

## DEPARTMENT OF COMMERCE

### United States Patent and Trademark Office

#### 37 CFR Part 41

[Docket No.: PTO-P-2009-0021]

RIN 0651-AC37

#### Rules of Practice Before the Board of Patent Appeals and Interferences in Ex Parte Appeals; Extension of Comment Period on Potential Modifications to Final Rule

**AGENCY:** United States Patent and Trademark Office, Commerce.

**ACTION:** Notice of extension of comment period.

**SUMMARY:** The United States Patent and Trademark Office (USPTO or Office) published an advance notice of

proposed rule making, with request for comments, considering potential modifications to rules governing practice before the Board of Patent Appeals and Interferences (BPAI) in ex parte patent appeals. The USPTO is extending the period for public comment on the potential modifications to the final rule until February 26, 2010.

**DATES:** The deadline for receipt of written comments on potential modifications to the final rule is 5 p.m., Eastern Standard Time, on February 26, 2010.

**ADDRESSES:** Written comments on potential modifications to the final rule should be sent by electronic mail message over the Internet addressed to [BPAL.Rules@uspto.gov](mailto:BPAL.Rules@uspto.gov). Comments on potential modifications to the final rule may also be submitted by mail addressed to: Mail Stop Interference, Director of the United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, marked to the attention of "Linda Horner, BPAI Rules." Although comments may be submitted by mail, the USPTO prefers to receive comments via the Internet.

The written comments will be available for public inspection at the Board of Patent Appeals and Interferences, located in Madison East, Ninth Floor, 600 Dulany Street, Alexandria, Virginia, and will be available via the USPTO Internet Web site (address: <http://www.uspto.gov/web/offices/dcom/bpai/>). Because comments will be made available for public inspection, information that is not desired to be made public, such as an address or phone number, should not be included in the comments.

#### FOR FURTHER INFORMATION CONTACT:

Linda Horner, Administrative Patent Judge, Board of Patent Appeals and Interferences, by telephone at (571) 272-9797, or by mail addressed to: Mail Stop Interference, Director of the United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, marked to the attention of Linda Horner.

**SUPPLEMENTARY INFORMATION:** The United States Patent and Trademark Office (USPTO or Office) published an advance notice of proposed rule making on potential modifications to rules governing practice before the Board of Patent Appeals and Interferences (BPAI) in ex parte patent appeals (74 FR 67987 (Dec. 22, 2009)). The notice also announced a public roundtable that was held on January 20, 2010. A link to the Web cast of the roundtable may be found at [http://www.uspto.gov/ip/boards/bpai/roundtable\\_info.jsp](http://www.uspto.gov/ip/boards/bpai/roundtable_info.jsp). In the notice, the public was invited to submit