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DEPARTMENT OF LABOR

Mine Safety and Health Administration

30 CFR Parts 57 and 75

[Docket No. MSHA-2025-0089]

RIN 1219-AC17

Powered Air Purifying Respirators (PAPRs) in Underground Mines

AGENCY: Mine Safety and Health Administration (MSHA), Labor.

ACTION: Proposed rule; request for comments.

SUMMARY: MSHA is proposing to allow the use of non-permissible Powered Air Purifying Respirators (PAPRs) in specified underground areas of mines, if the equipment meets certain technical specifications and is operated under specific conditions. This proposed rule would codify technical specifications and working conditions to allow the use of non-permissible PAPRs in underground gassy mines. This proposed rule would reduce burden because mine operators would no longer need to submit a petition for modification to use non-permissible PAPRs.

DATES: Comments must be received on or before [**INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER***].

ADDRESSES: All submissions must include RIN 1219-AC17 or Docket No. MSHA–2025–0089. You should not include personal or proprietary information that you do not wish to disclose publicly. If you mark parts of a comment as "business confidential" information, MSHA will not post those parts of the comment. Otherwise, MSHA will post all comments without change, including any personal information provided. MSHA cautions against submitting personal information.

You may submit comments and informational materials, clearly identified by RIN 1219-AC17 or Docket No. MSHA–2025–0089, by any of the following methods:

1. *Federal E-Rulemaking Portal: https://www.regulations.gov*. Follow the online instructions for submitting comments for MSHA-2025-0089.

2. *Email: zzMSHA-comments@dol.gov*. Include "RIN 1219-AC17" in the subject line of the message.

3. *Regular Mail or Hand Delivery*: MSHA, Office of Standards, Regulations, and Variances, Room C3522, 200 Constitution Avenue, NW, Washington, DC 20210. Before visiting MSHA in person, call 202-693-9440 to make an appointment.

No telefacsimiles ("faxes") will be accepted.

FOR FURTHER INFORMATION CONTACT: Jessica D. Senk, Acting Director, Office of Standards, Regulations, and Variances, MSHA at 202-693-9440 (voice). This is not a toll-free number.

SUPPLEMENTARY INFORMATION:

I. Background

Approved Electrical Products

PAPRs are electric, reusable respirators that protect against a variety of respirable contaminants when equipped with the appropriate filter, cartridge, or canister. PAPRs use a battery-powered fan to pull air through the attached filter, cartridge, or canister.

The Federal Mine Safety and Health Act of 1977 (30 U.S.C. 801) (Mine Act) requires MSHA to establish requirements for the technical design, construction, and testing of electrical products, including PAPRs, that must be approved by MSHA prior to use in gassy mines. In underground gassy mines, flammable or explosive gases such as methane, and/or float coal dust can form explosive mixtures when combined with air. Before PAPRs can be used in gassy mines in the U.S., they must first be approved by MSHA.

MSHA's requirements in title 30, Code of Federal Regulations (30 CFR) part 18 ensure electric motor-driven products are designed and manufactured so that they will not emit a spark strong enough, or temperature sufficient to cause a fire or explosion. Those seeking MSHA

approval (applicants) are typically product designers and manufacturers of electrical products such as PAPRs. MSHA's approval process includes testing and evaluating the electrical product to determine whether it performs according to certain technical and safety requirements. MSHA issues an approval if the electrical product passes all the tests and evaluations. Once the electrical product is approved by MSHA, it must display an MSHA approval marking indicating that the product is approved for use in gassy mines. MSHA refers to electrical products approved for use in gassy areas of mines as "permissible." To continue to use the MSHA approval marking, the approval holder must maintain the quality of the electrical product according to the technical requirements upon which its approval was based.

Currently, there are no permissible PAPRs commercially available in the U.S. market. Mine operators must seek MSHA approval for the use of PAPRs in underground mines by filing petitions for modification under 30 CFR part 44.

Petitions for Modification

Section 101(c) of the Mine Act allows mine operators or representatives of miners to file a petition, or request, to modify the application of any mandatory safety standard to a mine. MSHA reviews petitions for modification to determine whether the petitioner's alternative method of achieving the result of the standard will at all times guarantee no less than the same measure of protection afforded by the standard, or the application of the standard will result in a diminution of safety to the miners.

30 CFR part 44 establishes the procedures and rules of practice for filing a petition for modification under section 101(c) of the Mine Act. Once a petition has been filed by a mine operator or representative of miners, a notice requesting comment on the petition is published in the *Federal Register* and MSHA personnel investigate to promptly determine whether to grant or deny the petition. Taking into consideration the alternative methods proposed by the petitioner and any additional requirements, MSHA will grant the petition for modification if the Agency determines that the alternative method of achieving the result of the standard will at all times

guarantee no less than the same measure of protection afforded by the standard, or the application of the standard will result in a diminution of safety to the miners. The granted modification, together with any conditions, will have the same effect as a mandatory safety standard.

Since 2021, MSHA has received more than 150 petitions for modification requesting MSHA allow the use of non-permissible PAPRs in areas of underground mines where the use of approved equipment is required. These petitions for modification generally propose very similar alternative methods, or conditions and terms, for the safe use of non-permissible PAPRs in gassy areas of underground mines to ensure that miners are at all times afforded the same measure of protection as when using permissible equipment.

II. Discussion

MSHA proposes to codify certain technical specifications and working conditions to allow the use of PAPRs in specified underground areas of underground metal and nonmetal (MNM) and coal mines, so that mine operators no longer need to file petitions for modification. This proposed rule would allow mine operators to safely use the best and most current technology available, while not reducing miner safety.

This proposed rule would not revise the language of any Proposed Decisions and Orders granted by MSHA for PAPRs. Operators with granted petitions would decide between complying with the terms of their Proposed Decision and Order or complying with the requirements proposed in this rule and dismissing their petitions.

Under the proposed rule, there would be no change to existing ventilation requirements, methane monitoring requirements, de-energization requirements, or rock-dusting requirements. The Agency has preliminarily determined that this proposed rule, including the protective requirements that are generally consistent with the terms in granted petitions, would not reduce existing protections for miners.

MSHA seeks comments on any aspects of this proposed rule, including what records are appropriate for mine operators to maintain to ensure compliance.

III. Section-by-Section Analysis

A. Sections 57.22316 and 75.530 - Non-permissible powered air-purifying respirators (PAPRs): Purpose and scope.

This proposed rule would allow non-permissible PAPRs that have not been evaluated and approved by MSHA using the 30 CFR part 18 requirements to be used in specified underground areas of gassy mines. The proposed rule would also establish requirements for the features and maintenance of non-permissible PAPRs and the mining conditions where non-permissible PAPRs can be used.

B. Sections 57.22316-1 and 75.531 - Non-permissible PAPRs: Definitions.

The proposed rule would define ***commercially available***, ***Powered Air Purifying Respirators (PAPRs)***, ***production activities***, and ***specified underground areas*** for MNM mines in part 57 and coal mines in part 75.

The definitions for ***commercially available*** and ***Powered Air Purifying Respirators (PAPRs)*** are the same in parts 57 and 75. However, the definitions for ***production activities*** and ***specified underground area*** are different in parts 57 and 75 because of differences in the commodities mined, mining methods, geology, and construction of MNM mines compared to coal mines.

C. Sections 57.22316-2 and 75.532 - Non-permissible PAPRs: Approval and certification requirements.

Proposed §§ 57.22316-2 and 75.532 would require that non-permissible PAPRs taken into specified underground areas meet certain conditions. Non-permissible PAPRs must meet the appropriate UL (formerly Underwriters Laboratories) voluntary consensus safety standard.

Proposed paragraphs §§ 57.22316-2(a)(2) and 75.532(a)(2) would require non-permissible PAPRs to be certified to the American National Standards Institute (ANSI)/UL

60079-11, Standard for Safety for Explosive Atmospheres—Part 11: Equipment Protection by Intrinsic Safety “i”, Sixth Edition, Dated February 15, 2013, including revisions through September 14, 2018 (ANSI/UL 60079-11).

Certification to the ANSI/UL 60079-11 standard must be conducted by organizations meeting the requirements of the Occupational Safety and Health Administration’s (OSHA) Nationally Recognized Testing Laboratory (NRTL) program. A NRTL is a private-sector organization that OSHA has recognized as meeting the requirements in 29 CFR 1910.7 to perform testing and certification of products using consensus-based test standards. To receive OSHA's recognition as an NRTL, an organization must have the necessary capability both as a product safety testing laboratory and as a product certification body.

