CHAPTER 37

(SB 37)

AN ACT relating to mines and minerals.

Be it enacted by the General Assembly of the Commonwealth of Kentucky:

Section 1. KRS 352.010 is amended to read as follows:

(1) As used in this chapter, unless the context requires otherwise:

(a) "Abandoned workings" means excavations, either caved or sealed, that are deserted and in which further mining is not intended, or open workings which are ventilated and not inspected regularly;

(b) "Active workings" means all places in a mine that are ventilated and inspected regularly;

(c) "Approved" means that a device, apparatus, equipment, machinery, or practice employed in the mining of coal has been approved by the commissioner of the Department of Mines and Minerals;

(d) "Assistant mine foreman" means a certified person designated to assist the mine foreman in the supervision of a portion or the whole of a mine or of the persons employed therein;

(e) "Board" means the Mining Board created in KRS 351.105;

(f) "Commercial mine" means any coal mine from which coal is mined for sale, commercial use, or exchange. This term shall in no instance be construed to include a mine where coal is produced for own use;

(g) "Commissioner" means commissioner of the Department of Mines and Minerals;

(h) "Department" means the Department of Mines and Minerals;

(i) "Drift" means an opening through strata or coal seams with opening grades sufficient to permit coal to be hauled therefrom, or which is used for the purpose of ventilation, drainage, ingress, egress, and other purposes in connection with the mining of coal;

(j) "Excavations and workings" means the excavated portions of a mine;

(k) "Face equipment" means mobile or portable mining machinery having electric motors or accessory equipment normally installed or operated inby the last open crosscut in any entry or room;

(l) "Fire boss" (often referred to as mine examiner) means a person certified as a mine foreman or assistant mine foreman who is designated by management to examine a mine or part of a mine for explosive gas or other dangers before a shift crew enters;

(m) "Gassy mine." All underground mines shall be classified as gassy or gaseous;

(n) "High voltage" means any voltage of one thousand (1,000) volts or more;

(o) "Imminent danger" means the existence of any condition or practice which could reasonably be expected to cause death or serious physical harm before the condition or practice can be abated;

(p) "Inactive workings" shall include all portions of a mine in which operations have been suspended for an indefinite period, but have not been abandoned;

(q) "Intake air" means air that has not passed through the last working place of the split or by the unsealed entrances to abandoned workings and by analysis contains not less than nineteen and one-half percent (19.5%) of oxygen, no dangerous quantities of flammable gas, and no harmful amounts of poisonous gas or dust;

(r) "Licensee" means any owner, operator, lessee, corporation, partnership, or other person who procures a license from the department to operate a coal mine;

(s) "Low voltage" means up to and including six hundred sixty (660) volts;

(t) "Medium voltage" means voltages greater than six hundred sixty (660) and up to nine hundred ninety-nine (999) volts;

(u) "Mine" means any open pit or any underground workings from which coal is produced for sale, exchange, or commercial use, and all shafts, slopes, drifts, or inclines leading thereto, and includes all buildings and equipment, above or below the surface of the ground, used in connection with the workings. Workings that are adjacent to each other and under the same management and which are administered as distinct units shall be considered separate mines;

(v) "Mine foreman" means a certified person whom the licensee or superintendent places in charge of the workings of the mine and of persons employed therein;

(w) "Open-pit mine" shall include open excavations and open-cut workings including auger operations and highwall mining systems for the extraction of coal;

(x) "Operator" means the licensee, owner, lessee, or other person who operates or controls a coal mine;

(y) "Permissible" means that any equipment, device, or explosive that has been approved by the United States Bureau of Mines, the Mining Enforcement and Safety Administration, or the Mine Safety and Health Administration meets all requirements, restrictions, exceptions, limitations, and conditions attached to the classification;

(z) "Preshift examination" refers to the examination of an underground mine or part of a mine where miners are scheduled to work or travel, and shall be conducted not more than three (3) hours before any on-coming shift;

