

serviced according to the manufacturer's recommendations.

(f) Prior to energizing and during use of the 3M Versaflo TR-800 or the CleanSpace EX PAPR in by the last open crosscut or in the return air out by the last open crosscut, procedures in accordance with 30 CFR 75.323 shall be followed.

(g) Only the 3M TR-830 Battery Pack, which meets lithium battery safety standard UL 1642 or IEC 62133, in the 3M Versaflo TR-800 PAPR shall be used. Only the CleanSpace EX Power Unit, which meets lithium battery safety standard UL 1642 or IEC 62133, in the CleanSpace EX shall be used.

(h) If battery packs for the 3M Versaflo TR-800 PAPR are provided, all battery "change outs" shall occur in intake air out by the last open crosscut.

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

(1) Neither the 3M TR-830 Battery Pack nor the CleanSpace EX Power Unit shall be disassembled nor modified by anyone other than permitted by the manufacturer of the equipment.

(2) The 3M TR-830 Battery Pack shall be charged only in an area free of combustible material and in intake air out by the last open crosscut. The 3M TR-830 Battery Pack shall be charged only by a manufacturer's recommended battery charger, such as:

(i) 3M Battery Charger Kit TR-641N, which includes one 3M Charger Cradle TR-640 and one 3M Power Supply TR-941N, or,

(ii) 3M 4-Station Battery Charger Kit TR-644N, which includes four 3M Charger Cradles TR-640 and one 3M 4-Station Battery Charger Base/Power Supply TR-944N.

(3) The CleanSpace EX internal battery, which is contained within the power unit assembly, shall be charged in areas located out by the last open crosscut in intake air and only the manufacturer's recommended battery chargers shall be used, such as the CleanSpace EX Battery Charger, Product Code PAF-0066.

(4) Neither the 3M TR-830 Battery Pack nor the CleanSpace EX power unit which contains the internal battery, shall be exposed to water, allowed to get wet or immersed in liquid. This does not preclude incidental exposure of the 3M TR-830 Battery Pack or the CleanSpace EX power unit assembly.

(5) Neither the 3M Versaflo TR-800 PAPR nor the CleanSpace EX PAPR, including the internal battery, shall be used, charged or stored in locations where the manufacturer's recommended temperature limits are exceeded. Neither the 3M Versaflo TR-800 PAPR

nor the CleanSpace EX PAPR shall be placed in direct sunlight nor stored near a source of heat.

(j) Annual retraining shall be given to all miners who will be involved with or affected by the use of the 3M Versaflo TR-800 or CleanSpace EX PAPRs in accordance with 30 CFR 48.8. Training of new miners on the requirements of the PDO granted by MSHA in accordance with 30 CFR 48.5, and training of experienced miners on the requirements of the PDO granted by MSHA in accordance with 30 CFR 48.6 shall be given. The operator shall keep a record of such training and provide such record to MSHA upon request.

(k) The miners at Tunnel Ridge, LLC, Tunnel Ridge Mine, are not represented by a labor organization and there are no representatives of miners at the mine. A copy of this petition has been posted on the bulletin board at Tunnel Ridge, LLC, Tunnel Ridge Mine, on October 4, 2024.

The petitioner asserts that the alternative method in the petition will at all times guarantee no less than the same measure of protection afforded to the miners by the standard.

**Song-ae Aromie Noe,**

*Director, Office of Standards, Regulations, and Variances.*

[FR Doc. 2024-26439 Filed 11-13-24; 8:45 am]

**BILLING CODE 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 Buchanan Minerals, LLC.

**DATES:** All comments on the petition must be received by MSHA's Office of Standards, Regulations, and Variances on or before December 16, 2024.

**ADDRESSES:** You may submit comments identified by Docket No. MSHA-2024-0057 by any of the following methods:

1. *Federal eRulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments for MSHA-2024-0057.

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

3. *Email:* [petitioncomments@dol.gov](mailto:petitioncomments@dol.gov).

