

# Regulatory Analysis Form

(Completed by Promulgating Agency)

**INDEPENDENT REGULATORY  
REVIEW COMMISSION**

(All Comments submitted on this regulation will appear on IRRC's website)

(1) Agency  
Department of Environmental Protection

(2) Agency Number:  
Identification Number: #7-482

IRRC Number:

(3) PA Code Cite: 25 Pa Code Chapter 208 Underground Coal Mine Safety

(4) Short Title: Requirements for High-Voltage Continuous Mining Machines

(5) Agency Contacts (List Telephone Number and Email Address):

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(6) Type of Rulemaking (check applicable box):

- Proposed Regulation
- Final Regulation
- Final Omitted Regulation

- Emergency Certification Regulation;
- Certification by the Governor
- Certification by the Attorney General

(7) Briefly explain the regulation in clear and nontechnical language. (100 words or less)

The proposed regulation would establish electrical safety standards for the installation, use, and maintenance of high-voltage continuous mining machines in underground bituminous coal mines, while facilitating the use of advanced equipment designs by creating §§ 208.72 – 208.84 under 25 Pa Code Chapter 208. The proposed new sections, relating to High-voltage continuous mining machine standards for underground bituminous coal mines, incorporate, with one exception, federal Mine Safety and Health Administration (MSHA) requirements set forth at 30 CFR §§ 75.823-834 and 1002. The regulatory requirements are designed to enhance safety standards associated with the operation of continuous mining machines, including provisions to protect against fires, explosions, and shock hazards. The proposed state regulations conform with the federal MSHA requirements, with exception to provisions concerning the mandatory distance between a spliced high voltage trailing cable and a continuous mining machine. Under the Commonwealth's Bituminous Coal Mine Safety Act, at §316(d)(6), spliced trailing cables are prohibited within 50 feet of a continuous mining machine. In contrast, federal requirements at 30 CFR 75.830(b)(1) prohibit the splicing of high-voltage trailing cables within 35 feet of a continuous mining machine. Because Pennsylvania law provides a more protective standard that enhances miner safety, the more stringent state requirement is proposed for inclusion in the rulemaking. The Board developed the proposed rulemaking to, among other things, obtain independent authority necessary to implement the federal regulations.

(8) State the statutory authority for the regulation. Include specific statutory citation.

The Bituminous Coal Mine Safety Act, (BCMSA), 52 P.S. §§ 690-101 et seq., authorizes the adoption of regulations to implement the BCMSA and to protect the health and safety and welfare of miners and other individuals in and about mines.

(9) Is the regulation mandated by any federal or state law or court order, or federal regulation? Are there any relevant state or federal court decisions? If yes, cite the specific law, case or regulation as well as, any deadlines for action.

This regulation is not mandated by any federal or state law, court order, or federal regulation. The proposed regulation incorporates by reference, with one exception, the provisions of the federal MSHA requirements.

(10) State why the regulation is needed. Explain the compelling public interest that justifies the regulation. Describe who will benefit from the regulation. Quantify the benefits as completely as possible and approximate the number of people who will benefit.

As the voltage of electrical equipment has increased, there is a need to assure the design of safe, practical, and efficient underground coal mining equipment that relies on high-voltage. This rule will allow underground bituminous coal mine operators to use advanced equipment designs, which in turn enhance safety protection against fires, explosions and shock hazards. The proposed rulemaking would establish additional electrical safety standards applicable up to 2,400 volts continuous mining machines and circuits.

This proposed regulation is necessary to ensure that the Department has independent regulatory authority to enforce the federal MSHA requirements under 30 CFR §§ 75.823 – 834 and 1002. Moreover, there is a compelling public interest to ensure that miners are safe in the workplace. While estimating an exact number of individuals who will benefit from this proposal is difficult, miners, their families, the mining companies, and society at large will benefit from safe underground mining conditions. It is also difficult to quantify the benefits of a proposed regulation that will significantly reduce workplace injuries and deaths and will also allow for the use of safer and more advanced equipment in underground mine operations.

(11) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulations.

