

April 28, 2005

In the matter of:
Genwal Resources Inc.
South Crandall Canyon Mine
I.D. No. 42-02356

Petition for Modification

Docket No. M-2003-082-C
Docket No. M-2003-092-C

PROPOSED DECISION AND ORDER

On October 24, 2003, a petition was filed seeking a modification of the application of the former 30 CFR 75.350 to Petitioner's South Crandall Canyon Mine, located in Emery County, Utah. On November 17, 2003, a complementary petition was filed seeking modification of the former 30 CFR 75.352. The Petitioner proposes to conduct longwall mining using the two-entry system. Petitions of both standards were necessary to employ the two-entry mining system. On June 1 2004, revisions to 30 CFR 75.350, 351 and 352, among others, became effective. 30 CFR 75.350 provides for the use of belt air to working sections or to areas where mechanized mining equipment is being installed or removed that are developed with three or more entries and prohibits the use of the belt air course as a return air course. Both petitions will be considered under a single PDO.

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

The petitioner alleges that the use of two-entry longwall development mining systems reduces the likelihood of coal bumps, roof falls, and other hazards related to mining under deep cover or highly stressed ground conditions. Therefore, 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 aircourse diminishes the safety of miners as compared to utilizing the belt entry as a return aircourse during development mining, provided appropriate atmospheric monitoring and early warning fire detection and other precautions are utilized. Also, the petitioner alleges that the proposed alternate method outlined in the petition 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. The same diminution of safety and alternative method allegations apply to the application of the former 30 CFR 75.352 (which required belt haulage entries to be separated from return aircourses).

MSHA personnel conducted an investigation applicable to both petitions and filed a report of their findings and recommendations with the Administrator for Coal Mine Safety and Health. After a careful review of the entire record, including the petition, amendments to the petition, comments, and MSHA's investigative report and recommendation, this Proposed Decision and Order (PDO) is issued.

Finding of Fact and Conclusion of Law

A geotechnical study was conducted by Agapito & Associates in order to evaluate the ground control aspects of the South Crandall Canyon Mine and a report of its findings was submitted. The report substantiated that the South Crandall Canyon Mine operates in a gassy coal seam under low to moderate cover (up to 1,700 feet) and rugged topography. The report stressed that neighboring coal mines, operating under such cover and having the same type of conditions, have had problems with coal bursts and bumps. Due to the coal seam characteristics, depth of cover, and topography of the overburden of the South Crandall Canyon Mine, two-entry gate roads should be developed and used for all future longwall mining in those coal seams.

Due to the documented hazards associated with mining in this coal seam, application of 30 CFR 75.350 to the subject mine will result in a diminution of safety to the miners and the special terms and conditions set out below will at all times provide a safe work environment to the miners.

On the basis of the petition and the findings of MSHA's investigation, Genwal Resources, Inc. is granted a modification of the application of 30 CFR 75.350, 351, and 352 to its South Crandall Canyon 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., Sec. 811(c), it is ordered that Genwal Resource's Petition for Modification of the application of 30 CFR 75.350, 351, and 352 in the South Crandall Canyon Mine where the two-entry system exists is hereby:

GRANTED, for use of belt air in two-entry longwall mining systems and use of belt air course as a return air course, conditioned upon compliance with the following terms and conditions:

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

- (A) An atmospheric monitoring system (AMS) for early warning fire detection shall be utilized throughout the two-entry system. All sensors that are part of the AMS shall be diesel-discriminating (carbon monoxide and nitric oxide) sensors.
- (B) The belt air course must be separated with permanent ventilation controls from return air courses and from other intake air courses except as provided within this Petition. The belt air course is defined as the entry in which a belt is located and any adjacent entry(ies) not separated from the belt entry by permanent ventilation controls, including any entries in series with the belt entry, terminating at a return regulator, a section loading point or the surface.