4. *Regular Mail or Hand Delivery:* MSHA, Office of Standards, Regulations, and Variances, 201 12th

Street South, Suite 4E401, Arlington, Virginia 22202-5452.

*Attention:* S. Aromie Noe, Director, Office of Standards, Regulations, and Variances. Persons delivering documents are required to check in at the receptionist's desk, 4th Floor West. 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](mailto: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, §§ 44.10 and 44.11 of 30 CFR establish the requirements for filing petitions for modification.

### II. Petition for Modification

*Docket Number:* M-2024-034-C.

*Petitioner:* Buchanan Minerals, LLC, PO Drawer L, Oakwood VA 24631.

*Mine:* Buchanan No.1 Mine, MSHA ID No. 44-04856, located in Buchanan County, Virginia.

*Regulation Affected:* 30 CFR 75.500(d), Permissible electric equipment.

*Modification Request:* The petitioner requests a modification of 30 CFR 75.500(d) to allow the use of an alternative method of respirable dust protection. Specifically, the petitioner is requesting to use a battery-powered respirable protection unit called the 3M Versaflo TR-800 powered air-purifying respirator (PAPR) in addition to the

CleanSpace EX PAPR in or in by the last open crosscut.

The petitioner states that:

(a) The petitioner is requesting to utilize the 3M Versaflo TR-800 PAPR in addition to the utilization of the CleanSpace EX PAPR, which was approved through a previous Proposed Decision and Order (PDO) granted by MSHA (MSHA Docket Number M-2021-023-C).

(b) The 3M Airstream helmet has been used in mines for over 40 years. 3M has recently faced component disruptions for the Airstream product. This has caused 3M to discontinue, globally, the Airstream on June 1, 2020. The ability to order an Airstream system and components ended in February 2020, and components were available through June 2020. Currently, there are not any available replacement PAPRs that meet the MSHA standard for permissibility. PAPRs provide a constant flow of filtered air, which offers respiratory protection and comfort in hot working environments. Operators that were using the Airstream, do not have an alternative to provide to this type of protection to its miners.

(c) Buchanan Minerals, LLC, is seeking alternatives to the 3M Airstream helmet to provide miners with respirable protection against respirable coal mine and silica dust, a protection that can provide long-term health benefits.

(d) Both the CleanSpace EX and 3M Versaflo TR-800 PAPRs provide a constant flow of filtered air inside the half-mask, full mask or helmet. The airflow provides respiratory protection and comfort in hot working conditions. Both PAPRs shall be equipped with the following: Particulate protection classified as 100 series under 42 CFR part 84; or Particulate protection classified as High Efficiency "HE" under 42 CFR part 84.

(e) Buchanan Minerals LLC, Buchanan No.1. Mine is seeking to continue the use of the CleanSpace EX PAPR and applying to utilize the 3M Versaflo TR-800 PAPR in or in by the last open crosscut.

(f) CleanSpace EX

(1) The CleanSpace EX is certified by TestSafe Australia (TSA) according to the IEC 60079-0:2011 (General Requirements) and IEC 60079-11:2011 (Intrinsic Safety) standards. The certificate, issued to PAFtec Australia Pty Ltd ("PAFtec"), allows PAFtec to mark the device as "Ex ib IIB T4 Gb" and "Ex ia I Ma." Due to legal and regulatory constraints, the TSA certificate is not accepted by MSHA as evidence that the PAPR is approved for use in US mines. The IEC certification

marking that applies to mining, Ex ia I Ma, is discussed below:

(2) The CleanSpace EX is certified to be used in hazardous locations ("Ex"); meets the most onerous level of intrinsic safety protection ("ia"); the level of protection is acceptable for use in mining locations ("I"), and the Equipment Protection Level appropriate for mining equipment, that has a "very high" level of protection, with sufficient security that it is unlikely to become an ignition source in normal operation, during expected malfunctions or during rare malfunctions, even when left energized in the presence of an outbreak of gas ("Ma").

