e: 4520-43-P

DEPARTMENT OF LABOR

Mine Safety and Health Administration

Petition for Modification of Application of Existing Mandatory Safety Standards

AGENCY: Mine Safety and Health Administration, Labor.

ACTION: Notice.

SUMMARY: This notice is a summary of a petition for modification submitted to the Mine Safety and Health Administration (MSHA) by Peabody Twentymile Mining, LLC.

DATES: All comments on the petition must be received by MSHA's Office of Standards, Regulations, and Variances on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments identified by Docket No. MSHA-2025-0022 by any of the following methods:

1. *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments for MSHA-2025-0022.

2. *Fax:* 202-693-9441.

3. *Email*: petitioncomments@dol.gov

4. *Regular Mail or Hand Delivery:* MSHA, Office of Standards, Regulations, and Variances, 200 Constitution Ave NW, Washington, DC 20210.

Attention: S. Aromie Noe, Director, Office of Standards, Regulations, and Variances. Persons delivering documents are required to check in at the receptionist's desk. Individuals may inspect copies of the petition and comments during normal business hours at the address listed above. Before visiting MSHA in person, call 202-693-9455 to make an appointment.

FOR FURTHER INFORMATION CONTACT: S. Aromie Noe, Office of Standards, Regulations, and Variances at 202-693-9440 (voice), Petitionsformodification@dol.gov (email), or 202-693-9441 (fax). [These are not toll-free numbers.]

SUPPLEMENTARY INFORMATION: Section 101(c) of the Federal Mine Safety and Health Act of 1977 and title 30 of the Code of Federal Regulations (CFR) part 44 govern the application, processing, and disposition of petitions for modification.

I. Background

Section 101(c) of the Federal Mine Safety and Health Act of 1977 (Mine Act) allows the mine operator or representative of miners to file a petition to modify the application of any mandatory safety standard to a coal or other mine if the Secretary of Labor determines that:

1. An alternative method of achieving the result of such standard exists which will at all times guarantee no less than the same measure of protection afforded the miners of such mine by such standard; or
2. The application of such standard to such mine will result in a diminution of safety to the miners in such mine.

In addition, sections 44.10 and 44.11 of 30 CFR establish the requirements for filing petitions for modification.

II. Petition for Modification

Docket Number: M-2025-016-C

Petitioner: Peabody Twentymile Mining, LLC, 29515 Routt County Road 27, Oak Creek, Colorado 80467.

Mine: Foidel Creek Mine, MSHA ID No. 05-03836, located in Routt County, Colorado.

Regulation Affected: 30 CFR 75.1002(a), Permissible electric equipment.

Modification Request: The petitioner requests a modification of 30 CFR 75.1002(a) to permit alternative methods of compliance to permit the use of additional respiratory dust protection. Specifically, the petitioner proposes to use the Drager X-plore 8700 powered air purifying respirator (PAPR).

The petitioner states that:

(a) The Foidel Creek Mine is located at 29515 Routt County Road 27, Oak Creek, Colorado 80467. The mine's contact person is Terry Morson, Safety Manager. The Foidel Creek Mine is a typical western drift mine that opened in 1983. The mine has four portals and three shafts into the Wadge Seam, the latter consisting of two intake portals and one return portal. There is also one inner seam return shaft to the Wolf Creek Seam.

(b) The mine employs approximately 150 personnel underground and 49 on the surface, including office employees. The mine operates 2 shifts, 7 days a week. There is one longwall section in the Wolf Creek Seam, 985 feet long, approximately 9 feet in mining height, with the panel approximately 9,000 feet long. A longwall crew of 7 miners typically operates on the graveyard shift, seven days per week, and a second longwall crew frequently works on dayshift. A continuous mining machine (CMM) crew of 8 miners working seven days per week on the graveyard shift extracts coal using the room and pillar method, and a second CMM crew works frequently on the dayshift. The mine's total production was 91,038 tons during the 4th quarter of 2023. Total methane liberation in the 2nd quarter of FY 2023 was 174,495 cubic feet per day.

(c) Conveyor belts transport coal out of the mine. Diesel-powered mantrips are used to transport miners in and out of the mine.

