PROPOSED RULEMAKING

BOARD OF COAL MINE SAFETY

[25 PA. CODE CH. 208]

Sensitive Ground Fault

The Board of Coal Mine Safety (Board) proposes to amend Chapter 208 (relating to underground coal mine safety) to read as set forth in Annex A. This proposed rulemaking adds a provision to require operators to equip certain circuits with sensitive ground fault protection, as well as related definitions. This protection will enhance miner safety with respect to electric cables.

This proposed rulemaking was adopted by the Board at its meeting of September 13, 2016.

A. *Effective Date*

This proposed rulemaking will be effective upon final-form publication in the *Pennsylvania Bulletin*.

B. *Contact Persons*

For further information, contact Craig Carson, Director, Bureau of Mine Safety, 131 Broadview Road, New Stanton, PA 15672, (724) 404-3154 or cocarson@pa.gov; or Joseph Iole, Assistant Counsel, Bureau of Regulatory Counsel, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-9376 or jiole@pa.gov. Information regarding submitting comments on this proposed rulemaking appears in Section J of this preamble. Persons with a disability may use the Pennsylvania AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposed rulemaking is available on the Department of Environmental Protection's (Department) web site at www.dep.pa.gov.

C. *Statutory Authority*

Sections 106 and 106.1 of the Bituminous Coal Mine Safety Act (BCMSA) (52 P.S. §§ 690-106 and 690-106.1) authorize the adoption of regulations to implement the BCMSA. The BCMSA further authorizes the Board to promulgate necessary or appropriate regulations to implement the requirements of the BCMSA and to protect the health, safety and welfare of miners and other individuals in and about mines.

D. *Background and Purpose*

The BCMSA was enacted on July 7, 2008, which was the first significant update of the Commonwealth's underground bituminous coal mine safety laws since 1961. See section 103(a) of the BCMSA (52 P.S. § 690-103(a)). The BCMSA provides broad authority to promulgate regulations that are necessary or appropriate to implement the BCMSA and to protect the health, safety and welfare of miners and other individuals in and about mines. See section 106.1(a) of the BCMSA. Under section 106 of the BCMSA, the Board consists of three members representing mine workers, three members representing underground bituminous coal mine operators and the Secretary of the Department, who serves as the Board's chairperson.

This proposed rulemaking adds a provision to Chapter 208 to enhance cable safety. Specifically, section 334(c) of the BCMSA (52 P.S. § 690-334(c)) directed the mining industry to initiate studies into possible means of enhancing safety of underground cables, including through, among other things, "more sensitive ground fault limiting and detection." Section 334(c) of the BCMSA further required both laboratory and underground testing of these systems, and that the Board will take action on the industry's reports and recommendations.

To that end, the Pennsylvania Coal Alliance formed a committee with representatives from several coal mine operators to convene, manage the studies, and ultimately produce a report and recommendations to the Board. The committee produced a report in March 2012 entitled "Pennsylvania Coal Association Bituminous Coal Mine Safety Act Section 334 Industry Studies Final Report" (Final Report). This proposed rulemaking is the product of the Final Report, which was followed by extensive deliberations by the Board over the course of 3 years.

This proposed rulemaking enhances miner safety from electrocution by improving the sensitive ground fault mechanisms on certain electrical circuits powering machinery within the mines. This proposed rulemaking will require operators to ensure that certain new and rebuilt power centers are equipped with these more sensitive ground fault protection devices (including sensing relays, limiting resistors and interrupting devices) thus enhancing the safety of persons working with or around the electric cables supplying power to certain machinery.

To improve miner safety, per the BCMSA, this proposed rulemaking is more stringent than Federal regulations in certain regards. The Federal Mine Safety and Health Administration (MSHA) regulation in 30 CFR 75.901(a) (relating to protection of low- and medium-voltage three-phase circuits used underground) requires a ground fault current limit (trip setting) of 25 amperes or less, and an MSHA policy manual recommends that the device be adjusted to operate at not more than 50% of the current rating of the grounding resistor.

