

In the matter of:  
Twentymile Coal Company  
Foidel Creek Mine  
I.D. No. 05-03836

Petition for Modification

Docket No. M-2007-001-C

### PROPOSED DECISION AND ORDER

On January 3, 2007 a petition was filed seeking a modification of the application of 30 C.F.R. § 75.507-1(a) to Petitioner's Foidel Creek Mine, located in Routt County, Colorado.

The relevant standard, 30 C.F.R. § 75.507-1(a) reads,

(a) All electrical equipment, other than power-connection points, used in return air outby the last open crosscut in any coal mine shall be permissible except as provided in paragraphs (b) and (c) of this section.

The Petitioner seeks modification of the standard to permit the use of non-permissible battery-powered handheld computers in return airways. Such handheld computers are also known as Personal Digital Assistants (PDAs). The Petitioner alleges that the proposed alternative method will provide an equal measure of protection as that afforded by the standard.

The following safety regulations from Title 30 of the Code of Federal Regulations are also relevant to the amended petition:

§ 18.2 defines “permissible equipment” and “intrinsically safe”:

*Permissible equipment* means 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).

*Intrinsically safe* means 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.

§ 75.2 defines “permissible”:

*Permissible* (1) As applied to electric face equipment, all electrically operated equipment taken into or used in by 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.

MSHA personnel conducted an investigation and filed a report of their findings on June 12, 2007. After a careful review of the entire record and MSHA's investigative report, this Proposed Decision and Order is issued.

#### Findings of Fact and Conclusion of Law

In the Petition, the Petitioner makes a series of proposals and allegations regarding the use of non-permissible battery-powered handheld computers. The petitioner proposes to use non-permissible battery-powered handheld computers in areas of the mine where permissible equipment is required in order to allow supervisors and selected miners to collect and record data pertinent to safety observations during work processes. The Petitioner also proposes that data recorded in the handheld computers would be downloaded at the end of the shift and collated with other data, thereby allowing Petitioner to proactively correct unsafe practices and prevent accidents before they occur. Petitioner alleges that preliminary results from a safety observation program have shown a dramatic reduction in reportable accidents, and Petitioner expects even greater reductions in reportable accidents with the expanded collection of data in utilizing handheld computers.

The petition was submitted for handheld computers of the following type, which has not been approved as permissible or intrinsically safe.

|              |   |
|--------------|---|
| Manufacturer | DELL                                      |
| Model No.    | AXIM X50/X50v <sup>1</sup>                |
| Battery      | Rechargeable Lithium-ion                  |
| Volts        | 3.7V 1,100 mAh (3.7V x 1.1A = 4.07 Watts) |

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<sup>1</sup> The Amended Petition identifies the Model No. as “AMIM X50/X50v,” but that model no. appears to have been a typographical error.

The Petitioner's proposed alternative method of compliance consists of the following:

- a. All handheld computers used inby the last open crosscut or in the return shall be examined by a certified person as defined in existing 30 C.F.R. § 75.100 prior to being used to ensure the equipment is in a safe operating condition.
- b. A qualified person as defined in existing 30 C.F.R. § 75.150 shall continuously monitor for methane with an approved device before and during the use of the handheld computer inby the last open crosscut or in the return.
- c. Handheld computers shall not be used in methane concentrations at or above 1.0%. If a methane concentration of 1.0% or greater is detected, the non-permissible handheld computer shall be de-energized immediately and it shall be withdrawn to an area outby the last open crosscut or out of the return air entry.
- d. All portable methane detectors shall be MSHA approved and maintained in permissible and proper operating condition as defined in 30 C.F.R. § 75.320.
- e. Qualified persons using non-permissible handheld computers shall be properly trained to recognize hazards and limitations of the devices.

The proposed alternative method of compliance will not at all times guarantee no less than the same measure of protection to the miners as that afforded by the standard for the reasons that follow.

First, the proposals (listed as "a" through "e" above) in Items a through e of the Petitioner's proposed alternative method outlined in Paragraph 4 of the Petition represent a request to use non-permissible electric handheld computers while offering no additional protection to offset the hazard created by the non-permissibility of the device. The protections allegedly provided by proposals a through d are already provided under the requirements of 30 C.F.R. §§ 75.100, 75.362, 75.512, 75.320, 75.323(b), 75.150, 75.151, and 75.153

The Petitioner's proposed alternative method basically consists of allowing the use of non-permissible battery-powered handheld computers inby the last open crosscut, including in the return airways inby the last open crosscut, while relying solely on detecting the presence of methane using handheld gas detectors.