- (C) The maximum air velocity in the belt entry must be no greater than 500 feet per minute, unless otherwise approved in the mine ventilation plan.
- (D) Air velocities must be compatible with all fire detection systems and fire suppression systems used in the belt entry.
- (E) The belt entry, the primary escapeway, and other intake entry(ies) if used, must be equipped with an AMS that is installed, operated, examined, and maintained as specified within this Petition.
- (F) All miners must 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 must be conducted prior to the development of any portion of the two-entry mining system. This training must be conducted as part of a miner's 30 CFR Part 48 new miner training (§48.5), experienced miner training (§48.6), or annual refresher training (§48.8).
- (G) Mantrip cars, personnel carriers, or other transportation equipment shall be maintained on or near the working section and on or near areas where mechanized mining equipment is being installed or removed, be of sufficient capacity to transport all persons who may be in the area, and be located within 300 feet of the section loading point or proposed section loading point.
- (H) Fire doors designed to quickly isolate the working section shall be constructed in the two entries for use in emergency situations. The fire doors shall 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 shall be included in the 30 CFR 75.1502 mine emergency evacuation and firefighting program of instruction plan.
- (I) Two separate lines or systems for voice communication shall be maintained in the two-entry mining section. Phones shall be installed every 1,000 feet within one crosscut of the location of the diesel-discriminating sensor in the belt and intake entries. The two systems shall not be routed through the same entry. The methods of communications shall be subject to approval of the District Manager. In addition, a Personal Emergency Device (PED) system shall be used as a communication link between the AMS operator and:
 - (1) the designated person on each working section,
 - (2) all diesel equipment operators on each panel,
 - (3) any person investigating an alert condition.

- (J) At least one self-contained self-rescuer (SCSR) shall be available for each person on the working section at all times and shall be carried into the section and carried on the section or stored on the section while advancing the two-entry development. During longwall retreat mining, at least two SCSRs shall be available for each regularly assigned person on the working section. One shall be stored near the face in the headgate entries at a readily accessible location and one shall be stored near the tailgate entries. These locations shall be specified in the storage plan approved by the District Manager.
- (K) In addition to the requirements of 30 CFR 75.1100-2 (b), firehose outlets with valves every 300 feet shall be installed along the intake entry. At least 500 feet of firehose with fittings and nozzles suitable for connection with the outlets shall be stored at each strategic location along the intake entry. The locations shall be specified in the 30 CFR 75.1502 mine emergency evacuation and firefighting program of instruction plan.
- (L) Compressor stations and unattended portable compressors shall not be located in the two-entry panel.
- (M) The details for the fire detection system and methane monitoring system, including the type of monitor and specific sensor location on the mine map, shall be included as a part of the Ventilation Plan required by 30 CFR 75.370. The District Manager may require additional diesel-discriminating sensors, carbon monoxide sensors, or methane sensors to be installed as part of said plan to ensure the safety of the miners in any part of the two-entry system.
- (N) Lifelines that meet the requirements of 30 CFR 75.380(n) must be provided in the belt entry during two-entry development, longwall set-up and recovery, and in the longwall tailgate entry during retreat mining.
- (O) The atmospheric monitoring system shall activate an alarm signal if the total concentration of uncorrected carbon monoxide, measured by any sensor, exceeds or is equal to 50 parts per million (ppm). This concentration shall represent all the carbon monoxide present in the sensor's atmosphere, including carbon monoxide from diesel engines.

II. Additional Requirements Applicable to the Development of Two-Entry Panels.

- (A) During development, diesel-discriminating sensors shall 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.
- (B) During development of the two-entry system, a rock-dusting unit or the discharge hose of a rock-dusting unit shall be installed in the belt conveyor entry near the section loading point of each two-entry development section. These rock-dusting

units shall be operated continuously 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. The District Manager may approve alternate rock-dusting locations.