In light of the Final Report, which indicated that a setting of 125 milli-amperes would be too low to functionally operate equipment at the mine, but that 300 milli-amperes was more protective than the current regulatory requirement of 25 amperes, this proposed rulemaking requires a trip setting of 300 milli-amperes or less nominally, except in the case of circuits powering equipment using variable speed drives, in which case, if nuisance tripping occurs at 300 milli-amperes, the operator may adjust the setting no greater than the lower value of 500 milli-amperes or 1/2 of the neutral ground resistor's current rating. These settings improve safety while maintaining mining operations.

There is a compelling public interest in ensuring that miners are safe in the workplace. Miners, their families, mining companies and others will benefit from electrical safety in underground mines. As a result of this proposed rulemaking, the risk of workplace injuries and deaths related to these electric cables will decline. Adopting this proposed rulemaking ensures that operations at underground bituminous coal mine sites are safely conducted and maintained.

E. *Summary of Proposed Regulatory Requirements*

§ 208.1. Definitions

The following terms are proposed to be added: "crosscut," "inby" and "working section," which appear in proposed § 208.600 (relating to sensitive ground fault); and "working face," which appears in the proposed definition of "inby."

§ 208.600. Sensitive ground fault

This proposed section requires that operators utilize sensitive ground fault devices on circuits that operate three-phase electrically operated equipment operated on a working section inby the last open crosscut; specifies the settings of the sensitive ground fault devices powering various machines; and sets an implementation schedule for utilizing these devices on new, rebuilt and existing power centers.

F. *Benefits, Costs and Compliance*

Benefits

This proposed rulemaking enhances cable safety by requiring on certain circuits a sensitive ground fault protective device. Sensitive ground fault protective devices improve cable safety by shutting off electrical power through the circuit when it detects that a current is flowing along an unintended path, thereby reducing the risk of bodily harm from electrocution.

Compliance costs

This proposed rulemaking will cost the nine operators approximately $500,000 over 5 years. This cost reflects the purchase of new power centers equipped with the sensitive ground fault devices and the rebuilding of existing machines to include these devices.

Paperwork requirements

This proposed rulemaking does not generate additional paperwork.

G. *Pollution Prevention*

The Federal Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) establishes a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly materials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance. This proposed rulemaking has minimal impact on pollution prevention since it is focused on mine safety.

H. *Sunset Review*

The Board is not establishing a sunset date for these regulations, since they are needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for their effectiveness and recommend updates to the Board as necessary

I. *Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on March 3, 2017, the Department submitted a copy of this proposed rulemaking and a copy of a Regulatory Analysis Form to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House and Senate Environmental Resources and Energy Committees. A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, IRRC may convey comments, recommendations or objections to the proposed rulemaking within 30 days of the close of the public comment period. The comments, recommendations or objections must specify the regulatory review criteria in section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b) which have not been met. The Regulatory Review Act specifies detailed procedures for review prior to final publication of the rulemaking by the Department, the General Assembly and the Governor.

J. *Public Comments*

Interested persons are invited to submit to the Board written comments, suggestions, support or objections regarding this proposed rulemaking. Comments, suggestions, support or objections must be received by the Board by April 17, 2017. In addition to the submission of comments, interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by the Board by April 17, 2017. The one-page summary will be distributed to the Board and available publicly prior to the meeting when the final-form rulemaking will be considered.

Comments including the submission of a one-page summary of comments may be submitted to the Board online, by e-mail, by mail or express mail as follows.

Comments may be submitted to the Board by accessing eComment at http://www.ahs.dep.pa.gov/eComment.

Comments may be submitted to the Board by e-mail at RegComments@pa.gov. A subject heading of this proposed rulemaking and a return name and address must be included in each transmission.

If an acknowledgement of comments submitted online or by e-mail is not received by the sender within 2 working days, the comments should be retransmitted to the Board to ensure receipt. Comments submitted by facsimile will not be accepted.