(d) The mine is ventilated by the following three fans:

(1) 5 MN Fan - Buffalo Forge, Model MS-1 28/16, RPM: 880/ 1,180, Diameter: 110 inches, HP: 3,000, Volts: 4,160, Water Gage: 11.1 inches, Axial Vane, Running.

(2) Bleeder Tap Fan - National Turbine, Model NT 122206, RPM: 3,000, Diameter: 12 inches, HP: 125, Volts: 480, Not recorded, Multi-stage pump, Running.

(3) 0 Entry Fan - Jeffery Model 84UA96, RPM: 1,195, Diameter: 96 inches, HP: 1,000, Volts: 4,160, Water Gage: 9.4 inches, Axial Vane, Idle.

(e) Peabody seeks modification of 30 CFR 75.1002(a), as it pertains to use of battery-powered respirable protection in its continuous miner sections.

(f) Peabody currently uses the 3M Airstream helmet to provide additional protection for its miners against exposure to respirable coal mine dust. There are clear long-term health benefits from using such technology.

(g) For more than 40 years the 3M Airstream Headgear-Mounted PAPR System has been used by many mine operators to help protect their workers. During those years there have been technological advancements in products and services for industrial applications. Recently 3M has indicated that they have been facing multiple key component supply disruptions for the Airstream product line that have created issues with providing acceptable supply service levels. Because of those issues, 3M discontinued the Airstream by June 1, 2020, and that this discontinuation is global.

(h) 3M announced that February 2020 was the final time to place an order for systems and components and that June 2020 was the final date to purchase Airstream components.

(i) Currently there are no replacement 3M PAPRs that meet applicable U.S. Mine Safety and Health Administration (MSHA) standards for permissibility. Electronic equipment used in underground mines in potentially explosive atmospheres is required to be approved by MSHA per 30 CFR. 3M and other manufacturers do offer alternative products for many other environments and applications.

(j) Following that discontinuation, mines that used the Airstream did not have an MSHA-approved alternative PAPR to provide to miners. One of the benefits of the PAPRs is that they provide a constant flow of air inside the headtop or helmet. This constant airflow helps to provide both respiratory protection and comfort in hot working environments.

(k) Twentymile previously filed Petitions to permit the use of the Versaflow TR-800 Intrinsically Safe Powered Air Purifying Respirator and the Clean Space EX PAPR at Docket No. M-2023-011-C. Such petition was granted on November 18, 2024.

(l) Twentymile now seeks approval to use the Drager X-plore 8700 PAPR.

(m) The Drager X-plore 8700 is certified by CSA Group according to the ANSI 60079-0:2022 (General Requirements) and 60079-13 (intrinsic Safety) standards. The certificate, issued to Drager Safety AG&Co. KG, Ex ib III B 135°C DB, Class 1, Zone 1, AEx ib IIB T4 Gb and Zone 21, AEx ib IIIB 135°C DB. It is intrinsically safe. It uses a Drager LBT 04xx LI-ION Battery Pack.

(n) NIOSH researchers in a paper titled "*An Evaluation of the Relative Safety of U.S. Mining Explosion-Protected Equipment Approval Requirements versus those of International Standards*" have determined that equipment which meets two-fault intrinsic safety as defined in the ANSI/UL 60079 standard would provide at least an equivalent level of safety as that provided by equipment approved to MSHA criteria.

(o) The certifications, listing material (drawings, certificate and text report) were found to support the conclusion that the Drager X-plore 8700 (EX) meets the applicable "two fault" intrinsic safety requirements for mining equipment as found in the ANSI/UL standard.

(p) The Drager X-plore 8700 (EX) Unit is not MSHA approved as permissible and Drager is not pursuing approval.

(q) The standards for approval of these respirators are an acceptable alternative to MSHA's standards and provide an equivalent level of protection.

(r) Peabody believes the Drager unit will perform similarly to the Versaflow in terms of interference with the proximity detector as long as the manufacturer's guidelines in reproduction are met.

(s) The alternate method proposed by the petitioner will at all times guarantee no less than the same measure of protection afforded the miners under the mandatory standard.

