In the matter of:
RoxCoal, Inc.
Miller Mine
I.D. No. 36-08622

Petition for Modification

Docket No. M-2009-017-C

PROPOSED DECISION AND ORDER

On May 13, 2009, RoxCoal filed a petition under Section 101(c) of the Federal Mine Safety and Health Act of 1977 (Mine Act), 30 U.S.C. § 811(c) and 30 C.F.R. Part 44. The petition sought a modification of the application of 30 C.F.R. § 75.507-1(a) at the Miller Mine, I.D. No. 36-08622, located in Acosta, Somerset County, Pennsylvania.

30 C.F.R. § 75.507-1(a) states in pertinent part:

> All electric equipment, other than power-connection points, used in return air outby the last open crosscut in any coal mine shall be permissible….

The following definitions are also relevant to the petition. 30 C.F.R. § 18.2 defines "permissible equipment" as:

> …a completely assembled electrical machine or accessory for which a formal approval has been issued, as authorized by the Administrator, Mining Enforcement and Safety Administration under the Federal Coal Mine Health and Safety Act of 1969 (Pub. L. 91-173, 30 U.S.C. 801 or, after March 9, 1978, by the Assistant Secretary under the Federal Mine Safety and Health Act of 1977 (Pub. L. 91-173, as amended by Pub. L. 95-164, 30 U.S.C. 801).

In addition, 30 C.F.R. § 18.2 defines "intrinsically safe" as:

> …incapable of releasing enough electrical or thermal energy under normal or abnormal conditions to cause ignition of a flammable mixture of methane or natural gas and air of the most easily ignitable composition.

Further, 30 C.F.R. § 75.2 defines "permissible" as applied to electric face equipment, as:

> …all electrically operated equipment taken into or used inby the last open crosscut of an entry or a room of any coal mine the electrical parts of which, including, but not limited to, associated electrical equipment, components, and accessories, are designed, constructed, and installed, in

> accordance with the specifications of the Secretary, to assure that such equipment will not cause a mine explosion or mine fire, and the other features of which are designed and constructed, in accordance with the specifications of the Secretary, to prevent, to the greatest extent possible, other accidents in the use of such equipment.

The petition alleges that application of Section 75.507-1(a) would result in a diminution of safety to miners and that the alternative method proposed in the petition regarding the use of non-permissible, battery-powered (electronic) surveying equipment will at all times guarantee no less than the same measure of protection afforded by the standard. In support of its petition, the petitioner states that use of the most practical and accurate surveying equipment is necessary in order to comply with the requirements of 30 C.F.R §§ 75.372 (mine ventilation maps) and 75.1200 (mine maps), the State of Pennsylvania mine mapping requirements in Technical Guidance Document #563-2000-610, and the Pennsylvania Bituminous Coal Mine Safety Act. Furthermore, the petitioner states that underground mining by its nature, size, complexity of mine plans and relative closeness to other abandoned mines requires that accurate and precise measurements be completed in a prompt and efficient manner.

In addition, during MSHA's investigation of the petition, the petitioner asserted that the accuracy of the electronic surveying equipment is necessary, not only to comply with Pennsylvania's Technical Guidance Document, but also for the safety of the miners. The petitioner stated that because of the large number of gas wells within the permit boundaries of the mine, accurate surveys are needed to safely mine around the gas wells.

The petitioner's proposed alternative method includes the following proposed protections:

a. All non-permissible battery powered surveying equipment to be used "in or inby the last open crosscut [sic]"[1] shall be examined prior to use to ensure the equipment is being maintained in a safe operating condition. In addition, the equipment will be examined at intervals not to exceed 7 days by a qualified person as defined in 30 C.F.R. § 75.153. Examination results shall be recorded in the weekly examination of electrical equipment book. These checks shall include:

1 Petitioner requested a modification of 30 C.F.R. § 75.507-1(a) which pertains to permissible electrical equipment "used in return air outby the last open crosscut."