Proposed paragraph (b) lists the eight voluntary consensus standards that MSHA would incorporate by reference in parts 57 and 75. While MSHA would require certification for non-permissible PAPRs only to ANSI/UL 60079-11, the Agency is incorporating by reference seven additional ANSI-approved standards because these are referenced throughout ANSI/UL 60079-11.

The proposed incorporation by reference of the eight voluntary consensus standards is consistent with the Office of Management and Budget's (OMB) Circular A-119 (Jan. 27, 2016 (81 FR 4673)), which establishes policy guidance for Federal agencies. Circular A-119, based on the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 3701 et seq.), section 12(d), directs Federal agencies to use technical standards developed or adopted by voluntary consensus standards bodies to carry out policies or activities. Additionally, Circular A-119 directs agencies to use voluntary consensus standards in lieu of government-unique standards, except where inconsistent with law or otherwise impractical. The intent of the policy guidance in Circular A-119 is to minimize agency reliance on government-unique standards to decrease the burden of complying with agency regulations and promote efficiency and economic

competition through harmonization of standards. (See https://www.whitehouse.gov/wp-content/uploads/2017/11/Circular-119-1.pdf).

D. Sections 57.22316-3 and 75.533 - Non-permissible PAPRs: Requirements before use.

Proposed §§ 57.22316-3 and 75.533 would specify the requirements for examination of non-permissible PAPRs to ensure they are in a safe condition before being used in the specified areas of an underground mine.

E. Sections 57.22316-4 and 75.534 - Non-permissible PAPRs: Continuous monitoring during operation.

Proposed §§ 57.22316-4 and 75.534 would require a competent person, for MNM mines, or qualified person, for coal mines, to monitor for methane. Proposed paragraphs (c) and (d) would require methane detectors to meet certain requirements to ensure their safe operation. Proposed paragraph (e) would require immediately de-energizing and removing non-permissible PAPRs from the specified underground area if a certain percentage of methane is detected.

The timely detection of methane gas and the immediate removal of the non-permissible PAPRs out of the specified underground areas would be the primary method of protection against ignitions and explosions.

F. Sections 57.22316-5 and 75.535 - Non-permissible PAPRs: Requirements for batteries.

Proposed §§ 57.22316-5 and 75.535 would address requirements for the batteries used in non-permissible PAPRs to ensure their safe operation if methane or float coal dust is present.

I. Sections 57.22316-6 and 75.536 - Non-permissible PAPRs: Maintenance and examination.

Proposed §§ 57.22316-6 and 75.536 would address the maintenance and examination requirements for non-permissible PAPRs to ensure their safe operating condition. All non-permissible PAPRs would be required to be withdrawn from specified underground areas if a potentially dangerous condition was found.

J. Sections 57.22316-7 and 75.537 - Non-permissible PAPRs: Training.

Proposed §§ 57.22316-7 and 75.537 would address the importance of training miners on safety practices where new technologies are utilized and would require specific training for those who will be using non-permissible PAPRs. In addition to 30 CFR part 48 training requirements, MSHA is proposing to require specific training to address concerns regarding the use of non-permissible PAPRs in specified underground areas.

K. Incorporation by Reference

In proposed §§ 57.22305-3 and 75.532, MSHA would incorporate by reference the following voluntary consensus standards.

(1) ANSI/International Society of Automation (ISA) 60079-11 (12.02.01)-2014, Standard for Explosive Atmospheres—Part 11: Equipment protection by intrinsic safety "i" (Group I, Level of Protection 'ia'), Edition 6.2, dated March 28, 2014, that specifies the construction and testing of intrinsically safe apparatus intended for use in an explosive atmosphere and for associated apparatus that is intended for connection to intrinsically safe circuits which enter such atmospheres. This standard is also applicable to electrical equipment or parts of electrical equipment located outside the explosive atmosphere or protected where the intrinsic safety of the electrical circuits in the explosive atmosphere may depend upon the design and construction of such electrical equipment or parts of such electrical equipment. The electrical circuits exposed to the explosive atmosphere are evaluated for use in such an atmosphere by applying this standard.

(2) ANSI/ISA 60079-25 (12.02.05)-2011, Standard for Explosive Atmospheres—Part 25: Intrinsically safe electrical systems (Group I, Level of protection 'ia'), dated December 2, 2011, which contains the specific requirements for construction and assessment of intrinsically safe electrical systems, type of protection "i", intended for use, as a whole or in part, in Class I, Zone 0, 1, or 2, or Zone 20, 21, or 22 hazardous (classified) locations as defined by the NEC®, ANSI/NFPA 70®.

(3) ANSI/UL 60079-0, Standard for Explosive Atmospheres—Part 0: Equipment—General Requirements (Group I), Seventh Edition, dated March 26, 2019, which specifies the general requirements for construction, testing and marking of Ex Equipment and Ex Components intended for use in explosive atmospheres. This standard is an adoption of IEC 60079–0, Explosive atmospheres—Part 0: Equipment— General requirements, (seventh edition issued by IEC December 2017) as a new IEC-based UL standard with U.S. national differences.

(4) ANSI/UL 60079-1, Standard for Explosive Atmospheres—Part 1: Equipment Protection by Flameproof Enclosures "d" (Group I, Level of protection 'da'), Seventh Edition, dated September 18, 2015, which contains specific requirements for the construction and testing of electrical equipment with the type of protection flameproof enclosure "d", intended for use in explosive gas atmospheres. This standard is an adoption of IEC 60079–1, Explosive Atmospheres—Part 1: Equipment Protection by Flameproof Enclosures "d" (seventh edition, issued June 2014) with U.S. national differences.

(5) ANSI/UL 60079-11, Standard for Explosive Atmospheres—Part 11: Equipment Protection by Intrinsic Safety "i" (Group I, Level of protection 'ia'), Sixth Edition, dated February 15, 2013, including revisions through September 14, 2018 (ANSI/UL 60079-11), which specifies the construction and testing of intrinsically safe apparatus intended for use in an explosive atmosphere and for associated apparatus, which is intended for connection to intrinsically safe circuits which enter such atmospheres. This standard is also applicable to electrical equipment or parts of electrical equipment located outside the explosive atmosphere or protected where the intrinsic safety of the electrical circuits in the explosive atmosphere may depend upon the design and construction of such electrical equipment or parts of such electrical equipment. The electrical circuits exposed to the explosive atmosphere are evaluated for use in such an atmosphere by applying this standard. This standard incorporates all of the U.S. national differences for UL 60079–11 and is based on IEC 60079– 11, Edition 6, published in 2011.

(6) ANSI/UL 60079-18, Standard for Explosive Atmospheres—Part 18: Equipment Protection by Encapsulation “m” (Group I, Level of Protection ‘ma’), Fourth Edition, dated December 14, 2015, which provides the specific requirements for the construction, testing and marking of electrical equipment, parts of electrical equipment and Ex components with the type of protection encapsulation “m” intended for use in explosive gas atmospheres or explosive dust atmospheres. This standard applies only for encapsulated electrical equipment, encapsulated parts of electrical equipment, and encapsulated Ex components where the rated voltage does not exceed 11 kV. This standard incorporates all of the U.S. national differences and is based on IEC 60079– 18, Explosive Atmospheres—Part 18: Equipment Protection by Encapsulation “m”, (fourth edition issued December 2014).

(7) ANSI/UL 60079-25, Standard for Explosive Atmospheres—Part 25: Intrinsically Safe Electrical Systems (Group I, Level of Protection ‘ia’), Second Edition, Dated December 2, 2011, which contains the specific requirements for construction and assessment of intrinsically safe electrical systems, type of protection “i”, intended for use, as a whole or in part, in Class I, Zone 0, 1, or 2 hazardous (classified) locations as defined by the NEC®, ANSI/NFPA 70®. This standard is an adoption of ANSI/ ISA 60079–25, Standard for Explosive Atmospheres—Part 25: Intrinsically Safe Electrical Systems.

(8) ANSI/UL 60079-28 Ed. 2-2017, Standard for Explosive Atmospheres—Part 28: Protection of Equipment and Transmission Systems Using Optical Radiation (Group I, Equipment Protection Level ‘Ma’), dated September 15, 2017, which specifies the requirements, testing and marking of equipment emitting optical radiation intended for use in explosive atmospheres. It also covers equipment located outside the explosive atmosphere or protected, but which generates optical radiation that is intended to enter an explosive atmosphere. This standard incorporates all of the U.S. national differences for UL 60079–28 and is based on IEC 60079–28, Edition 2.0 published May 2015.