(aa) "Return air" means air that has passed through the last active working place on each split, or air that has passed through abandoned, inaccessible, or pillared workings;

(ab) "Shaft" means a vertical opening through the strata that is or may be used, in connection with the mining of coal, for the purpose of ventilation or drainage, or for hoisting men, coal, or materials;

(ac) "Slope" means an inclined opening used for the same purpose as a shaft;

(ad) "Superintendent" means the person who, on behalf of the licensee, has immediate supervision of one (1) or more mines;

(ae) "Supervisory personnel" shall mean a person or persons certified under the provisions of KRS Chapter 351 to assist in the supervision of a portion or the whole of the mine or of the persons employed therein;

(af) "Tipple or dumping point" means the structure where coal is dumped or unloaded from the mine car into railroad cars, trucks, wagons, or other means of conveyance;

(ag) "Working face" means any place in a coal mine at which the extraction of coal from its natural deposit in the earth is performed during the mining cycle;

(ah) "Working place" means the area of a coal mine inby the last open crosscut; ~~[and]~~

(ai) "Working section" means all areas of a coal mine from the loading point to and including the working faces***;***

(aj) "Workmanlike manner" means consistent with established practices and methods utilized in the coal industry.

(2) The definitions in KRS 351.010 apply also to this chapter, unless the context requires otherwise.

(3) Except as the context otherwise requires, this chapter applies only to commercial mines as defined in KRS 351.010 ***and shall not apply to electrical facilities owned, operated or otherwise controlled by a retail electric supplier or generation and transmission cooperative as defined in KRS 278.010 or organized under KRS Chapter 279 for the purpose of communication, metering, or for the generation, control, transformation, transmission, and distribution of electric energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, or outdoors by established easement rights on private property and that are covered by the National Electric Safety Code (NESC) or other applicable safety codes, or other authorities having jurisdiction and shall not apply to installations under the exclusive control of utilities for the purpose of communication, metering, or for the generation, control, transformation, transmission, and distribution of electric energy located in buildings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, or outdoors by established rights on private property***.

Section 2. KRS 352.220 is amended to read as follows:

For purposes of this section, "Approved" means that a device, apparatus, equipment, machinery, or practice employed in the mining of coal has been approved by the Commissioner of the Department of Mines and Minerals or accepted by a nationally or federally recognized testing laboratory or the Department of Labor Mine Safety and Health Administration; "Suitable" means a design, material, or installation that meets the requirements of its intended use or that is accepted by a nationally or federally recognized testing laboratory or the Department of Labor Mine Safety and Health Administration.

(1) The following shall apply to underground installations:

(a) ***Nonconductive or insulated materials shall be used when trailing cables or high voltage feeder cables are suspended***~~[On all haulage roads, landings, and partings where men are required to regularly work or pass under bare power wires placed less than six and one-half (6-1/2) feet above the top of the rail, suitable protection shall be provided. This protection shall consist of channeling the roof, placing boards along the wires and extending below them, or the use of some other approved device that affords protection;~~

~~(b) All machine feed wires shall be placed on insulators which shall be so placed as to prevent the wires coming in contact with the coal;~~

~~(c) When the machine or feed wires are carried in the same entry as the trolley wire, they shall be placed on the same side as the trolley wire, between the trolley wire and rib,~~

~~and shall be protected from contact therewith. Positive feed wires crossing places where persons are required to travel shall be safely guarded or protected from the persons coming in contact therewith, as provided in paragraph (a) of this subsection~~];

(b) [~~(d)~~] ***Suitable circuit interrupting devices*** [~~All trolley and positive feed wires shall be placed on opposite sides of track from refuge holes or necks of rooms when so ordered by the department, but wires, when protected as provided for in paragraph (a) of this subsection, may be placed across the necks of rooms. Switches or circuit breakers~~] shall be provided ***for all power circuits and equipment*** [~~to control the current~~] at the mine [~~and all important sections in the mine~~];