- (C) A methane monitoring system utilizing methane sensors shall be incorporated into the AMS and be installed to monitor the air in each belt haulage entry. The sensors shall 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.
- (D) The methane monitoring system shall 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 shall have two-way communication with all working sections. The system shall initiate alarm signals when the methane level is 1.0 volume per centum. The methane monitoring system shall 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 shall de-energize all other equipment located on the section.

III. Additional Requirements Applicable to Retreat Mining of the Panels and Longwall Installation and Recovery.

- (A) Two separate intake air courses within each longwall panel shall be provided to each two-entry longwall. Both air courses may be located on the same side of the panel; however, the air shall travel in a direction from the mouth of the panel toward the section.
- (B) The average concentration of respirable dust in the belt air course, when used as an intake air course, must be maintained at or below 1.0 mg/m³. A permanent designated area (DA) for dust measurements must be established at a point no greater than 50 feet upwind from the most outby open crosscut on the working section. The DA must be specified and approved in the ventilation plan.
- (C) Unless approved by the District Manager, no more than 50% 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 must be approved in the mine ventilation plan.
- (D) 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 (i.e. main belt), to ventilate the working section(s). The location and use of any point feed must be approved in the mine ventilation plan.

- (E) If the air through the point-feed regulator enters a belt air course that is used to ventilate a working section or an area where mechanized mining equipment is being installed or removed, the following conditions must be met:
- (1) The air current that will pass through the point-feed regulator must be monitored for carbon monoxide or smoke at a point within 50 feet upwind of the point-feed regulator.
 - (2) The air in the belt air course must be monitored for carbon monoxide or smoke upwind of the point-feed regulator. This sensor must be in the belt air course within 50 feet of the mixing point where air flowing through the point-feed regulator mixes with the belt air.
 - (3) The point-feed regulator must be provided with a means to close the regulator from the intake air course without requiring a person to enter the crosscut where the point-feed regulator is located. The point-feed regulator must also be provided with a means to close the regulator from a location in the belt air course immediately upwind of the crosscut containing the point-feed regulator.
 - (4) Any point feed regulator used on a two-entry longwall panel must be located near the beginning of the panel.
 - (5) A minimum air velocity of 300 feet per minute must be maintained through the point-feed regulator.
 - (6) The location(s) and use of a point-feed regulator(s) must be approved in the mine ventilation plan and shown on the mine ventilation map.
- (F) Belt air directed from the surface may be used to ventilate the working section(s) and to areas where mechanized mining equipment is being installed or removed. The use of this belt air must be approved in the mine ventilation plan.
- (G) When the hydraulic fluid pump station for the longwall support system is located in the two-entry system, it shall be installed and maintained as follows:
- (1) The pumps and electrical controls shall be equipped with an automatic fire suppression system.
 - (2) Only MSHA-approved fire resistant hydraulic fluid of the “high water content group”, such as Isosynth VX 110BF2 or similar, may be used.

- (3) The pump station shall be maintained to within 1,200 feet of the longwall face.
 - (4) In addition to the concentrate contained as part of the hydraulic pump system, hydraulic concentrate stored in the two-entry system shall be limited to 500 gallons.
 - (5) A diesel-discriminating sensor shall be installed between 50 and 100 feet downwind of the hydraulic pump station. The sensor shall be installed in a location that will detect carbon monoxide caused by a fire and that will minimize the possibility of damage by mobile equipment.
 - (6) Whenever the transformer supplying power to the hydraulic pumping station is located in the intake entry, the transformer shall be:
 - (a) Maintained within 1,200 feet of the longwall face.
 - (b) Provided with a diesel-discriminating sensor that is located on the inby side of the transformer in a location that will detect carbon monoxide caused by a fire and that will minimize the possibility of damage by mobile equipment.
 - (c) Provided with an over-temperature device that shall de-energize the pumping station when the temperature reaches 165 degrees Fahrenheit.
 - (7) Each hydraulic pump shall be provided with an over-temperature device that automatically de-energizes the motor on which it is installed. De-energization shall take place at a temperature of not more than 210 degrees Fahrenheit. The over-temperature device shall be installed to monitor the circulating oil for the pump or the external pump case housing.
 - (8) MSHA shall be informed prior to the initial start up of the pumping system so an inspection by MSHA can be conducted.
- (H) During longwall retreat mining in the two-entry panel, a rock-dusting unit or the discharge hose of a rock-dusting unit shall be installed at or near the last tailgate shield. These rock-dusting units shall be operated continuously when coal is being produced to render inert float coal dust in these entries, except when miners are performing maintenance, inspections, or other required work in these areas. The District Manager may approve alternate rock-dusting locations.