Availability of Standards to be Incorporated by Reference

MSHA proposes to incorporate by reference two ISA standards. ISA provides free online public access to read-only copies of its standards that are incorporated into Federal regulations through an agreement with ANSI. These standards are available to the public for free viewing online in the ANSI Incorporated by Reference Portal website at: https://ibr.ansi.org/Standards/isa.aspx. In addition to the free online availability of these standards for viewing on the ANSI website, hardcopies and printable versions are available for purchase from ISA. The ISA website address to purchase standards is: www.isa.org/standards-and-publications/isastandards/find-isa-standards-innumerical-order. Interested persons may also contact ISA directly at International Society of Automation (ISA), 67 T.W. Alexander Drive, P.O. Box 12277, Research Triangle Park, NC 27709, Tel: (919) 549–8411. In addition, during the comment period and rulemaking process, ISA standards will be available for review, free of charge, at MSHA, Office of Standards, Regulations, and Variances, Room C3522, 200 Constitution Avenue, NW, Washington, DC 20210 and at MSHA's Approval and Certification Center (A&CC) at 765 Technology Drive, Triadelphia, WV 26059 (304–547–0400).

There are six ANSI/UL standards that would be incorporated by reference in this proposed rule. These standards are available online and may be purchased on UL's website at: www.shopulstandards.com. Interested persons may also contact UL directly at UL Solutions, Comm 2000, 151 Eastern Avenue, Bensenville, IL 60106, Tel: (888) 853–3503. In addition, during the comment period and rulemaking process, UL standards will be available for review, free of charge, at MSHA, Office of Standards, Regulations, and Variances, Room C3522, 200 Constitution Avenue, NW, Washington, DC 20210 and at MSHA's A&CC at 765 Technology Drive, Triadelphia, WV 26059 (304–547–0400).

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866 and 13563

Executive Order (E.O.) 12866, "Regulatory Planning and Review" 58 FR 51735 (Oct. 4, 1993), requires agencies, to the extent permitted by law, to (1) propose or adopt a regulation only

upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits; (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

E.O. 13563, "Improving Regulation and Regulatory Review" 76 FR 3821 (Jan. 21, 2011), requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. E.O. 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, reduce uncertainty, and use the best, most innovative, and least burdensome tools for achieving regulatory ends.

E.O. 12866 and E.O. 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. E.O. 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility.

Background

Currently, there are no permissible PAPRs commercially available on the U.S. market. Mine operators have to file petitions for modification to use PAPRs in underground mine environments and are only granted permission for their use if the petition is approved. Under the proposed rule, mine operators would be allowed to use PAPRs in specified underground areas of

underground mines without filing petitions. This proposed rule would allow mine operators to safely use the best and most current technology available, while not reducing miner safety.

Based on MSHA internal data, the Agency estimates there will be approximately 197 underground metal and nonmetal (MNM) mines and 215 underground coal mines operating each year that would be impacted by this proposed rule[1]. All estimated figures are expressed in 2024 dollars.

Under the baseline scenario, coal mine operators would continue their current practice of filing petitions to be able to use PAPRs in underground mines and would purchase and use the PAPRs if their petition is approved. Under the proposed rule, mine operators would no longer need to file petitions to use PAPRs. There would be no change to the existing requirements placed on mine operators using PAPRs: methane monitoring, regular PAPR equipment inspection, and hazard awareness training for miners. These requirements would continue to be applied to all underground mines that use PAPRs under the proposed rule.

Benefits

This proposed rule would codify new standards for using non-permissible PAPRs in underground mines, based on technical specifications and working conditions. The proposed rule would substantially reduce future costs and delays related to filing petitions for modification. MSHA received 150 petitions for PAPRs between 2021 and 2024. These petitions show that, despite the costs associated with filing petitions, a substantial number of mines find that using PAPRs is beneficial to their operations. Being able to use PAPRs without having to file a petition

[1] Number of mines inspected at least once in 2024 and the mine's current status is listed as active, intermittent, or nonproducing active on April 14, 2025.

would allow mine operators to safely use the latest technology without diminishing safety in underground mines.

Compliance Costs of Using PAPRs

The total compliance costs associated with using PAPRs would result from allowing underground mine operators to purchase and use PAPRs without filing a petition for modification. MSHA assumes the cost of filing a petition currently presents a barrier to the use of PAPRs, and when that barrier is removed the purchase and use of PAPRs would be economically feasible for more mine operators.

The total compliance costs of using PAPRs include the following:

1. Equipment purchases: MSHA estimates that over the 10-year analysis period, each underground MNM mine operator would purchase 10 PAPRs per mine and each underground coal mine operator would purchase 50 PAPRs per mine. At a cost of $3,000 per PAPR, the 10-year total cost would be $36.0 million undiscounted.
2. Methane monitoring by competent or qualified persons: MSHA estimates that in underground MNM mines over the 10-year analysis period, mining supervisors earning $75.63 per hour would spend a total of 12,549 hours monitoring methane; and over that same time period in underground coal mines, mining supervisors earning $95.72 per hour would spend a total of 125,488 hours monitoring methane. This yields a total cost over 10 years of $13.1 million.
3. Examination of non-permissible PAPR equipment:
    a. Pre-use examinations: MSHA estimates that, over 10 years, mining supervisors would need to conduct 2,150 pre-use examinations in underground MNM mines (1 examination per mine per year) and 3,940 examinations in underground coal mines (2 examinations per mine per year). At a unit cost of $5.51 per

examination, the 10-year total cost would be $33,556 undiscounted covering 6,090 pre-use examinations.

b. Weekly examinations: MSHA estimates mining supervisors would conduct 4 weekly examinations per mine each year for 215 underground MNM mines and 197 underground coal mines. This results in a 10-year total of 16,480 examinations. At a unit cost of $9.48 per examination, the 10-year cost of weekly examinations would be $0.2 million undiscounted.

4. Hazard awareness training for miners: MSHA estimates mine operators would train 2 MNM miners and 20 coal miners per mine each year on the hazards involved in using PAPRs. Assuming the training takes 1 hour to complete and using an estimated wage rate of $49.78 per hour for MNM miners and $57.85 per hour for coal miners, the 10-year cost of training would be $12,566 undiscounted over 10 years.

Cost Savings

Under the baseline scenario, MSHA believes mine operators would continue to file petitions to use PAPRs, while no new petitions would be filed under the proposed rule. Over the 10-year analysis period, MSHA estimates that under the baseline there would be 20 petitions filed and approved without revision, 330 petitions filed and approved with revisions, and 30 petitions litigated. MSHA assumes that the cost of petitions is $6,367 per petition approved without revision, $25,468 per petition approved with revisions, and $397,943 per litigated petition.[2] Under the proposed rule, mine operators would not have to file petitions and thus would avoid petition associated costs of $20.47 million undiscounted over 10 years. The

[2] The litigation of a petition by a mine operator can take several years to resolve, which could amount to hundreds, and possibly even thousands of legal hours.

annualized cost savings would be $2.05 million at a 0 percent discount rate, $2.25 million at a 3 percent discount rate, and $2.52 million at a 7 percent discount rate.

Summary

To use PAPRs, mine operators would incur compliance costs of $4 million undiscounted over 10 years, under both the baseline scenario (filing a petition in order to use PAPRS) or the proposed rule (using PAPRs without having to file a petition). Therefore, compliance costs are not considered incremental costs under the proposed rule.

Under the proposed rule, there would be incremental cost savings from avoided costs associated with filing petitions and potentially going through litigation of $20.47 million. MSHA estimates that the annualized cost savings for this proposed rule at discount rates of 0 percent, 3 percent, and 7 percent would be $2.05 million, $2.25 million, and $2.52 million, respectively.

Significance Determination

Under section 3(f) of E.O. 12866, a "significant regulatory action" is a regulatory action that is likely to result in a rule that may:

(1) have an annual effect on the economy of $100 million or more, or adversely affect in a material way he economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities (also referred to as economically significant);

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the E.O.