(i) check the instrument for any physical damage and the integrity of the case;
(ii) remove the battery and inspect for corrosion;
(iii) inspect the contact points to ensure a secure connection to the battery;
(iv) reinsert the battery and power up and shut down to ensure proper connections; and,
(v) check the battery compartment cover to ensure that it is securely fastened.

b. A qualified person as defined in existing 30 C.F.R. § 75.151 shall continuously monitor for methane immediately before and during the use of non-permissible surveying equipment "in or inby the last open crosscut or in the return [sic]."[2]

c. Non-permissible surveying equipment 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 non-permissible surveying equipment is being used, the equipment shall be de-energized immediately and the non-permissible electronic equipment withdrawn out of the return.

d. Non-permissible surveying equipment shall not be used where float coal dust is in suspension.

e. Batteries contained in the surveying equipment must be "changed out" or "charged" in fresh air out of the return.

f. Qualified personnel engaged in the use of surveying equipment shall be properly trained to recognize the hazards and limitations associated with the use of surveying equipment.

g. The non-permissible surveying equipment shall not be put into service until MSHA has initially inspected the equipment and determined that it is in compliance with all the above terms and conditions.

2 MSHA construes Petitioner's proposed alternative method to include "A qualified person as defined in ... during the use of non-permissible surveying equipment in return air outby the last open crosscut." See footnote 1.

h. Within 60 days after the Proposed Decision and Order becomes final, RoxCoal, Inc. shall submit proposed revisions for its approved 30 C.F.R. Part 48 training plan to the Coal Mine Safety and Health District Manager. In addition to training regarding the requirements specified in item No. 1, these proposed revisions shall specify initial and refresher training regarding the terms and conditions stated in the Proposed Decision and Order.

In summary, the petitioner's request consists of waiving the requirement for permissible equipment and instead, allowing the use of non-permissible, battery-powered (electronic) surveying equipment in return airways outby the last open cross cut, provided that additional proposed protections are followed.

MSHA personnel conducted an investigation of the petition and filed a report of their findings and recommendations with the Chief, Safety Division for Coal Mine Safety and Health. After a careful review of the entire record, including the petition, and MSHA's investigative report and recommendation, this Proposed Decision and Order is issued.

Findings of Fact and Conclusion of Law

MSHA's investigation found that the Miller Mine is opened into the Upper Freeport coal seam through three drifts. There are currently 45 persons employed, 40 who work underground and 5 who work on the surface. The miners are not represented by any union. Although only the mine's surveyors would be using the proposed non-permissible equipment, all miners working in the mine would be affected by any modification. Surveying is typically conducted as needed to provide mining sights, running elevations and check loops, and measuring advancement of the section.

The underground surveyors used at the Miller Mine are employed by RoxCoal, Inc. and Civil Mining Environmental Engineering (CME), a contracted engineering service. Typically, two surveyors work together two days per week installing mining sights, running elevations and check loops, and measuring take-ups. The data collected by the surveyors are provided to RoxCoal, Inc.'s engineering department.

Although the petitioner asserts that the accuracy of the proposed electronic surveying equipment is needed because of the large number of gas wells within the permit boundaries of the mine, MSHA has determined that levels of accuracy fully capable of protecting miners can be achieved using optical non-electric surveying equipment. In addition, non-electrical surveying equipment can achieve even higher levels of accuracy through repetition of measurements and statistical applications.

During the investigation, the petitioner agreed with MSHA that a majority of the face survey work can be done while keeping the surveying instrument in intake air, outby the last open crosscut. Nonetheless, the petitioner maintained that situations occur when areas become return air courses before check loops are completed. MSHA determined, however, that when using high-accuracy total stations – non-permissible electronic surveying equipment – the equipment need not be taken into return air or inby the last open crosscut if the surveying is carefully coordinated with the mining activity to allow the survey contractor to conduct the necessary surveys prior to making ventilation changes from intake to return. For these reasons, MSHA does not agree that application of the standard would result in a diminution of safety for the miners.