Yes. The proposed state regulations conform with the federal MSHA requirements, with exception to provisions concerning the mandatory distance between a spliced high voltage trailing cable and a continuous mining machine. Under the BCMSA, at §316(d)(6), spliced trailing cables are prohibited within 50 feet of a continuous mining machine. In contrast, federal requirements at 30 CFR 75.830(b)(1) prohibit the splicing of high-voltage trailing cables within 35 feet of a continuous mining machine. Because Pennsylvania law provides a more protective standard that enhances miner safety, the more stringent state requirement is proposed for inclusion in the rulemaking.

(12) How does this regulation compare with those of the other states? How will this affect Pennsylvania's ability to compete with other states?

The proposed rulemaking conforms to federal MSHA requirements, with one exception, concerning the installation, use, and maintenance of high-voltage continuous mining machines in underground bituminous coal mines. The proposed rulemaking will not disadvantageously affect the Commonwealth in comparison to other states as other states with underground coal mine operations must also comply with federal MSHA regulations. The Board of Coal Mine Safety (Board) is proposing the rulemaking to, among other things, obtain independent authority necessary to implement the federal regulations. The proposed rulemaking will have no impact on Pennsylvania's ability to compete with other states.

(13) Will the regulation affect any other regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

No. The proposed regulation will not affect any other regulations of the promulgating agency or other state agencies.

(14) Describe the communications with and solicitation of input from the public, any advisory council/group, small businesses and groups representing small businesses in the development and drafting of the regulation. List the specific persons and/or groups who were involved. ("Small business" is defined in Section 3 of the Regulatory Review Act, Act 76 of 2012.)

This rulemaking was prepared at the direction of the Board, which was established under the BCMSA. The seven member Board consists of the Secretary of Department of Environmental Protection, three members representing mine workers, and three members representing the coal mine operators. Three of the members of the Board were nominated by the United Mine Workers of America to represent the viewpoint of miners, and three were nominated by the Pennsylvania Coal Alliance to represent the viewpoint of the coal mine operators. It was through the Board that communication with and solicitation of input from the regulated community in the development and drafting of the proposed regulation was obtained. Three members of the PCA represent the 8 underground bituminous mining companies and affiliates that are currently in operation in Pennsylvania. They participated in the decision of the Board to prepare this regulation. At this point in time, this rulemaking will only apply to those 8 underground bituminous mining companies currently operating in Pennsylvania.

The Board has determined that no small businesses, as that term is defined under Section 3 of the Regulatory Review Act, will be affected by this proposal. According to the Small Business Size Regulations under 13 CFR Part 121, for NAICS Code 212112 (bituminous coal underground mining) a small business is one that employs fewer than 500 persons. The Board determined that this rulemaking would only apply to the current 8 underground bituminous mining companies operating in Pennsylvania, all of which employ more than 500 persons. The Board made this determination by reviewing its own internal data and publicly available data from the companies. As a result, this rulemaking would not impact small businesses.

(15) Identify the types and number of persons, businesses, small businesses (as defined in Section 3 of

the Regulatory Review Act, Act 76 of 2012) and organizations which will be affected by the regulation. How are they affected?

Currently there are 40 bituminous underground mines operating in Pennsylvania that are owned by 8 underground bituminous mining companies. There are currently no small businesses, persons or entities operating underground bituminous mining companies in Pennsylvania. Consequently, the regulation will not apply to small businesses, nor any other persons or businesses other than the 8 underground bituminous mining companies currently operating in Pennsylvania. There is no opposition from the underground coal industry as representatives of the industry participated in the decision-making process that led to the Board's interest in preparing this regulation. Moreover, the coal industry already has to comply with the federal MSHA regulations regarding the installation, use, and maintenance of high-voltage continuous mining machines in underground coal mines.

(16) List the persons, groups or entities, including small businesses that will be required to comply with the regulation. Approximate the number that will be required to comply.