(c) [~~(e)~~] All power wires and cables [~~in hoisting shafts or manway compartments~~] shall be properly insulated [~~, substantially fixed,~~] and [~~well~~] protected ***by proper installation or guarding***;

(d) [~~(f)~~] Ground wires for [~~low-voltage~~] circuits shall ***have a total cross-sectional area of not less than one-half (1/2) the power conductor*** [~~be at least one-half (1/2) as large as the circuit wires~~];

(e) [~~(g)~~] Extra length or long trailing cables shall be spread out in long open loops ***or in a figure-eight configuration*** on ***a*** clean, well rock-dusted floor where the cable can be protected against mechanical injury, but cables [~~in~~] suspended ***in*** long ***open*** loops shall be acceptable;

(f) [~~(h)~~] One (1) temporary splice may be made in any trailing cable. No temporary splice shall be made in a trailing cable within twenty-five (25) feet of the machine except cable reel equipment. [~~Temporary~~] Splices in trailing cables shall be made in a workmanlike manner and shall be mechanically strong and well insulated. ***Splices made in cables shall provide continuity of all components*** [~~Trailing cables or hand cables which have exposed wires or which have splices that heat and spark under load shall not be used~~];

(g) [~~(i) Single conductor trailing cables shall not be used on cutting machines;~~

~~(j)~~] Three-phase alternating-current circuits used underground shall contain either a direct or derived neutral which shall be grounded through a suitable resistor at the power center, and a grounding circuit, originating at the grounded side of the grounding resistor, shall extend along with the power conductors and serve as a grounding conductor for the frames of all the electrical equipment supplied power from that circuit;

(h) [~~(k)~~] The frames of hand-held electrically driven tools [~~and portable sump pumps~~] shall be properly grounded ***or double-insulated by design.*** [~~, and~~] The ***frames of all pumps shall be properly grounded.*** Hand-held tools and ***all*** [~~portable~~] pumps shall be properly protected by ***suitable*** fuses, circuit breakers, or other no less effective devices to provide the minimum overload and shortcircuit protection required by the department;

[~~(l) All pump frames and all pipe lines shall be grounded to the rail or the grounding system at two hundred (200) foot intervals, except nonmetallic pipes or pipes using insulated type couplings or pipes installed remotely from track or power systems;~~

~~(m) Where track is used for the return circuit, at least one (1) side shall be bonded to the full length of the trolley wire installation. Cross-bonds shall be installed not to exceed two hundred (200) foot intervals along the track;~~]

(i) [~~(n)~~] All underground high-voltage transmission cables shall be installed only in regularly inspected air courses and haulageways, and shall be covered, buried, or placed so as to afford protection against damage, guarded where men regularly work ***under*** or pass under them unless they are six and one-half (6-1/2) feet or more above the floor or rail, securely anchored, properly insulated, and guarded at ends, and covered, insulated, or placed to prevent contact with~~[trolley wires and]~~ other~~[low-voltage]~~ circuits. Underground high-voltage cables used in resistance grounded systems shall be equipped with metallic shields around each power conductor, with one (1) or more ground conductors having a total cross-sectional area of not less than one-half (1/2) the power conductor, and with an insulated internal ***conductor not smaller than No. 10 (AWG)*** or ***an insulated*** external conductor not smaller than No. 8 (AWG) for the ground continuity check circuit***. All cables shall be suitable for the current and voltage and shall be properly maintained***;

(j) [~~(o)~~] ***Power circuits***~~[High voltage cables]~~ shall have ***suitable*** disconnecting ***devices and short-circuit***~~[switches, overload]~~ protective devices~~[, and lightning arresters]~~ at or near the ***supply***~~[outside]~~ end of the ***circuit. Suitable disconnecting devices shall be provided at the beginning of all branch circuits***~~[cable]~~;