Under section 6(a) of E.O. 12866, the Office of Management and Budget's (OMB's) Office of Information and Regulatory Affairs (OIRA) determines whether a regulatory action is

significant and whether Agencies are required to submit the regulatory action to OIRA for review. Adding the provisions concerning the use of PAPRs in specified underground areas of mines would not impose new compliance costs to underground mine operators or reduce the protections afforded to miners. This proposed rule is determined to not constitute a "significant regulatory action" because it does meet any of the four "significant regulatory action" criteria under section 3(f) of E.O. 12866. Accordingly, this proposed rule was not submitted to OIRA for review under E.O. 12866.

No alternatives were considered for this proposed deregulatory action.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) of 1980, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996, requires preparation of an Initial Regulatory Flexibility Analysis (IRFA) for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. The RFA defines small entities to include small businesses, small organizations, including not-for-profit organizations, and small governmental jurisdictions. MSHA reviewed this proposed rule under the provisions of the RFA, which eliminates burdensome regulations.

Under the RFA, MSHA uses the Small Business Administration's (SBA) definition to set thresholds for small business sizes for the MNM and coal mining industries defined at the 6-digit North American Industry Classification System (NAICS) level. For underground MNM mines the threshold ranges from 500 – 1,500 employees depending on the specific commodity being mined. For underground coal mines the threshold is 1,500 employees.

MSHA estimates the total annual revenues for MNM commodities to be $105.6 billion. This was calculated using the 2024 production values for all metal and industrial minerals reported in U.S. Geological Survey' Mineral Commodity Summaries 2025 Report. Using MSHA

internal data the agency estimates that $44.0 billion of the total revenues were generated by small MNM mines.

MSHA evaluated data routinely provided by mine operators related to the number of mines, employment, and production from MSHA's Standardized Information System (MSIS) for underground coal mines. MSHA calculated revenue as production times the average price of coal. Using internal data, MSHA estimates that small coal mines produce roughly 92.1 million tons of coal annually. Using U.S Energy Information Administration Annual Coal Report 2023 Table 28, Average Sales Price of Coal by State and Mine Type, the average coal price was $54.04 per short ton in 2023. The price was then adjusted to 2024 dollars using CPI-U, $55.63 per short ton, to estimate national coal revenues of $5.1 billion generated by small coal mines.

MSHA assesses the impacts on small entities by comparing the estimated compliance costs of the proposed rule for small entities affected by the rule to the estimated revenues for the affected sector. When estimated compliance costs are less than 1 percent of the estimated revenues, the Agency believes it is generally appropriate to conclude that there is no significant economic impact on a substantial number of small entities. When estimated compliance costs exceed 1 percent of revenues, MSHA investigates whether further analysis is required. The impact as a percentage of revenue is essentially zero under the proposed rule: for small MNM and coal mine operators total annualized cost is $4.93 million while total annual revenue is $49.1 billion, resulting in the ratio of 0.010 percent. Thus, no further analysis is required.

MSHA considered the compliance costs on small mines when developing the proposed rule. MSHA reviewed this proposed rule under the provisions of the RFA, which eliminates burdensome regulations. Therefore, MSHA initially concludes that the impacts of the proposed rule would not have a "significant economic impact on a substantial number of small entities," and the preparation of an IRFA is not warranted. MSHA will transmit this certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) provides for the Federal Government's collection, use, and dissemination of information. The goals of the Paperwork Reduction Act include minimizing paperwork and reporting burdens and ensuring the maximum possible utility from the information that is collected under 5 CFR part 1320. The Paperwork Reduction Act requires Federal agencies to obtain approval from OMB before requesting or requiring "a collection of information" from the public.

This proposed rule imposes no new information collection or recordkeeping requirements. The requirements for training recordkeeping are fully covered in a currently approved information collection request, OMB Control Number 1219-0009 "Training Plans and Records of Training for Underground Miners and Miners Working at Surface Mines and Surface Areas of Underground Mines." There is no change to this information collection request.

However, this proposed rule would result in substantive changes to another currently approved information collection request, OMB Control Number 1219-0065 "Petitions for Modification of Mandatory Safety Standards." The currently approved information collection request covers requirements in 30 CFR part 44, which set forth the procedures and rules to govern petitions for modification of mandatory safety standards filed under section 101(c) of the Mine Act.

Under this proposed rule, MNM and coal mine operators would no longer have to file petitions for modification to use PAPRs in underground mine environments. This proposed change would decrease the paperwork burden and costs to mine operators as they would no longer file petitions for using PAPRs in underground MNM and coal mines. MSHA proposes to revise the supporting statement for the information collection request 1219-0065 to reflect these changes and seeks public comment on these changes.

Type of Review: Substantive Change to currently approved information collection

OMB Control Number: 1219-0065

Title: Petitions for Modifications of Mandatory Safety Standards

Description of the ICR:

Background

Under 30 CFR 44.4, mine operators can file a petition for modification to use an alternative method of achieving the same result of an existing standard that will at all times guarantee no less than the same measure of protection afforded by the standard. Currently, this is the only way mine operators are able to use non-permissible PAPRs. Under the proposed rule, the requirements for using such equipment would be codified and mine operators would no longer have to file a petition for their use.

Based on MSHA records of petitions for modification received between 2021 through 2023, there were an average of 46 petitions each year. Of these submitted petitions, there was an average of 26 submissions that requested the use of PAPRs. Under this proposed rule, the Agency estimates that the average annual petitions would be reduced from 46 to 20 petitions, as the 26 petitions concerning PAPRs would no longer need to be filed. MSHA assumes that 24 petitions for PAPRS would have been filed by underground coal mines and 2 by underground MNM mines. Additionally, it is assumed that under the proposed rule, of the remaining 20 petitions filed each year, 19 petitions would be from coal mines and 1 would be from a MNM mine.

Summary of Changes

This substantive change request will change the supporting statement for this information collection request due to an addition in the recordkeeping requirements in the proposed 30 CFR 57.22316 through 57.22316-7 and 75.530 through 75.537. Forty-six mines are currently impacted under 1219-0065 and under the proposed rule this figure would decrease to 20. This change does not modify the authority or number of affected mine operators and contractors, but

it does decrease the paperwork burden and costs associated with filing petitions as captured by this information collection request.

The number of respondents, frequency of response, annual hour burden, and recordkeeping cost are described below.

1. Preparing and Filing Petitions for Modification (30 FR 44.10 and 44.11(a))

Under 30 CFR 44.10 and 44.11(a), a mine operator or any representative of miners may file a petition for modification of the application of a mandatory safety standard. MSHA assumes that petitions will either be filed by mine operators or by third-party sources on behalf of mine operators. Under the proposed rule, MSHA assumes that each year 16 petitions would be prepared by mine operators, 15 from coal mines and 1 from a MNM mine. MSHA estimates that it takes 40 hours to prepare and file a petition, which will be completed by a coal or MNM mining supervisor, earning $95.72 or $75.63 per hour, respectively.

As related to these requirements, the proposed rule would reduce the number of annual respondents from 37 to 16, the number of annual responses from 37 to 16, and the annual burden hours from 1,480 to 640.

Additionally, MSHA assumes that 4 petitions are prepared by third-party sources (independent legal counsel) each year. MSHA estimates that it takes an independent counsel, earning $182.79 per hour, approximately 16 hours to prepare a petition. This will be a total of $11,699 spent preparing the 4 petitions. This would be a decrease from the previous recordkeeping cost estimate of $24,814.

The prepared petitions must be submitted to MSHA for review and approval. Each year, MSHA estimates only 1 petition would be submitted by mail and 19 would be submitted electronically. MSHA assumes that there is no filing cost if submitted electronically. MSHA estimates the mailing costs for a petition for modification is $8.00 if using certified mail from USPS. This proposed rule would reduce the recordkeeping cost burden from $16 to $8.

2. Posting Copies of Petitions on the Mine Bulletin Boards (30 CFR 44.9)

Under 30 CFR 44.9, a mine operator must, when there is no representative of miners, post a copy of each petition for modification concerning the mine on the mine bulletin board and must maintain the posting until a ruling on the petition becomes final. MSHA assumes that all mine operators will post the petition for modification on the mine's bulletin board.

MSHA assumes each year there will be 19 petitions from coal mines and 1 from a MNM mine. MSHA estimates that it takes 10 minutes to make copies of the petition and post the petition to the mine bulletin board. This will be done by a coal or MNM clerk, earning $44.53 or $45.42 per hour, respectively.

As related to this item, the proposed rule would reduce the number of annual respondents from 46 to 20, the number of annual responses from 46 to 20, and the annual burden hours from 7.67 to 3.33.