In addition, the proposed alternative method will not provide the same measure of protection to miners as the standard, for the following reasons. Permissible equipment places electrical components in flanged containers which have flame cooling paths long enough not to propagate an explosion into the mine atmosphere. Intrinsically safe equipment is incapable of releasing enough electrical or thermal energy under normal or abnormal conditions to cause ignition of a flammable mixture of methane. MSHA requirements for permissible or intrinsically safe equipment are intended to prevent mine explosions from unpredicted methane accumulations, methane outbursts, or float coal dust in suspension by removing a possible ignition source. The petitioned equipment is neither permissible nor intrinsically safe. For these reasons, the petitioner proposes compensating protections designed to achieve an equivalent level of protection for miners. These proposals however, do not compensate for the hazards created by the non-permissible equipment.

Item a. of the proposed compensating protections in the petition involves pre-operational and weekly examinations of the equipment. These examinations would be typical of those which would be conducted to ensure that the equipment would function properly rather than provide alternative protective measures to the standard at issue. Also, the instruction manuals for the non-permissible, battery-powered surveying equipment requested to be used – a 6-volt Topcon DT104 Theodolite, a 6-volt Topcon DT104L Theodolite, and a 7.2-volt Topcon GPT-3005 electronic total station contain hazard warnings on use in coal mines and in areas that produce explosive gas.[3] Specifically, the manuals for the GPT-3005 electronic total station, 6-volt Topcon DT-209L Theodolite and 6-volt Topcon DT104L Theodolite contain the warning: "**May ignite explosively**" and "**Never use an instrument near flammable gas, liquid matter, and do not use in a coal mine.**" The owner's manual for the 3.6-volt Juniper Systems

3 The distance meter is integrated in the 7.2-volt Topcon GPT-3005 electronic total station and so the request to use a distance meter is not actually a request to use a separate piece of equipment. In addition, the petitioner stated during MSHA's investigation that the laptop computer should be removed from the petition. For these reasons, these items are not addressed in this Proposed Decision and Order.

Allegro CX Field PC contains the warning, "**Do not operate your wireless network device near unshielded blasting caps or in an explosive environment unless the device has been modified to be especially qualified for such use**." Although the latest bottle sampling conducted at Miller Mine in the second quarter of fiscal year 2011 did not find a measureable amount of methane, MSHA's investigation indicates that there are gas wells within the permit boundaries of the mine. In addition, methane is a common element and by product of mining which has been contributory to fires and explosions in Pennsylvania and throughout the United States. Use of the above equipment would create a safety hazard, and the proposed examination items listed in items a(i) through a(v) of the petition provide no additional protection to offset the hazard that would be created using the non-permissible equipment.

Item b. of the proposal indicates that the petitioner will have a qualified person continuously monitor for methane immediately before and during the use of the survey equipment. In most cases, the qualified person under 30 C.F.R. § 75.151 would already be continuously monitoring for methane as part of his normal functions in meeting the requirements listed under 30 C.F.R. §§ 75.360, 75.361, 75.362 and 75.1714-7. Normally, qualified persons will zero their instruments in fresh air upon entry into the mine, and the instrument will remain operating during the course of their shift. For these reasons, item b. offers little or no additional protection that would offset the hazards created.

Item c. of the proposal indicates that non-permissible surveying equipment will be deenergized when methane is detected at 1.0 percent or higher. This action is already required. Under 30 C.F.R. § 75.323(b), all electrical equipment (except intrinsically safe AMS systems) is to be de-energized when 1.0 percent methane is present.