(k) [~~(p)~~] ***Underground transformer stations, battery charging stations, substations, rectifiers, and water pumps shall be housed in noncombustible structures or areas or be equipped with a suitable fire suppression system.***

1. When a noncombustible structure or area is used, these installations shall be:

a. Ventilated with intake air that is coursed into a return air course or to the surface and that is not used to ventilate working places; or

b. Ventilated with intake air that is monitored for carbon monoxide or smoke by an atmospheric monitoring system (AMS) installed and operated in a suitable manner. Monitoring of intake air ventilating battery charging stations shall be done with sensors not affected by hydrogen; or

c. Ventilated with intake air and equipped with sensors to monitor for heat, carbon monoxide, or smoke.

2. The sensored used for monitoring shall de-energize power to the installation, activate a visual and audible alarm located outside of and on the intake side of the enclosure, and activate doors that will automatically close when any of the following occurs:

a. The temperature in noncombustible structure reaches one hundred sixty-five (165) degrees Fahrenheit;

b. The carbon monoxide concentration reaches ten (10) parts per million above the ambient level for the area; or

c. The optical density of smoke reaches 0.022 per meter.

3. At least every thirty (30) days, sensors installed to monitor for carbon monoxide shall be calibrated with a known concentration of carbon monoxide and air sufficient to activate the closing door, or each smoke sensor shall be tested to determine that it functions correctly.

4. When a fire suppression system is used, the installation shall be:

a. Ventilated with intake air that is coursed into a return air course or to the surface and that is not used to ventilate working places; or

b. Ventilated with intake air that is monitored for carbon monoxide or smoke by an atmospheric monitoring system installed and operated in a suitable manner.

5. All monitoring systems used to monitor intake air ventilating battery charging stations under subparagraphs 1. and 4. of this paragraph shall be done with sensors not affected by hydrogen.

6. This paragraph shall not apply to:

a. Rectifiers and power centers with transformers that either are dry-type or contain nonflammable liquid, if they are located at or near the section and are moved as the working section advances or retreats;

b. Submersible pumps;

c. Permissible pumps, and associated permissible switchgear;

d. Pumps located on or near the section that are moved as the working section advances or retreats; or

e. Small portable pumps~~[Permanent battery charging stations, permanent pump installations, motor generator sets, rotary converters, and oil filled transformers and switches used underground shall be housed in fireproof enclosures ventilated by a separate split of air direct to the main return]~~. Underground stations containing transformers or circuit breakers filled with ***flammable***~~[inflammable]~~ oil shall be provided with door sills or their equivalent, which will confine the oil if leakage or rupture ***occurs***~~[occur]~~, and shall be of fireproof construction. Underground transformers purchased after June 16, 1972, shall be air cooled or cooled with ***nonflammable***~~[noninflammable]~~ liquid or inert gas. ~~[Sectional type]~~Portable power centers, portable transformers, and distribution centers which are essentially fireproof are not required to be placed on separate splits of air but shall be stationed in well ventilated places ***outby the***~~[out by]~~ last open crosscuts;

(l)~~[(q)]~~ ***Electrically powered***~~[All mine]~~ locomotives shall be ***provided with suitable electrical protective devices***~~[fused or otherwise protected at the switch or at the nip]~~;

(m)~~[(r)]~~ Suitable firefighting equipment shall be located at strategic points along the belt conveyor, and proper fire extinguishers shall be provided at the transfer points. The commissioner may prescribe any other safety measures for the prevention and combating of mine fires as they pertain to conveyor belts. Only approved flame resistant belting shall be taken into and used inside any mine, and all underground belt conveyors shall be provided with slippage and sequence switches and with ***start and***

stop controls at ***intervals not to exceed one thousand (1000) feet. The controls shall be properly installed and positioned so as to be readily accessible***~~[locations recommended by the mine inspector. This does not prevent the use of belting which is being used on June 16, 1972, but the use of rubber belting shall be under such conditions as may be prescribed by the commissioner]~~;

