FINAL RULEMAKING
BOARD OF COAL MINE SAFETY
[25 PA. CODE CH. 208]
Sensitive Ground Fault

The Board of Coal Mine Safety (Board) by this order amends 25 Pa. Code Chapter 208 (relating to underground coal mine safety) to read as set forth in Annex A. This final-form rulemaking adds a provision to require operators to equip certain circuits with sensitive ground fault protection, and adds related definitions. This protection will enhance miner safety with respect to electric cables.

This final rulemaking was adopted by the Board at its meeting of _____.

A. *Effective Date*

This final-form rulemaking will be effective upon 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. Persons with a disability may use the Pennsylvania AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available on the Department of Environmental Protection's (Department or DEP) 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 Board to adopt regulations necessary and appropriate to implement 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, and 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)). 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 act on the industry's reports and recommendations.

To comply with this requirement, the Pennsylvania Coal Alliance (PCA) formed a committee with representatives from several coal mine operators to convene, manage the studies, and ultimately produce a report in March 2012 entitled "Pennsylvania Coal Association Bituminous Coal Mine Safety Act Section 334 Industry Studies Final Report" (Final Report). The Board, which includes 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, conducted extensive deliberations of the Final Report for over three years.

This final-form rulemaking adds a provision to Chapter 208 to enhance miner safety by improving the sensitive ground fault mechanisms on certain electrical circuits powering machinery within the mines to prevent injury and electrocution. This rulemaking requires 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 consistent with the BCMSA, this final-form rulemaking includes requirements that are 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 Section 75.900 of the MSHA Program Policy Manual, Vol. V (Coal Mines), Part 75, Subpart J, recommends that the device be adjusted to operate at not more than 50% of the current rating of the grounding resistor.

The Final Report indicates that a setting of 125 milli-amperes would be too low to functionally operate equipment at the mine, but concludes that 300 milli-amperes would be more protective than the current Federal regulatory requirement of 25 amperes. This final-form rulemaking requires a trip setting of 300 milli-amperes or less nominally, except in the case of circuits powering equipment using variable speed drives. If nuisance tripping of these circuits occurs at 300 milli-amperes, the operator may adjust the setting to no greater than the lower value of 500 milli-amperes or 1/2 of the neutral ground resistor's current rating, with the latter being consistent with the MSHA policy. These settings improve safety while maintaining mining operations.

A compelling public interest exists 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 final-form rulemaking, the risk of workplace injuries and deaths related to these electric cables will decline. This final rulemaking ensures that operations at underground bituminous coal mine sites are safely conducted and maintained.

E. *Summary of Final-Form Rulemaking and Changes to the Proposed Rulemaking*

Changes

The Board has made no changes to the proposed rulemaking, published at 47 Pa.B. 1636 (March 18, 2017).

§ 208.1. Definitions

The rulemaking adds the following terms and their definitions to this section: "crosscut," "inby" and "working section," which are used in § 208.600 (relating to sensitive ground fault); and "working face," which is used in the definition of "inby."

§ 208.600. Sensitive ground fault

This section requires that all three-phase electrically operated equipment operated on a working section inby the last open crosscut receive power from a circuit equipped with specified sensitive ground fault protection. This section also 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. *Summary of Comments and Responses on the Proposed Rulemaking*

No public comments were submitted on the proposed rulemaking. On May 17, 2017, the Independent Regulatory Review Commission (IRRC) submitted two comments based on criteria in section 5.2 of the Regulatory Review Act (71 P.S. § 745.5b).

IRRC's first concern was whether giving operators 60 months to upgrade existing load centers in § 208.600(2) is in the best interest of miners if such load centers "operating under the existing regulations present a potential hazard." To that end, IRRC requested that the Board explain its rationale for this 60-month phase-in and how it adequately protects the safety of miners.