Currently there are 40 underground bituminous coal mines operating in Pennsylvania that are owned by 8 underground bituminous mining companies. These companies collectively employ approximately 5,300 persons, not all of whom work underground. All underground coal mine companies must already comply with the federal MSHA regulations concerning the installation, use, and maintenance of high-voltage continuous mining machines in underground coal mines. Therefore, this proposed rulemaking will not impose additional regulatory requirements on bituminous coal mine operations in Pennsylvania that these companies are not currently required to comply.

(17) Identify the financial, economic and social impact of the regulation on individuals, small businesses, businesses and labor communities and other public and private organizations. Evaluate the benefits expected as a result of the regulation.

Regulations concerning the installation, use, and maintenance of high-voltage continuous mining machines in underground coal mines were already promulgated by MSHA. Therefore, owners and operators of underground bituminous coal mines in Pennsylvania already have to comply with the federal regulation in this regard. As a result, the proposed rulemaking will not have any additional financial, economic or social impact on the public or regulated community. The potential benefits of the proposed rulemaking, including the prevention of bodily harm and loss of life or property, are incalculable.

(18) Explain how the benefits of the regulation outweigh any cost and adverse effects.

There will be no additional costs and adverse effects associated with this rulemaking as its sole purpose is to conform Pennsylvania regulations, with certain exceptions, to federal requirements. Assuring that the Pennsylvania regulation conforms to federal requirements will not have any additional financial, economic or social impact on any entity or individual, and the potential benefit of preventing bodily harm and loss of life or property is incalculable.

(19) Provide a specific estimate of the costs and/or savings to the **regulated community** associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

Costs and/or savings as the result of the implementation of this rulemaking are not anticipated as the proposal includes, with certain exceptions, federal MSHA provisions for which the regulated community is currently required to comply. MSHA previously estimated that mine operators that used high-voltage continuous mining machines with 20 to 500 employees have yearly net costs of approximately \$45,200 when complying with the federal regulation. Mine operators with more than 500 employees pay significantly less, as they have a net cost of \$9,425. Nonetheless, given that the proposed state regulation would merely provide the Board with the independent authority to implement the regulation, mine operators would not incur any additional costs.

In addition, although the regulation is intended to protect miners, it can also prevent property loss and therefore prevent additional expenses to the regulated community. Explosions, fires, and electrocution hazards can result in high costs for a mine operator, as it typically takes an operator a minimum of two months to resume operations after an explosion and other similar events. This could lead to expenses for the mine operator totaling approximately \$2 to \$7 million, as a result of the following: lost wages, lost production capacity, payment for services associated with mine rescue operations, and other related expenses. In addition, underground bituminous coal mine operators will be able to use high-voltage continuous mining equipment with more advanced equipment designs, thereby increasing the likelihood of cost savings for the operator.

(20) Provide a specific estimate of the costs and/or savings to the **local governments** associated with compliance, including any legal, accounting or consulting procedures which may be required. Explain how the dollar estimates were derived.

This question is not applicable because local governments do not engage in underground bituminous coal mining.

(21) Provide a specific estimate of the costs and/or savings to the **state government** associated with the implementation of the regulation, including any legal, accounting, or consulting procedures which may be required. Explain how the dollar estimates were derived.

This question is not applicable because state government does not engage in underground bituminous coal mining.

(22) For each of the groups and entities identified in items (19)-(21) above, submit a statement of legal, accounting or consulting procedures and additional reporting, recordkeeping or other paperwork, including copies of forms or reports, which will be required for implementation of the regulation and an explanation of measures which have been taken to minimize these requirements.

This rulemaking does not require any additional accounting or consulting procedures, additional reporting, recordkeeping, or other paperwork other than that which is already being performed on a routine basis as required under federal MSHA requirements.

(23) In the table below, provide an estimate of the fiscal savings and costs associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

Neither local nor state government is engaged in underground bituminous coal mining operations; therefore, costs and/or savings are not anticipated as a result of this rulemaking. Moreover, since the regulated community already incurs costs associated with compliance of the federal MSHA requirements, additional compliance costs are not anticipated to be incurred by the regulated community as a result of this rulemaking. There are, however, potential cost savings the regulated industry may receive from this regulation, as it is anticipated it will enhance underground mine work safety, including greater protection for miners from electrical shock, cable overheating, fire hazards, back injuries and other sprains caused by handling trailing cables. Explosions, fires, and electrocution hazards can result in high costs for a mine operator, as it typically takes an operator a minimum of two months to resume operations after an explosion. This could lead to expenses for the mine operator totaling approximately \$2 to \$7 million, as a result of the following: lost wages, lost production capacity, payment for services associated with mine rescue operations, and other related expenses.