Item d. of the proposal states that non-permissible equipment shall not be used where float coal dust is in suspension. Float coal dust is defined in 30 C.F.R. § 75.400-1 (b) as "coal dust consisting of particles of coal that can pass a No. 200 sieve." MSHA is of the opinion that it is not possible for the petitioner to implement this action item. Float coal dust cannot be entirely eliminated during the cutting process of mining. The operator contends that the approved ventilation plan adequately reduces coal float dust to a minimum, thereby conceding that it exists. Unless all mining were to cease, float coal dust would be generated from the mining process and contribute to the potential of an ignition hazard, fire, or explosion. In addition, MSHA believes that this petitioner may have particular difficulty in eliminating float coal dust because the petitioner has received 11 citations in the past 2 years for violations of the approved ventilation plan under 30 C.F.R. 75.370. Failure to comply with the ventilation plan creates additional hazards such as reducing or short-circuiting necessary ventilation, which in turn allows float coal dust to be in suspension.

Item e. of the proposal states that the batteries in the surveying equipment must be changed out or charged in fresh air out of the return. To change out the battery, the contacts of the battery would be broken creating a potential arc or spark. Because battery connection points are not permissible, under 30.C.F.R. § 75.500 battery changes or charges already would need to be made outby the last open crosscut. Further, other existing standards require already that such changes or charges occur in intake air. Under 30 C.F.R. § 75.507, all power-connection points (e.g., battery connection points) outby the last open crosscut must be in intake air. Under 30 C.F.R. § 75.340, battery charging stations must be ventilated with intake air (fresh air). For these reasons, Item e. appears to offer no additional protection that would offset the hazards created by the proposed modification.

Item f. of the proposal states that qualified personnel engaged in the use of surveying equipment shall be properly trained to recognize hazards and limitations associated with the use of the surveying equipment. This training is already mandated under 30 C.F.R. § 48.11, which requires hazard training for surveying personnel under Subpart A.

Item g. of the proposal indicates that the non-permissible surveying equipment shall not be put into service until MSHA has initially inspected the equipment to determine compliance with the terms and conditions. This item does not add additional protections to the miner nor would inspection of the equipment determine compliance with all the terms and conditions of the proposal.

Item h. of the proposal requires that the Part 48 training plan be amended within 60 days to reflect initial and refresher training regarding the terms and conditions stated in the Proposed Decision and Order. However, amending a training plan does not itself add protections that would tend to offset the hazards created by non-permissible surveying equipment. Rather, it simply memorializes other training actions contemplated.

On the basis of the petition and MSHA's investigation, MSHA has determined that application of the standard would not result in a diminution of safety to the miners and that the proposed alternative method will not provide the same measure of protection to miners as the standard. Therefore, RoxCoal, Inc. is not granted a modification of the application of 30 C.F.R. § 75.507-1(a) to the Miller Mine.

ORDER

Wherefore, pursuant to the authority delegated by the Secretary of Labor to the Administrator for Coal Mine Safety and Health, and pursuant to Section 101(c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C., § 811(c), it is ordered that

RoxCoal Inc.'s Petition for Modification of the application of 30 C.F.R. § 75.507-1(a) at the Miller Mine listed above is hereby:

DENIED.

Any party to this action desiring a hearing on this matter must file a request for a hearing within 30 days after service of the Proposed Decision and Order, in accordance with 30 CFR 44.14, with the Administrator for Coal Mine Safety and Health, 1100 Wilson Boulevard, Arlington, Virginia 22209-3939.

If a hearing is requested, the request shall contain a concise summary of position on the issues of fact or law desired to be raised by the party requesting the hearing, including specific objections to the Proposed Decision and Order. A party other than the petitioner who has requested a hearing may also comment upon all issues of fact or law presented in the petition, and any party to this action requesting a hearing may indicate a desired hearing site. If no request for a hearing is filed within 30 days after service thereof, this Proposed Decision and Order will become final and must be posted by the operator on the mine bulletin board at the mine.

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Charles J. Thomas
Deputy Administrator for
Coal Mine Safety and Health