Additionally, MSHA assumes that on average a petition for modification is 3 pages long and the printing cost is $0.15 per page, so the material cost of printing a copy of the petition would be $0.45. By reducing the number of petitions to be posted on the mine bulletin board by 26, this proposed rule reduces the annual recordkeeping cost to respondents by $11.70.

In summary, this proposed rule would reduce the number of annual respondents from 46 to 20, the number of annual responses from 46 to 20, and the annual burden hours from 7.67 to 3.33. The annual recordkeeping cost to respondents would decrease from $20.70 to $9.00.

3. Serving Representatives of Miners with Petitions (30 CFR 44.10)

Under 30 CFR 44.10, if a petition is filed by a mine operator, a copy of the petition must be served to a representative of miners at the affected mine. MSHA assumes that 20 petitions would be filed each year, 19 from coal mines and 1 from a MNM mine. MSHA estimates that it takes 10 minutes to make copies of the petition and serve the petition to a representative of miners. A coal or MNM clerk earns $44.53 or $45.42 per hour, respectively.

As related to this item, the proposed rule would reduce the number of annual respondents from 46 to 20, the number of annual responses from 46 to 20, and the annual burden hours from

7.67 to 3.33.

Additionally, MSHA assumes that on average a petition for modification is 3 pages long and the printing cost is $0.15 per page, so the material cost of printing a copy of the petition would be $0.45. By reducing the number of petitions to be served to miners' representatives by 26 this proposed rule reduces the annual other cost burden by $11.70.

In summary, this proposed rule would reduce the number of annual respondents from 46 to 20, the number of annual responses from 46 to 20, and the annual burden hours from 7.67 to 3.33. The annual recordkeeping cost to respondents would decrease from $20.70 to $9.00.

4. Serving Miners' Representative with Copies of the Final Actions Granting Petitions and Posting Copies to the Mine Bulletin Boards (30 CFR 44.5(b))

Under 30 CFR 44.5(b), every final action granting a petition for modification must be posted by the operator on the mine bulletin board at the affected mine and remain posted as long as the modification is effective. If a summary of the final action is posted on the mine bulletin board, a copy of the full decision must be kept at the affected mine office and made available to the miners.

Under the baseline, MSHA estimates that each year 46 petitions would be submitted. Of the 46, 26 would be related to PAPRs, 3 of which would be denied and 23 approved. The proposed rule removes the need for the 26 petitions. Of the remaining 20 petitions submitted annually, MSHA estimates 12 would be approved, 11 from coal mines and 1 from a MNM mine. MSHA estimates that it takes 10 minutes to make copies of the final action and then to serve them to the miners' representative or post on the mine bulletin board. This will be done by a coal or MNM clerk, earning $44.53 or $45.42 per hour, respectively.

As related to this item, the proposed rule would reduce the number of annual respondents from 46 to 20, the number of annual responses from 46 to 20, and the annual burden hours from 7.67 to 3.33.

Additionally, MSHA assumes that a mine operator will make 2 copies of each final

actions granting petitions: 1 copy to be posted on the bulletin board and 1 copy available to miners. MSHA assumes that on average a petition for modification is 3 pages long and the printing cost is $0.15 per page, so the cost of printing a copy of the petition would be $0.45. This recission would reduce the number of copies of final actions made by 46 (23 served to miners' representatives and 23 to posted to mine bulletin boards). This recission reduces the annual other cost burden from $31.50 to $10.80.

This portion of the PRA requirements would reduce the number of annual respondents from 35 to 12, the number of annual responses from 35 to 12, and the annual burden hours from 5.83 to 2.00. The annual recordkeeping cost to respondents would decrease from $31.50 to $10.80.

Summary of the Collection of Information

Under the proposed rule, the estimated number of respondents, responses, burden hours, and recordkeeping costs to respondents would decrease from the currently approved information collection request.

Affected Public: Businesses or For-Profit

Estimated Number of Respondents: 20 (-26 from proposed rule)

Frequency: On occasion

Estimated Number of Responses: 68 (-96 from proposed rule)

Estimated Number of Burden Hours: 649 (-853 from proposed rule)

Estimated Recordkeeping Costs to Respondents: $11,735 (-$13,095 from proposed rule)

D. Review Under Executive Order 13132

E.O. 13132, "Federalism," 64 FR 43255 (August 10, 1999), imposes certain requirements on Federal agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The E.O. requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The E.O. also requires agencies to

have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.

MSHA has determined that the proposed rule would not have federalism implications because it would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, E.O. 13132 requires no further action or analysis.

E. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of E.O. 12988, "Civil Justice Reform" 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. Regarding the review required by section 3(a), section 3(b) of E.O. 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General.

Section 3(c) of E.O. 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. MSHA has completed the required review and

determined that, to the extent permitted by law, this proposed rule meets the relevant standards of E.O. 12988.

F. Review Under the Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)). The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a "significant intergovernmental mandate," and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect them.

MSHA examined this proposed rule according to UMRA and its statement of policy and determined that the proposed rule does not contain a Federal intergovernmental mandate, nor is it expected to require expenditures of $100 million or more in any one year by State, local, and Tribal governments, in the aggregate, or by the private sector. As a result, no further Agency action or analysis is required.

G. Review Under the National Environmental Policy Act

The National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.), requires each Federal agency to consider the environmental effects of regulatory actions and to prepare an environmental impact statement on Agency actions that would significantly affect the quality of the environment; unless the action is considered categorically excluded under 29 CFR 11.10. MSHA has reviewed the proposed rule in accordance with NEPA requirements and the

Department of Labor's NEPA procedures (29 CFR part 11). As a result of this review, MSHA has determined that this proposed rule would not impact air, water, or soil quality, plant or animal life, the use of land or other aspects of the human environment. Therefore, MSHA has not conducted an environmental assessment nor provided an environmental impact statement.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This proposed rule would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, MSHA has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

Pursuant to E.O. 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights" 53 FR 8859 (March 18, 1988), MSHA has determined that this proposed rule would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516, note) provides for Federal agencies to review most disseminations of information to the public under information quality guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002). MSHA has reviewed this proposed rule and has concluded that it is consistent with applicable policies in the OMB guidelines.

K. Review Under Executive Order 13175

E.O. 13175, "Consultation and Coordination With Indian Tribal Governments" 65 FR 67249 (Nov. 9, 2000), requires agencies to consult with tribal officials when developing policies that may have "tribal implications." This proposed rule does not have "tribal implications"

because it will not "have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes." Accordingly, under E.O. 13175, no further Agency action or analysis is required.

L. Review Under Executive Order 13211

E.O. 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" 66 FR 28355 (May 22, 2001), requires agencies to publish a statement of energy effects when a rule has a significant energy action that adversely affects energy supply, distribution, or use. MSHA has reviewed this proposed rule for its energy effects. For the energy analysis, this proposed rule will not exceed the relevant criteria for adverse impact.

M. Plain Language

E.O. 12866 and E.O. 13563 require regulations to be written in a manner that is easy to understand. MSHA has drafted the proposed rule in plain language.

N. Review Under Additional Executive Orders and Presidential Memoranda

MSHA has examined this proposed rule and has determined that it is consistent with the policies and directives outlined in E.O. 14154, "Unleashing American Energy" 90 FR 8353 (Jan. 29, 2025); E.O. 14192, "Unleashing Prosperity Through Deregulation" 90 FR 9065 (Feb. 6, 2025); and the Presidential Memorandum, "Delivering Emergency Price Relief for American Families and Defeating the Cost of Living Crisis" 90 FR 8245 (Jan. 28, 2025). This proposed rule is expected to be an E.O. 14192 deregulatory action.

List of Subjects

30 CFR part 57

Chemicals, Electric power, Explosives, Fire prevention, Gases, Hazardous substances, Incorporation by reference, Metals, Mine safety and health, Mines, Noise control, Radiation protection, Reporting and recordkeeping requirements, Underground mining.

30 CFR part 75

Communications equipment, Electric power, Emergency medical services, Incorporation by reference, Mandatory safety standards, Explosives, Fire prevention, Mine safety and health, Reporting and recordkeeping requirements, Training, Underground coal mines.