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

- (A) The following administrative controls shall be used:
- (1) The number and type of pieces of diesel equipment in the two-entry system shall be minimized. A list of diesel equipment and their associated air quantity requirements shall be provided at the designated surface location for use by the AMS operator. A whiteboard or similar method will be used by the AMS operator to keep a total of the air requirements of all diesel equipment operating in the two-entry system.
 - (2) The AMS operator shall prohibit diesel equipment from entering the two-entry system when the total air required by all diesel equipment within the two-entry system exceeds the air quantity measured in the intake diesel roadway.
 - (3) The intake diesel roadway air quantity shall be measured within three (3) crosscuts outby the section loading point and shall be included in all 30 CFR 75.360 preshift examinations. Prior to entering or leaving a two-entry section, all diesel equipment operators shall report to the designated AMS operator.
- (B) Except ambulances used for emergencies only, all diesel powered equipment not approved and maintained under 30 CFR 36 (Part 36) operated on any two-entry system shall:
- (1) Include an automatic and manually activated fire suppression system meeting the requirements of 30 CFR 75.1911. The manual fire suppression system shall be capable of being activated from both inside and outside the machine's cab. The manual actuator located outside the cab shall be on the side of the machine opposite the engine. Both of these systems shall be maintained in operating condition.
 - (2) Include an automatic engine shut down/fuel shut-off system, tied into the activation of the fire suppression system, which shall be maintained in operating condition.
 - (3) Include an automatic closing, heat-activated shut-off valve, 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 is practical to the fuel tank.

- (4) Include 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.
 - (5) For diesel equipment classified as “heavy-duty” under 30 CFR 75.1908(a), include a means, maintained in operating condition, to maintain the surface temperature of the exhaust system of diesel equipment below 302 degrees Fahrenheit. Road graders are considered heavy-duty under 30 CFR 75.1908(a).
 - (6) Include a sensor to monitor the temperature and provide visual warning of an overheated cylinder head on air-cooled engines.
- (C) The following types of diesel-powered equipment, which are not approved and maintained under Part 36 or 30 CFR 7, can be used in the two-entry system, except where permissible equipment is required, provided no one is in by the work area:
- (1) diesel-powered rock dust machine,
 - (2) diesel-powered generator, and
 - (3) diesel-powered road grader.
- (D) Diesel fuel shall not be stored in the two-entry system. Diesel-powered equipment not approved and maintained under Part 36 shall not be refueled in the two-entry system.
- (E) Diesel equipment shall not be used for face haulage equipment on the working section, but diesels may be used on the working section for cleanup, setup, and recovery, or similar non-coal haulage purposes.
- (F) 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 shall be made prior to attaching the jumper cables. The equipment shall not be jump-started if air contains 1.0 volume per centum or more of methane.
- (G) A diesel equipment maintenance program shall be adopted and complied with by the operator. The program shall include the examinations and tests specified in the manufacturers' maintenance recommendations as they pertain to diesel carbon monoxide emissions. A record of these examinations and tests shall be maintained on the surface and be made available to all interested persons.