(n)~~[(s)]~~ ***Communication wires and cables***~~[Telephone lines]~~ shall be ***adequately insulated and protected by proper installation or guarding***~~[provided with lightning arresters where the lines enter the mine and at the boxes on the outside]~~;

(o)~~[(t)]~~ Telephone~~[lines crossing trolley]~~ wires shall be ***provided with lightening arresters where the wires enter the mine and at the buildings on the surface***~~[carefully guarded in a nonconductive conduit]~~;

(p)~~[(u)]~~ Insulating mats shall be placed in front of ***disconnecting devices***~~[switchboards, beside stationary motors, in decks of locomotives,]~~ and all electrical installations where required;

(q)~~[(v)]~~ Ground wires in trailing cables shall be tested ***weekly***~~[periodically]~~ for open circuit and high resistance~~[joints]~~;

(r)~~[(w)]~~ Power circuits in tipples, buildings, cleaning plants, etc., and all ***underground***~~[inside]~~ electrical circuits shall be deenergized when not in use over a long period;~~[and]~~

(s)~~[(x)]~~ ***All underground power circuits and electrical equipment shall be de-energized before work is done on the circuits and equipment except when necessary for troubleshooting or testing. When electrical work or major mechanical work is performed, a suitable disconnect providing visible evidence that the power is disconnected shall be locked open and a tag shall be posted by the individuals performing the work. Locks and tags shall be removed only by the persons who installed them, or if those persons are unavailable, by a person authorized by the operator. Repairs or maintenance shall not be performed on machinery until the power is off and the machinery is blocked against motion, except where machinery motion is necessary to make adjustment;***

(t) Where electric circuits cross over or pass under belt conveyors the wiring shall be ***suitable*** protected***; and***

(u) Switch boxes, contactors, controllers, and all other similar devices shall be kept free of significant accumulations of combustible dust~~[by conduit]~~.

(2) The following shall apply to ***trolley wires and trolley feeder wires:***

(a) On all haulage roads, landings, and partings where persons are required to regularly work or pass under bare power wires placed less than six and one-half (6 1/2) feet above the top of the rail, suitable protection shall be provided. This protection shall consist of channeling the roof, placing boards along the wires and extending below them, or the use of some other approved device that affords protection;

(b) All machine feed conductors shall be placed on suitable insulators which shall be so placed as to prevent the conductors coming in contact with combustible or conductive materials;

(c) When the machine or feed wires are carried in the same entry as the trolley wire, they shall be placed on the same side as the trolley wire, between the trolley wire and rib, and shall be protected from contact therewith. Positive feed wires crossing places where persons are required to travel shall be safely guarded or protected against persons coming in contact therewith, as required by paragraph (a) of this subsection;

(d) All trolley and positive feed wires shall be placed on opposite sides of track from refuge holes or necks of rooms when so ordered by the department, but wires, when protected as required by paragraph (a) of this subsection, may be placed across the necks of rooms. Switches or circuit breakers shall be provided to control the current at the mine and all important sections in the mine;

(e) Where track is used for the return circuit, at least one (1) side shall be bonded to the full length of the trolley wire installation. Cross-bonds shall be installed not to exceed two hundred (200) foot intervals along the track; and

(f) All mine locomotives shall be fused or otherwise protected at the switch or at the nip.

(3) The following shall apply to surface installations:

(a) High-voltage lines shall be at least twenty (20) feet above the ground where there is a possibility of contact by traffic passing underneath;

(b) ***Electrical***~~[Protective barriers shall be so constructed between high-voltage wires and telephone wires, trolley circuits, and any other similar conveyor wires or circuits as to prevent their failure by the falling of the high tension lines across the other circuits, wires, or conveyors;~~

~~(c) On four (4) wire circuits, the fourth or neutral wire terminating at transformers, or elsewhere, shall be of substantial construction to minimize any possibility of the wire being severed or damaged mechanically;~~