	<b>Current FY Year</b>	<b>FY +1 Year</b>	<b>FY +2 Year</b>	<b>FY +3 Year</b>	<b>FY +4 Year</b>	<b>FY +5 Year</b>
<b>SAVINGS:</b>	\$	\$	\$	\$	\$	\$
<b>Regulated Community</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Local Government</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Government</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Savings</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>COSTS:</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Regulated Community</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Local Government</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Government</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Costs</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>REVENUE LOSSES:</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Regulated Community</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Local Government</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>State Government</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Revenue Losses</b>	N/A	N/A	N/A	N/A	N/A	N/A

(23a) Provide the past three year expenditure history for programs affected by the regulation.

<b>Program</b>	<b>FY -3</b>	<b>FY -2</b>	<b>FY -1</b>	<b>Current FY</b>
<b>Environmental Protection Operations (#160-10381)</b>	\$84,218,000	\$78,021,000	\$77,359,000	\$74,547,000

<b>Environmental Program Management (#160-10381)</b>	\$31,100,000	\$28,881,000	\$27,755,000	\$24,965,000
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(24) For any regulation that may have an adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), provide an economic impact statement that includes the following:

- (a) An identification and estimate of the number of small businesses subject to the regulation.

The proposed rulemaking will not have any adverse effect on small businesses as all of the underground bituminous coal mining companies that would be impacted by the proposal employ more than 500 persons.

- (b) The projected reporting, recordkeeping and other administrative costs required for compliance with the proposed regulation, including the type of professional skills necessary for preparation of the report or record.

There will be no additional costs incurred with respect to reporting, recordkeeping and other administrative costs required for compliance with the proposed regulations as the regulated community already has to comply with federal provisions enforced by MSHA for the installation, use, and maintenance of high-voltage continuous mining machines in underground coal mines.

- (c) A statement of probable effect on impacted small businesses.

Effects on small businesses, as a result of this proposed rulemaking, are not anticipated because currently no small businesses engage in underground coal mining operations in Pennsylvania. According to the Small Business Size Regulations under 13 CFR Part 121, for NAICS Code 212112 (bituminous coal underground mining) a small business is one that employs fewer than 500 persons. All 8 underground bituminous coal mining companies in Pennsylvania that are currently in operation employ more than 500 persons..

- (d) A description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation.

Alternative methods for achieving the purpose of the proposed rulemaking were not analyzed as the proposed rulemaking is based upon federal MSHA requirements that are already in place.

(25) List any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers.

No special provisions were required to be developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, the elderly, small businesses, and farmers since none of these entities were identified to be impacted.

(26) Include a description of any alternative regulatory provisions which have been considered and rejected and a statement that the least burdensome acceptable alternative has been selected.

Alternative regulatory provisions were not considered because this rulemaking is based upon an existing

federal MSHA rulemaking that is already in place. This proposed rulemaking will assure that Pennsylvania regulations conform to the federal regulations, with one exception.

(27) In conducting a regulatory flexibility analysis, explain whether regulatory methods were considered that will minimize any adverse impact on small businesses (as defined in Section 3 of the Regulatory Review Act, Act 76 of 2012), including:

- a) The establishment of less stringent compliance or reporting requirements for small businesses;
- b) The establishment of less stringent schedules or deadlines for compliance or reporting requirements for small businesses;
- c) The consolidation or simplification of compliance or reporting requirements for small businesses;
- d) The establishment of performing standards for small businesses to replace design or operational standards required in the regulation; and
- e) The exemption of small businesses from all or any part of the requirements contained in the regulation.