(3) 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 under MSHA criteria.

(4) The UL certification, TSA certification, and PAFtec listing material (drawings, certificate and text report) were found to support the conclusion that the CleanSpace EX meet the applicable "two fault" intrinsic safety requirements for mining equipment as found in the ANSI/UL standard.

(5) The CleanSpace EX carries an ingress protection rating of IP66. This rating exceeds the minimum rating of IP54 required by the ANSI/UL and IEC standards, for intrinsically safe mining equipment.

(6) This product is not MSHA approved, and the manufacturer is not pursuing approval. The standards for the approval of this respirator are an accepted alternative to MSHA's standards and provide the same level of protection.

(g) 3M Versaflo TR-800

(1) The 3M Versaflo TR-800 PAPR with motor/blower and battery qualifies as intrinsically safe, based on reports by the International Electrotechnical Commission Systems for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEx). The blower is UL-certified with an intrinsically safe rating of Division 1: Class I, II, III; Division 1: Groups C, D, E, F, G; T4 under the current standard of UL 60079; ATEX-certified with a rating of "ia". The 3M Versaflo TR-800 is rated and marked Ex ia I MA, Ex ia IIB T4 Ga, Ex ia IIIC 135°C Da; 120 °C ≤ TA ≤ +55 °C.

(2) The 3M Versaflo TR-800 carries an ingress protection rating of IP64. This rating exceeds the minimum rating of IP54 required by the ANSI/UL and IEC standards for intrinsically safe mining equipment.

(3) This product is not MSHA approved, and the manufacturer is not pursuing approval. The standards for the approval of this respirator are an accepted alternative to MSHA's standards and provide the same level of protection.

(h) The alternative method will 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 PAPR(s) to be used at the mine, the 3M Versaflo TR-800 and/or the CleanSpace EX, in accordance with established manufacturer guidelines. This training shall alert the affected employee that neither the 3M Versaflo TR-800 nor the CleanSpace EX PAPR is approved under 30 CFR part 18 and therefore 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 PDO granted by MSHA.

(b) The PAPRs, battery packs, all associated wiring and connections shall be inspected 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) The operator shall maintain a separate logbook for the 3M Versaflo TR-800 and CleanSpace EX PAPRs 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 for proper operation of the "high filter load alarm" on the 3M Versaflo TR-800 PAPR, and the "blocked filter" alarm on the CleanSpace EX PAPR. Examination entries may be expunged after one year.

(d) All 3M Versaflo TR-800 and CleanSpace EX PAPRs to be used in or inby the last open crosscut shall be physically examined prior to initial use and each unit shall be assigned a unique identification number. Each unit shall be examined by the person to operate the equipment prior to taking the equipment underground to ensure the equipment is used according to the original equipment manufacturer's recommendations and maintained in a safe operating condition. The examinations for the 3M Versaflo TR-800 PAPRs 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,

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

(6) For equipment utilizing lithium type cells, ensure that lithium cells and/or packs are not damaged or swelled in size.

(e) All CleanSpace EX PAPRs to be used in or inby the last open crosscut shall be physically examined prior to initial use and each unit shall be assigned a unique identification number. Each unit shall be examined by the person to operate the equipment prior to taking the equipment underground to ensure the equipment is used according to the original equipment manufacturer's recommendations and maintained in a safe operating condition. The CleanSpace EX PAPR does not have an accessible/removable battery. The internal battery and motor/blower assembly are both contained within the "power unit" assembly and the battery cannot be removed, reinserted or fastened. Therefore, examination of the CleanSpace EX PAPR should include any indications of physical damage.

(f) The operator shall ensure that all 3M Versaflo TR-800 and CleanSpace EX PAPR units are serviced according to the manufacturer's recommendations. Dates of service shall be recorded in the equipment's logbook and shall include a description of the work performed.