V. Atmospheric Monitoring System.

- (A) Whenever personnel are underground, an AMS must be operating and a designated AMS operator must be on duty at a location on the surface of the mine where audible and visual signals from the AMS must be seen or heard and the AMS operator can promptly respond to these signals.
- (B) Designated surface location and AMS operator.
 - (1) The mine operator must designate a surface location at the mine where signals from the AMS will be received and two-way voice communication is maintained with each working section, with areas where mechanized mining equipment is being installed or removed, and with other areas designated in the approved emergency evacuation and firefighting program of instruction (30 CFR 75.1502). The surface location at the mine where signals from the AMS will be received must also be capable of sending out PED messages to the individuals referenced in Sections VI (A) through (C) of this petition in the event the AMS operator receives a malfunction, alert, or alarm signal.
 - (2) The mine operator must designate an AMS operator to monitor and promptly respond to all AMS signals.
 - (3) A map or schematic must be provided at the designated surface location that shows the locations and type of AMS sensor at each location, and the intended airflow direction at these locations. This map or schematic must be updated within 24 hours of any change in this information.
 - (4) The names of the designated AMS operators and other appropriate personnel, including the designated person responsible for initiating an emergency mine evacuation under 30 CFR 75.1501, and the method to contact these persons, must be provided at the designated surface location.
- (C) Minimum operating requirements of AMS sensors.
 - (1) Automatically provide visual and audible signals at the designated surface location for any interruption of circuit continuity and any electrical malfunction of the system. These signals must be of sufficient magnitude to be seen or heard by the AMS operator.
 - (2) Automatically provide visual and audible signals at the designated surface location when the carbon monoxide concentration or methane concentration at any sensor reaches the alert level as specified in this Petition and in the ventilation plan. These signals must be of sufficient magnitude to be seen or heard by the AMS operator.

- (3) Automatically provide visual and audible signals at the designated surface location distinguishable from alert signals when the carbon monoxide, smoke, or methane concentration at any sensor reaches the alarm level as specified in this Petition and in the ventilation plan. These signals must be of sufficient magnitude to be seen or heard by the AMS operator.
 - (4) Automatically provide visual and audible signals at all affected working sections and at all affected areas where mechanized mining equipment is being installed or removed when the carbon monoxide, smoke, or methane concentration at any sensor reaches the alarm level as specified in this Petition and in the ventilation plan. The signals must be of sufficient magnitude to be seen or heard by miners working at these locations. Methane signals must be distinguishable from other signals.
 - (5) Automatically provide visual and audible signals at other locations as specified in Mine Emergency Evacuation and Firefighting Program of Instruction (30 CFR 75.1502) when the carbon monoxide, smoke, or methane concentration at any sensor reaches the alarm level as specified in this Petition and in the ventilation plan. These signals must be seen or heard by miners working at these locations. Methane alarms must be distinguishable from other signals.
 - (6) Identify at the designated surface location the operational status of all sensors.
 - (7) Automatically provide visual and audible alarm signals at the designated surface location, at all affected working sections, and at all affected areas where mechanized mining equipment is being installed or removed when the carbon monoxide level at any two consecutive sensors alert at the same time. These signals must be seen or heard by the AMS operator and miners working at these locations.
- (D) Location and installation of AMS sensors.
- (1) All AMS sensors, as specified in this Petition and in the Ventilation Plan, must be located such that measurements are representative of the mine atmosphere in these locations.
 - (2) All AMS sensors must be installed near the center, in the upper third of the entry, in a location that does not expose personnel working on the system to unsafe conditions. Sensors must not be located in abnormally high areas or in other locations where airflow patterns do not permit products of combustion to be carried to the sensors.

