



**Billing Code: 4520-43-P**

**DEPARTMENT OF LABOR**

**Mine Safety and Health Administration**

**Petitions 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 petitions for modification submitted to the Mine Safety and Health Administration (MSHA) by the parties listed below.

**DATES:** All comments on the petitions 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 your comments, identified by "docket number" on the subject line, by any of the following methods:

1. Electronic Mail: [zzMSHA-comments@dol.gov](mailto:zzMSHA-comments@dol.gov). Include the docket number of the petition in the subject line of the message.
2. Facsimile: 202-693-9441.
3. Regular Mail or Hand Delivery: MSHA, Office of Standards, Regulations, and Variances, 201 12<sup>th</sup> Street South, Suite 4E401, Arlington, Virginia 22202-5452, Attention: Sheila McConnell, Director, Office of Standards, Regulations, and Variances. Persons delivering documents are required to check in at the receptionist's desk in Suite

4E401. Individuals may inspect copies of the petitions and comments during normal business hours at the address listed above.

MSHA will consider only comments postmarked by the U.S. Postal Service or proof of delivery from another delivery service such as UPS or Federal Express on or before the deadline for comments.

**FOR FURTHER INFORMATION CONTACT:** Barbara Barron, Office of Standards, Regulations, and Variances at 202-693-9447 (Voice), barron.barbara@dol.gov (E-mail), or 202-693-9441 (Facsimile). [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 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. That the application of such standard to such mine will result in a diminution of safety to the miners in such mine.

In addition, the regulations at 30 CFR 44.10 and 44.11 establish the requirements and procedures for filing petitions for modification.

## **II. Petitions for Modification**

Docket Number: M-2017-007-C.

Petitioner: Canyon Fuel Company, LLC, 597 South SR24, Salina, Utah 84654.

Mine: Sufco Mine, MSHA I.D. No. 42-00089, located in Sevier County, Utah.

Regulation Affected: 30 CFR 75.350(a) (Belt air course ventilation).

Modification Request: The petitioner requests a modification of the existing standard to permit an alternative method of compliance to allow the use of the belt entry as a ventilation air course as it pertains to the use of a two-entry system. The petitioner proposes to conduct longwall mining using the two-entry panel barrier system as an alternative. The petitioner states that:

(1) The use of two-entry panel barrier longwall development mining systems will reduce the likelihood of coal bumps, roof falls, and other hazards related to mining under deep cover or highly stressed ground conditions. Developing with additional entries to comply with isolation of the belt entry from a separate return entry and diverting belt air directly into the return air course diminishes the safety of miners as compared to utilizing the belt entry as a return air course during development mining provided that appropriate atmospheric monitoring and early warning fire detection and other precautions are utilized.

(2) The proposed alternate method to use the belt entry as an intake air course to ventilate the longwall face during retreat mining will at all times guarantee no less than the same measure of protection afforded by the standard.

(3) An independent study was conducted by Agapito Associates, Inc., titled “Pillar Design Analysis for the lower Hiawatha Seam, Sufco Mine” (see Appendix A).

The study determined the effects of longwall mining under deep cover at the Sufco mine using a panel barrier design. Results of the study indicate that by using a yielding pillar of 30 feet (rib-to-rib), it would minimize the occurrence of bumps, irrespective of the overburden depth.

(4) Due to the documented hazards associated with mining in this coal seam and the neighboring coal seams in deep cover, the application of 30 CFR 75.350(a) at the Sufco mine will result in a diminution of safety to the miners and the terms and conditions set out below will at all times guarantee no less than the same measure of protection afforded the miners by the standard.

(5) The petitioner proposed the following details as to how the alternative will be carried out:

A. Two-entry development will be permitted where the overburden in the affected area exceeds 1,900 feet in depth.

B. Additional entries may be developed when needed for bleeder entries as approved by the District Manager (DM) in the Mine Ventilation and Roof Control Plans.

C. Requirements Applicable to Two-Entry Development, Longwall Installation and Recovery, and Retreat Mining Systems:

- An atmospheric monitoring system (AMS) for early warning fire detection will be utilized throughout the two-entry system. All sensors throughout the two-entry system that are part of the AMS will be diesel-discriminating (carbon monoxide and nitric oxide) sensors.

- All ventilation devices outby the loading point within the two-entry system will be permanent.

- The air velocity in the belt entry will be in compliance with 30 CFR 75.350, and will be compatible with all fire detection systems and fire suppression systems used in the belt entry.

- The belt entry, primary escapeway, and other intake entry or entries if used, will be equipped with an AMS that is installed, operated, examined, and maintained as specified within this Petition.