For the reasons set forth in the preamble, and under the authority of the Federal Mine Safety and Health Act of 1977, as amended by the Mine Improvement and New Emergency Response Act of 2006, MSHA proposes to amend chapter I of title 30 of the Code of Federal Regulations as follows:

PART 57—SAFETY AND HEALTH STANDARDS—UNDERGROUND METAL AND NONMETAL MINES

1. The authority citation for part 57 continues to read as follows:

Authority: 30 U.S.C. 811.

Subpart T—Safety Standards for Methane in Metal and Nonmetal Mines

2. Add §§ 57.22316 through 57.22316-7 to read as follows:

§ 57.22316 Non-permissible powered air purifying respirators (PAPRs): Purpose and scope.

§ 57.22316-1 Non-permissible PAPRs: Definitions.

§ 57.22316-2 Non-permissible PAPRs: Approval and certification requirements.

§ 57.22316-3 Non-permissible PAPRs: Requirements before use.

§ 57.22316-4 Non-permissible PAPRs: Continuous monitoring during operation.

§ 57.22316-5 Non-permissible PAPRs: Requirements for batteries.

§ 57.22316-6 Non-permissible PAPRs: Maintenance and examination.

§ 57.22316-7 Non-permissible PAPRs: Training.

§ 57.22316 Non-permissible powered air purifying respirators (PAPRs): Purpose and scope.

(a) Non-permissible PAPRs meeting the provisions in §§ 57.22316-1 through 57-22316-7 are permitted when no MSHA-approved PAPRs are commercially available.

(b) In the event that an operator implements a non-permissible PAPR at a mine, the operator must replace non-permissible PAPRs with approved PAPRs at the end of the non-permissible PAPR useful life or 2 years after the date of manufacture, whichever is sooner, if approved PAPRs become commercially available.

(c) PAPRs which are not MSHA-approved may be taken into and operated in specified underground areas: in or beyond the last open crosscut and in areas where methane may enter the air current, such as pillar recovery workings, longwall faces and shortwall faces, when PAPRs that meet the permissibility requirements in part 18 of this chapter do not exist.

(d) Sections 57.22316-1 through 57-22316-7 establish requirements for the features, use, and maintenance of non-permissible PAPRs, and the training of the personnel using such equipment when production activities are occurring and when production activities cease.

§ 57.22316-1 Non-permissible PAPRs: Definitions.

The following definitions apply:

Commercially available. Currently being manufactured and available for sale in the U.S.

Powered air purifying respirators (PAPRs). Battery-powered devices certified by the National Institute for Occupational Safety and Health (NIOSH) equipped with a facepiece, hood, or helmet, breathing tube, canister, cartridge, filter, canister with filter, or cartridge with filter, and a blower.

***Production activities*.** Activities that generate dust containing volatile matter or combustible gases including but not limited to cutting, drilling, blasting, transporting, cleaning, loading, and unloading.

Specified underground area. An underground area located in or beyond the last open crosscut and areas where methane may enter the air current, such as pillar recovery workings, longwall faces and shortwall faces or any underground area requiring electrical equipment that is approved by MSHA under the applicable requirements of 30 CFR parts 18 through 36. These areas are considered where explosive concentrations of methane gas are most likely to occur.

§ 57.22316-2 Non-permissible PAPRs: Approval and certification requirements.

(a) PAPRs which are not MSHA-approved and taken into specified underground areas must meet the following conditions:

(1) Non-permissible PAPRs, including batteries when assembled for use, must be approved by the National Institute for Occupational Safety and Health (NIOSH) under 42 CFR part 84.

(2) Non-permissible PAPRs must be certified to the ANSI/UL 60079-11 standard listed in § 57.22316-2(b)(1)(i) by a Nationally Recognized Testing Laboratory (NRTL) in accordance with 29 CFR 1910.7. Certification allows the manufacturer to mark the device as "Ex ia I", meaning that the unit is certified to be used in hazardous locations ("Ex"), has met the most onerous level of intrinsic safety protection ("ia"), the Equipment Protection Level ("very high"), and is acceptable for use in mines susceptible to firedamp ("I").

(b) The material listed in this paragraph (b) is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at the U.S. Department of Labor, Mine Safety and Health Administration (MSHA) and at the National Archives and Records Administration (NARA). Contact MSHA at 200 Constitution Avenue, NW, Washington, DC 20210. For information on the availability of this material at NARA, visit *www.archives.gov/federal-register/cfr/ibr-locations* or email *fr.inspection@nara.gov*. The material is available as follows:

(1) International Society of Automation (ISA), 67 T.W. Alexander Drive, P.O. Box 12277, Research Triangle Park, NC 27709; phone: (919) 549-8411; website: *www.isa.org*.

(i) ANSI/ISA 60079-11 (12.02.01)-2014, American National Standard for Explosive Atmospheres—Part 11: Equipment protection by intrinsic safety "i", Edition 6.2, Approved March 28, 2014.

(ii) ANSI/ISA 60079-25 (12.02.05)-2011, American National Standard for Explosive Atmospheres—Part 25: Intrinsically safe electrical systems, Approved December 2, 2011.

(2) UL Solutions . Comm 2000. 151 Eastern Avenue, Bensenville, IL 60106; phone: (888) 853-3503; website: *www.ul.com*.

(i) ANSI/UL 60079-0, Standard for Safety for Explosive Atmospheres—Part 0: Equipment—General Requirements, Seventh Edition, Dated March 26, 2019, including revisions through April 15, 2020 (ANSI/UL 60079-0).

(ii) ANSI/UL 60079-1, Standard for Safety for Explosive Atmospheres—Part 1: Equipment Protection by Flameproof Enclosures "d", Seventh Edition, Dated September 18, 2015, including revisions through January 23, 2020 (ANSI/UL 60079-1).

(iii) ANSI/UL 60079-11, Standard for Safety for Explosive Atmospheres—Part 11: Equipment Protection by Intrinsic Safety "i", Sixth Edition, Dated February 15, 2013, including revisions through September 14, 2018 (ANSI/UL 60079-11).

(iv) ANSI/UL 60079-18, Standard for Safety for Explosive Atmospheres—Part 18: Equipment Protection by Encapsulation "m", Fourth Edition, Dated December 14, 2015, including revisions through February 7, 2019 (ANSI/UL 60079-18).

(v) ANSI/UL 60079-25, Standard for Safety for Explosive Atmospheres—Part 25: Intrinsically Safe Electrical Systems, Second Edition, Dated December 2, 2011, including revisions through June 12, 2020 (ANSI/UL 60079-25).

(vi) ANSI/UL 60079-28 Ed. 2-2017, Standard for Safety for Explosive Atmospheres—Part 28: Protection of Equipment and Transmission Systems Using Optical Radiation, Second Edition, Dated September 15, 2017, including revisions through December 7, 2021 (ANSI/UL 60079-28).

Note 1 to § 57.22316-2:

The voluntary consensus standards listed in this section may also be obtained from the American National Standards Institute (ANSI), 1899 L Street NW, 11th Floor, Washington, DC 20036; phone: (202) 293-8020; website: *www.ansi.org.*

§ 57.22316-3 Non-permissible PAPRs: Requirements before use.

(a) Prior to being taken into specified underground areas, each non-permissible PAPR shall be:

(1) Physically examined by a competent person as defined in § 57.22002.

(i) The examination shall include the battery pack, and all associated wiring and connections to determine if there are any observable defects or damage that could negatively impact intrinsic safety.

(ii) If any defect or damage is found, the non-permissible PAPR shall be removed from service.

(2) Examined by the user in accordance with the manufacturer's instructions to ensure the equipment is used according to the manufacturer's recommendations and maintained in a safe operating condition.

(b) The examination under (a)(1) and (a)(2) shall include:

(1) Checking the equipment for any physical damage and the integrity of the case;

(2) Removing the battery (if removable/accessible) and examining for corrosion;

(3) Inspecting the electrical contact points to ensure a secure connection to the battery (if removable/accessible);

(4) Reinserting the battery (if removable/accessible) and powering up and shutting down to ensure proper connections;

(5) Checking the battery compartment cover or battery attachment (if removable/accessible) to ensure that it is securely fastened, and for ingress of dust or moisture; and

(6) For equipment utilizing lithium type cells, ensuring that lithium cells and/or packs are not damaged or swollen.

§ 57.22316-4 Non-permissible PAPRs: Continuous monitoring during operation.

(a) Prior to energizing the non-permissible PAPR in the specified underground areas, tests for methane shall be conducted in the mine atmosphere of the specified area by a competent person.

(b) A competent person shall continuously monitor for methane in the specified underground area immediately before and while non-permissible PAPRs are present.