- (3) Methane sensors must be installed near the center of the entry, at least 12 inches from the roof, ribs, and floor, in a location that would not expose personnel working on the system to unsafe conditions.
- (E) Location of sensors in return air splits.
- (1) If used to monitor return air splits under 30 CFR 75.362(f) during longwall retreat mining, a methane sensor must be installed in the return air split between the longwall face ventilated by that air split and the junction of the return air split with another air split, seal, or worked-out area.
 - (2) If used to monitor a return air split under 30 CFR 75.323(d)(1)(ii) during longwall retreat mining, the methane sensors must be installed at the following locations:
 - (a) in the return air course opposite the section loading point and
 - (b) immediately upwind from the location where the return air split meets another air split or immediately upwind of the location where an air split is used to ventilate seals or worked-out areas.
- (F) Location of Diesel-Discriminating Sensors
- (1) Sensors shall be installed at the beginning of the panel, at the beginning of the working section, and at intervals not to exceed 1,000 feet along the intake entry between such locations.
 - (2) A sensor shall be installed in the mainline conveyor belt entry between 50 and 100 feet downwind of the location where the two-entry conveyor belt discharges on to the main line conveyor belt.
 - (3) A sensor shall be installed between 50 and 100 feet inby and outby each belt drive and take-up unit.
 - (4) During longwall retreat mining a sensor shall also be located within 50 feet outby the most outby open crosscut on the working section.
 - (5) Sensors shall be installed at other locations in any entry that is part of the belt air course as required and specified in the mine ventilation plan.
- (G) Establishing alert and alarm levels.
An AMS installed in accordance with the following paragraphs must initiate alert and alarm signals at the specified levels, as indicated:

- (1) For 30 CFR 75.323(d)(1)(ii), alarm at 1.5% methane if used during longwall retreat mining.
 - (2) Alert at 5 ppm corrected carbon monoxide above the ambient level and alarm at 10 ppm corrected carbon monoxide above the ambient level. Reduced alert and alarm settings approved by the District Manager may be required for carbon monoxide sensors identified in the mine ventilation plan, 30 CFR 75.371(nn).
 - (3) For 30 CFR 75.362(f), alert at 1.0% methane and alarm at 1.5% methane if used during longwall retreat mining.
- (H) Establishing carbon monoxide ambient levels.
Carbon monoxide ambient levels and the means to determine these levels must be approved in the mine ventilation plan (30 CFR 75.371(hh)) for monitors installed in accordance with this Petition.
- (I) Installation and maintenance.
An AMS installed in accordance with this Petition must be installed and maintained by personnel trained in the installation and maintenance of the system. The system must be maintained in proper operating condition.
- (J) Sensors.
Sensors used to monitor for carbon monoxide, methane, and nitric oxide (NO) must be of a type listed and installed in accordance with the recommendations of a nationally recognized testing laboratory approved by the Secretary; or these sensors must be of a type and installed in a manner approved by the Secretary.
- (K) Time delays.
When a demonstrated need exists, time delays may be incorporated into the AMS. These time delays must only be used to account for non-fire- related carbon monoxide alert and alarm sensor signals. These time delays shall be limited to no more than three minutes. The use and length of any time delays or other techniques or methods that eliminate or reduce the need for time delays must be specified and approved in the mine ventilation plan.
- (L) Examination, testing, and calibration.
- (1) At least once each shift when belts are operated as part of a production shift, sensors used to detect carbon monoxide, nitric oxide, or methane must be visually examined.
 - (2) At least once every seven days, alarms for AMS installed in accordance with this Petition must be functionally tested for proper operation.