- All miners will be trained annually in the basic operating principles of the AMS, including the actions required in the event of activation of any AMS alert or alarm signal. This training will also be conducted prior to the beginning of the two-entry mining system. This training will be conducted as part of a miner's Part 48 new miner training (30 CFR 48.5), experienced miner training (30 CFR 48.6), or annual refresher training (30 CFR 48.8), and annually thereafter.

- Mantrip vehicles will be maintained on or near the working section and on or near areas where mechanized mining equipment is being installed or removed and be of sufficient capacity to transport all persons who may be in the area, and located within 600 feet of the section loading point.

- Fire doors designed to quickly isolate the working section will be constructed in the two entries for use in emergency situations. The fire doors will be maintained operable throughout the duration of the two-entry panel. A plan for the emergency closing of these fire doors, notification of personnel, and de-energization of electric power inby the doors will be included in the 30 CFR 75.1502 mine emergency evacuation and firefighting program of instruction plan.

- Communication and tracking systems will be installed and maintained according to the approved Emergency Response Plan (ERP) and will be subject to approval by the DM.

- In addition to the requirements of 30 CFR 75.1100-2(b), firehose outlets with valves every 300 feet will be installed along the intake entry. At least 500 feet of firehose with fittings and nozzles suitable for connection with the outlets will be stored at each strategic location along the intake entry. The locations will be specified in the 30 CFR 75.1502 mine emergency evacuation and firefighting program of instruction plan.

- Compressor stations and unattended portable compressors will not be located in the two-entry panel. Portable compressors can be used as long as they are attended while running.

#### D. Requirements Applicable to the Development of Two-Entry Panels:

- Diesel-discriminating sensors will be installed in the belt conveyor entry within 25 feet inby and outby the crosscut where return air is directed out of the belt conveyor entry.

- A means of rock-dusting will be installed in the belt conveyor entry near the section loading point of each two-entry development section. Rock dust will be continuously used when coal is being produced to render inert the float coal dust in these entries, except when miners are performing maintenance, inspections, or other required work in these areas.

- A methane monitoring system utilizing methane sensors will be incorporated into the AMS and be installed to monitor the air in each belt haulage entry. The sensors will be located so that the belt air is monitored near the mouth of the development, near

the tailpiece of the belt conveyor, and at or near any secondary belt drive unit installed in the belt haulage entry.

- The methane monitoring system will be capable of providing both audible and visual signals on both the working section and at a manned location on the surface of the mine where personnel will be on duty at all times when miners are underground in a two-entry section or when a conveyor belt is operating in a two-entry section. This trained person at the surface will have two-way communication with all working sections. The system will initiate alarm signals when the methane level is 1.0 volume per centum. The methane monitoring system will be designed and installed to de-energize the belt conveyor drive units when the methane level is 1.0 volume per centum. Upon notification of the alarm, miners will de-energize all other equipment located on the section.

#### E. Requirements Applicable to Retreat Mining of the Panels and Longwall Installation and Recovery:

- Two separate intake air courses within each longwall panel will be provided to each two-entry longwall. Both air courses may be located on the same side of the panel; however, the air will travel in a direction from the mouth of the panel toward the section.

- The average concentration of respirable dust in the belt air course, when used as intake air course, will be maintained at or below 0.5 mg/m<sup>3</sup>. A permanent designated area (DA) for dust measurements will be established at a point no greater than 50 feet upwind from the most outby open crosscut on the working section. The DA will be specified and approved in the ventilation plan.

- Unless approved by the DM, no more than 50 percent of the total intake air delivered to the working section or to areas where mechanized mining equipment is being installed or removed can be supplied from the belt air course. The locations for measuring air quantities will be approved in the mine ventilation plan.

- Notwithstanding the provisions of 30 CFR 75.380(g), additional intake air may be added to the belt air course through a point-feed regulator that is not located within a two-entry panel, to ventilate the working section(s). The location and use of any point feed will be approved in the mine ventilation plan.

- During longwall retreat mining, a means of rock-dusting will be installed at or near the last tailgate shield. Rock-dust will be continuously used when coal is being produced to render inert float coal dust in these entries. Exceptions to continuous operation of the rock-dusting units will be when miners are performing maintenance, inspections, or other required work in these areas.

- When the hydraulic fluid pump station for the longwall support system is located in the two-entry system, it will be installed and maintained as follows:

- (a) The pumps and electrical controls will be equipped with an automatic fire suppression system.

- (b) Only MSHA-approved fire resistant hydraulic fluid of the “high water content group,” such as Isosynth VX 110BF2 or similar, will be used.

- (c) The pump station will be maintained to within 1,500 feet of the longwall face.