(c) All hand-held methane detectors shall be MSHA-approved and maintained in permissible and proper operating condition.

(d) All methane detectors must provide visual and audible warnings when the percent methane listed in §§ 57.22232 through 57.22236 for the corresponding mine categories in § 57.22003 is detected.

(e) When the percent methane listed in §§ 57.22232 through 57.22236 for the corresponding mine categories in § 57.22003 is detected while the non-permissible PAPR is being used in the specified underground areas, the equipment shall be de-energized immediately and withdrawn from the area to outby the last open crosscut, out of areas where methane may enter the air current, such as pillar recovery workings, longwall faces and shortwall faces.

§ 57.22316-5 Non-permissible PAPRs: Requirements for batteries.

(a) Before each shift, all batteries for the non-permissible PAPRs must be charged sufficiently to function the entire shift.

(b) Replacement batteries for non-permissible PAPRs must not be taken into the specified underground areas.

(c) Batteries contained in the non-permissible PAPRs must be changed in intake air outside of the specified underground areas.

(d) No batteries may be charged underground.

(e) The following maintenance and use conditions must apply to equipment containing lithium-type batteries:

(1) Neither the battery pack nor the power unit may be disassembled or modified by anyone other than permitted by the equipment manufacturer.

(2) The battery must only be charged using the manufacturer's recommended battery charger.

(3) Neither the battery pack nor the power unit, which contain the internal battery, shall be exposed to water, allowed to get wet, or immersed in liquid. This does not preclude incidental exposure of the battery pack nor the power unit assembly.

(4) The non-permissible PAPR, including the internal battery, must not be used, charged, or stored in locations where the manufacturer's recommended temperature limits are exceeded. The non-permissible PAPR must not be placed in direct sunlight nor stored near a source of heat.

(f) Follow the manufacturer's recommendations and instructions. Check and monitor each non-permissible PAPR's run time.

(1) Routinely check the battery's charge status according to the manufacturer's recommendation.

(2) Remove the battery from service when the battery fails to meet the manufacturer's specifications including, but not limited to, run time, temperature, and charging time.

(g) Follow the storage instructions as recommended by the manufacturer. If the instructions are not followed for a battery stored or otherwise unused for an extended period or the battery has no charge remaining, consider it to be damaged and do not recharge it or use it. Remove it from service and replace it with a new battery.

§ 57.22316-6 Non-permissible PAPRs: Maintenance and examination.

(a) All non-permissible PAPRs must be maintained to ensure safe operating condition. When a potentially dangerous condition is found with the equipment, such equipment must be

immediately withdrawn from the specified underground areas, taken out of service, and must be repaired before returning to service.

(b) As specified under § 57.22316-3, non-permissible PAPRs must be examined according to the manufacturer's recommendations to ensure safe operating condition.

(c) The mine operator must ensure that all non-permissible PAPRs are serviced according to the manufacturer's recommendations.

§ 57.22316-7 Non-permissible PAPRs: Training.

(a) Miners who will use non-permissible PAPRs must be trained on the requirements in §§ 57.22316-1 through 57-22316-7 before the non-permissible PAPRs can be used.

(b) Mine operators must train new miners under § 48.5, train experienced miners under § 48.6, and train miners assigned new work tasks under § 48.7, on the requirements in §§ 57.22316-1 through 57-22316-7. The training must include hazard recognition specific to the mine.

(c) Mine operators must provide annual retraining to all miners who may use non-permissible PAPRs under § 48.8.

(d) Mine operators must include the following in their training:

(1) The proper use and maintenance of the non-permissible PAPRs, in accordance with established manufacturer guidelines.

(2) How to recognize the hazards and limitations associated with the use of non-permissible PAPRs in the areas where methane could be present.

(3) That the PAPR is not approved under 30 CFR part 18 and must be de-energized when 1.0 or more percent methane is detected.

(4) The proper procedures to safely de-energize the non-permissible PAPR.

(5) How to examine the non-permissible PAPR before use to identify any damage that could negatively impact intrinsic safety, or any of the stipulations in §§ 57.22316-1 through 57-22316-7.

(6) How to recognize non-permissible PAPR filter replacement indicators.

(7) How to change filters when indicated.

(8) The proper procedures for transferring to self-rescue devices during a mine emergency while wearing the non-permissible PAPR.

(e) Records of training required under this part must comply with part 48.

(f) Mine operators must provide such records to MSHA upon request.

PART 75—MANDATORY SAFETY STANDARDS—UNDERGROUND COAL MINES

3. The authority citation for part 75 continues to read as follows:

Authority: 30 U.S.C. 811, 813(h), 957.

Subpart F–Electrical Equipment–General.

4. Add §§ 75.530 through 75.537 to read as follows:

§ 75.530 Non-permissible powered air purifying respirators (PAPRs): Purpose and scope.

§ 75.531 Non-permissible PAPRs: Definitions.

§ 75.532 Non-permissible PAPRs: Approval and certification requirements.

§ 75.533 Non-permissible PAPRs: Requirements before use.

§ 75.534 Non-permissible PAPRs: Continuous monitoring during operation.

§ 75.535 Non-permissible PAPRs: Requirements for batteries.

§ 75.536 Non-permissible PAPRs: Maintenance and examination.

§ 75.537 Non-permissible PAPRs: Training.

§ 75.530 Non-permissible powered air purifying respirators (PAPRs): Purpose and scope.

(a) Non-permissible PAPRs meeting the provisions in §§ 75.531 through 75.537 are permitted when no MSHA-approved PAPRs are commercially available.

(b) In the event that an operator implements a non-permissible PAPR at a mine, the operator must replace non-permissible PAPRs with approved PAPRs at the end of the non-

permissible PAPR useful life or 2 years after the date of manufacture, whichever is sooner, if approved PAPRs become commercially available.

(c) PAPRs which are not MSHA-approved may be taken into and operated in specified underground areas: in or inby the last open crosscut, § 75.500(d), in the return air outby the last open crosscut, § 75.507-1(a), or within 150 feet of the pillar workings or longwall faces, § 75.1002(a), when PAPRs that meet the permissibility requirements in part 18 of this chapter do not exist.

(d) Sections 75.531 through 75.537 also establish requirements for the features, use, and maintenance of non-permissible PAPRs, and the training of the personnel using such equipment when production activities are occurring and when production activities cease.

§ 75.531 Non-permissible PAPRs: Definitions.

The following definitions apply:

Commercially available. Currently being manufactured and available for sale in the U.S.

Powered air purifying respirators (PAPRs). Battery-powered devices certified by the National Institute for Occupational Safety and Health (NIOSH) equipped with a facepiece, hood, or helmet, breathing tube, canister, cartridge, filter, canister with filter, or cartridge with filter, and a blower.

Production activities. Activities that generate coal dust or methane gas including but not limited to cutting, drilling, blasting, transporting, cleaning, loading, and unloading.

Specified underground area. An underground area located in or inby the last open crosscut, in the return air outby the last open crosscut, or within 150 feet of the pillar workings or longwall faces.

§ 75.532 Non-permissible PAPRs: Approval and certification requirements.

(a) PAPRs which are not MSHA-approved and taken into specified underground areas must meet the following conditions:

(1) Non-permissible PAPRs, including batteries when assembled for use must be approved by the National Institute for Occupational Safety and Health (NIOSH) under 42 CFR part 84.

(2) Non-permissible PAPRs must be certified to the ANSI/UL 60079-11 standard listed in this section by a Nationally Recognized Testing Laboratory (NRTL) in accordance with 29 CFR 1910.7. Certification allows the manufacturer to mark the device as "Ex ia I", meaning that the unit is certified to be used in hazardous locations ("Ex"), has met the most onerous level of intrinsic safety protection ("ia"), the Equipment Protection Level ("very high"), and is acceptable for use in mines susceptible to firedamp ("I").

(b) The material listed in this paragraph (b) is incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by Reference (IBR) material is available for inspection at the U.S. Department of Labor, Mine Safety and Health Administration (MSHA) and at the National Archives and Records Administration (NARA). Contact MSHA at 200 Constitution Avenue, NW, Washington, DC 20210. For information on the availability of this material at NARA, visit *www.archives.gov/federal-register/cfr/ibr-locations* or email *fr.inspection@nara.gov*. The material may be obtained from the following sources in this paragraph (b).