Written comments should be mailed to the Board of Coal Mine Safety, P.O. Box 8477, Harrisburg, PA 17105-8477. Express mail should be sent to the Board of Coal Mine Safety, Rachel Carson State Office Building, 16th Floor, 400 Market Street, Harrisburg, PA 17101-2301.

PATRICK McDONNELL,
Acting Chairperson

Fiscal Note: 7-527. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE IV. OCCUPATIONAL HEALTH AND SAFETY

CHAPTER 208. UNDERGROUND COAL MINE SAFETY

GENERAL PROVISIONS

§ 208.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

Certified or *registered*—A person certified or registered by the state in which the coal mine is located to perform duties prescribed by 30 CFR Part 77 (relating to mandatory safety standards, surface coal mines and surface work areas of underground coal mines), except that, in a

state where a program of certification or registration is not provided or when the program does not meet at least minimum Federal standards established by the Secretary of the United States Department of Labor, the certification or registration shall be by the Secretary of the United States Department of Labor.

***Crosscut*—A passageway driven between the entry and its parallel air course or air courses for ventilation purposes.**

Flash point—The minimum temperature at which sufficient vapor is released by a liquid or solid to form a flammable vapor-air mixture at atmospheric pressure.

***Inby*—In the direction of the working face.**

MSHA—The term as defined in section 104 of the act.

* * * * *

Underground bituminous coal mine or *mine*—The term as defined in section 104 of the act.

***Working face*—Any place in a mine where coal is extracted during a mining cycle.**

***Working section*—The area in a mine from the face extending back 1,000 feet.**

CABLE SAFETY

(*Editor's Note*: The following section is new and printed in regular type to enhance readability.)

§ 208.600. Sensitive ground fault.

All three-phase electrically operated equipment operated on a working section inby the last open crosscut must receive power from a circuit equipped with a sensitive ground fault protection as specified in this section.

(1) *Sensitive ground fault.*

(i) A sensitive ground fault protective device must be connected so that the associated circuit will be instantaneously interrupted upon the occurrence of a ground fault which may not exceed 300 milli-amperes nominally.

(ii) A sensitive ground fault protective device on these circuits on equipment utilizing variable speed drives must be connected so that the associated circuit will be instantaneously interrupted upon the occurrence of a ground fault which may not exceed 300 milli-amperes nominally. If nuisance tripping occurs on these circuits, the devices shall be permitted to be adjusted to the minimum setting necessary to prevent nuisance tripping. In no case shall a device be adjusted greater than the lower value of 500 milli-amperes or 1/2 of the neutral ground resistor's current rating.

(iii) The secondary main circuit breaker protecting any sensitive ground fault circuit subject to this section must also provide backup sensitive ground fault protection. Relay settings may include a short time delay (250mS) or a higher current setting, or both, to provide coordination. In no case shall a device be adjusted greater than the lower value of 500 milli-amperes or 1/2 of the neutral ground resistor's current rating.

(2) *Implementation schedule.* This section is effective _____, (*Editor's Note*: The blank refers to the effective date of adoption of this proposed rulemaking.) for load centers that power equipment that operates inby the last open crosscut and that is purchased after _____, (*Editor's Note*: The blank refers to the effective date of adoption of this proposed rulemaking.) and load centers that are rebuilt at new mines after _____ (*Editor's Note*: The blank refers to the effective date of adoption of this proposed rulemaking.). For load centers that power equipment that operates inby the last open crosscut that are located in or at a mine _____, (*Editor's Note*: The blank refers to the effective date of adoption of this proposed rulemaking.) sensitive ground fault protection shall be installed by _____ (*Editor's Note*: The blank refers to 60 months after the effective date of adoption of this proposed rulemaking.).

[Pa.B. Doc. No. 17-470. Filed for public inspection March 17, 2017, 9:00 a.m.]