- (d) In addition to the concentrate contained as part of the hydraulic pump system, hydraulic concentrate stored in the two-entry system will be limited to 500 gallons.

(e) A diesel-discriminating sensor will be installed between 50 and 100 feet downwind of the hydraulic pump station. The sensor will be installed in a location that will minimize the possibility of damage to it by mobile equipment and that will not interfere with its detection of carbon monoxide caused by a fire.

(f) Whenever the transformer supplying power to the hydraulic pumping station is located in the intake entry, the transformer will be:

(i) Maintained within 1,500 feet of the longwall face.

(ii) Provided with a diesel-discriminating sensor that is located on the inby side of the transformer in a location that will minimize the possibility of damage to it by mobile equipment and that will not interfere with its detection of carbon monoxide caused by a fire.

(iii) Provided with an over-temperature device that will de-energize the pumping station when the temperature reached 165 degrees Fahrenheit.

- Each hydraulic pump will be provided with an over-temperature device that automatically de-energizes the motor on which it is installed. De-energization will take place at a temperature of not more than 210 degrees Fahrenheit. The over-temperature device will be installed to monitor the circulating oil for the pump or the external pump case housing.

- MSHA will be informed prior to the initial startup of the pumping system so MSHA can conduct an inspection.

F. Applicable to Two-Entry Development, Longwall Installation and Recovery, and Retreat Mining Systems when Diesel-Powered Equipment is Operated on a Two-Entry System:

- Except for ambulances used for emergencies only, all diesel powered equipment not approved and maintained under 30 CFR Part 36 operated on any two-entry system will include:

(a) An automatic and manually activated fire suppression system meeting the requirements of 30 CFR 75.1911. The manual fire suppression system will be capable of being activated from both inside and outside the machine's cab. The manual actuator located outside the cab will be on the side of the machine opposite the engine. Both of these systems will be maintained in operating condition.

(b) An automatic engine shut down/fuel shut-off system, tied into the activation of the fire suppression system will be maintained in operating condition.

(c) An automatic closing, heat-activated shut-off valve will be maintained in operating condition, on diesel fuel lines either located between the fuel injection pump and fuel tank if the fuel lines are constructed of steel, or located as close as practical to the fuel tank.

(d) A means, maintained in operating condition, to prevent the spray from ruptured diesel fuel, hydraulic oil, or lubricating oil lines from being ignited by contact with engine exhaust system component surfaces such as shielding, conduit, or non-absorbent insulating materials.

(e) A means, maintained in operating condition, to maintain the surface temperature of the exhaust system of diesel equipment below 302 degrees Fahrenheit for diesel equipment classified a "heavy-duty" under 30 CFR 75.1908(a). Road graders are considered heavy-duty under 30 CFR 75.1908(a).

(f) A sensor to monitor the temperature and provide visual warning of an overheated cylinder head on air-cooled engines.

- The following types of diesel-powered equipment, which are not approved and maintained under 30 CFR Parts 36 or 7, can be used in the two-entry system, except where permissible equipment is required, provided no one is in by the work area:

(a) diesel-powered rock dust machine;

(b) diesel-powered generator; and

(c) diesel-powered road grader.

- Diesel fuel will not be stored in the two-entry system. Diesel-powered equipment not approved and maintained under Part 36 will not be refueled in the two-entry system.

- If non-Part 36 diesel-powered equipment needs to be jump-started due to a dead battery in any two-entry system, a methane check by a qualified person using an MSHA-approved detector will be made prior to attaching jumper cables. The equipment will not be jump-started if air contains 1.0 percent or more of methane.

- A diesel equipment maintenance program will be adopted and complied with by the operator. The program will include the examinations and tests specified in the manufacturers' maintenance recommendations as they pertain to diesel-powered equipment carbon monoxide emissions. A record of these examinations and tests will be maintained on the surface and made available to all interested persons.

#### G. Atmospheric Monitoring System (AMS):

- In addition to the terms and conditions contained in this petition, the AMS will be installed, operated, examined and maintained, and training of AMS operators conducted in accordance with the provisions contained in 30 CFR 75.350, 75.351, and 75.352.

H. Implementation and Training Requirements:

- The petitioner proposes that the terms and conditions of this petition will not be implemented until after approval has been granted by the DM.
- Prior to implementing the PDO, Sufco will have an approved Part 48 training plan that complies with all conditions specified by the PDO.

The petitioner asserts that application of the existing standard will result in a diminution of safety to the miners and that the proposed alternative method will at all times guarantee no less than the same measure of protection afforded by the standard.

Sheila McConnell ,  
Director,  
Office of Standards, Regulations, and Variances.

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