(1) International Society of Automation (ISA), 67 T.W. Alexander Drive, P.O. Box 12277, Research Triangle Park, NC 27709; phone: (919) 549-8411; website: *www.isa.org*.

(i) ANSI/ISA 60079-11 (12.02.01)-2014, American National Standard for Explosive Atmospheres—Part 11: Equipment protection by intrinsic safety "i", Edition 6.2, Approved March 28, 2014.

(ii) ANSI/ISA 60079-25 (12.02.05)-2011, American National Standard for Explosive Atmospheres—Part 25: Intrinsically safe electrical systems, Approved December 2, 2011.

(2) UL Solutions. Comm 2000. 151 Eastern Avenue, Bensenville, IL 60106; phone: (888) 853-3503; website: *www.ul.com*.

(i) ANSI/UL 60079-0, Standard for Safety for Explosive Atmospheres—Part 0: Equipment—General Requirements, Seventh Edition, Dated March 26, 2019, including revisions through April 15, 2020 (ANSI/UL 60079-0).

(ii) ANSI/UL 60079-1, Standard for Safety for Explosive Atmospheres—Part 1: Equipment Protection by Flameproof Enclosures "d", Seventh Edition, Dated September 18, 2015, including revisions through January 23, 2020 (ANSI/UL 60079-1).

(iii) ANSI/UL 60079-11, Standard for Safety for Explosive Atmospheres—Part 11: Equipment Protection by Intrinsic Safety "i", Sixth Edition, Dated February 15, 2013, including revisions through September 14, 2018 (ANSI/UL 60079-11).

(iv) ANSI/UL 60079-18, Standard for Safety for Explosive Atmospheres—Part 18: Equipment Protection by Encapsulation "m", Fourth Edition, Dated December 14, 2015, including revisions through February 7, 2019 (ANSI/UL 60079-18).

(v) ANSI/UL 60079-25, Standard for Safety for Explosive Atmospheres—Part 25: Intrinsically Safe Electrical Systems, Second Edition, Dated December 2, 2011, including revisions through June 12, 2020 (ANSI/UL 60079-25).

(vi) ANSI/UL 60079-28, Standard for Safety for Explosive Atmospheres—Part 28: Protection of Equipment and Transmission Systems Using Optical Radiation, Second Edition, Dated September 15, 2017, including revisions through December 7, 2021 (ANSI/UL 60079-28).

Note 1 to § 75.532:

The voluntary consensus standards listed in this section may also be obtained from the American National Standards Institute (ANSI), 1899 L Street NW, 11th Floor, Washington, DC 20036; phone: (202) 293-8020; website: *www.ansi.org*.

§ 75.533 Non-permissible PAPRs: Requirements before use.

(a) Prior to being taken into specified underground areas, each non-permissible PAPR shall be:

(1) Physically examined by a qualified person as defined in § 75.153.

(i) The examination shall include the battery pack, and all associated wiring and connections to determine if there are any observable defects or damage that could negatively impact intrinsic safety.

(ii) If any defect or damage is found, the non-permissible PAPR shall be removed from service.

(2) Examined by the user in accordance with the manufacturer's instructions to ensure the equipment is used according to the manufacturer's recommendations and maintained in a safe operating condition.

(b) The examination under (a)(1) and (a)(2) shall include:

(1) Checking the equipment for any physical damage and the integrity of the case;

(2) Removing the battery (if removable/accessible) and examining for corrosion;

(3) Inspecting the contact points to ensure a secure connection to the battery (if removable/accessible);

(4) Reinserting the battery (if removable/accessible) and powering up and shutting down to ensure proper connections;

(5) Checking the battery compartment cover or battery attachment (if removable/accessible) to ensure that it is securely fastened, and for ingress of dust or moisture; and

(6) For equipment utilizing lithium type cells, ensuring that lithium cells and/or packs are not damaged or swollen.

§ 75.534 Non-permissible PAPRs: Continuous monitoring during operation.

(a) Prior to energizing the non-permissible PAPR in the specified underground areas, methane tests must be made in accordance with § 75.323(a).

(b) A qualified person shall continuously monitor for methane immediately before and while non-permissible PAPRs are present in the specified underground area.

(c) All hand-held methane detectors shall be MSHA-approved and maintained in permissible and proper operating condition.

(d) All methane detectors must provide visual and audible warnings when methane is detected in concentrations at or above 1.0 percent.

(e) When 1.0 percent or more methane is detected while the non-permissible PAPR is being used in the specified underground areas, the equipment shall be de-energized immediately and withdrawn from the area to outby the last open crosscut, out of the return air outby the last open crosscut, or more than 150 feet from pillar workings or longwall faces.

§ 75.535 Non-permissible PAPRs: Requirements for batteries.

(a) Before each shift, all batteries for the non-permissible PAPRs must be charged sufficiently to function the entire shift.

(b) Replacement batteries for non-permissible PAPRs must not be taken into the specified underground areas.

(c) Batteries contained in the non-permissible PAPRs must be changed out in intake air outside of the specified underground areas.

(d) No batteries may be charged underground.

(e) The following maintenance and use conditions must apply to equipment containing lithium-type batteries:

(1) Neither the battery pack nor the power unit may be disassembled or modified by anyone other than permitted by the equipment manufacturer.

(2) The battery must only be charged using the manufacturer’s recommended battery charger.

(3) Neither the battery pack nor the power unit, which contain the internal battery, shall be exposed to water, allowed to get wet, or immersed in liquid. This does not preclude incidental exposure of the battery pack nor the power unit assembly.

(4) The non-permissible PAPR, including the internal battery, must not be used, charged, or stored in locations where the manufacturer's recommended temperature limits are exceeded. The non-permissible PAPR must not be placed in direct sunlight nor stored near a source of heat.

(f) Follow the manufacturer's recommendations and instructions. Check and monitor each non-permissible PAPR's run time.

(1) Routinely check the battery's charge status according to the manufacturer's recommendation.

(2) Remove the battery from service when the battery fails to meet the manufacturer's specifications, including, but not limited to, run time, temperature, and charging time.

(g) Follow the storage instructions as recommended by the manufacturer. If the instructions are not followed for a battery stored or otherwise unused for an extended period or the battery has no charge remaining, consider it to be damaged and do not recharge it or use it. Remove it from service and replace it with a new battery.

§ 75.536 Non-permissible PAPRs: Maintenance and examination.

(a) All non-permissible PAPRs must be maintained to ensure safe operating condition. When a potentially dangerous condition is found with the equipment, such equipment must be immediately withdrawn from the specified underground areas, taken out of service, and must be repaired before returning to service.

(b) As specified under § 75.533, non-permissible PAPRs must be examined according to the manufacturer's instructions to ensure safe operating condition.

(c) The mine operator must ensure that all non-permissible PAPRs are serviced according to the manufacturer's recommendations.

§ 75.537 Non-permissible PAPRs: Training.

(a) Miners who will use non-permissible PAPRs must be trained on the requirements in §§ 75.531 through 75.537 before the non-permissible PAPRs can be used.

(b) Mine operators must train new miners under § 48.5, train experienced miners under § 48.6, and train miners assigned new work tasks under § 48.7, on the requirements in §§ 75.531 through 75.537. The training must include hazard recognition specific to the mine.

(c) Mine operators must provide annual retraining to all miners who may use non-permissible PAPRs under § 48.8.

(d) Mine operators must include the following in their training:

(1) The proper use and maintenance of the non-permissible PAPRs, in accordance with established manufacturer guidelines.

(2) How to recognize the hazards and limitations associated with the use of non-permissible PAPRs in the areas where methane could be present.

(3) That the PAPR is not approved under 30 CFR part 18 and must be de-energized when 1.0 or more percent methane is detected.

(4) The proper procedures to safely de-energize the non-permissible PAPR.

(5) How to examine the non-permissible PAPR before use to identify any damage that could negatively impact intrinsic safety, or any of the stipulations in §§ 75.531 through 75.537.

(6) How to recognize non-permissible PAPR filter replacement indicators.

(7) How to change filters when indicated.

(8) How to properly position their Proximity Detection System's (PDS) miner wearable component (MWC) at least six inches from their non-permissible PAPR's battery/motor blower or battery/power unit to prevent interference.

(9) The proper procedures for donning Self-Contained Self Rescuers (SCSRs) during a mine emergency while wearing the non-permissible PAPR.

(e) Records of training required under this part must comply with part 48.

(f) Mine operators must provide such records to MSHA upon request.

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