(g) The 3M Versaflo TR-800 and CleanSpace EX PAPR units that will be used in or inby the last open crosscut 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 3M Versaflo TR-800 or the CleanSpace EX PAPR in or inby the last open crosscut, 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 in concentrations at or above 1.0 percent.

(j) A qualified person as defined in 30 CFR 75.151 shall continuously monitor for methane immediately before and during the use of the 3M Versaflo TR-800 or CleanSpace EX PAPR in or inby the last open crosscut.

(k) Neither the 3M Versaflo TR-800 nor the CleanSpace EX PAPR shall be used if methane is detected in concentrations at or above 1.0 percent. When 1.0 percent or more methane is detected while the 3M Versaflo TR-800 or CleanSpace EX PAPR is being used, the equipment shall be de-energized immediately and the equipment withdrawn outby the last open crosscut.

(l) The operation and location of the 3M Versaflo TR-800 and CleanSpace EX PAPRs during underground blasting operations shall be defined in accordance with 30 CFR 75.1312(e)(1) and 75.1313(b)(1) and individualized underground blasting permits approved by the District Manager.

(m) Only the 3M TR-830 Battery Pack shall be used, which meets lithium battery safety standard UL 1642 or IEC 62133, in the 3M Versaflo TR-800 PAPR. Use only the CleanSpace EX Power Unit, which meets lithium battery safety standard UL 1642 or IEC 62133, in the CleanSpace EX PAPR.

(n) Before each shift when the 3M Versaflo TR-800 or CleanSpace EX PAPR is to be used, all batteries and power units for the equipment shall be charged sufficiently for the expected usage on that shift. If spare battery packs for the 3M Versaflo TR-800 PAPR are provided, all battery "change outs" shall occur in intake air outby the last open crosscut.

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

(1) Neither the 3M TR-830 Battery Pack nor the CleanSpace EX Power Unit may be disassembled nor modified by anyone other than permitted by the manufacturer of the equipment.

(2) The 3M TR-830 Battery Pack shall be charged only in an area free of combustible material, readily monitored and located on the surface of the mine.

The 3M TR-830 Battery Pack shall be charged only by a manufacturer's recommended battery charger, such as:

(i) 3M Battery Charger Kit TR-641N, which includes one 3M Charger Cradle TR-640 and one 3M Power Supply TR-941N, or

(ii) 3M 4-Station Battery Charger Kit TR-644N, which includes four 3M Charger Cradles TR-640 and one 3M 4-Station Battery Charger Base/Power Supply TR-944N.

(3) The CleanSpace EX internal battery, which is contained within the power unit assembly, shall be charged in areas located outby the last open crosscut in intake air as per 30 CFR 75.340, or in an area free of combustible material, readily monitored and located on the surface of the mine, and only the manufacturer's recommended battery chargers may be used, such as the CleanSpace EX Battery Charger, Product Code PAF-0066.

(4) Neither the 3M TR-830 Battery Pack nor the CleanSpace EX power unit which contains the internal battery, shall be exposed to water, allowed to get wet or immersed in liquid. This does not preclude incidental exposure of the 3M TR-830 Battery Pack or the CleanSpace EX power unit assembly.

(5) Neither the 3M Versaflo TR-800 PAPR nor the CleanSpace EX PAPR, including the internal battery, shall be used, charged or stored in locations where the manufacturer's recommended temperature limits are exceeded. Neither the 3M Versaflo TR-800 PAPR nor the CleanSpace EX PAPR shall be placed in direct sunlight nor stored near a source of heat.

(6) Neither the 3M TR-830 Battery Pack nor the CleanSpace EX PAPR's internal battery shall be used at the end of its life cycle (*i.e.*, when there is a performance decrease of greater than 20 percent in battery-operated equipment). The 3M TR-830 Battery Pack and the CleanSpace EX power unit containing the internal battery shall be disposed of properly.