There will not be any adverse impact on small businesses as a result of this rulemaking, as no small businesses currently engage in underground bituminous coal mining operations in Pennsylvania. According to the Small Business Size Regulations under 13 CFR Part 121, for NAICS Code 212112 (bituminous coal underground mining) a small business is one that employs fewer than 500 persons. All 8 underground bituminous coal mining companies in Pennsylvania that are currently in operation employ more than 500 persons and therefore would not be considered a small business.

(28) If data is the basis for this regulation, please provide a description of the data, explain in detail how the data was obtained, and how it meets the acceptability standard for empirical, replicable and testable data that is supported by documentation, statistics, reports, studies or research. Please submit data or supporting materials with the regulatory package. If the material exceeds 50 pages, please provide it in a searchable electronic format or provide a list of citations and internet links that, where possible, can be accessed in a searchable format in lieu of the actual material. If other data was considered but not used, please explain why that data was determined not to be acceptable.

MSHA's former standards did not address high-voltage continuous mining machines because those machines were not available when the federal standards were developed. MSHA previously required mine operators to submit a Petition for Modification (PFM) in order to use high-voltage equipment in underground mines, as provided for under Section 101(c), of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811(c). Since 1997, MSHA has granted 52 PFMs to allow mine operators to use high-voltage continuous mining machines.

In developing its rulemaking, in 2004, MSHA held four public hearings to provide interested parties with the opportunity to comment (69 Fed. Reg. 51787.) Based on the review of all comments and testimony, MSHA re-proposed provisions related to the types of trailing cables that could be used with high-voltage continuous mining machines, and the types of cable handling equipment that must be used when handling energized high-voltage trailing cables (71 Fed. Reg. 15359, March 28, 2006.) In developing the final rule, MSHA considered the comments, hearing testimony, and the PFMs it had previously granted. The final rule included most of the requirements that were included in the PFMs that MSHA had previously granted.



On April 6, 2010, MSHA issued a final rule revising 30 CFR Part 75 to establish mandatory electrical safety standards for the proper installation of high-voltage continuous mining machines, electrical and mechanical protection of the equipment, handling of trailing cables, and procedures for performing electrical work (75 Fed. Reg. 17529). These safety standards included new provisions, as well as most of the provisions contained in the formerly granted PFMs. The rule also superseded all PFMs granted prior to the effective date of the rulemaking and eliminated the need for mine operators to file for a PFM to use high-voltage continuous mining machines with voltage up to 2,400 volts. The rule became effective on June 7, 2010.

MSHA believed that the requirements of the final rule were necessary to continue to protect underground bituminous coal miners from grave danger, and to allow for the use of high-voltage continuous mining machines. These regulations were codified at 30 CFR §§ 75.823-834 and 1002.

The Board reviewed the MSHA data and concurred with MSHA’s conclusions, with the exception of 30 CRF 75.830 (b)(1), which is not incorporated by reference in the proposed regulations because the federal regulation is less stringent than provisions provided under Pennsylvania law. As a result, the Board has adopted MSHA’s findings as its own.

(29) Include a schedule for review of the regulation including:

- |   |                              |
|---|------------------------------|
| A. The date by which the agency must receive public comments:                               | 3 <sup>rd</sup> Quarter 2013 |
| B. The date or dates on which public meetings or hearings will be held:                     | Not applicable               |
| C. The expected date of promulgation of the proposed regulation as a final-form regulation: | 2 <sup>nd</sup> Quarter 2014 |
| D. The expected effective date of the final-form regulation:                                | 2 <sup>nd</sup> Quarter 2014 |
| E. The date by which compliance with the final-form regulation will be required:            | 2 <sup>nd</sup> Quarter 2014 |
| F. The date by which required permits, licenses or other approvals must be obtained:        | 2 <sup>nd</sup> Quarter 2014 |

(30) Describe the plan developed for evaluating the continuing effectiveness of the regulations after its implementation.

The Board is committed to ensuring the health and safety of all persons in the underground bituminous coal mine industry. As a result, the Board periodically reviews all regulations within this industry to ensure their continued effectiveness. This periodic review occurs at all Board meetings. The Board meets at a minimum of four times each calendar year as may be necessary.