In addition, the Petitioner provides no supporting information as to how a single individual could effectively examine a mine for hazards, take required air quantity measurements, and record observations in a handheld computer while simultaneously continuously monitoring the mine atmosphere for methane using a handheld MSHA-approved methane detection device.

Second, the Petitioner's alternative method does not ensure that the use of the non-permissible battery-powered handheld computers (a.k.a. PDAs) at issue herein would not represent a possible ignition source for a methane or coal dust explosion or fire. These computers would be used during coal production, which creates an environment for the release of methane and float coal dust. The non-permissible battery-powered handheld computers proposed by the Petitioner would be used by coal miners daily in the most hazardous areas of the mine. These areas are prone to outbursts of methane or to methane accumulations over roof falls and where coal is being mined in face areas.

The Dell Axim X50 Owner's Manual, available on the manufacturer's website at <http://support.dell.com/support/edocs/systems/aximx50/en/om/N6966bk1.pdf>, includes the following pertinent Safety Instructions regarding the potential of this device as an ignition source:

SAFETY: General

- Do not push objects into air vents or opening of your device. Doing so can cause fire or electric shock by shorting out the interior components.
- Do not use your device in a wet environment, for example, near a bath tub, sink, or swimming pool or in a wet basement.
- Before you clean your device, disconnect the device from the electric outlet, Clean your device with a soft cloth dampened with water. Do not use liquid or aerosol cleaners, which may contain flammable substances.

SAFETY: Battery

- Do not carry a battery pack in your pocket, purse, or other container where metal objects (such as car keys or paper clips) could short-circuit the battery terminals. The resulting excessive current flow can cause extremely high temperatures and may result in damage to the battery pack or cause fire or burns.

The mine atmosphere carries coal and other fugitive dust which collects on ventilation controls; such dust is transferred to mine examiners' clothing, face, and hands; and, when moist, conducts electricity. Such dust gets into all enclosures, including battery cases. Equipment used in mining is exposed to rough handling, and is bumped,

dropped, and banged against all kinds of obstacles during normal usage. The nature of the mine environment assures that any handheld computer will be exposed to moisture; additionally, the devices may fall into pooled water or be used under dripping roof.

Furthermore, pre-shift, on-shift, and weekly examinations are required to be performed at each coal mine. These examinations are for the specific purpose of finding hazards and having them corrected before miners can be exposed to them. The use of non-permissible battery-powered handheld computers by mine examiners while they are making these required examinations is contrary to the intent of the Federal Mine Safety and Health Act of 1977 and of Congress, which recognized that all electric powered equipment taken into or inby the last open crosscut, in return aircourses, and within 150 feet of pillar workings must be approved by MSHA as being permissible or intrinsically safe. Permissible equipment does not have the potential to release enough electrical or thermal energy to ignite a flammable mixture of gases when maintained as approved. 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. The petitioned equipment is neither permissible nor intrinsically safe. Requiring permissible or intrinsically safe equipment is intended to prevent mine explosions from unpredicted methane accumulations, methane outbursts, or float coal dust in suspension by removing a possible ignition source.

Third, while there are currently no handheld computers or personal digital assistants approved by MSHA's Approval and Certification Center, the results of examinations, accident reports, etc. can be and have been adequately recorded using pen and paper since the earliest implementation of the Federal Coal Mine Health and Safety Act of 1969.

Hence, the Petition for Modification does not provide an alternative method of compliance which will at all times guarantee no less than the same measure of protection to the miners as afforded by the standard. The petitioned battery-powered handheld computers must be approved as permissible by MSHA's Approval and Certification Center in order to be used in areas where permissible equipment is required. On the basis of the Petition and the findings of MSHA's investigation, Twentymile Coal Company is not granted a modification of the application of 30 CFR 75.507-1(a) to its Foidel Creek 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

Twentymile Coal Company's Petition for Modification of the application of 30 C.F.R. § 75.507-1(a) at the Foidel Creek Mine is hereby:

DENIED.

Even though 30 C.F.R. § 75.507-1(a) applies to all electrical equipment which is taken into or used in return air outby the last crosscut of any coal mine, the reasoning and investigative information which compels the decision to deny the requested modification of 30 C.F.R. § 75.507-1(a) applies equally well to any request to use non-permissible battery-powered handheld computers at locations in which methane or coal dust accumulations may be present, such as those locations referenced in 30 C.F.R. §§ 75.500 and 75.1002.

Any party to this action desiring a hearing must file a request for 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. 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 Amended Petition. 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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Kenneth A. Murray  
Deputy Administrator for  
Coal Mine Safety and Health