The petitioner proposes the following alternative method:

(a) Affected mine employees shall be trained in the proper use and maintenance of the Drager X-plore 8700 (EX) in accordance with established manufacturer guidelines. This training shall alert the affected employee that the Drager X-plore 8700 (EX) is not approved under 30

CFR part 18 and shall be de-energized when 1.0 or more percent methane is detected. The training shall also include the proper method to de-energize these PAPRs. In addition to manufacturer guidelines, MSHA shall require that mine employees be trained to inspect the units before use to determine if there is any damage to the units that would negatively impact intrinsic safety as well as all stipulations in the proposed decision and order (PDO) granted by MSHA.

(b) The PAPRs, battery packs, all associated wiring and connections shall be inspected by a qualified person before use to determine if there is any damage to the units that would negatively impact intrinsic safety. If any defects are found, the PAPR shall be removed from service.

(c) Each PAPR shall be assigned a unique identification number. The operator shall maintain a separate logbook for the Drager Xplore 8700 (EX) that shall be kept with the equipment, or in a location with other mine record books and shall be made available to MSHA upon request. The equipment shall be examined at least weekly by a qualified person as defined in 30 CFR 75.512-1 and the examination results recorded in the logbook. Since float coal dust is removed by the air filter prior to reaching the motor, the PAPR user shall conduct regular examinations of the filter and perform periodic testing any alarms concerning the filter. Examination entries may be expunged after one year.

(d) The mine shall stock an adequate supply of replacement filters.

(e) All Drager X-plore 8700 (EX) shall be physically examined prior to initial use by a qualified person as defined in 30 CFR 75.151. Each unit shall be examined by the person to operate the equipment prior to taking the equipment underground to ensure the equipment is being used according to the original equipment manufacturer's recommendations and maintained in a safe operating condition. The examinations for the Drager Xplore 8700 (EX) shall include:

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

(2) Remove the battery and inspect for corrosion;

(3) Inspect the contact points to ensure a secure connection to the battery;

(4) Reinsert the battery and power up and shut down to ensure proper connections; and

(5) Check the battery compartment cover or battery attachment to ensure that it is securely fastened.

(f) The operator shall ensure that all Drager X-plore 8700 (EX) units are serviced according to the manufacturer's recommendations. Dates of service shall be recorded in the equipment's log book and shall include a description of the work performed.

(g) The Drager X-plore 8700 (EX) units to be located shall not be put into service until MSHA has initially inspected the equipment and determined that it is in compliance with all the terms and conditions of the PDO granted by MSHA.

(h) Prior to energizing the Drager X-plore 8700 (EX) in areas where permissible equipment is required, methane tests shall be made in accordance with 30 CFR 75.323(a).

(i) All hand-held methane detectors shall be MSHA-approved and maintained in permissible and proper operating condition as defined by 30 CFR 75.320. All methane detectors shall provide visual and audible warnings when methane is detected at or above 1.0 percent.

(j) A qualified person as defined in existing 30 CFR 75.151 shall continuously monitor for methane immediately before and during the use of the Drager X-plore 8700 (EX) when such equipment is located where permissible equipment is required.

(k) The Drager X-plore 8700 (EX) shall not be used if methane is detected in concentrations at or above 1.0 percent methane. When 1.0 percent or more of methane is detected while the Drager X-plore 8700 (EX) is being used, the equipment shall be de-energized immediately and the equipment withdrawn from the affected area.

(l) Use only Li-Ion High Capacity Battery or Li-Ion standard capacity battery (EX), which meets lithium battery safety standard UL 1642 or IEC 62133.

(m) The battery packs shall be "changed out” in intake air. Before each shift when the Drager X-plore 8700 (EX) is to be used, all batteries and power units for the equipment shall be charged sufficiently so that they are not expected to be replaced on that shift.

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

(1) Always correctly use and maintain the lithium-ion battery packs. The battery pack may be disassembled or modified by anyone other than permitted by the manufacturer of the equipment.

(2) The battery pack shall only be charged in an area free of combustible material, readily monitored and located on the surface of the mine. The battery pack shall be charged by only using the manufacturer’s recommended charger.

(3) The batteries shall not be allowed to get wet or immersed in liquid. This does not preclude incidental exposure of sealed battery packs.

(4) The batteries shall not be used, charged or stored in locations where the manufacturer's recommended temperature limits are exceeded. The batteries shall not be placed in direct sunlight or used or stored near a source of heat.

(5) The battery shall not be used at the end of its life cycle (e.g., when there is a performance decrease of greater than 20 percent in battery operated equipment). The battery shall be disposed of properly.