- (3) At intervals not to exceed 31 days:
- (a) Each carbon monoxide sensor and nitric oxide sensor installed in accordance with this Petition must be calibrated in accordance with the manufacturer's calibration specifications. Calibration must be done with a known concentration of carbon monoxide in air sufficient to activate the alarm.
 - (b) Each methane sensor installed in accordance with this Petition must be calibrated in accordance with the manufacturer's calibration specifications. Calibration must be done with a known concentration of methane in air sufficient to activate an alarm.
 - (c) If the alert or alarm signals will be activated during calibration of sensors, the AMS operator must be notified prior to and upon completion of calibration. The AMS operator must notify miners on affected working sections, areas where mechanized mining equipment is being installed or removed, or other areas designated in the approved emergency evacuation and firefighting program of instruction (30 CFR 75.1502) when calibration will activate alarms and when calibration is completed.
- (M) The methane monitoring system shall be visually examined at least once every working shift to ensure proper functioning. The system shall be inspected by a person qualified for such work at intervals not exceeding seven (7) calendar days. The qualified person shall ensure that the devices are operating properly and that the required maintenance, as recommended by the manufacturer, is performed. The monitoring devices shall be calibrated with known quantities of methane-air mixtures at intervals not exceeding (31) calendar days. An inspection record shall be maintained on the surface and made available to all interested persons. The inspection record shall show the date and time of each weekly inspection and calibration of the monitor and all maintenance performed, whether at the time of the weekly inspection or otherwise.
- (N) Gases used for the testing and calibration of AMS sensors must be traceable to the National Institute of Standards and Technology reference standard for the specific gas. When these reference standards are not available for a specific gas, calibration gases must be traceable to an analytical standard that is prepared using a method traceable to the National Institute of Standards and Technology. Calibration gases must be within ± 2.0 percent of the indicated gas concentration.
- (O) Recordkeeping.
- (1) Individuals designated by the operator must make the following records by the end of the shift in which the following event(s) occur:

- (a) If an alert or alarm signal occurs, a record of the date, time, location and type of sensor, and the cause for the activation.
 - (b) If an AMS malfunctions, a record of the date, the extent and cause of the malfunction, and the corrective action taken to return the system to proper operation.
 - (c) A record of the seven-day tests of alert and alarm signals, calibrations, and maintenance of the AMS must be made by the person(s) performing these actions.
- (2) The person entering the record must include his or her name and signature and the date in the record.
 - (3) The records required by this section must be kept either in a secure book that is not susceptible to alteration, or electronically in a computer system that is secure and not susceptible to alteration. These records must be maintained separately from other records and identifiable by a title, such as "AMS Log".
- (P) Retention period.
Records must be retained for at least one year at a surface location at the mine and made available for inspection by miners and authorized representatives of the Secretary.
 - (Q) Training.
All AMS operators must be trained annually in the proper operation of the AMS. A record of the content of training, the person conducting the training, and the date the training was conducted must be maintained at the mine for at least one year by the mine operator.

VI. Actions in Response to AMS Malfunction, Alert, or Alarm Signals.

- (A) When a malfunction, alert, or alarm signal is received at the designated surface location, the sensor(s) that are activated must be identified and the AMS operator must promptly notify appropriate personnel, including the "responsible person(s)" as referenced in 75.1501 on the affected working section(s) and in the affected areas where mechanized mining equipment is being installed or removed. In addition, an immediate investigation of the cause of the signal shall begin and take required actions set forth in this Petition.
- (B) If appropriate personnel are investigating the cause of malfunction(s) in sensor(s) or the cause of alert(s) in nonsequential sensors and the cause of these signals is not reported to the AMS operator within 15 minutes from the person(s)

investigating these signals, a PED message to the "responsible person(s)" on the affected working section(s) or in the affected area(s) where mechanized mining equipment is being installed or removed shall be activated directing the individual to initiate the mine's mine emergency evacuation and firefighting program of instruction and an audible and visual signal shall be activated in the above-referenced affected areas for all miners to withdraw to a safe location outby the sensor(s) in alert or outby the malfunctioning sensor. In addition to these signals, the AMS operator may also notify affected miners through a PED message and provided further instructions.