~~(d) On low-voltage]~~ circuits, wires ***and cables*** shall be supported on insulators except when cables~~[made for use without insulators]~~, which are of a design that can be safely used without insulators, are used;

(c)~~[(e)]~~ Lightning arresters shall be installed on all ***ungrounded, exposed power conductors and telephone wires***~~[circuits]~~ entering a mine, regardless of voltage. Overload protection and disconnect switches of ***suitable*** sizes and ratings approved by the department shall also be provided ***except that they shall not be required of telephone wires***;

(d)~~[(f)]~~ Every metallic building in which electricity is used or connected with any circuit shall be effectively grounded;

(e)~~[(g)]~~ All transformer tanks shall be effectively grounded;

(f)~~[(h)]~~ Switch boxes, contactors, controllers, and all other similar devices shall be kept free of ***significant***~~[dust]~~ accumulations ***of combustible dust that create a fire hazard***; and

(g)~~[(i)]~~ Surface transformer stations shall be housed or fenced in when lower than fifteen (15) feet above the earth, and the fences shall be a minimum of six (6) feet in height ***; and***

(h) All surface power circuits and electrical equipment shall be de-energized before work is done on the circuits and equipment except when necessary for troubleshooting or testing. When electrical work or major mechanical work is performed, a suitable disconnect providing visible evidence that the power is disconnected shall be locked open and a tag shall be posted by the individuals performing the work. Locks and tags shall be removed only by persons who installed them, or if those persons are unavailable, by a person authorized by the operator. Repairs or maintenance shall not be performed on machinery until the power is off and the machinery is blocked against motion, except where machinery motion is necessary to make adjustments. When disconnects for stationary low and medium voltage equipment that do not provide visual evidence that the power is disconnected are used, an adequately rated voltage detector shall be used to test each phase conductor or circuit part to verify they are de-energized before any work is performed. When practical, confirmation that the voltage detector is operating satisfactorily shall be made before each test.

(4) ~~[(3)]~~ (a) Notwithstanding any provisions of subsections (1)***,*** ~~[or]~~ (2)***, or (3)*** of this section, the department may authorize the construction, maintenance, operation, or conducting of any activity regulated by this section, to be constructed, maintained, operated, or conducted in a different manner than specified in any provision of subsections (1)***,*** ~~[or]~~ (2)***, or (3)*** of this section, when scientific or engineering information is made available to the department substantially indicating that the different manner would afford equal or greater protection and safety than the manner required in subsections (1)***,*** ~~[or]~~ (2)***, or (3)*** of this section; and

(b) The department may prescribe administrative regulations with respect to the aboveground or underground installations in connection with any mine operation when information is made available indicating that regulation is reasonably necessary to prevent injury to, or loss of, life and property.

Section 3. KRS 352.230 is amended to read as follows:

For purposes of this section: "Approved" means that a device, apparatus, equipment, machinery, or practice employed in the mining of coal has been approved by the Commissioner of the Department of Mines and Minerals or accepted by a nationally or federally recognized testing laboratory or the Department of Labor Mine Safety and Health Administration; "Suitable" means a design, material, or installation that meets the requirements of its intended use or that is accepted by a nationally or federally recognized testing laboratory or the Department of Labor Mine Safety and Health Administration.

(1) All electrical equipment ***and all other electric driven equipment except intrinsically safe equipment which is taken into or used inby the last open crosscut and in return airways*** ~~[purchased for face use]~~ in underground mines shall be ~~[of the]~~ permissible ~~[type]~~. The commissioner or his authorized representative shall reject any modification to mining equipment which would endanger the health or safety of employees.