(6) Follow the manufacturer’s recommendations and instructions. Check and monitor each unit’s run time. Observe and notate the initial run time that a new fully charged battery provides for powering the unit. A record of the initial run time and the date shall be made by a trained and competent person. This record shall not be expunged on an annual basis but shall be retained until the PAPR and/or the battery is retired from service.

(7) Routinely check the battery’s charge status.

(8) Routinely monitor batteries that are approaching the end of their estimated service life.

(9) Remove the battery from service when the following conditions are met:

(i) The battery run time drops below 80 percent of the new battery run time; or

(ii) The battery charge time increases significantly.

(10) Follow the storage instructions as recommended by the manufacturer. If the instructions were 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. Do not attempt to recharge it or to use it. Remove it from service and replace it with a new battery.

(o) Personnel engaged in the use of the Drager X-plore 8700 (EX) shall be properly trained to recognize the hazards and limitations associated with the use of the equipment in areas where methane could be present. Affected mine employees shall also be trained to properly position their proximity detection system/miner wearable component (PDS MWC) at least six inches from their PAPR's battery/motor blower or battery/power unit to prevent interference. Additionally, personnel shall be trained regarding proper procedures for donning self-contained self-rescuers (SCSRs) during a mine emergency while wearing the Drager X-plore 8700 (EX). The mine operator shall submit proposed revisions to update the Mine Emergency Evacuation and Firefighting Program of Instruction under 30 CFR 75.1502.

(p) Within 60 days after the PDO granted by MSHA becomes final, the operator shall submit proposed revisions for its approved 30 CFR part 48 training plans to the Mine Safety and Health Enforcement District Manager. These proposed revisions shall specify initial and refresher training regarding the terms and conditions stated in the PDO granted by MSHA. When training is conducted on the terms and conditions in the PDO granted by MSHA, an MSHA Certificate of Training (Form 5000-23) shall be completed. Comments shall be included on the Certificate of Training indicating that the training received was for use of the Drager X-plore 8700 (EX).

(q) All personnel who will be involved with or affected by the use of the Drager X-plore 8700 (EX) shall receive training in accordance with 30 CFR 48.7 on the requirements of the PDO granted by MSHA within 60 days of the date the PDO granted by MSHA becomes final. Such training shall be completed before any Drager X-plore 8700 (EX) can be used in areas where equipment must be permissible and such miners will be located. The operator shall keep a record of such training and provide such record to MSHA upon request.

(r) The operator shall provide annual retraining to all personnel who will be involved with or affected by the use of the Drager Xplore 8700 (EX) in accordance with 30 CFR 48.8. The operator shall train new miners on the requirements of the PDO granted by MSHA in accordance with 30 CFR 48.5 and shall train experienced miners on the requirements of the PDO granted by MSHA in accordance with 30 CFR 48.6. The operator shall keep a record of such training and provide such record to MSHA upon request.

(s) The operator shall post the PDO granted by MSHA in unobstructed locations on the bulletin boards and/or in other conspicuous places where notices to miners are ordinarily posted, for a period of not less than 60 consecutive days. Unless specifically mentioned herein, nothing in the PDO granted by MSHA changes or supersedes the requirements otherwise imposed by the Mine Act, other mandatory standards or regulations, or approved plans. The petitioner shall include the above terms and conditions in the initial and annual refresher training as required in its approved Part 48 training plans to ensure that miners are aware of the stipulations contained in the PDO granted by MSHA.

(t) The miners at Foidel Creek are not represented by a labor organization and the Amended Petition is posted on the mine bulletin board as of December 20, 2024.

In support of the proposed alternative method, the petitioner has also submitted a copy of the PDO for the previously filed petition to permit the use of the Versaflow TR-800 PAPR and the Clean Space EX PAPR (Docket No. M-2023-011-C), manufacturer spec sheets for the Drager X-plore 8700 PAPR and certificates of compliance from CSAGroup.

The petitioner asserts that the alternative method will guarantee no less than the same measure of protection afforded the miners under the mandatory standard.

Song-ae Aromie Noe,

Director,

Office of Standards, Regulations, and Variances.

[FR Doc. 2025-03394 Filed: 2/28/2025 8:45 am; Publication Date: 3/3/2025]