(p) Personnel engaged in the use of the 3M Versaflo TR-800 and CleanSpace EX PAPRs shall be properly trained to recognize the hazards and limitations associated with the use of the equipment in areas where methane could be present. Additionally, personnel shall be trained regarding proper procedures for donning self-contained self rescuers (SCSRs) during a mine emergency while wearing the 3M Versaflo TR-800 or CleanSpace EX PAPR. The mine operator shall submit proposed revisions to update the Mine Emergency Evacuation and Firefighting Program of Instruction under 30 CFR 75.1502.

(q) 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 3M Versaflo TR-800 or the CleanSpace EX PAPR.

(r) All personnel who will be involved with or affected by the use of the 3M Versaflo TR-800 or CleanSpace EX PAPRs 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 3M Versaflo TR-800 or CleanSpace EX PAPR can be used in or inby the last open crosscut. The operator shall keep a record of such training and provide such record to MSHA upon request.

(s) The operator shall provide annual retraining to all personnel who will be involved with or affected by the use of the 3M Versaflo TR-800 or CleanSpace EX PAPRs 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.

(t) 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.

(u) There are no representatives of miners at Buchanan Minerals LLC, Buchanan No. 1 Mine. A copy of this petition has been posted on the bulletin board as of August 28, 2024.

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. 2024-26435 Filed 11-13-24; 8:45 am]

**BILLING CODE 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 Tunnel Ridge, LLC.

**DATES:** All comments on the petition must be received by MSHA's Office of Standards, Regulations, and Variances on or before December 16, 2024.

**ADDRESSES:** You may submit comments identified by Docket No. MSHA-2024-0061 by any of the following methods:

1. *Federal eRulemaking Portal:* <https://www.regulations.gov>. Follow the instructions for submitting comments for MSHA-2024-0061.

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

3. *Email:* [petitioncomments@dol.gov](mailto:petitioncomments@dol.gov).

4. *Regular Mail or Hand Delivery:* MSHA, Office of Standards, Regulations, and Variances, 201 12th Street South, Suite 4E401, Arlington, Virginia 22202-5452.

*Attention:* S. Aromie Noe, Director, Office of Standards, Regulations, and Variances. Persons delivering documents are required to check in at the receptionist's desk, 4th Floor West. 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](mailto: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, §§ 44.10 and 44.11 of 30 CFR establish the requirements for filing petitions for modification.

**II. Petition for Modification**

*Docket Number:* M-2024-038-C.

*Petitioner:* Tunnel Ridge, LLC, 184 Schoolhouse Lane Valley Grove WV 26060.

*Mine:* Tunnel Ridge Mine, MSHA ID No. 46-08864, located in Ohio County, West Virginia.

*Regulation Affected:* 30 CFR 75.500(d), Permissible electric equipment.

*Modification Request:* The petitioner requests a modification of 30 CFR 75.500(d) to allow the use of unapproved Powered Air Purifying Respirators (PAPRs) taken into or used inby the last open crosscut. Specifically, the petitioner is requesting to utilize the CleanSpace EX PAPR and sealed motor/blower/battery power pack assembly, and the 3M Versaflo TR-800 Intrinsically Safe PAPR motor/blower and battery with battery pack.

The petitioner states that:

(a) The 3M Versaflo TR-800 PAPR with motor/blower and battery qualifies as intrinsically safe.

(b) The CleanSpace EX PAPR also qualifies as intrinsically safe.

(c) Both the CleanSpace EX and the 3M Versaflo TR-800 PAPRs provide a constant flow of air inside the mask or helmet. This airflow provides respiratory protection and comfort in hot working conditions.

(d) Neither the 3M Versaflo TR-800 nor the CleanSpace EX PAPR is MSHA-approved as permissible.

(e) Neither the 3M nor the CleanSpace is pursuing MSHA approval.

(f) Tunnel Ridge currently makes available to all miners NIOSH-approved high efficiency 100 series respirators to protect the miners against potential exposure to respirable coal mine dust, including crystalline silica, during