- (C) When an alarm signal is received at the designated AMS surface location or two consecutive diesel-discriminating sensors signal an alert at the same time, the AMS operator shall immediately notify the following individuals on the affected working section(s), in the affected area(s) where mechanized mining equipment is being installed or removed, and at other locations specified in the 75.1502 approved mine emergency evacuation and firefighting program of instruction: the responsible person(s) as referenced in 75.1501, all miners at these locations including all affected diesel equipment operators, and any person(s) who may be investigating an alert or malfunction.
 - (1) The responsible person must immediately initiate withdrawal of all affected miners to a safe location outby the sensor(s) in alarm status or outby the two or more consecutive sensors in alert status as well as initiate the mine's mine emergency evacuation and firefighting program of instruction.
 - (2) Notification shall be made by visual and audible signals as well as by:
 - (a) PED, light, and audible and visual device to the responsible person(s) on the affected working section(s),
 - (b) PED to all affected diesel equipment operators,
 - (c) PED to notify the person(s) who may be investigating an alert. The malfunction, alert, and alarm messages shall be distinguishable from each other.
- (D) Known non-hazardous alerts and alarms that are caused by activities such as cutting, welding, and blasting shall not require miners to withdraw from inby, provided that communications are maintained between the person(s) at the activity location and the AMS operator. Communications shall be made prior to, during, and upon completion of the activity.
- (E) If any fire detection components of the AMS malfunction or are inoperative, immediate action must be taken to return the system to proper operation. While

the AMS component repairs are being made, operation of the belt may continue if the following conditions must be met:

- (1) If one AMS sensor malfunctions or becomes inoperative, a trained person must continuously monitor for carbon monoxide at the inoperative sensor.
- (2) If two or more adjacent AMS sensors malfunction or become inoperative, a trained person(s) must patrol and continuously monitor for carbon monoxide so that the affected areas will be traveled each hour in their entirety or a trained person must be stationed to monitor at each inoperative sensor.
- (3) If the complete AMS malfunctions or becomes inoperative, trained persons must patrol and continuously monitor for carbon monoxide so that the affected areas will be traveled each hour in their entirety.
- (4) The trained person(s) monitoring under this section must have, at a minimum, two-way voice communication capabilities with the AMS operator at intervals not to exceed 1,000 feet and report contaminant levels to the AMS operator at intervals not to exceed 15 minutes.
- (5) The trained person(s) monitoring under this section must report immediately to the AMS operator any concentration of the contaminant that reaches either the alert or alarm level specified in this Petition, unless the source of the contaminant is known not to present a hazard.
- (6) Detectors used to monitor under this section must have a level of detectability equal to that required by the sensors in 30 CFR 75.351(i).

VII. Implementation and Training Requirements.

- (A) Prior to implementing this Petition, an inspection shall be conducted by MSHA to ensure that the terms and conditions of this PDO have been complied with.
- (B) Prior to implementing this Petition, the Petitioner shall have an approved 30 CFR Part 48 training plan that complies with:
 - (1) All conditions specified by this Petition
 - (2) Training on the fire suppression systems used on diesel equipment used in the two-entry system.
 - (3) Training for miners working around the hydraulic pumping station when the hydraulic pumping station for the longwall supports is located in the two-entry system.

- (4) Training for miners for emergency closing of fire doors and permanent ventilation control devices, notification of personnel, and de-energization of electric power within the longwall district.
 - (5) Training for miners in accordance with the 30 CFR 75.1502 mine emergency evacuation and firefighting program of instruction.
 - (6) The approved SCSR storage plan.
 - (7) The approved ventilation plan.
- (C) The terms and conditions of this Petition will not apply during the time period from completion of the development mining of the two-entry longwall panel until the beginning of the longwall equipment set-up activities, provided the conveyor belt in the two-entry panel is not energized. During this time period, all other mandatory standards will apply.

Any party to this action desiring a hearing on this matter must file in accordance with 30 CFR 44.14, within 30 days. The request for hearing must be filed 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. A party other than Petitioner who has requested a hearing shall 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, the Decision and Order will become final and must be posted by the operator on the mine bulletin board at the mine.

John F. Langton
Deputy Administrator for
Coal Mine Safety and Health