During the Board's meeting on March 10, 2015, the Board deliberated on the implementation schedule and discussed email correspondence from PCA to the Board. In the email, available on the Board's webpage on DEP's website, PCA explained that due to logistical barriers inherent to the rebuilding and retrofitting process (e.g., cost, timing, and halting of operations while equipment is rebuilt), it supported a 60-month implementation schedule for existing equipment. PCA further noted that its member operators have an average of 21 load centers per operator, and "to remove, rebuild and put these load centers back in service" would require an average of three months per unit. PCA averred that the 60-month schedule was sensitive to the regulated community's "need to maintain enough load centers underground to sustain operations." Although DEP's Bureau of Mine Safety also shared concerns regarding the 60-month time frame, the Board agreed with the 60-month implementation schedule because the current level of protection complies with all existing Federal and Commonwealth statutes and regulations; the new sensitive ground fault requirements will improve upon that protection; and the operator's

ability to remain operational through the process of becoming compliant, especially in light of the scale of the required upgrades, is an important consideration.

IRRC's second related concern is that paragraph (2) requires load centers rebuilt at new mines to comply as of the effective date of the regulation, whereas paragraph (2) is silent regarding load centers rebuilt at existing mines, and recommends expanding the requirement for rebuilt load centers to apply at existing mines as well.

This rulemaking is not silent on the compliance date for operators that will need to rebuild load centers at existing mines. For the reasons provided above, the Board is giving these operators 60 months to comply with the new requirement. The implementation schedule requires compliance upon publication in the *Pennsylvania Bulletin* for all load centers purchased after the effective date of the regulation at existing mines and all load centers at new mines, new or rebuilt. All other load centers, *i.e.*, load centers at existing mines that must be rebuilt, are subject to the 60-month phase-in, a period which is tailored to the rebuilding and maintenance schedule the regulated community follows for this equipment. The Board anticipates that operators will comply with the requirements in this final rulemaking as load centers need to be rebuilt at existing mines over the next five years to avoid the cost and operational impact that would be associated with rebuilding all load centers at existing mines just prior to the deadline for compliance.

IRRC also inquired whether the definition of "working section" added to § 208.1 should use the term "working face" rather than "face." The definition included in § 208.1 is the same as the definition provided in section 104 of BCMSA (52 P.S. § 690-104) and has simply been included in § 208.1 for the convenience of the regulated community.

G. *Benefits, Costs and Compliance*

Benefits

This final-form 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 final-form rulemaking will cost the nine operators engaged in regulated activity within the Commonwealth approximately $500,000 over five 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 final-form rulemaking does not generate additional paperwork.

H. *Pollution Prevention*

The Federal Pollution Prevention Act of 1990 (42 U.S.C. §§ 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 final rulemaking has minimal impact on pollution prevention since it is focused on mine safety.

I. *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.

J. *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 the notice of proposed rulemaking, which was subsequently published at 47 Pa.B. 1636 (March 18, 2017), 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 for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the Committees are to receive from the agency copies of the comments received during the public comment period, as well as other documents, as requested. The Department received no public comment on the proposed rulemaking, and no requests for additional documents. Under section 5(g) of the Regulatory Review Act, IRRC "may, within thirty days after the close of the public comment period, convey to the agency and committees any comments, recommendations and objections to the proposed regulation." On May 17, 2017, IRRC submitted two comments, which the Department considered as discussed in Section F, above.

Under section 5.1(j.2) of the Regulatory Review Act, on (blank), the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on (blank) and approved the final-form rulemaking.

K. *Findings of the Board*

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 Pa. Code §§ 7.1 and 7.2.

(2) A public comment period was provided as required by law, and all comments were considered.

(3) This final-form rulemaking makes no changes to the proposed rulemaking published at 47 Pa.B. 1636 (March 18, 2017).

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this order.

L. *Order of the Board*

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapter 208, are amended by adding § 208.600, and amending § 208.1, to read as set forth in Annex A.

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson of the Board shall submit this order and Annex A to IRRC and the Senate and House Environmental Resources and Energy Committees as required by the Regulatory Review Act (71 P.S. §§ 745.1—745.14).

(d) Upon completion of review under the Regulatory Review Act, the Chairperson of the Board shall certify this order and Annex A, as approved to legality and form, and deposit them with the Legislative Reference Bureau, as required by law.

(e) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin.*

PATRICK McDONNELL,
Chairperson