(2) ~~[No person shall be placed in charge of electrical face equipment in any mine unless he is a qualified person, capable of determining the safety of the roof, face, and ribs of the working places and detecting the presence of explosive gas. Operators of electrical face equipment shall undergo an examination to determine their fitness to detect explosive gas before they are permitted to have charge of electric face equipment and shall have a minimum of forty-five (45) days of actual mining experience. Safety committeemen, shotfirers, and others~~

~~whose duty may require them to make examination for gas shall undergo and pass an examination or possess a mine foreman's certificate before using a flame-safety lamp underground. The examination shall be given by the mine inspector, blank forms therefor to be furnished by the department. A copy shall be retained on file at the mine office and the original shall be sent to the department fully made out and signed by the applicant and approved by the mine inspector.~~

~~(3) No electric face equipment shall be brought inby the last breakthrough next to the working face until the equipment operator has made an inspection for explosive gas using a flame-safety lamp or other approved device or instrument in the place where the equipment is to work, unless the examination is then made by some other competent person authorized and appointed for that purpose by the mine foreman. If any explosive gas is found in the place, the electric equipment shall not be taken in until the gas is removed.~~

~~(4) While the electric equipment is operating at the face, an examination for gas shall be made at not more than twenty (20) minute intervals. If gas is found in excess of one percent (1%), the power shall be disconnected from the equipment and left disconnected until the gas is removed and the place reported safe by a certified official.~~

~~(5)~~] Headlights shall be ***properly*** installed and maintained in a ***workmanlike manner***[~~permissible~~] and working order on all mobile and face equipment at all times the equipment is in operation.

(3)[~~(6)~~] Headlights shall be mounted to provide maximum illumination where it will be most effective and shall be protected from damage by guarding or locations.

(4)[~~(7)~~] At all times when mining equipment is being used, it shall be maintained in safe working order. ***Electrical equipment and circuits shall be examined and tested in a suitable manner by certified electricians to ensure safe working order.***

(5) Combustible materials, grease, lubricants, or flammable liquids shall not be allowed to accumulate where they can create a fire hazard.

(6) All electrical equipment utilized in intake airways outby the last open crosscut shall be maintained in safe operating condition and in accordance with the manufacturer's instructions.

SECTION 4. A NEW SECTION OF KRS CHAPTER 352 IS CREATED TO READ AS FOLLOWS:

For purposes of this section, "Approved" means that a device, apparatus, equipment, machinery, or practice employed in the mining of coal has been approved by the Commissioner of the Department of Mines and Minerals or accepted by a nationally or federally recognized testing laboratory or the Department of Labor Mine Safety and Health Administration; "Suitable" means a design, material, or installation that meets the requirements of its intended use or that is accepted by a nationally or federally recognized testing laboratory or the Department of Labor Mine Safety and Health Administration.

(1) No person shall be placed in charge of electrical face equipment in any mine unless he is a qualified person capable of determining the safety of the roof, face, and ribs of the working places and detecting the presence of explosive gas. Operators of electrical face equipment shall undergo an examination to determine their fitness to detect explosive gas and shall have a minimum of forty-five (45) days of actual mining experience before they are permitted to have charge of electric face equipment. Safety committeemen, shotfirers,

and others whose duty may require them to make inspections for gas shall undergo and pass an examination or possess a mine foreman's certificate before using an approved multi-gas detection device underground. The examination shall be given by the mine inspector. Blank forms for the examination shall be furnished by the department. A copy shall be retained on file at the mine office and the original shall be sent to the department fully made out and signed by the applicant and approved by the mine inspector.

(2) No electric face equipment shall be brought inby the last breakthrough next to the working face until the equipment operator has made an inspection for explosive gas using an approved gas detection device or instrument in the place where the equipment is to work unless the inspection is then made by some other competent person authorized and appointed for that purpose by the mine foreman. If any explosive gas in excess of one percent (1%) is found in the place, the electrical equipment shall not be taken in until the gas is removed.

(3) While the electric equipment is operating at the face, an examination for gas shall be made at not more than twenty (20) minute intervals. If methane gas is found in excess of one percent (1%) at any time, the power shall be de-energized from the equipment and left de-energized until the gas is reduced to less than one percent (1%) and the place determined safe by a foreman.

Approved April 2, 2004